

# Pribusin Inc.



## Products Catalog

Manufacturers of Process Controls and Instrumentation

# Product Index

## Signal Conditioners:

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1) 117 VAC or 24 VDC Power

2) 24 VDC Power Only

3) Loop Powered

4) NEMA4X enclosure only

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1) 117 VAC or 24 VDC Power

2) 24 VDC Power Only

3) Loop Powered

4) NEMA4X enclosure only



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1) 117 VAC or 24 VDC Power  
2) 24 VDC Power Only

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# Quick Reference

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# Price List

Effective June 2008

232/485COM .....	\$265.00	IUC-7X-TXX <sup>1)</sup> .....	\$415.00	SDP-XV/3A .....	\$100.00
ACI-CT .....	\$65.00	IUC-XX-UNV .....	Consult	SPB-485 .....	\$365.00
ANC-8 .....	\$525.00	IUC-7X-WT1 .....	\$415.00	SPS-XXX .....	\$1575.00
CP-32 .....	\$1045.00	IUC-7X-WT2 .....	\$520.00	SUP-XV/YA .....	\$100.00
CPI-800 .....	\$1045.00	-C.T. for -WTX .....	\$100.00	TLA-LIG-ENC .....	\$37.00
DPS-24V/5A-RED-S.....	\$1575.00	-P.T. for -WTX .....	\$100.00	TLA-LIG-PMT .....	\$17.00
DPS-24V/10A-RED-S.....	\$2625.00	MPS-100-BC-UV.....	\$685.00	TLP-XXX.....	\$105.00
DS4-32 .....	\$1575.00	MPS-100-XXV/YA-SNE ..	\$415.00	TPI-800 .....	\$625.00
ITC-24V/1A .....	\$210.00	MTS-4AI .....	\$395.00	TPS-24V-1/4A .....	\$85.00
ITC-XX-XX-DC.....	\$230.00	MTS-4AO .....	\$445.00	TUA-XHL .....	\$245.00
ITC-XX-120.....	\$260.00	MTS-8DI .....	\$395.00	TUA-XS .....	\$245.00
ITC-79-FTF .....	\$345.00	MTS-8DO .....	\$445.00	TWD-3.5 .....	\$200.00
ITC-79-FTF-BUF .....	\$630.00	MTS-4DIO .....	\$470.00	TWI-22 .....	\$310.00
ITC-79-FTF-DIV .....	\$415.00	MTS-RAD .....	\$680.00	TWI-22-TB(1992) .....	\$220.00
ITC-XX-XX-DC <sup>1)</sup> .....	\$305.00	MTS-PWR .....	\$135.00	TWI-ACI-TB .....	\$345.00
ITC-XX-XX-DC <sup>1)</sup> .....	\$315.00	NTC-X0-485 .....	\$265.00	TWI-ACV-TB .....	\$345.00
ITC-7X-STX <sup>1)</sup> .....	\$385.00	NTC-XX-485 .....	\$385.00	TWI-FRX-TB .....	\$295.00
ITC-XX-XX-DC <sup>1)</sup> .....	\$305.00	NTC-XX-ADD .....	\$385.00	TWI-MVX <sup>1)</sup> .....	\$415.00
ITC-XX-BIO .....	\$1045.00	NTC-7X-FRW .....	\$385.00	TWI-MVX-TB <sup>1)</sup> .....	\$345.00
IUC-XX .....	\$345.00	NTC-7X-FRT .....	\$385.00	TWI-MVX2-TB <sup>1)</sup> .....	\$345.00
IUC-7X-ACI .....	\$385.00	NTC-7X-FRX .....	\$385.00	TWI-PH1 .....	\$415.00
IUC-7X-ACV .....	\$385.00	NTC-XX-HLS .....	\$385.00	TWI-RTX <sup>1)</sup> .....	\$415.00
IUC-XX-ADD .....	\$490.00	NTC-X9-HFX .....	\$385.00	TWI-RTX-TB <sup>1)</sup> .....	\$345.00
IUC-XX-DOP .....	\$520.00	NTC-X9-LFX .....	\$385.00	TWI-SLX <sup>1)</sup> .....	\$415.00
IUC-7X-FRW .....	\$520.00	NTC-X8-LIN .....	\$345.00	TWI-SLX-TB <sup>1)</sup> .....	\$345.00
IUC-7X-FRT .....	\$520.00	NTC-XX-LNT .....	\$415.00	TWI-TXX <sup>1)</sup> .....	\$415.00
IUC-7X-FRX .....	\$490.00	NTC-XX-LNZ .....	\$385.00	TWI-TXX-TB <sup>1)</sup> .....	\$345.00
IUC-79-FTF .....	\$345.00	NTC-XX-MUL .....	\$385.00	TWN-MVX-TB <sup>1)</sup> .....	\$245.00
IUC-79-FTF-BUF .....	\$735.00	NTC-XX-PDX .....	\$385.00	TWN-RTX-TB <sup>1)</sup> .....	\$245.00
IUC-79-FTF-DIV .....	\$485.00	NTC-XX-PWM .....	\$385.00	TWN-SLX-TB <sup>1)</sup> .....	\$245.00
IUC-XX-HLS .....	\$485.00	NTC-XX-RWN .....	\$385.00	TWN-TXX-TB <sup>1)</sup> .....	\$245.00
IUC-X8-LIN .....	\$345.00	NTC-XX-SIN .....	\$385.00	TWTS-X <sup>1)</sup> .....	\$175.00
-LCD Counter .....	\$110.00	NTC-XX-UNV .....	Consult	UA-XD .....	\$265.00
IUC-XX-LNT .....	\$520.00	OTC-22 .....	\$205.00	UA-7D-FRX .....	\$340.00
IUC-XX-LNZ .....	\$485.00	PWD-3.5-X .....	\$265.00	UA-XD-IND .....	\$445.00
IUC-XX-MUL .....	\$485.00	PCS-400 .....	\$1360.00	UA-7D-RTX <sup>1)</sup> .....	\$340.00
IUC-7X-MVX <sup>1)</sup> .....	\$415.00	RCI-100-FSK .....	\$625.00	UA-7D-TXX <sup>1)</sup> .....	\$340.00
IUC-XX-PDX .....	\$485.00	RCI-200-FSK .....	\$730.00	UA-7D-TXX-DIF <sup>1)</sup> .....	\$340.00
IUC-XX-PWM .....	\$485.00	RCI-400-FSK .....	\$1150.00	XUA-XD .....	\$350.00
IUC-X8-RIT .....	\$670.00	RCI-800-FSK .....	\$1570.00		
IUC-X8-RIT-ADD .....	\$725.00	RCI-100-MDM .....	\$835.00		
IUC-7X-RMS-XXY .....	\$370.00	RCI-200-MDM .....	\$940.00		
-C.T. for -RMS .....	\$100.00	RCI-400-MDM .....	\$1360.00		
-P.T. for -RMS .....	\$100.00	RCI-800-MDM .....	\$1780.00		
IUC-7X-RTX <sup>1)</sup> .....	\$485.00	RCI-100-RF9 .....	\$1150.00		
IUC-XX-RWN .....	\$485.00	RCI-200-RF9 .....	\$1255.00		
IUC-7X-RXA .....	\$485.00	RCI-400-RF9 .....	\$1675.00		
IUC-7X-RXC .....	\$525.00	RCI-800-RF9 .....	\$2095.00		
IUC-XX-SIN .....	\$485.00	RCI-RPT-RF9 .....	\$1150.00		
IUC-7X-SLX <sup>1)</sup> .....	\$485.00	RCI-SER-RF9 .....	\$1150.00		
IUC-7X-STX .....	\$485.00	RCI-100-SER.....	\$625.00		
IUC-X9-TXA .....	\$485.00	RCI-200-SER.....	\$730.00		
IUC-X9-TXC .....	\$525.00	RCI-400-SER.....	\$1150.00		
		RCI-800-SER.....	\$1570.00		

- Notes:
- 1) Additional charge for custom input .....(per instrument)..... \$15.00
  - 2) Option -A: 24 VDC Prime Power for IUC & UA series ..... \$50.00
  - 3) Option -N: NEMA 4X Enclosure for IUC & UA series ..... \$150.00
  - 4) Option -T: (200mA TWS for IUC's) ..... \$70.00
  - 5) Explosion Proof Housing for TWI-XXX series ..... \$150.00
  - 6) Conduit Cover for IUC & UA series ..... \$25.00



## **Restocking Policy**

**All product returned to Pribusin Inc. in prime condition (not damaged, scratched or defaced in any way) within seven (7) months from the original date of shipment is subject to a 50% restocking charge. All product must be accompanied by a Return Authorization number (RA number) which must be obtained from Pribusin Inc. prior to returning any product.**

**After seven (7) months from the original date of shipment, products cannot be returned for restocking.**

**Custom designed products, modified products or all non-standard products may not be returned for restocking.**

## **Warranty Policy**

**Pribusin Inc. warrants equipment of its own manufacture to be free from defects in material and workmanship, under normal conditions of use and service, and will replace any component found to be defective, on its return to Pribusin Inc., transportation charges prepaid, within one year of its original purchase. Pribusin Inc. will extend the same warranty protection on equipment, peripherals and accessories which is extended to Pribusin Inc. by the original manufacturer. Pribusin Inc. also assumes noliability, expressed or implied, beyond its obligation to prelace any component involved. Such warranty is in lieu of all other warranties, expressed or implied.**

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-XX**

**Isolated Universal Signal Conditioner**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Other Models Available for Millivolt, RTD, Thermocouple Inputs and more

High Output Drive on Current Outputs

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX is an isolated signal conditioner that provides high isolation and rugged design for many control applications. Three-way isolation is provided between the inputs, the output and the power. The signal isolation takes place through state-of-the-art optical isolators to ensure high accuracy and repeatability. Special output drive circuitry allows the IUC-XX to drive loads of up to 1600 Ohms which makes it ideal for driving multi instrument loops.

Several other models with various special inputs are available in the IUC-XX family. These models include RTD and Thermocouple conditioners, Strain Gage and Slide Wire conditioners etc. The same high isolation and rugged design makes these instruments accurate and dependable.

### Calibration:

Calibration is performed using easily accessible multi-turn potentiometers.. All instruments are shipped fully calibrated and tested, but can easily be field adjusted. A Zero and Span pot are available on all units to adjust the output signal.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

Accuracy/Linearity: +/- 0.1% max., +/- 0.05% typ.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

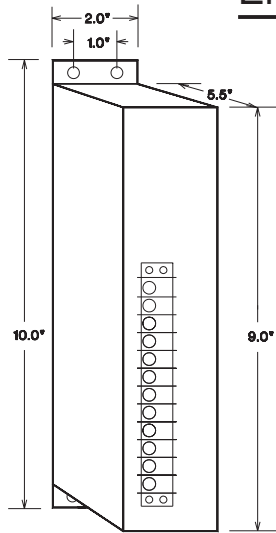
Output Ripple: less than 0.1% p-p value

Common Mode Rejection: 120 dB @ 60 Hz

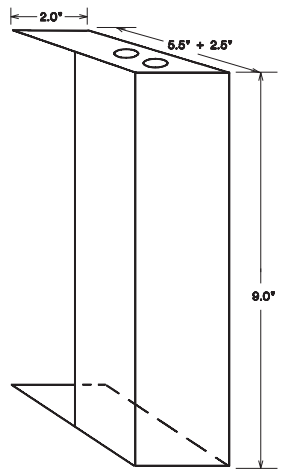
Loop Drive: Max. 1600 Ohms at 20 mA

# IUC-XX

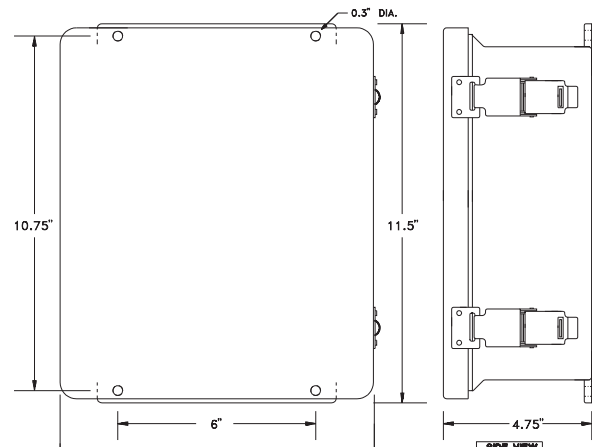
## Enclosures & Dimensions:



Standard Metal Enclosure

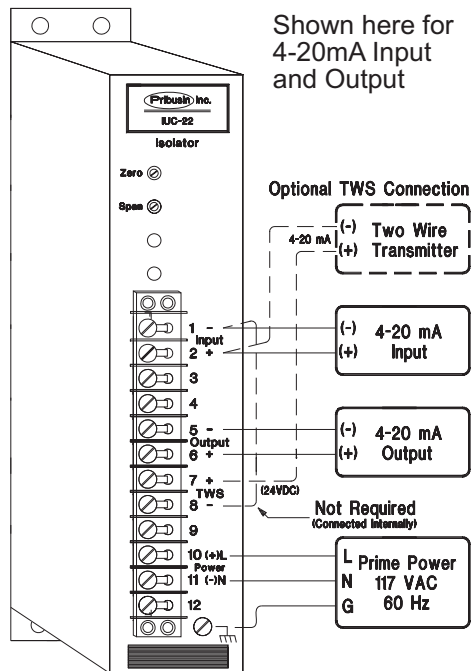


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC - X X

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1 mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Isolator with 4-20 mA Input and 4-20 mA Output in standard metal enclosure and 117VAC Power is designated by:IUC-22

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-XX-ADD**

**Isolated Adder/Subtractor**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

1 to 4 Inputs can be easily field configured for Addition or Subtraction (Each Input has Scaling Adjustment)

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-ADD is a microprocessor controlled Adder/Subtractor. It is easily field configurable to any combination of adding inputs or subtracting inputs. Furthermore, each input can be scaled by a factor of 0-1.25 (or 0-2.5) to allow for unequal process inputs. This flexibility combined with easy field calibration allows for the fine tuning of a process on site with little effort. All that is required to change the calibration settings is a voltmeter and a small screwdriver.

Example: Adding two Flows of different sized pipes.

Pipe1 = 2 x Pipe2 (by Volume)

Scaling Input #1 by 0.67 and Input #2 by 0.33 will result in a combined flow total of 1.0 max.  
(for scaling factor of 1.25: TP1=3.35V, TP2=1.65V)

### Calibration:

The Test Points (TP1 to TP4) and potentiometers K1 to K4 are used to adjust the scaling factors for the four inputs. The scaling factors can be in the range of 0-1.25 or 0-2.5 and can be read with a voltmeter at the Test Points. The Test Points show a voltage of 0-5 VDC for a scaling factor of 0-100% of the selected range (1.25 or 2.50).

### Specifications:

Accuracy/Linearity:

+/- 0.3% max., +/- 0.1% typ.

Operating Temperature:

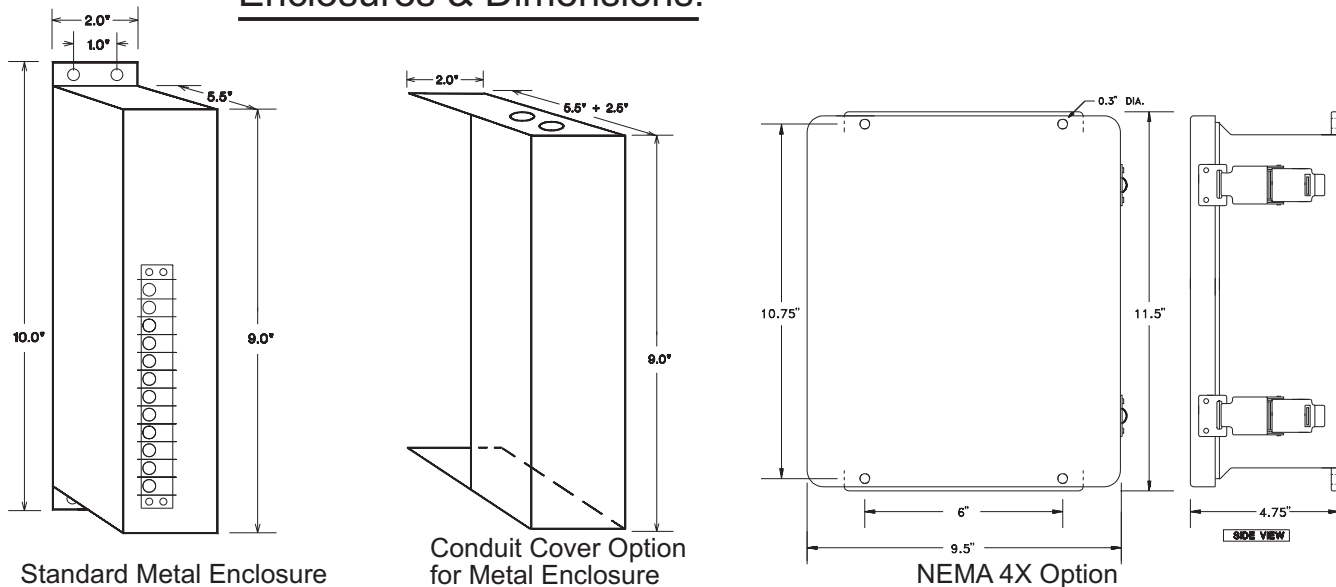
-40 Deg.C. to + 50 Deg.C.

Temperature Effects:

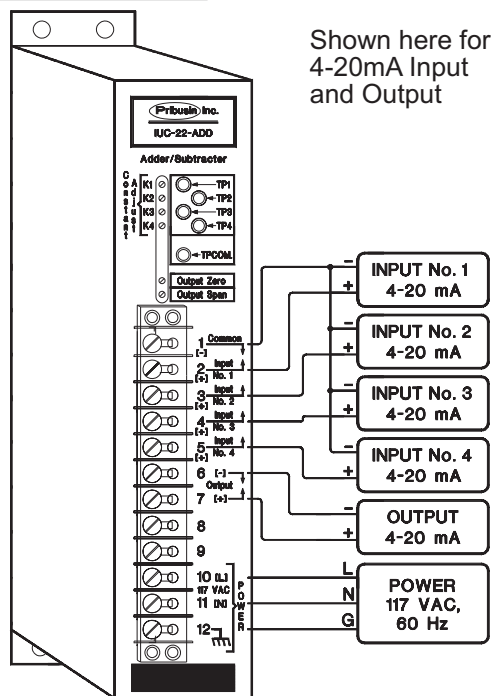
+/- 0.5% max., +/-0.2% typ. (for 40 Deg. change)

# IUC-XX-ADD

## Enclosures & Dimensions:



## Connection:



## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

## Model Designation:

IUC - X X - ADD

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Adder with 1-5VDC Input & 4-20mA Output and 24VDC Power in NEMA 4X enclosure is designated by: IUC-52-ADD-AN

If no options specified, unit is 117 VAC Power in metal enclosure

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-FRX**

**Isolated Frequency Converter**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Wide Input Frequency Ranges (from 5 Hz to 10 KHz)  
Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)  
Special Low Frequency Input Version Available - Model IUC-7X-FRL (from 0.01 Hz to 10 Hz)  
Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)  
Microprocessor Controlled for High Accuracy  
24 VDC and 12 VDC Supply for Open Collector Input or Dry Contact Input  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-FRX is a microprocessor controlled Frequency to analog output converter that is easily field configurable to any frequency input from 0-10 Hz to 0-10 KHz. Adjustments to the input settings can be made while the instrument is operating. This flexibility combined with easy field calibration allows for the fine tuning of a process on site with little effort. All that is required to change the calibration settings is a voltmeter and a small screwdriver.

A special low frequency input version (FRL) is available for frequency inputs between 0.01 Hz and 10 Hz.

For more specialized frequency inputs, another instrument the IUC-7X-FRW offers more flexibility by providing adjustability for both the 0% input frequency and the 100% input frequency. This allows for a specific frequency window to be extracted. See Model IUC-7X-FRW Data Sheet.

### Calibration:

The IUC-7X-FRX has 11 input frequency ranges that are selectable via jumpers inside the instrument. Each range offers full adjustability from its minimum to its maximum frequency via a multi turn potentiometer. The potentiometer has a test point where a voltage of 0-5 VDC indicates a setting of 0-100%. This allows for easy field calibration with the instrument running.

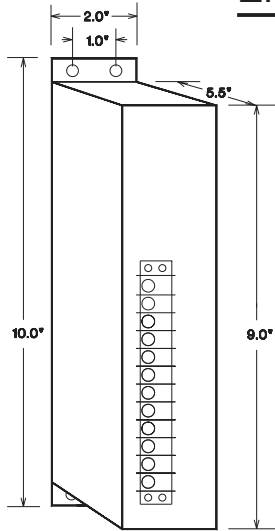
### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/-0.3% max., +/-0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., 0.2% typ.  
(for 40 Deg.C. change)

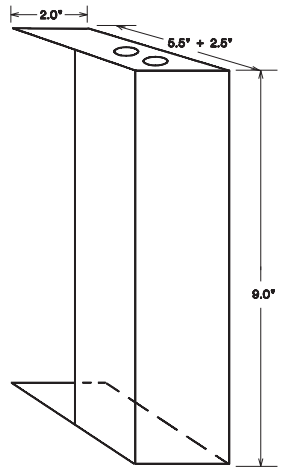


# IUC-7X-FRX

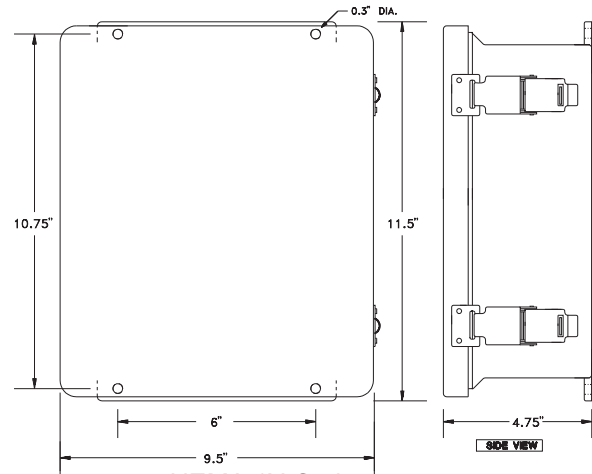
## Enclosures & Dimensions:



Standard Metal Enclosure

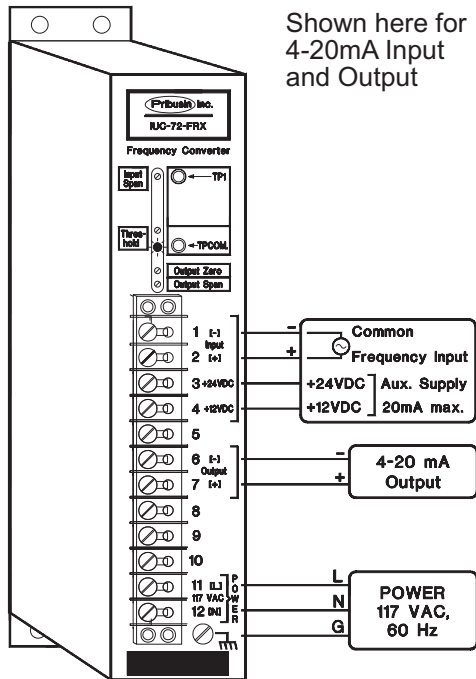


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC-7X-FRX

Output

Other Models

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1mA ( 20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

- FRL: Low Input Frequency
- FRW: Frequency Window  
(See IUC-7X-FRW)
- FRT: Frequency Trip  
(See IUC-7X-FRT)

Example: A Frequency Converter with a 1-5 VDC  
output in a metal enclosure with 24 VDC  
power is designated by: IUC-75-FRX-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-FRT**

**Isolated Frequency Converter & Trip**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Wide Input Frequency Ranges (from 5 Hz to 10 KHz)  
Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)  
Trip Function has Setpoint, Deadband and Delay Adjustment  
Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)  
Microprocessor Controlled for High Accuracy  
24 VDC and 12 VDC Supply for Open Collector Input or Dry Contact Input  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-FRT is a microprocessor controlled Frequency to analog output converter that is easily field configurable to any frequency input from 0-10 Hz to 0-10 KHz. It has a single form "C" contact that has individual setpoint, deadband and delay adjustments. In addition, there is an analog output that converts the input frequency to any one of several standard outputs.

The Setpoint and Deadband are adjustable from 0-100 % of the calibrated input frequency. The deadband is an absolute type deadband, meaning that it is always linked to the setpoint. Once it is set to a certain value, it need not be adjusted again if the setpoint is re-adjusted. The delay function adds an optional delay on the relay trip function of 0-60 sec. This is helpful in eliminating false alarms.

### Calibration:

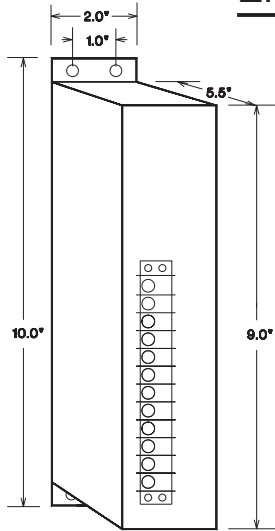
The IUC-7X-FRT has 11 input frequency ranges which offer full adjustability from their minimum to their maximum frequency via a multi turn potentiometer. The setpoint, deadband and delay each have their own potentiometer. All potentiometers have a test point where a voltage of 0-5 VDC indicates a setting of 0-100%. This allows for easy field calibration with the instrument running.

### Specifications:

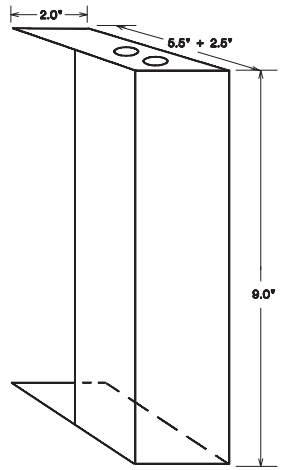
Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/-0.3% max., +/-0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., 0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

# IUC-7X-FRT

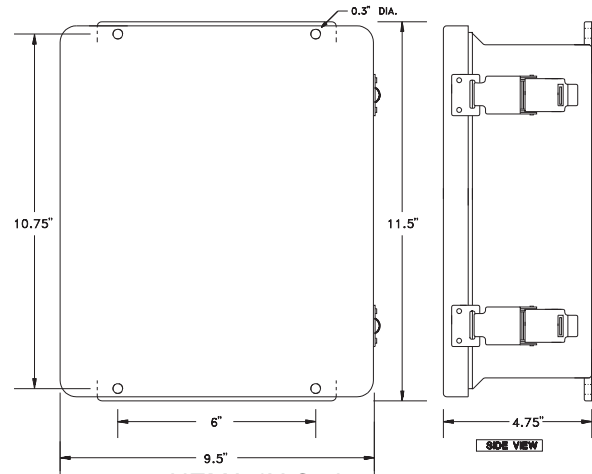
## Enclosures & Dimensions:



Standard Metal Enclosure



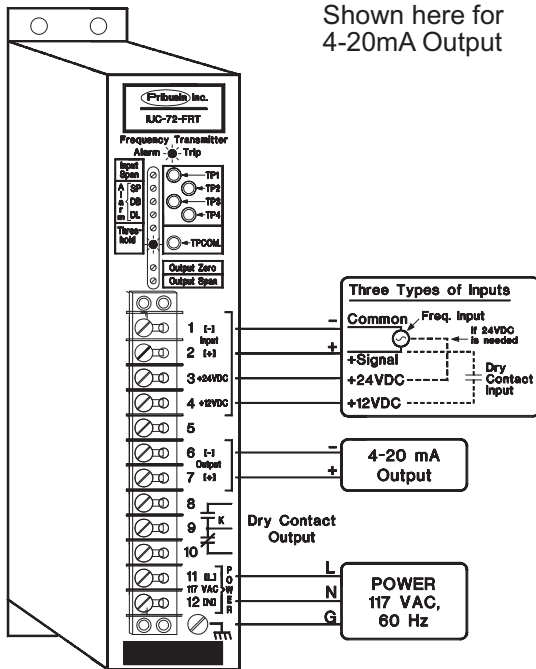
Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:

Shown here for  
4-20mA Output



## Model Designation:

IUC-7X-FRT

Output

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A Frequency Converter with a 1-5 VDC output in a metal enclosure with 24 VDC power is designated by: IUC-75-FRT-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-FRW**

**Isolated Frequency Window Converter**

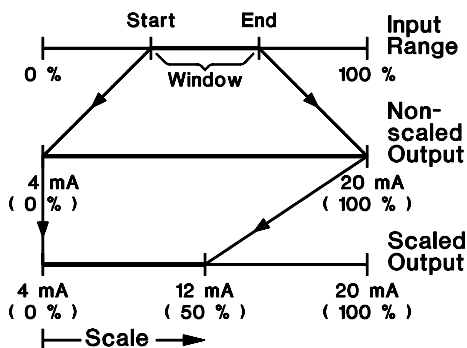


### Standard Features:

- High Input-Output-Power Isolation (1500VAC Test)
- Wide Input Frequency Ranges (from 5 Hz to 10 KHz)
- Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)
- Built-in Scaling Option for Further Flexibility
- Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)
- Microprocessor Controlled for High Accuracy
- 24 VDC and 12 VDC Supply for Open Collector Input or Dry Contact Input
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- High Noise Rejection
- CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-FRW is a microprocessor controlled frequency to analog output converter that is easily field configurable (see Calibration). A Start and End adjustment determines the 0% input frequency and the 100% input frequency. Hence, a frequency range that is not zero based can be extracted and converted. An optional scaling input allows for output scaling.



### Calibration:

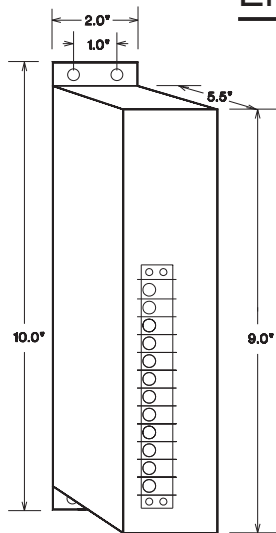
The IUC-7X-FRW has 11 input frequency ranges that are selectable via jumpers inside the instrument. Each range offers full adjustability of Start and End frequencies via two multi turn potentiometers. Each potentiometer has a test point where a voltage of 0-5 VDC indicates a setting of 0-100%. This allows for easy field calibration with the instrument running.

### Specifications:

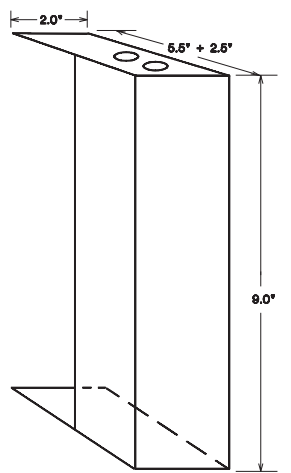
- Isolation: Input to Output to Power 1500 VAC (test)
- Accuracy/Linearity:  $\pm 0.3\%$  max.,  $\pm 0.1\%$  typ.
- Operating Temperature: -40 Deg.C. to +50 Deg.C.
- Temperature Effects:  $\pm 0.5\%$  max., 0.2% typ. (for 40 Deg.C. change)

# IUC-7X-FRW

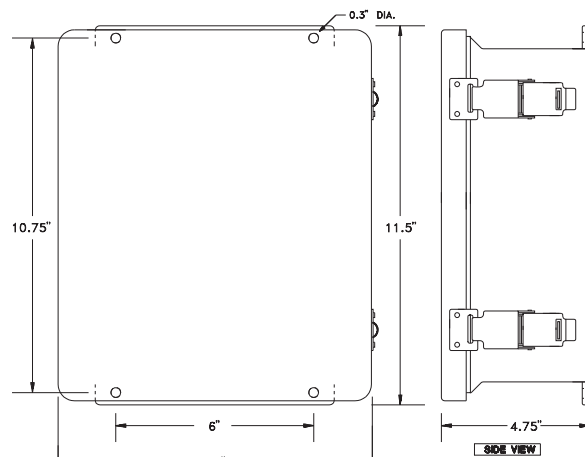
## Enclosures & Dimensions:



Standard Metal Enclosure

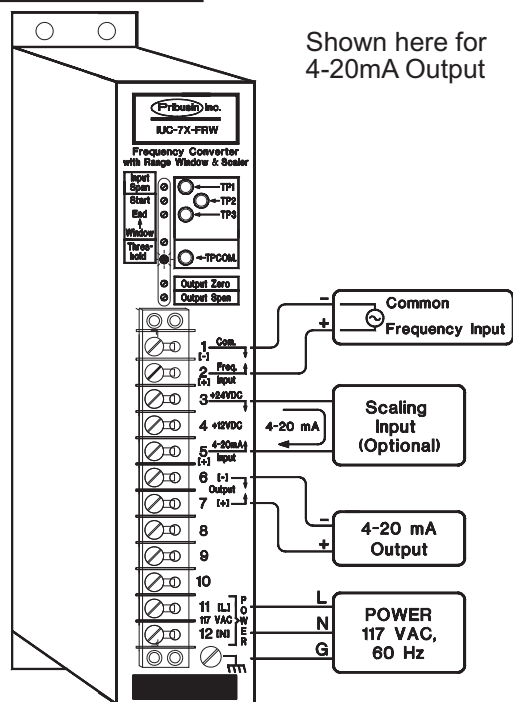


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC-7X-FRW

Output

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A Frequency Converter with a 1-5 VDC output in a metal enclosure with 24 VDC power is designated by: IUC-75-FRW-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068





### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Dry Contact (Form 'C') or 24VDC Pulse Output

Standard Built-in Linearizations (Linear, Square Root, 1.5 Power)

Other Linearizations Available

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-X8-LIN is a microprocessor based integrator with linearizer. It has one analog input and a contact or pulse output. The contact or pulse output is the time integrated output of the analog input. The integration range can be easily adjusted to anything from 0.25 CPH (counts per hour) to 8192 CPH. The integration output can be either a dry contact (form 'C') or a 24 VDC pulse.

Two built-in linearizing functions can be activated via jumpers and the IUC-X8-LIN will then first linearize the input before integrating it. The two functions are Square Root and 1.5 Power. Other linearizations are available. In most cases an equation is sufficient or a lookup table if one is available. Consult factory or representative for specific applications.

### Calibration:

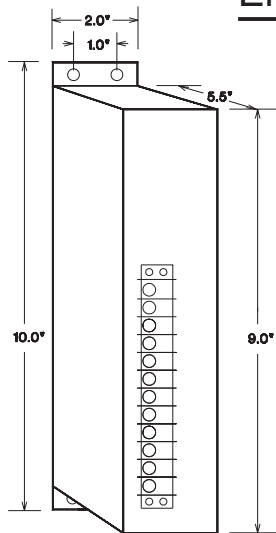
Two potentiometers, Integ. Span and Drop Out, are used for the integration constant and lower limit linearization drop out. Each of the pots has a test point associated with it. The Test Points show a voltage of 0-5 VDC for a parameter value of 0-100%.

### Specifications:

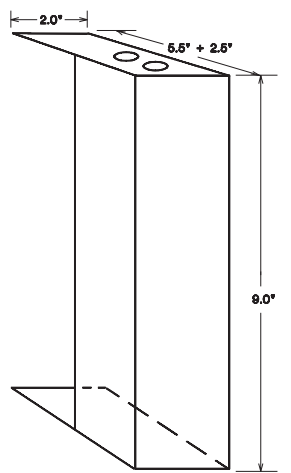
Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# IUC-X8-LIN

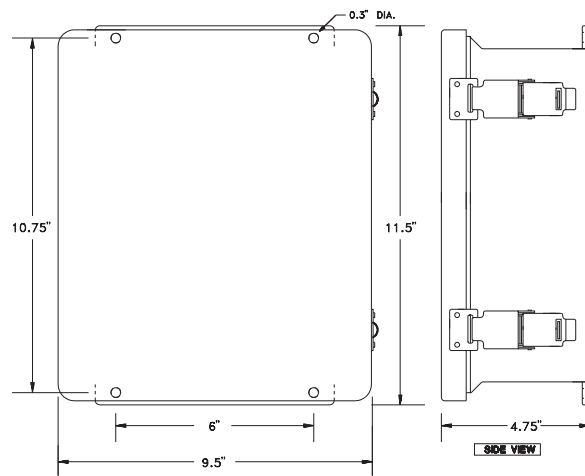
## Enclosures & Dimensions:



Standard Metal Enclosure



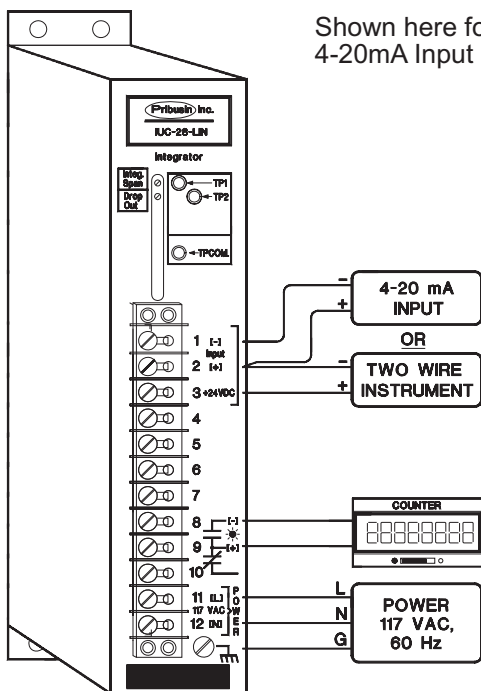
Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:

Shown here for  
4-20mA Input



## Model Designation:

IUC-X8-LIN

Input

- 1: 1-5 mA ( $Z_{in}=1K \text{ Ohm}$ )
- 2: 4-20 mA ( $Z_{in}=250 \text{ Ohm}$ )
- 3: 0-1mA ( $Z_{in}=5K \text{ Ohm}$ )
- 4: 10-50 mA ( $Z_{in}=100 \text{ Ohm}$ )
- 5: 1-5 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 6: 0-10 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 7: Special Input

Example: Integrator with 4-20 mA Input and 24V pulse output in standard metal enclosure is designated by: IUC-28-LIN-P

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- P - 24 VDC Pulse Output (Instead of 'C' Contact)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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Ph: (905) 660-5336  
Fx: (905) 660-4068



Manufacturers of Process  
Controls and Instrumentation

# Model: IUC-XX-LNT

## Isolated Integrator With Linearizer



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Standard Built-in Linearizations (Linear, Square Root, 1.5 Power)

Other Linearizations Available

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-LNT is a microprocessor based integrator with linearizer. It has one analog input, one analog output and a contact (or pulse) output. The contact or pulse output is the integrated output of the analog input. The integration range can be easily adjusted to anything from 0.25 CPH (counts per hour) to 8192 CPH. The integration output can be either a dry contact or a 24 VDC pulse.

Two built-in linearizing functions can be activated via jumpers and the IUC-XX-LNT will then first linearize the input before integrating it. The two functions are Square Root and 1.5 Power. The analog output reflects the linearized input if a linearization has been activated. Otherwise it is a linear follower of the input.

### Calibration:

Two potentiometers, Integ. Span and Drop Out, are used for the integration constant and lower limit linearization drop out. Each of the pots has a test point associated with it. The Test Points show a voltage of 0-5 VDC for a parameter value of 0-100%.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

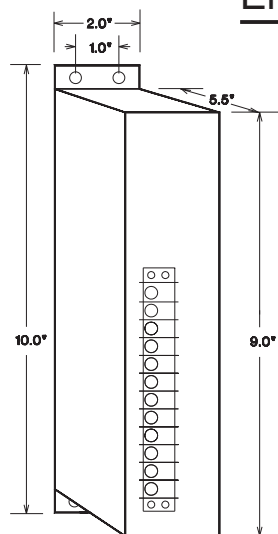
Temperature Effects: +/- 0.5% max., +/- 0.2% typ.  
(for 40 Deg.C. change)

Contact Rating: 10A 1/8HP @ 125VAC

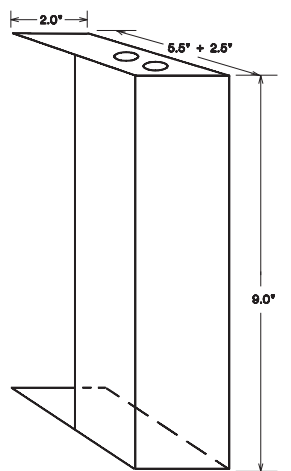
6A 1/8HP @ 277VAC

# IUC-XX-LNT

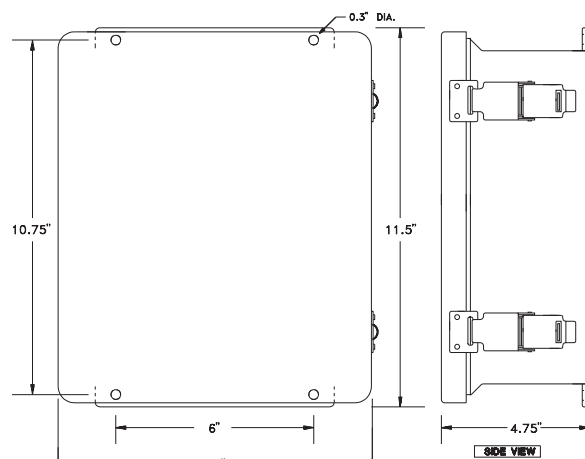
## Enclosures & Dimensions:



Standard Metal Enclosure

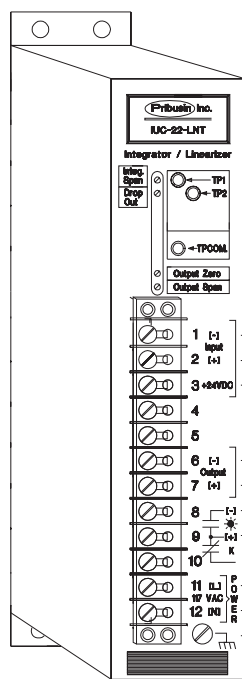


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



Shown here for  
4-20mA Input  
and Output

4-20 mA  
INPUT

OR  
TWO WIRE  
INSTRUMENT

4-20 mA  
OUTPUT

COUNTER

POWER  
117 VAC,  
60 Hz

## Model Designation:

IUC - X X - LNT

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Integrator with 4-20 mA Input and 4-20 mA Output  
and 24V pulse output in standard metal enclosure  
is designated by: IUC-22-LNT-P

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- P - 24 VDC Pulse Output (Instead of 'C' Contact)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-XX-LNZ**

**Isolated Linearizer**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Standard Built-in Linearizations (Linear, Square Root, 1.5 Power, 2.5 Power)

Other Linearizations and Lookup Table Available

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-LNZ is a microprocessor based linearizer. It comes standard with 3 fixed linearizations (Square Root, Parshall Flume, Weir) or can optionally be programmed with a custom lookup table for specialized curves. For even greater flexibility, an adjustable power function is available to linearize most flumes and weirs that are somewhat odd-sized.

If the adjustable 'raise to a power' function is used to linearize weirs and flumes, it is often sufficient to adjust only one point on the curve (usually 50% point) so that it represents the linearized output. All other points from 0-100% will then quite often fall on the linearized curve with very little error.

In addition, the input and/or output can be inverted so that special linearizations can be achieved. This is especially useful when measuring levels in an inverted fashion, ie. from the top down.

### Calibration:

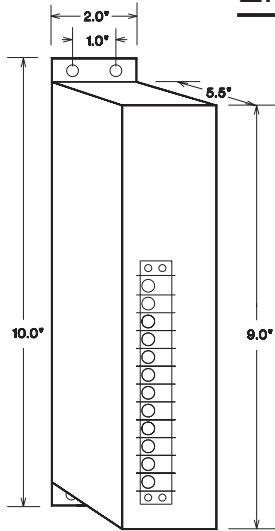
Two potentiometers, Drop Out and Power, are used for lower limit linearization drop out and the exponential power. Each of the pots has a test point associated with it. The Test Points show a voltage of 0-5 VDC for a parameter value of 0-100%.

### Specifications:

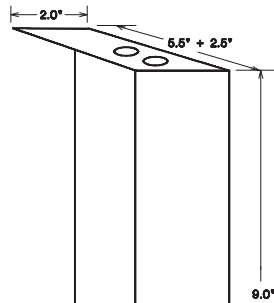
Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# IUC-XX-LNZ

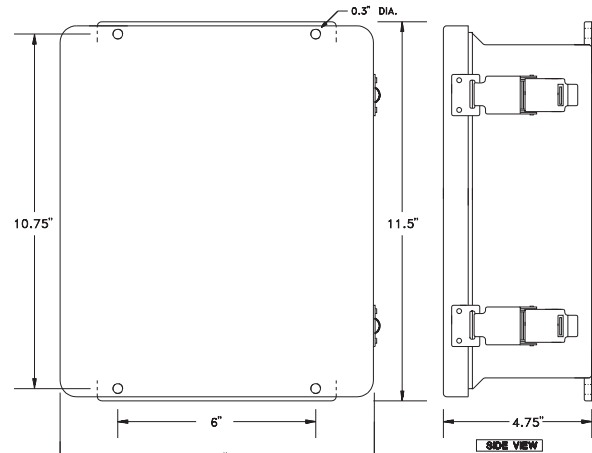
## Enclosures & Dimensions:



Standard Metal Enclosure

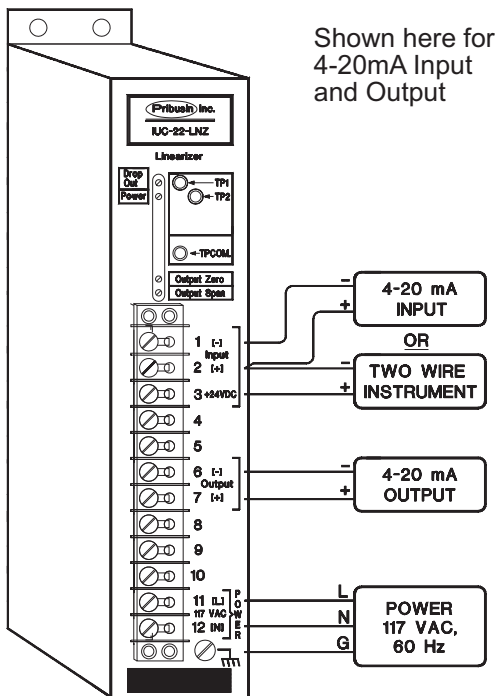


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC - X X - LN Z

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1 mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Linearizer with 4-20 mA Input and 4-20 mA Output and 24VDC power in standard metal enclosure is designated by: IUC-22-LNZ-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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Fx: (905) 660-4068





### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Millivolt Input Ranges

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Custom Millivolt Input Ranges Available

Easy Field Calibration (Typ. calibration time < 2 min)

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-MVX is an isolated millivolt to current or voltage converter. There are several standard millivolt input ranges available. Custom inputs are also available.

The IUC-7X-MVX finds application in current measurement with a small shunt or conversion of a small signal to a stronger signal that is less likely to suffer from interference.

### Calibration:

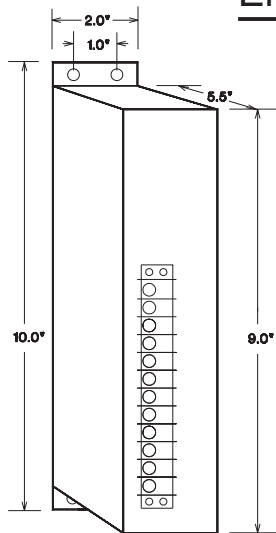
The IUC-7X-MVX comes factory calibrated and requires no field adjustments. A Zero and Span adjustment on the output allows for small adjustments on the output signal

### Specifications:

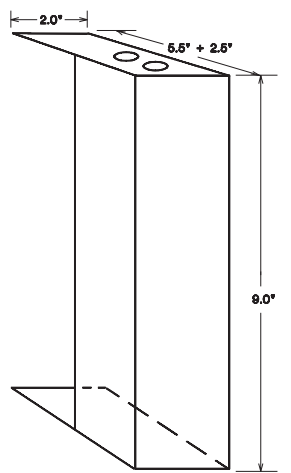
Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# IUC-7X-MVX

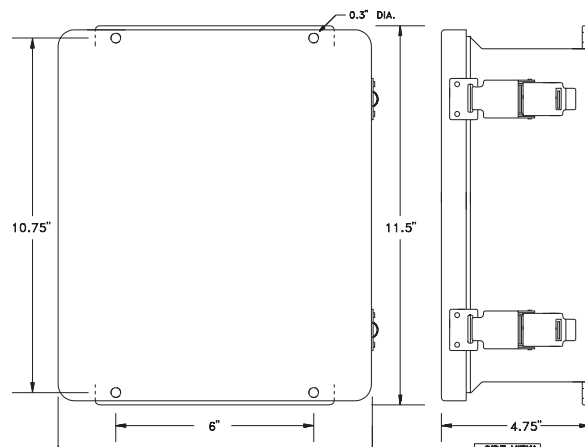
## Enclosures & Dimensions:



Standard Metal Enclosure

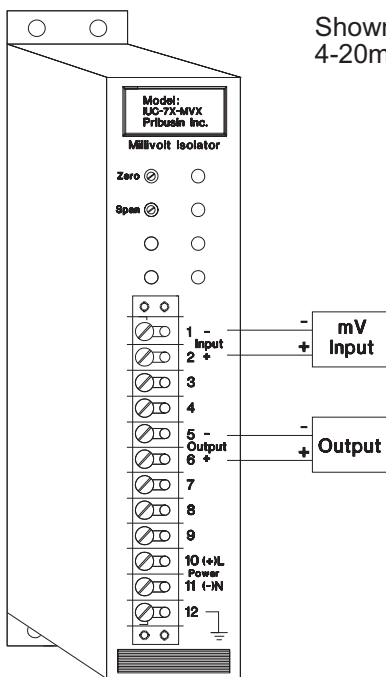


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



Shown here for  
4-20mA Input

## Model Designation:

IUC-7X-MVX

Output

Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

- 1: 0-5 mV
- 2: 0-10 mV
- 3: 0-20 mV
- 4: 0-50 mV
- 5: 0-100 mV

7: Special Input

Example: Millivolt Converter with 100 mV Input and 4-20 mA Output in standard metal enclosure and 117 VAC Power is designated by: IUC-72-MV5

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Easily Field Configurable for 1 to 4 Inputs

Each Input has Individual Scaling Adjustment

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-MUL is a microprocessor controlled multiplier. It is easily field configurable for 1 to 4 inputs with each input having its own scaling factor. The scaling factor for each input can be set from 0 to 2.0. All settings can be changed while the unit is operating - all that is required is a voltmeter and a small screwdriver.

### Calibration:

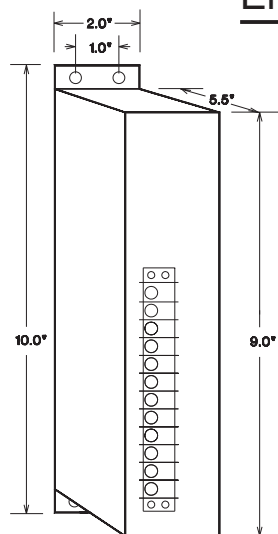
The Test Points (TP1 to TP4) and potentiometers K1 to K4 are used to adjust the scaling factors for the four inputs. The scaling factors can be in the range of 0-2.0 and can be read with a voltmeter at the Test Points. The Test Points show a voltage of 0-5 VDC for a scaling factor of 0-100% (0-2.0).

### Specifications:

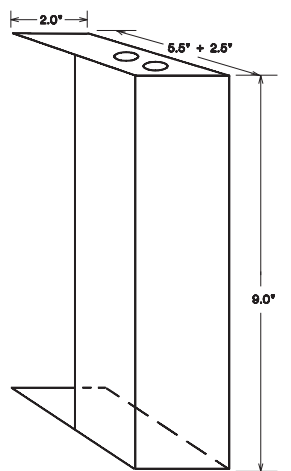
Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# IUC-XX-MUL

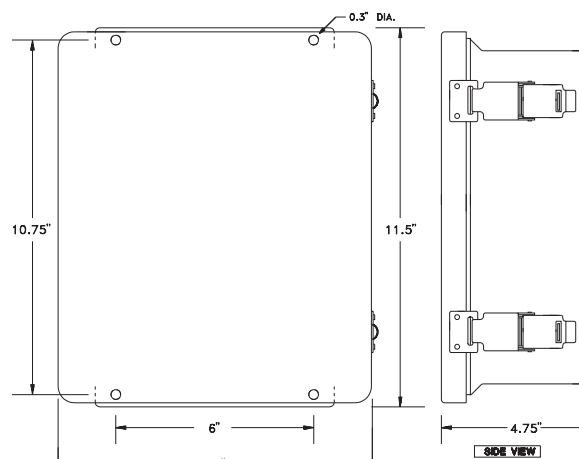
## Enclosures & Dimensions:



Standard Metal Enclosure

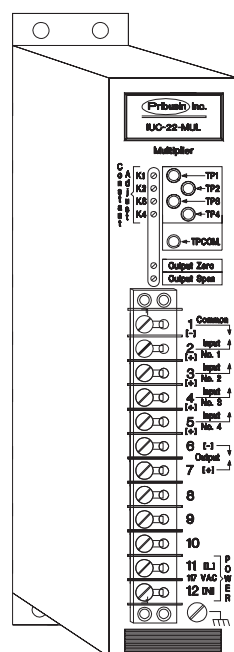


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



Shown here for  
4-20mA Input  
and Output

INPUT No. 1  
4-20 mA

INPUT No. 2  
4-20 mA

INPUT No. 3  
4-20 mA

INPUT No. 4  
4-20 mA

OUTPUT  
4-20 mA

POWER  
117 VAC,  
60 Hz

## Model Designation:

IUC-X X- MUL

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Multiplier with 4-20 mA Input and 4-20 mA Output  
in standard metal enclosure and 24VDC Power is  
designated by:IUC-22-MUL-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

# Model: IUC-XX-PDX

## Isolated Pulse Duration Transmitter



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Industry Standard Inputs (PDT): 4-20 mA, 1-5 VDC, and more (see back)  
Industry Standard Outputs (PDR): 4-20 mA, 1-5 VDC, more (see back)  
Easily Field Configurable to use any one of 6 Industry Standard Pulse Trains  
Custom Pulse Trains Available  
Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)  
Microprocessor Controlled for High Accuracy  
Two Wire Supply Option for Two Wire Transmitters  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-PDX family of instruments make up a pulse duration transmission system that can be used to transmit an analog signal over a twisted pair (or a leased class A telephone line). The transmitter can have any one of the standard inputs such as 4-20 mA, 1-5 VDC, etc. The receiver can have any one of the same or a different analog output.

The output of the transmitter is a dry contact but can be an optional 24 VDC pulse. Correspondingly, the input of the receiver can accept either a dry contact or a 24 VDC pulse.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

### Model Designation:

IUC-X7-PDT

Input

1: 1-5 mA (Zin=1K Ohm)  
2: 4-20 mA (Zin=250 Ohm)  
3: 0-1mA (Zin=5K Ohm)  
4: 10-50 mA (Zin=100 Ohm)  
5: 1-5 VDC (Zin=1Meg Ohm)  
6: 0-10 VDC (Zin=1Meg Ohm)  
7: Special Input

IUC-7X-PDR

Output

1: 1-5 mA (4000 Ohm Drive)  
2: 4-20 mA (1000 Ohm Drive)  
3: 0-1 mA (20000 Ohm Drive)  
4: 10-50 mA (250 Ohm Drive)  
5: 1-5 VDC (Zout=250 Ohm)  
6: 0-10 VDC (Zout=500 Ohm)  
7: Special Output

Example: A Pulse Duration Transmitter with 4-20 mA input is an IUC-27-PDT, a receiver with a 1-5VDC output is an IUC-75-PDR.

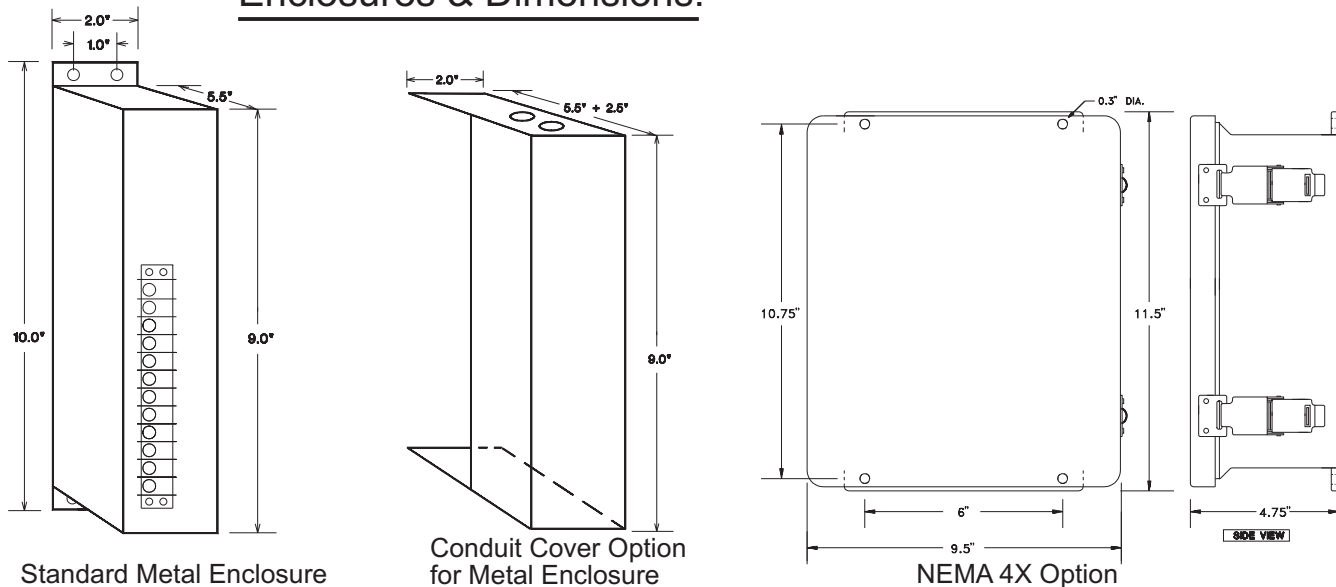
If no options specified, unit is 117 VAC Power in metal enclosure

### Options: (Add letters to end of Model Number)

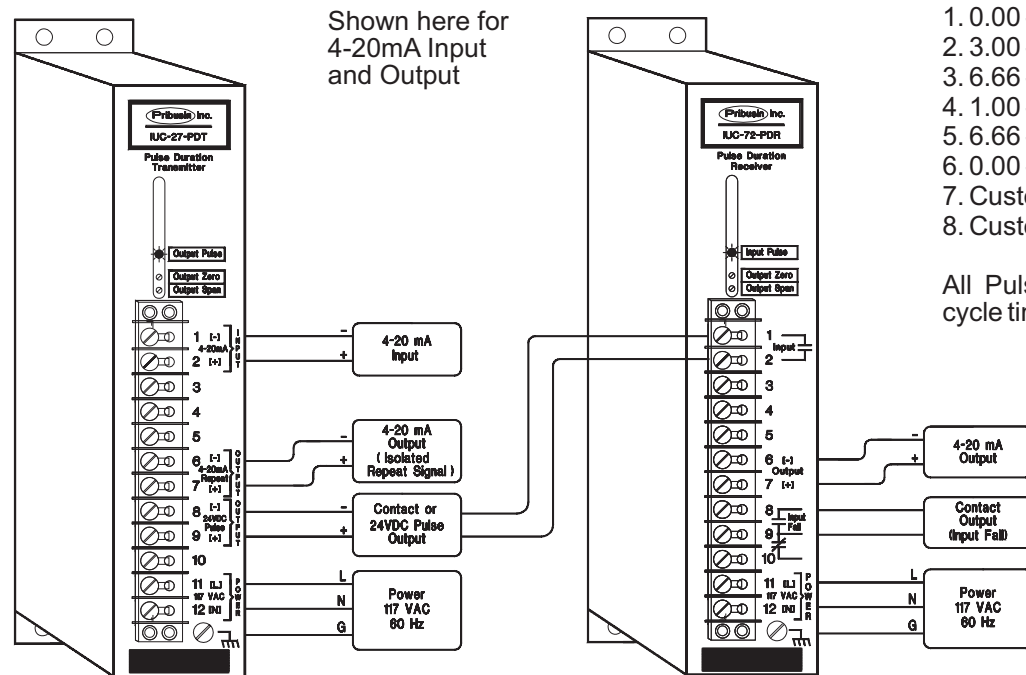
A - 24 VDC Prime Power  
B - 240 VAC Prime Power (not CSA approved)  
P - 24VDC Pulse Output (Instead of Relay)  
T - 200 mA Two Wire Supply (24 VDC unreg.)  
C - Conduit Cover for Metal Enclosure (see back)  
N - NEMA 4X enclosure (see back)

# IUC-XX-PDX

## Enclosures & Dimensions:



## Connection:



## Available Pulse Trains:

1. 0.00 - 13.33 Sec.
2. 3.00 - 12.00 Sec.
3. 6.66 - 12.00 Sec.
4. 1.00 - 4.00 Sec.
5. 6.66 - 13.33 Sec.
6. 0.00 - 7.50 Sec.
7. Custom Pulse Train
8. Custom Pulse Train

All Pulse Trains have a 15 second cycle time.

Manufactured By:

**Pribusin Inc.**

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 Ph: (231) 788-2900  
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### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
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 Fx: (905) 660-4068

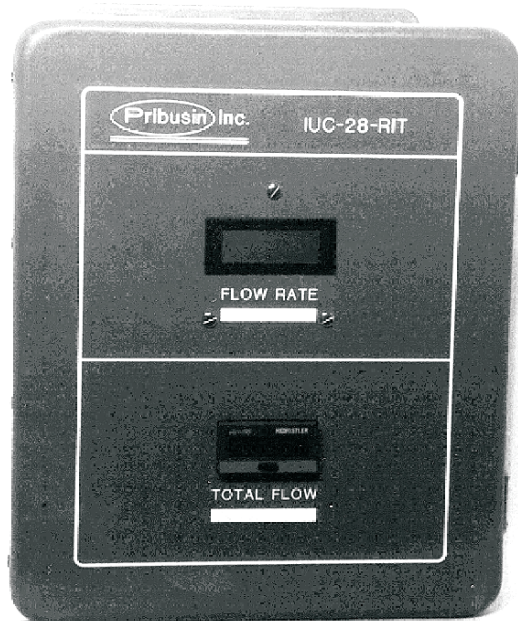


**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

# Model: IUC-X8-RIT

## Isolated Rate Integrator/Totalizer



### Standard Features:

Built-in Linearization for Square Root and Weirs

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

3 1/2 Digit Rate Display (Adjustable Range) and 8 Digit Totalizer Counter

Optional Relay Contact with Setpoint

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-X8-RIT Isolated Integrator/Totalizer is microprocessor controlled for high accuracy and is ideal for measurement of flows. It displays the absolute rate on an easy to read 3 1/2 digit LCD display as well as integrates the input to provide a total. A large display range from 0-1999 is available to accommodate a large variety of applications. In addition, one of two linearization curves can be field-selected. One is a square root function the other a 1.5 exponential function used for weirs.

The integration rate is easily field adjustable and allows for rates as low as 0.5 CPH to as high as 8192 CPH. The totalizer counter comes with a built in reset button which can be disabled if no reset is desired.

An optional relay contact with setpoint can be used to alert in the case of abnormal flow conditions, etc.

### Calibration:

The IUC-X8-RIT has 16 integration rate ranges that are selectable via jumpers inside the instrument. Each range offers full adjustability from its minimum to its maximum integ. rate via a multi turn potentiometer. The potentiometer has a test point where a voltage of 0-5 VDC indicates a setting of 0-100%. This allows for easy field calibration with the instrument running.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

Accuracy/Linearity: +/-0.3% max., +/-0.1% typ.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

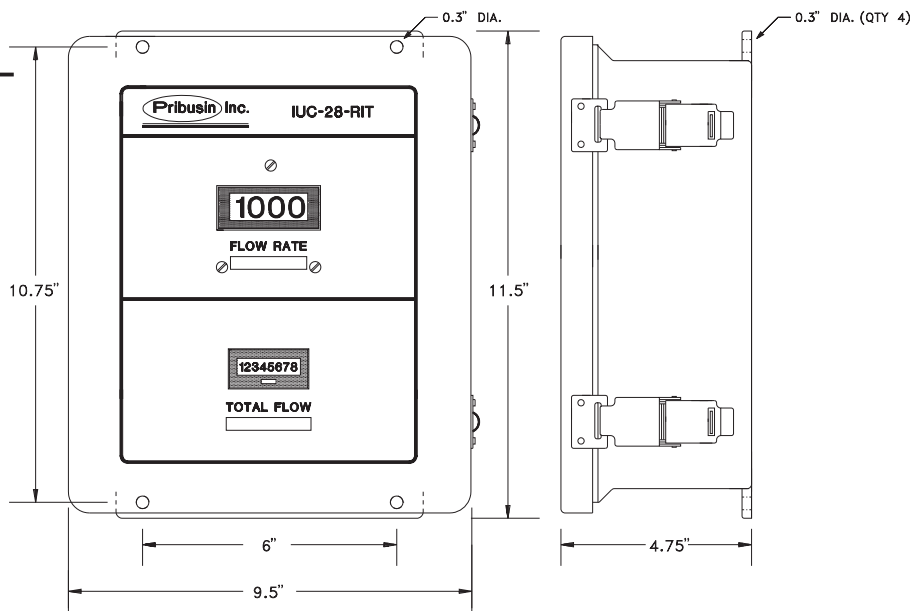
Temperature Effects: +/-0.5% max., 0.2% typ.  
(for 40 Deg.C. change)

Optional Relay: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

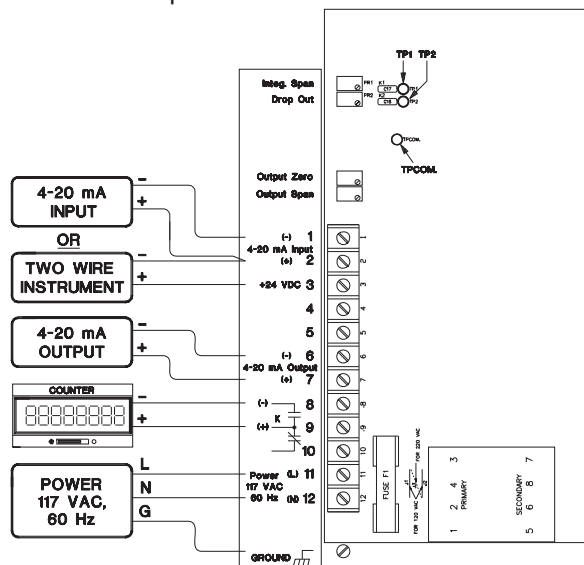
# IUC-X8-RIT

## Enclosure & Dimensions:



## Connection:

Shown here for  
4-20mA Input  
and Output



## Model Designation:

IUC-X8-RIT

Input

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Output

Example: An integrator/totalizer with a 4-20 mA input and 24 VDC power is designated by: IUC-28-RIT-A

If no options specified, unit is 117 VAC Power

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-RMS-XXY**

**Isolated RMS Voltage/Current Conditioner**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 0-5 Amps or 150 Volts AC or DC (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

High Output Drive on Current Outputs

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-RMS-XXY is a microprocessor controlled RMS converter. It comes in a DC and in an AC configuration for either current or voltage measurement. In the DC configuration, the instrument computes the RMS value of both the DC and the AC component of the input signal. In the AC configuration, the input is capacitively coupled so that the DC component is blocked and only the AC component is used to determine the RMS value.

Both configurations sample the input waveform 2500 times to compute the true RMS value. This ensures great accuracy and allows for accurate RMS value measurement of odd shaped waveforms. The output is updated every 0.625 seconds

**CAUTION:** When using AC current we recommend using the ACI-CT current transformer for dangerous over-voltage protection.

### Calibration:

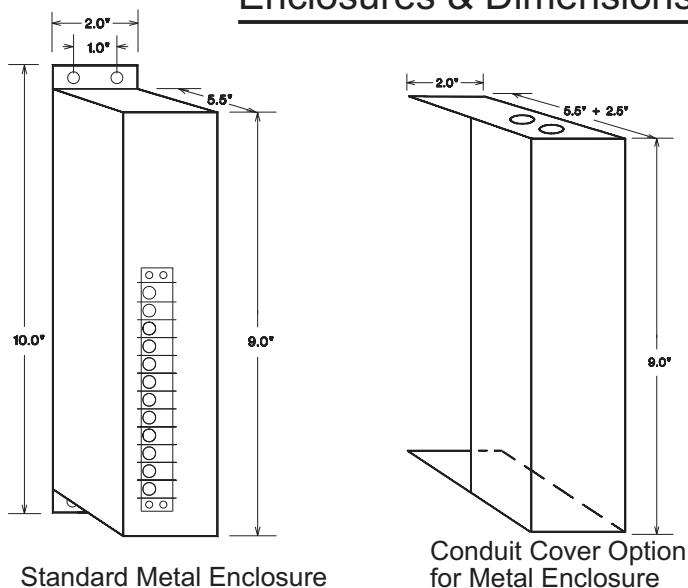
An input span adjustment allows for field adjustments of the 100% input value. The input span can be in the range of 0-100% and can be read with a voltmeter at its test point. The test point shows a voltage of 0-5 VDC for an input of 0-100%.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# IUC-7X-RMS-XXY

## Enclosures & Dimensions:

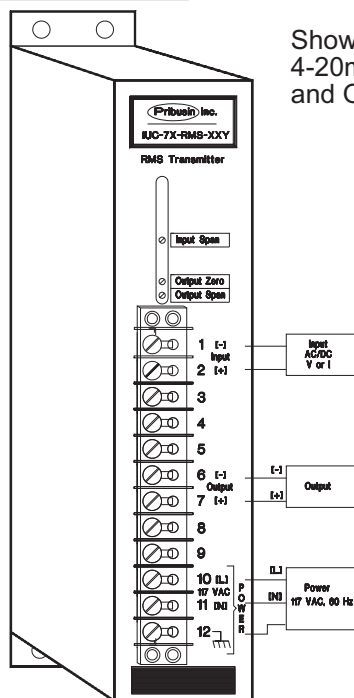


## CAUTION

When measuring AC current we strongly recommend using the ACI-CT Current Transformer. This reduces the 0-5 AAC to a safe 0-5 mA AC which is protected for accidental open circuiting. This changes the IUC-7X-RMS-ACV to a 0-5mA input device. If the ACI-CT is omitted on such an instrument dangerously high voltages will occur when directly connecting a 0-5 AAC input to the instrument.

The secondary of the ACI-CT may be open circuited without any dangerous voltages appearing. NEVER open circuit the primary of the ACI-CT without taking proper current transformer shorting measures.

## Connection:



Shown here for 4-20mA Input and Output

## Model Designation:

IUC-7X-RMS-XXY

Output

Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

ACI: 0-5 Amps AC  
DCI: 0-5 Amps DC  
ACV: 0-150 VAC  
DCV: 0-150 VDC

Example: RMS converter with 150 VAC input and 4-20 mA Output in standard metal enclosure and 117 VAC Power is designated by: IUC-72-RMS-ACV

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)
- Model: ACI-CT Safe Current Transformer (0-5 mA)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-XX-RWN**

**Isolated Range Window Transmitter**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 0-20 mA, 0-5 VDC, and more (see back)

Industry Standard Output: 0-20 mA, 0-5 VDC, more (see back)

Both Input and Output can be Scaled for Maximum Flexibility

Output Signal has Reverse Acting Option

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

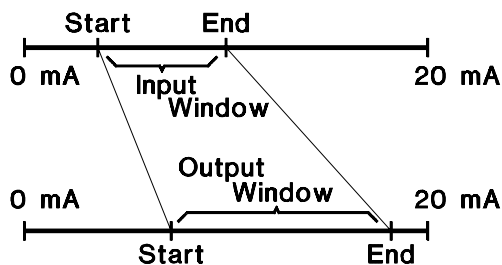
High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-RWN is a microprocessor controlled range window transmitter. It is easily field configurable for any input and output range. The selected input range is then linearly converted to the selected output range. In addition, the output signal can be reversed to invert it from the output.

This instrument is ideal in an application where a transmitter is used only part of its full working range to provide a full scale output of 0-20 mA, 0-5 VDC, etc.



### Calibration:

Four potentiometers are used to set the input and output range start and end points. These points are adjustable from 0-100% and can be read with a voltmeter at the Test Points. The Test Points show a voltage of 0-5 VDC for a setting of 0-100%.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.

(@ Output=Input)

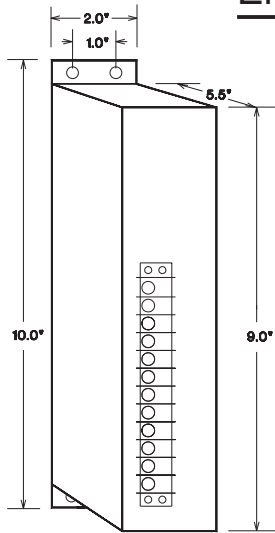
Operating Temperature: -40 Deg.C. to +50 Deg.C.

Temperature Effects: +/-0.5% max., +/-0.2% typ.

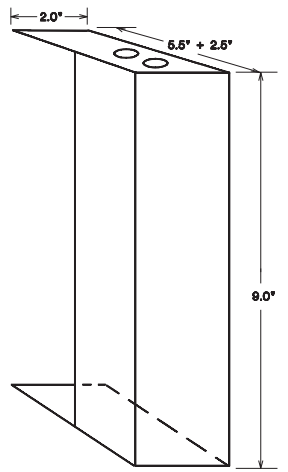
(for 40 Deg.C. change)

# IUC-XX-RWN

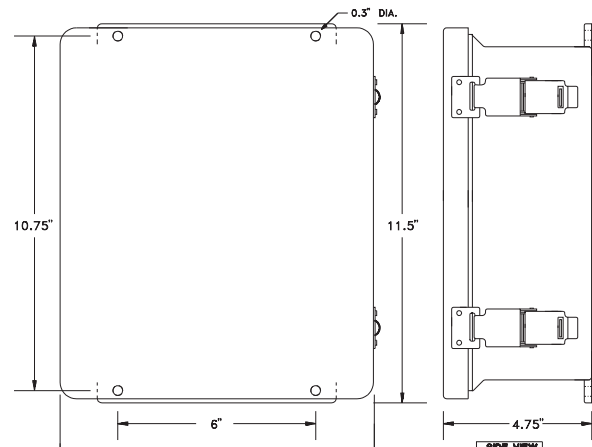
## Enclosures & Dimensions:



Standard Metal Enclosure

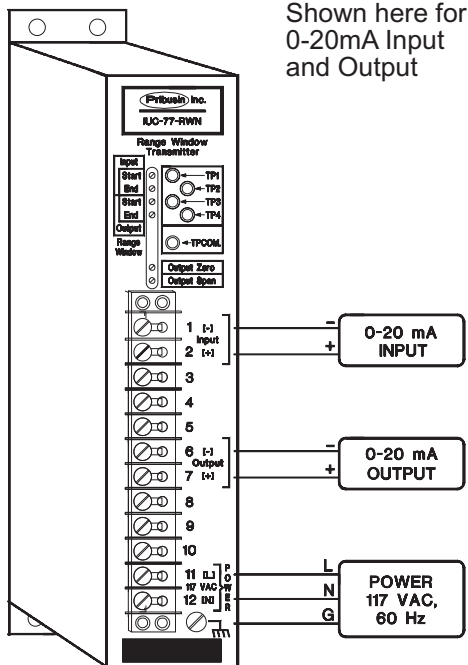


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC - X X - RWN

Input

Output

- 1: 0-5 mA (Zin=1K Ohm)
- 2: 0-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 0-50 mA (Zin=100 Ohm)
- 5: 0-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 0-5 mA (4000 Ohm Drive)
- 2: 0-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 0-50 mA (250 Ohm Drive)
- 5: 0-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Range Window Transmitter with 0-20 mA Input and 0-20 mA Output in standard metal enclosure and 24VDC Power is designated by: IUC-22-RWN-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-RTX**

**Isolated RTD Transmitter**



### Function:

The IUC-7X-RTX is an isolated RTD transmitter that provides high isolation and rugged design for many control applications. Three-way isolation is provided between the input, the output and the power. The signal isolation takes place through state-of-the-art optical isolators to ensure high accuracy and repeatability. Special output drive circuitry allows the IUC-7X-RTX to drive loads of up to 1600 Ohms which makes it ideal for driving multi instrument loops.

Several standard RTD ranges are available and special ranges are available upon consultation with the factory or your representative.

### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Standard Ranges for 100 Ohm Platinum (see back)  
Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)  
Special Input Ranges Available  
High Output Drive on Current Outputs  
Easy Field Calibration  
Two Wire Supply Option for Two Wire Transmitters  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Calibration:

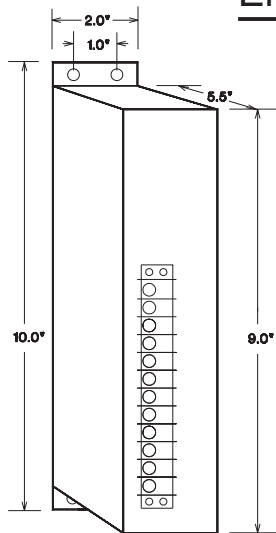
Calibration is via easily accessible multi-turn potentiometers.. All instruments are shipped fully calibrated and tested, but can easily be field adjusted. A Zero and Span pot are available on all units to adjust the output signal.

### Specifications:

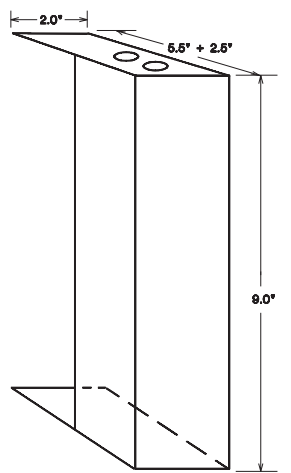
Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity:  $\pm 0.1\%$  max.,  $\pm 0.05\%$  typ.  
(Linearized to RTD Curve)  
RTD Type: Platinum, 100 Ohms at 0 Deg.C.,  
0.0385 Alpha  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects:  $\pm 0.5\%$  max.,  $\pm 0.2\%$  typ.  
(for 40 Deg.C. change)  
Output Ripple: less than 0.1% p-p value  
Common Mode Rejection: 120 dB @ 60 Hz  
Loop Drive: Max. 1600 Ohms at 20 mA

# IUC-7X-RTX

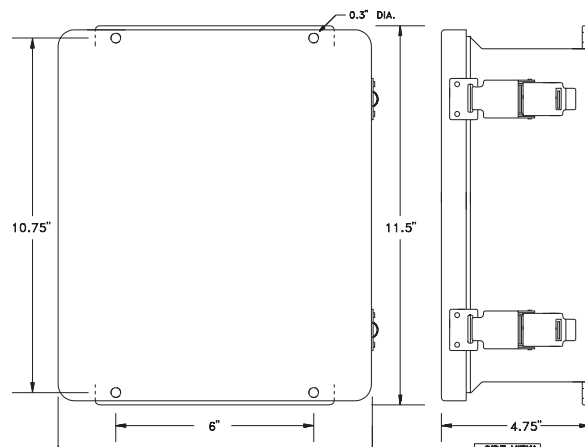
## Enclosures & Dimensions:



Standard Metal Enclosure



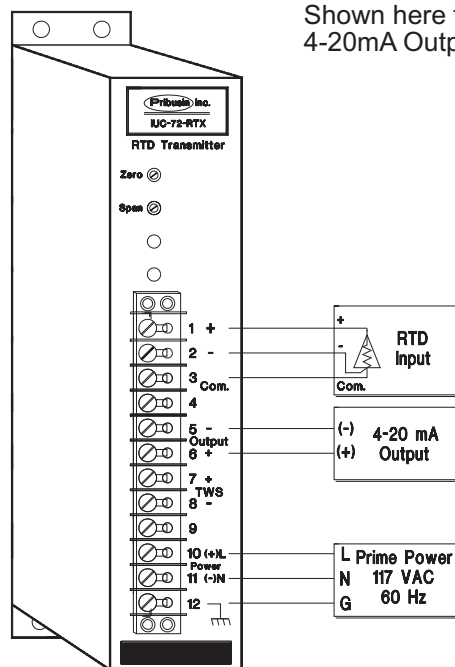
Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:

Shown here for  
4-20mA Output



## Model Designation:

IUC - 7 X-RTX

Output

Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

- 1: 0 to 300F (-18 to 150C)
- 2: 0 to 400F (-18 to 205C)
- 3: 0 to 500F (-18 to 260C)
- 4: 0 to 750F (-18 to 400C)
- 5: 0 to 1000F (-18 to 538C)
- 6: -350 to 1100F (-200 to 600C)
- 7: Special (must specify)

Example: RTD transmitter for 0-750 Deg.F and 4-20 mA  
Output in standard metal enclosure and 117VAC  
Power is designated by: IUC-72-RT4

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Drop Out Setting for Lower Limit Input

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-SIN is a microprocessor controlled Square Root Extractor. It has an adjustable drop out setting which defines the lower limit of the output at which the square root extraction ceases. This feature is important especially in environments where signals are noisy since low input signals produce large results after the square root function. For example, an input of 1% translates into an output of 10%. Therefore, if the input fluctuates by approximately 1% in the lower (4-5 mA) region, the output may vary by more than 10%. By setting the drop out to a few percent above 10% output, the actual output will remain at 4 mA until the true output rises above the drop out setting.

### Calibration:

A multi-turn potentiometer is used to adjust the drop out setting for the input. The drop out can be in the range of 0-50% and can be read with a voltmeter at the test point. The test point shows a voltage of 0-5 VDC for a drop out setting of 0-50%.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

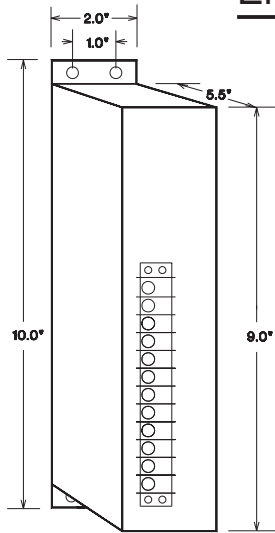
Accuracy/Linearity:  $\pm 0.3\%$  max.,  $\pm 0.1\%$  typ.  
(@ 20-100% Output)

Operating Temperature: -40 Deg.C. to +50 Deg.C.

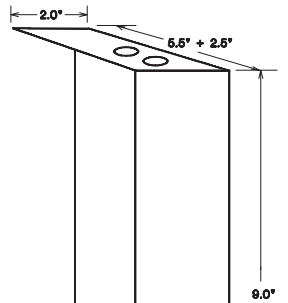
Temperature Effects:  $\pm 0.5\%$  max.,  $\pm 0.2\%$  typ.  
(for 40 Deg.C. change)

# IUC-XX-SIN

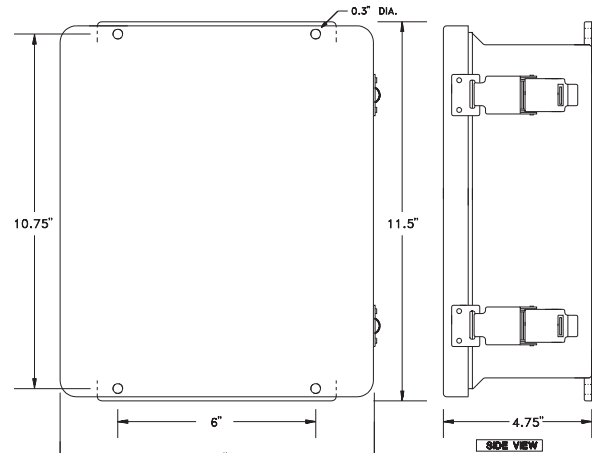
## Enclosures & Dimensions:



Standard Metal Enclosure

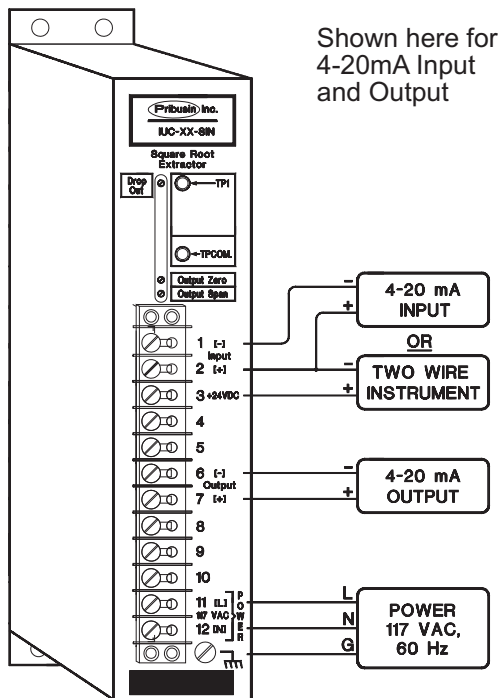


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC - X X - SIN

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Square Root Extractor with 4-20 mA Input and 4-20 mA Output in standard metal enclosure and 24VDC Power is designated by: IUC-22-SIN-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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### CANADA:

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Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

**Model: IUC-7X-SLX**

**Isolated Slidewire Transmitter**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Standard Slidewire Inputs (see back)  
Industry Standard Output: 4-20 mA, 1-5 VDC, more  
(see back)  
Special Input Ranges Available  
High Output Drive on Current Outputs  
Easy Field Calibration  
Two Wire Supply Option for Two Wire Transmitters  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-SLX is an isolated slidewire transmitter that provides high isolation and rugged design for many control applications. Three-way isolation is provided between the input, the output and the power. The signal isolation takes place through state-of-the-art optical isolators to ensure high accuracy and repeatability. Special output drive circuitry allows the IUC-7X-SLX to drive loads of up to 1600 Ohms which makes it ideal for driving multi instrument loops.

Several standard slidewire ranges are available and special ranges are available upon consultation with the factory or your representative.

### Calibration:

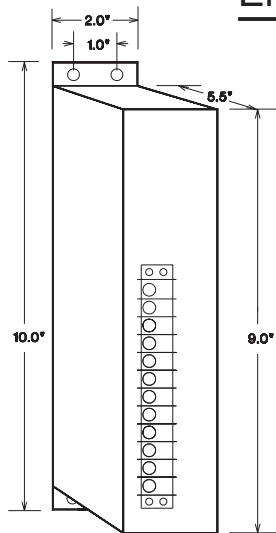
Calibration is via easily accessible multi-turn potentiometers.. All instruments are shipped fully calibrated and tested, but can easily be field adjusted. A Zero and Span pot are available on all units to adjust the output signal.

### Specifications:

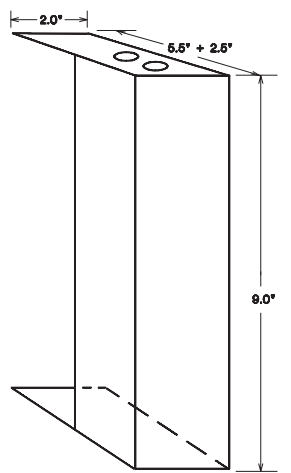
Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.1% max., +/- 0.05% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Output Ripple: less than 0.1% p-p value  
Common Mode Rejection: 120 dB @ 60 Hz  
Loop Drive: Max. 1600 Ohms at 20 mA

# IUC-7X-SLX

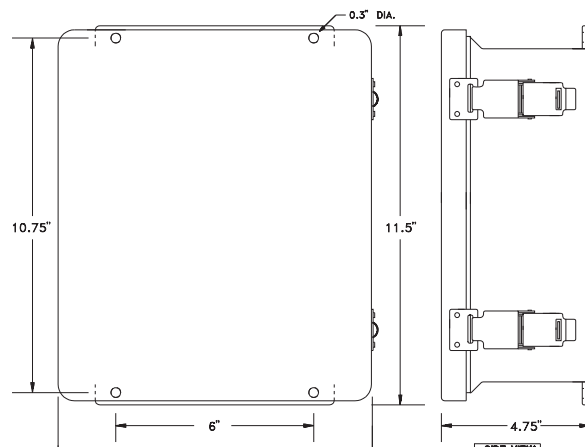
## Enclosures & Dimensions:



Standard Metal Enclosure

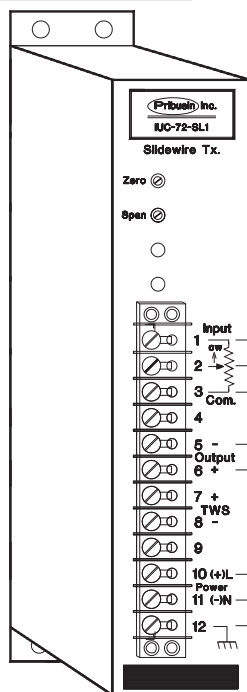


Conduit Cover Option  
for Metal Enclosure

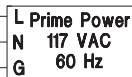
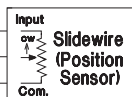


NEMA 4X Option

## Connection:



Shown here for  
4-20mA Output



## Model Designation:

IUC - 7 X-SLX

Output

Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

- 1: 100 Ohm
- 2: 500 Ohm
- 3: 1K Ohm
- 4: 2K Ohm
- 5: 5K Ohm
- 6: 10K Ohm
- 7: Special Input

Example: Slidewire transmitter with 1K Ohm Slidewire and 4-20 mA Output in standard metal enclosure and 117VAC Power is designated by: IUC-72-SL3

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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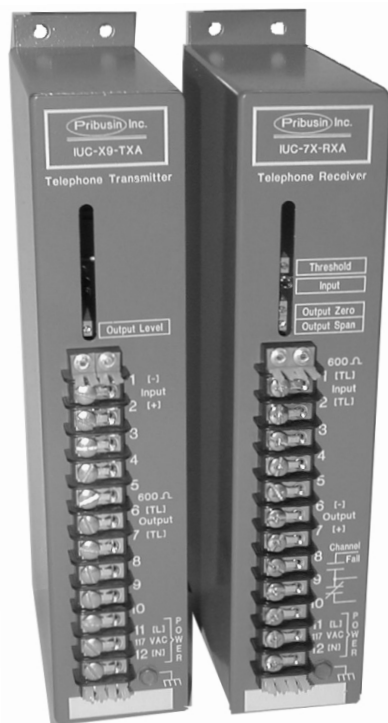
**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Models: IUC-X9-TXA & IUC-7X-RXA**

## Telephone Line Transmission System

(Formerly: IUC-29-LIN-FRI & IUC-72-UNV-FRI)



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see below)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see below)

Send One Analog Signal over Class C Phone Line

Channel Fail Contact

Microprocessor Controlled for High Accuracy and Easy Field Calibration

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-X9-TXA is a telephone line transmitter which takes in one of a number of standard analog signal. It has a 600 Ohm impedance matched output which can connect directly into a class C telephone line. A frequency signal is sent to the IUC-7X-RXA telephone line receiver where it is converted back to an analog signal. The IUC-7X-RXA also has an impedance matched input to allow direct connection to the phone line. A built in line monitor detects line failures and closes a contact if this happens.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (Test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to + 50 Deg.C.  
Temperature Effects: +/- 0.5% max., +/- 0.2% typ.  
(for 40 Deg. change)

### Model Designation:

IUC-X9-TXA

Input

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

IUC-7X-RXA

Output

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A Transmitter/Receiver pair for 4-20 mA input and output in a standard metal enclosure is designated by IUC-29-TXA and IUC-72-RXA.

If no options specified, unit is 117 VAC Power in metal enclosure

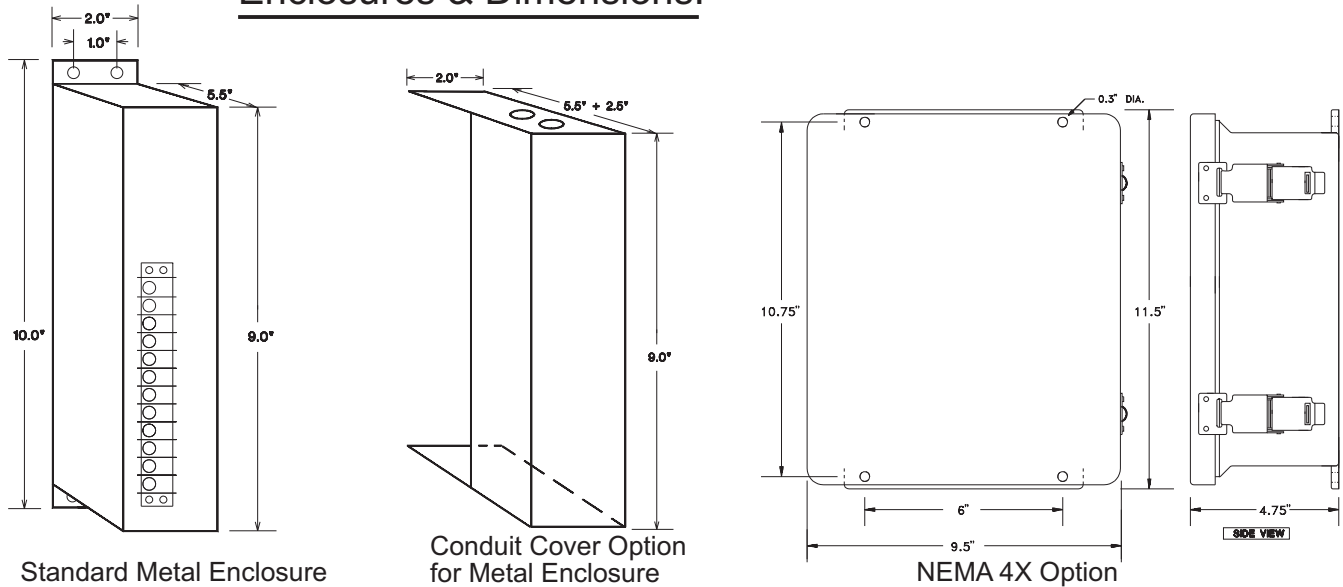
### Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see back)
- N - NEMA 4X enclosure (see back)



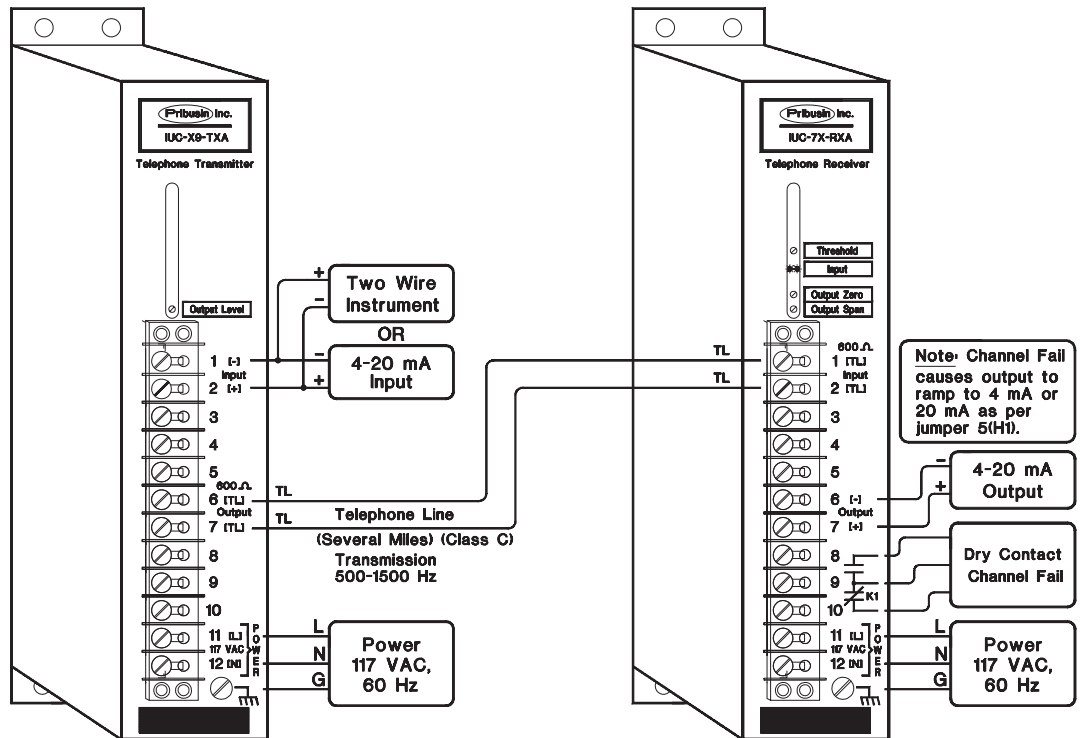
# IUC-X9-TXA & IUC-7X-RXA

## Enclosures & Dimensions:



## Connection:

Shown here for  
4-20mA Input  
and Output



Manufactured By:

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Models: IUC-X9-TXC & IUC-7X-RXC**

## Telephone Line Transmission System

(Formerly: IUC-29-LIN-FRC & IUC-72-UNV-FRC)



### Standard Features:

- High Input-Output-Power Isolation (1500VAC Test)
- Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see below)
- Industry Standard Output: 4-20 mA, 1-5 VDC, more (see below)
- Send One Analog and Two Contacts over Class C Telephone Line
- Easy Field Calibration
- Microprocessor Controlled for High Accuracy
- Two Wire Supply Option for Two Wire Transmitters
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- High Noise Rejection
- CSA and NRTL Approved (LR 51078)

### Function:

The IUC-X9-TXC is a telephone line transmitter which takes in one analog signal and two dry contacts. It has a 600 Ohm impedance matched output which can connect directly into a class C telephone line. All three signals are sent simultaneously to the IUC-7X-RXC telephone line receiver where they are split up into their original forms. The IUC-7X-RXC also has an impedance matched input to allow direct connection to the phone line. A built in line monitor detects line failures and sets the output to 4 mA.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (Test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to + 50 Deg.C.  
Temperature Effects: +/- 0.5% max., +/-0.2% typ.  
(for 40 Deg. change)

### Model Designation:

IUC-X9-TXC

Input

- 1: 1-5 mA ( $Z_{in}=1K$  Ohm)
- 2: 4-20 mA ( $Z_{in}=250$  Ohm)
- 3: 0-1mA ( $Z_{in}=5K$  Ohm)
- 4: 10-50 mA ( $Z_{in}=100$  Ohm)
- 5: 1-5 VDC ( $Z_{in}=1Meg$  Ohm)
- 6: 0-10 VDC ( $Z_{in}=1Meg$  Ohm)
- 7: Special Input

IUC-7X-RXC

Output

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC ( $Z_{out}=250$  Ohm)
- 6: 0-10 VDC ( $Z_{out}=500$  Ohm)
- 7: Special Output

Example: A Transmitter/Receiver pair for 4-20 mA input and output with 2 dry contacts in a standard metal enclosure is designated by IUC-29-TXC and IUC-72-RXC.

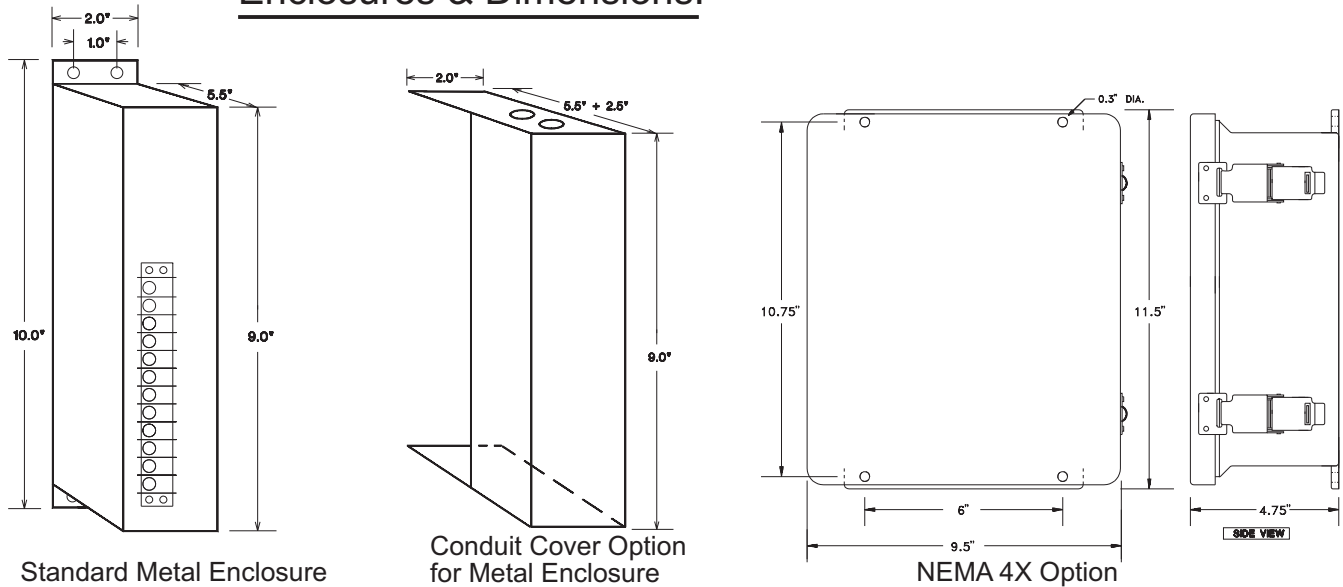
If no options specified, unit is 117 VAC Power in metal enclosure

### Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see back)
- N - NEMA 4X enclosure (see back)

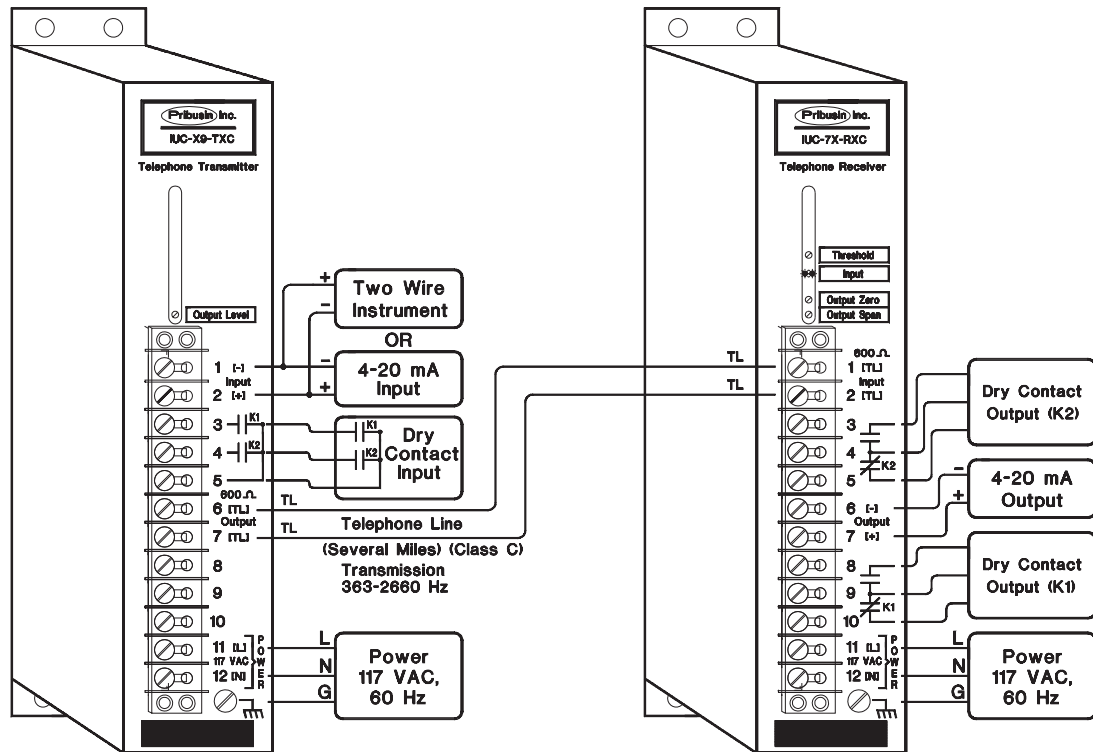
# IUC-X9-TXC & IUC-7X-RXC

## Enclosures & Dimensions:



## Connection:

Shown here for  
4-20mA Input  
and Output



Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-TXX**

**Isolated Thermocouple Transmitter**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Standard Ranges for Type J,K,E,T,S,R (see back)  
Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)  
Special Input Ranges and other Types Available  
Cold Junction Compensated  
High Output Drive on Current Outputs  
Easy Field Calibration  
Two Wire Supply Option for Two Wire Transmitters  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-TXX is an isolated Thermocouple transmitter that provides high isolation and rugged design for many control applications. Three-way isolation is provided between the input, the output and the power. The signal isolation takes place through state-of-the-art optical isolators to ensure high accuracy and repeatability. Special output drive circuitry allows the IUC-7X-TXX to drive loads of up to 1600 Ohms which makes it ideal for driving multi instrument loops.

Several standard Thermocouple types and ranges are available that cover a wide spectrum of temperatures. Special ranges are available upon consultation with the factory or your representative.

### Calibration:

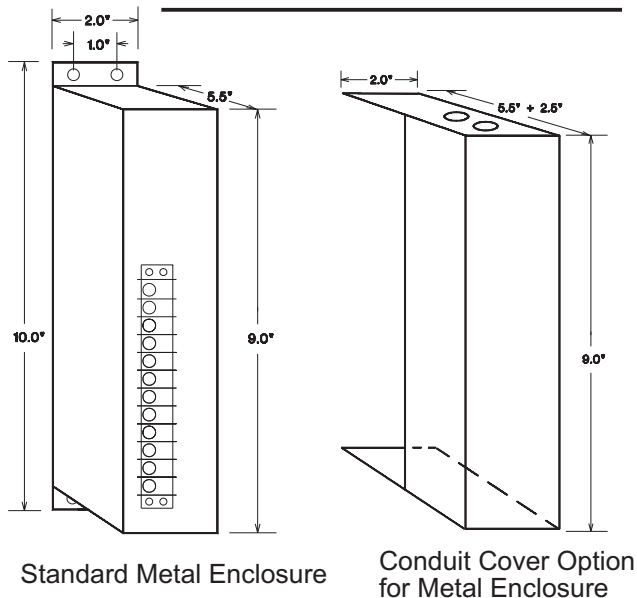
Calibration is via easily accessible multi-turn potentiometers.. All instruments are shipped fully calibrated and tested, but can easily be field adjusted. A Zero and Span pot are available on all units to adjust the output signal.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.1% max., +/- 0.05% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Output Ripple: less than 0.1% p-p value  
Common Mode Rejection: 120 dB @ 60 Hz  
Loop Drive: Max. 1600 Ohms at 20 mA

# IUC-7X-TXX

## Enclosures & Dimensions:

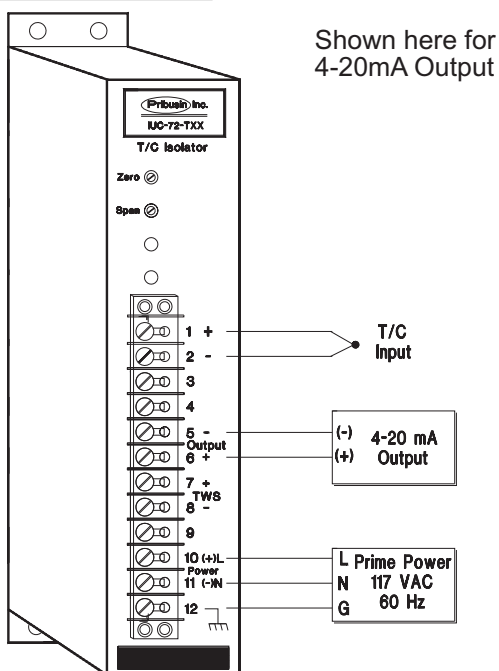


## Options:

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

If no options specified, unit is 117 VAC Power in metal enclosure

## Connection:



## Model Designation:

IUC-7X-TXX

Output

Example: A Thermocouple Transmitter for type 'K' for 0-500F and 4-20 mA Output is : IUC-72-TK2

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Range	J	K	E	T	R	S
0 to 300F -18 to 150C	TJ1		TE1	TT1		
0 to 400F -18 to 204C	TJ2	TK1	TE2	TT2		
0 to 500F -18 to 260C	TJ3	TK2	TE3	TT3		
0 to 750F -18 to 400C	TJ4	TK3	TE4		TR1	TS1
0 to 1000F -18 to 538C	TJ5	TK4			TR2	TS2
0 to 1500F -18 to 816C		TK5			TR3	TS3
0 to 2000F -18 to 1093C		TK6			TR4	TS4
0 to 3200F -18 to 1760C					TR5	TS5
-350 to 1100F -200 to 600C	TJ6	TK7	TE5			

Manufactured By:

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-XX-UNV**

**Isolated Universal Signal Conditioner**  
For Special Purpose (Custom) Applications



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Input: 4-20 mA, 1-5 VDC, more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Up to 4 Analog Inputs and 4 Adjustable Function Parameters.

Form 'C' Contact Available

Microprocessor Controlled for High Accuracy and Flexibility

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Two Wire Supply for Two Wire Transmitters

Power: 117 VAC 50/60 Hz

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-UNV is the basic hardware platform for many specialized signal conditioning applications. Its programmable microprocessor allows for complex and highly accurate mathematical signal manipulation functions.

Four variable potentiometers are available for additional function adjustability or for setting constants or operating parameters. In addition, there are jumpers available to further define and select modes of operation.

The output of the IUC-XX-UNV can be one or two analog outputs, one or two relay outputs, or one relay and one analog output.

**DO NOT ORDER THIS INSTRUMENT WITHOUT CONSULTING FACTORY OR REPRESENTATIVE FIRST**

### Calibration:

All Calibration is done via multi-turn potentiometers. Each potentiometer has a test point associated with it. The test point shows a voltage of 0-5 VDC representing 0-100% of the parameter setting on the potentiometer. This makes for very easy field adjustment even with the instrument under power and running.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

Input Impedance (4-20mA only): 250 Ohms

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

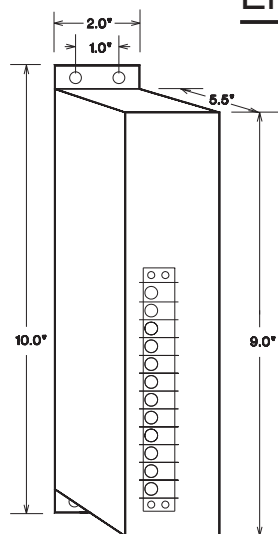
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

Contact Rating: 10A 1/8Hp @ 125VAC

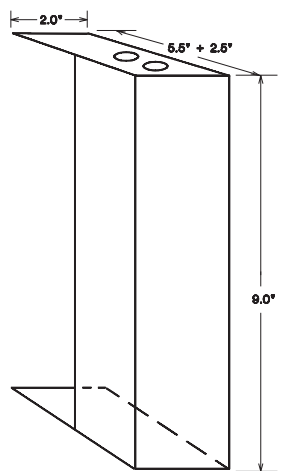
6A 1/8Hp @ 277VAC

# IUC-XX-UNV

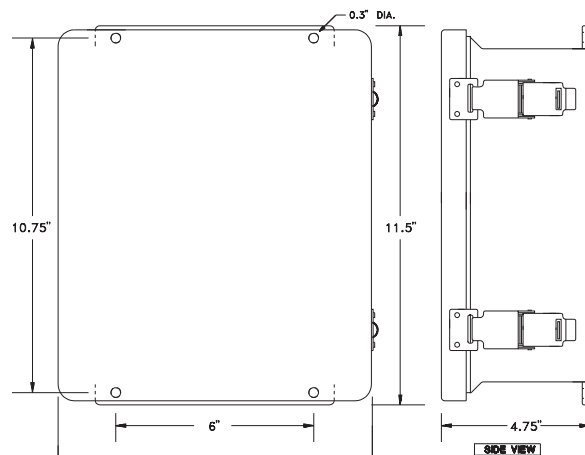
## Enclosures & Dimensions:



Standard Metal Enclosure

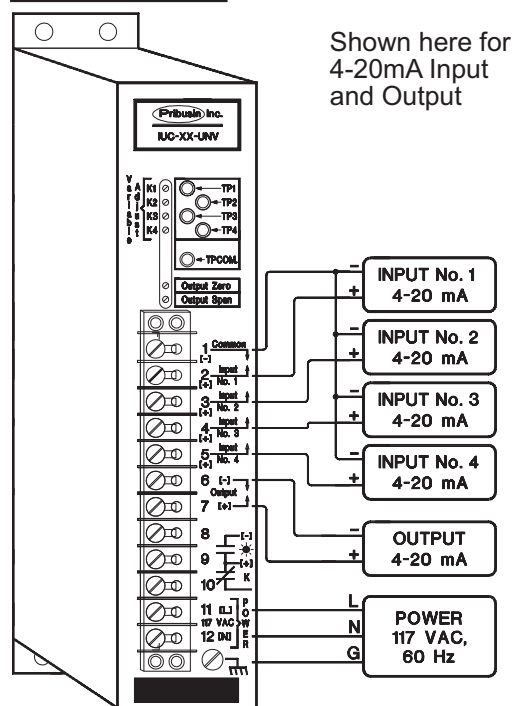


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC - X X - UNV

Input

Output

- 1: 1-5 mA ( $Z_{in}=1K\ \Omega$ )
- 2: 4-20 mA ( $Z_{in}=250\ \Omega$ )
- 3: 0-1mA ( $Z_{in}=5K\ \Omega$ )
- 4: 10-50 mA ( $Z_{in}=100\ \Omega$ )
- 5: 1-5 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 6: 0-10 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 7: Special Input

- 1: 1-5 mA (4000  $\Omega$  Drive)
- 2: 4-20 mA (1000  $\Omega$  Drive)
- 3: 0-1 mA (20000  $\Omega$  Drive)
- 4: 10-50 mA (250  $\Omega$  Drive)
- 5: 1-5 VDC ( $Z_{out}=250\ \Omega$ )
- 6: 0-10 VDC ( $Z_{out}=500\ \Omega$ )
- 7: Special Output
- 8: Pulse Output
- 9: Frequency Output

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-WTX**

**New and  
Improved**

**Isolated Watts Transducer**



### Standard Features:

New

Selectable Output for Watt, VA, VAR or Power Factor  
High Input-Output-Power Isolation (1500VAC Test)  
Single or Double Element for 1 and 3 Phase Circuits  
Industry Standard Output: 4-20 mA, 1-5 VDC, more

New

Optional Watt Hour Counter & Watt Display

New

Microprocessor Controlled for High Accuracy even  
with Distorted Waveforms (SCR switching etc.)

Less than 1VA Burden on Voltage and Current Coils  
0-5 AAC Current, 0-150 VAC Voltage Input

Standard Calibrations: 500 Watts (WT1),  
1000 Watts (WT2)

New

Easy Field Adjustable Output Calibration

Power: 117 VAC 50/60 Hz

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-WTX is a new & improved model of its prior version. It uses a microprocessor to compute instantaneous voltage and current values which it then uses to produce one of four different outputs. These are: 1) Watt, 2) VA, 3) VAR and 4) Power Factor.

An optional Watt Hour counter output is also available to count watt hours consumed. The IUC-7X-WTX comes in single (-WT1) or double (-WT2) element versions for 1, 2 or 3 phase systems.

$$\text{Watts} = V_{\text{Instantaneous}} \times I_{\text{Instantaneous}}$$

$$\text{VA} = V_{\text{RMS}} \times I_{\text{RMS}}$$

$$\text{VAR} = \sqrt{\text{VA}^2 - \text{Watt}^2}$$

$$\text{Power Factor} = \frac{\text{Watts}}{\text{VA}}$$

### Calibration:

No calibration is required on these watts transducers. There is a zero and span adjustment for the output signal for output calibration. Standard calibrations are for 500 Watts (WT1) and 1000 Watts (WT2).

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

Maximum Coil Ratings: Current: 15A Continuous  
100A 3 sec/Hr.

Voltage: 150% of Rated Voltage

Accuracy/Linearity: +/- 0.4% max., +/- 0.2% typ.

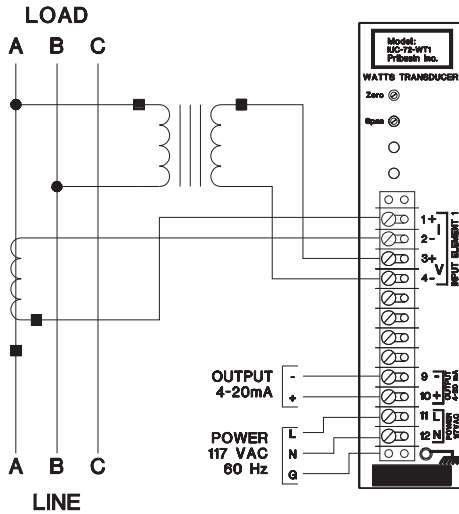
Operating Temperature: -40 Deg.C. to +50 Deg.C.

Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

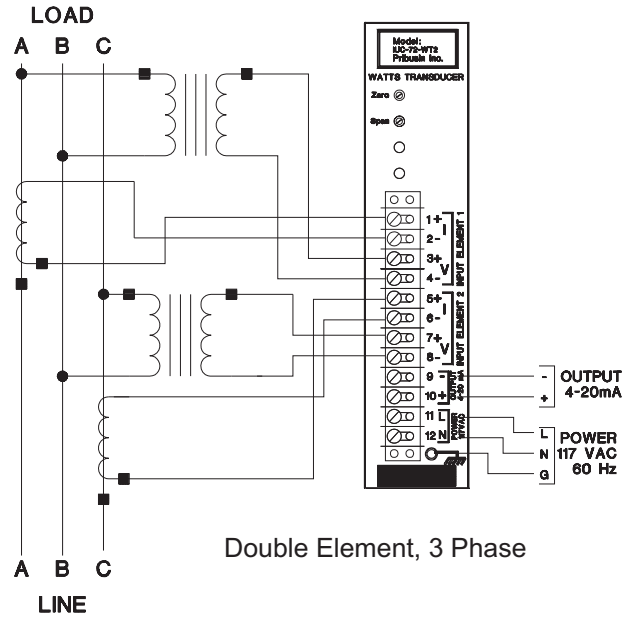
# IUC-7X-WTX

## Connection:

Shown here for  
4-20mA Input  
and Output

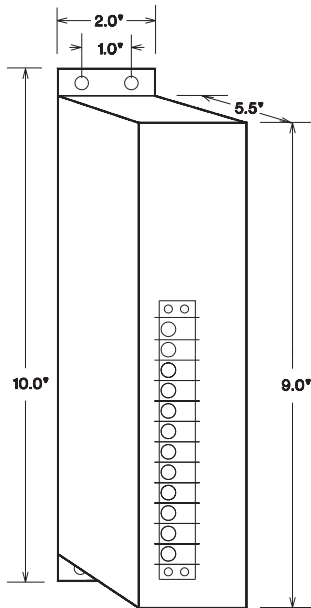


Single Element, 1 Phase (A,B)  
Single Element 3 Phase (A,B,C)



Double Element, 3 Phase

## Enclosures & Dimensions:



Standard Metal Enclosure

## Model Designation:

IUC-7X-WTX

### Output

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

### Input

- 1: Single Element (500W)
- 2: Double Element (1000W)

Example: Single Element Watts Transducer with 4-20 mA  
Output in standard metal enclosure is designated  
by: IUC-72-WT1

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see above)
- H - Watt Hour Counter (8-digit LCD counter)
- D - 3.5 Digit Display
- N - NEMA4 Enclosure

Manufactured By:

**Pribusin Inc.**

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[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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Fx: (231) 788-2929



### CANADA:

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-79-FTF**

**Frequency To Frequency Isolator**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Wide Input Frequency Range (from 0 Hz to 10 KHz)  
Many Input Types & Ranges (Voltage, Dry Contact)  
4 Standard Outputs (Open Collector, TTL, 12V, 24V)  
Optional Relay Contact Output  
Optional Buffer or Divider Function  
Adjustable Response Time for Noise Rejection  
Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)  
Microprocessor Controlled for High Accuracy  
24 VDC Supply for Dry Contact Input  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-79-FTF is a Frequency to Frequency Isolator that is easily field configurable to one of many input types such as several voltages or dry contact. Four standard outputs are available (open collector, TTL, 12 VDC, 24 VDC) which can be used individually or simultaneously. Discrete ON and OFF threshold adjustments allow for easy & accurate input signal conditioning. Adjustable response times allow for appropriate signal filtering.

The IUC-79-FTF-BUF is similar to the -FTF but has a microprocessor that can store incoming pulses in a buffer and release them slowly to a slower counting device.

The IUC-79-FTF-DIV is another variation of the -FTF and has the capability to divide the incoming frequency by any number between 1 and 65535.

### Calibration:

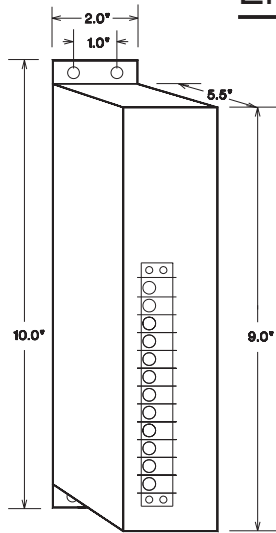
The IUC-79-FTF has individual ON and OFF threshold adjustment using multiturn potentiometers. All potentiometers have a test point where a voltage of -10 to +10 VDC indicates the threshold level as -100% to +100%. This allows for easy field calibration with the instrument running.

### Specifications:

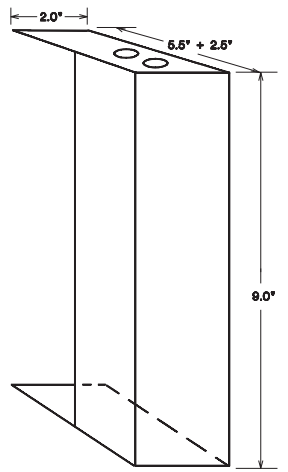
Isolation: Input to Output to Power 1500 VAC (test)  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., 0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

# IUC-79-FTF

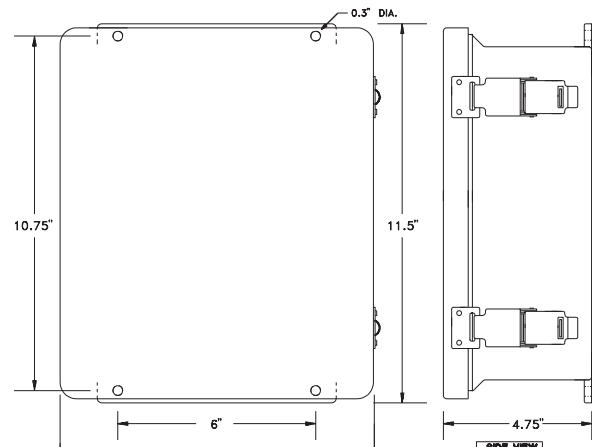
## Enclosures & Dimensions:



Standard Metal Enclosure

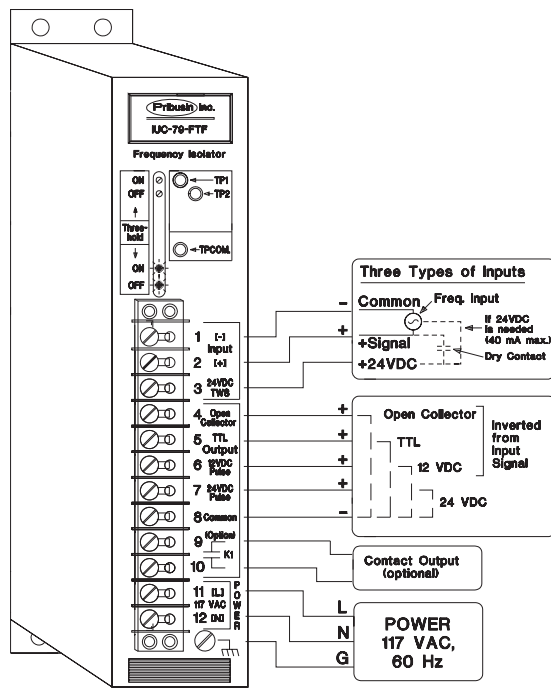


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Available Models:

### IUC-79-FTF: Frequency Isolator

Outputs: Open Collector, TTL, 12VDC, 24VDC  
Optional: Relay Output

### IUC-79-FTF-BUF: Frequency Isolator with Buffer

Outputs: Open Collector, TTL, 12VDC, 24VDC  
Standard: Relay Output  
Function: Store Pulses & Release Slowly

### IUC-79-FTF-DIV: Frequency Isolator with Divider

Outputs: Open Collector, TTL, 12VDC, 24VDC  
Standard: Relay Output  
Function: Divide Input by Division Factor

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:



[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Voltage (-ACV) or Current (-ACI) Input Available  
Voltage Inputs Available from mV to 150VAC  
Current inputs Available up to 5 Amps AC  
Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)  
High Output Drive on Current Outputs  
Peak-to-Peak Conversion with 1 KHz Upper Cut-off (Upper Cut-off may be specified as other)  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-ACV converts a peak-to-peak AC voltage to a DC signal which can be one of several industry standards (4-20 mA, 1-5VDC, etc). Isolation is between input and output and power so that all three main circuits are isolated from each other. The Input has an upper cut-off frequency (3 dB point) which is typically at 1 KHz but may be specified for other frequencies. The input impedance of the IUC-7X-ACV is 1 Megohm.

The IUC-7X-ACI converts a peak-to-peak AC current to a DC signal which can be one of several industry standards (4-20 mA, 1-5VDC, etc). Isolation is between input and output and power so that all three main circuits are isolated from each other. The Input has an upper cut-off frequency (3 dB point) which is typically at 1 KHz but may be specified for other frequencies.

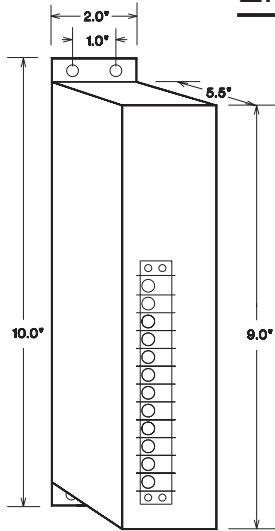
Typical applications are for vibration measurement using a displacement probe that generates an AC peak-to-peak value within the 1KHz spectrum.

### Specifications:

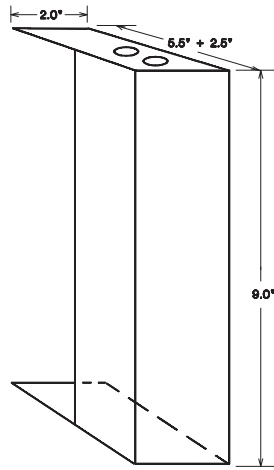
Isolation: Input to Output to Power 1500 VAC (test)  
AC Measurement: Peak-to-Peak  
Cut-off (3dB): 1 KHz, unless otherwise specified  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Ripple: 0.6% max.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# IUC-7X-ACX

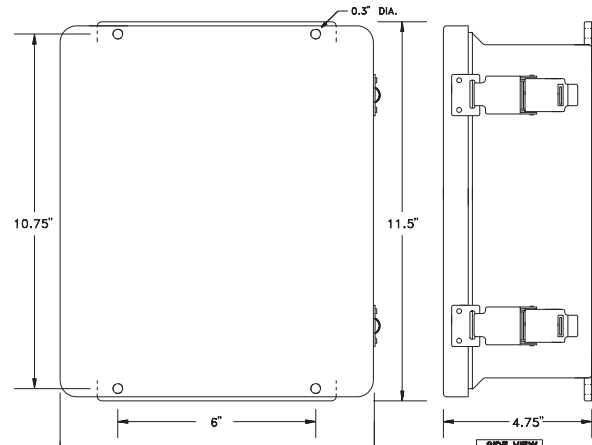
## Enclosures & Dimensions:



Standard Metal Enclosure

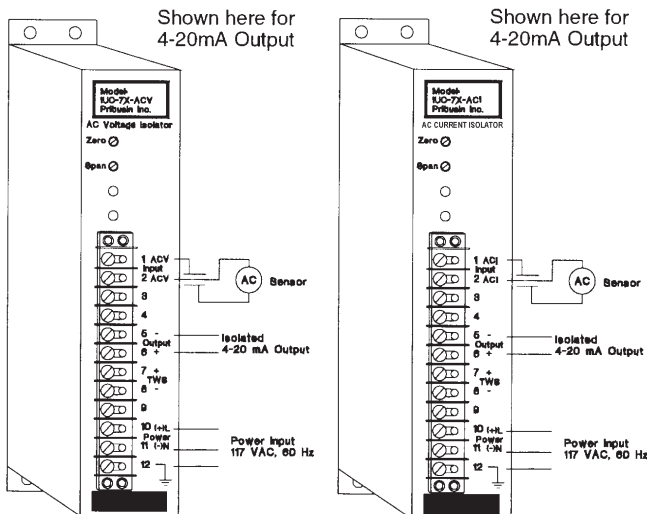


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC-7X-ACX

Output

Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

I: 0-5 Amps AC  
V: 0-150Volts AC

Example: Peak-to-Peak converter with up to 150 VAC input and 4-20 mA Output in standard metal enclosure and 117 VAC Power is designated by: IUC-72-ACV

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-STX**

**Isolated Strain Gauge Converter**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)  
Industry Standard Strain Gauge Input Ranges  
Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)  
Custom Strain Gauge Input Ranges Available  
Adjustable Excitation Voltage (4-15 VDC)  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-STX is an isolated Strain Gauge to current or voltage converter. There are several standard Strain Gauge input ranges available. Custom inputs are also available. Any Strain Gauge that has a minimum resistance of 100 Ohms may be used. Strain Gauges up to 10 KOhms may be used.

The high output drive (1600 Ohms @ 4-20mA) allows the IUC-7X-STX to drive several other instruments directly from its output.

### Calibration:

The IUC-7X-STX comes factory calibrated and requires no field adjustments. A Zero and Span adjustment on the output allows for small adjustments on the output signal. The Excitation voltage is adjustable from 4 to 15 VDC

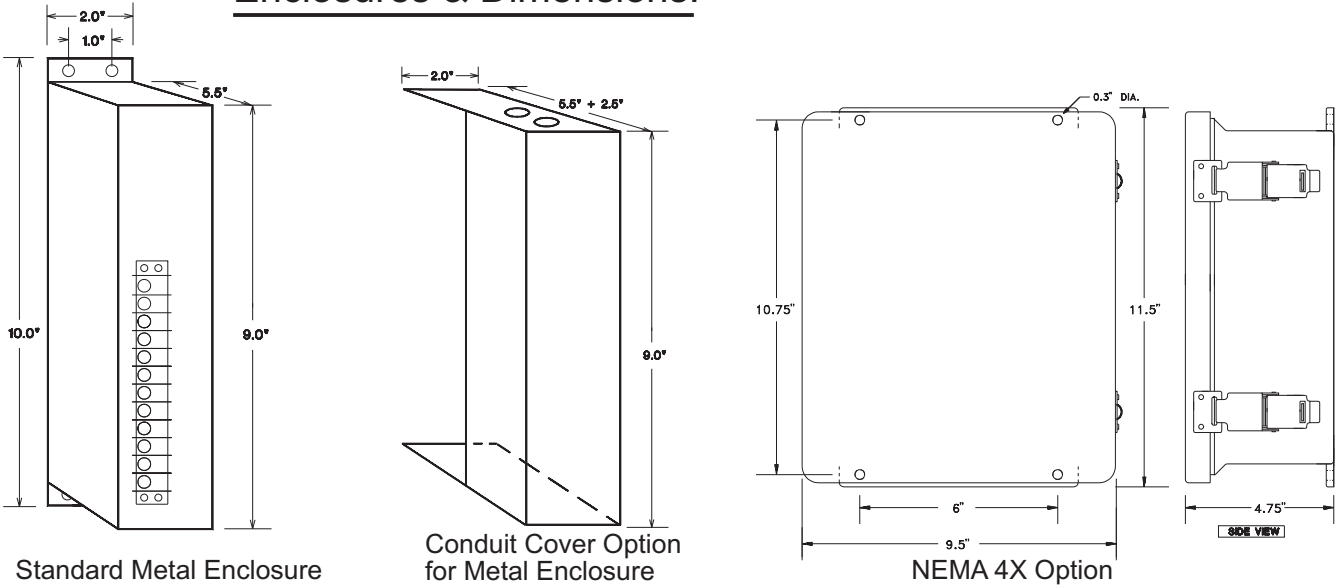
### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)  
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Excitation: 4-15 VDC, adjustable

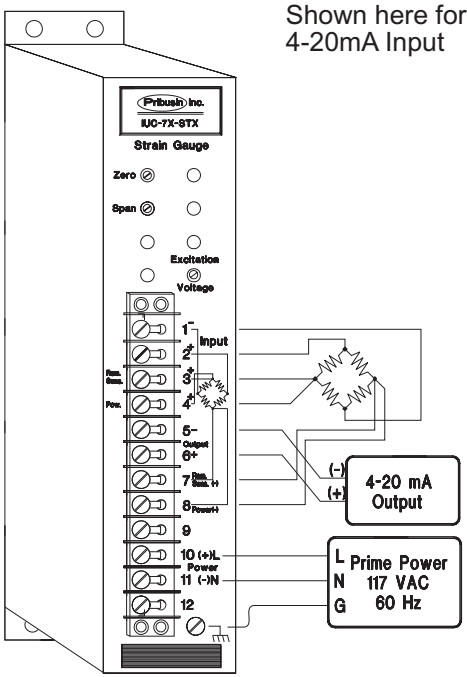


# IUC-7X-STX

## Enclosures & Dimensions:



## Connection:



## Model Designation:

IUC-7X-STX	
Output	Input
1: 1-5 mA (4000 Ohm Drive) 2: 4-20 mA (1000 Ohm Drive) 3: 0-1 mA (20000 Ohm Drive) 4: 10-50 mA (250 Ohm Drive) 5: 1-5 VDC (Zout=250 Ohm) 6: 0-10 VDC (Zout=500 Ohm) 7: Special Output	1: 1 mV/V 2: 2 mV/V 3: 3 mV/V 7: Special Input Note: The input mV/V refers to the MV produced by the Strain Gauge at FULL deflection

Example: Strain Gauge Converter with 1 mV/V input and 4-20 mA Output in standard metal enclosure and 117 VAC Power is designated by: IUC-72-ST1

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:



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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-7X-PWM**

**Isolated PWM Converter**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Wide Input PWM Range (from 5 Hz to 3 KHz)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

24 VDC and 12 VDC Supply for Open Collector Input or Dry Contact Input

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-FRX is a microprocessor controlled PWM to analog output converter/isolator that is easily field configurable to any PWM input from 0-5 Hz to 0-3KHz. Adjustments to the input settings can be made while the instrument is operating. This flexibility combined with easy field calibration allows for the fine tuning of a process on site with little effort. All that is required to change the calibration settings is a voltmeter and a small screwdriver.

The IUC-7X-PWM operates over a wide duty cycle range of at least 5% to 95%. The duty cycle range depends on the PWM frequency. The lower the PWM frequency the wider the duty cycle range that can be converted.

### Calibration:

The IUC-7X-PWM has various PWM ranges that are easily selected via a set of jumpers inside the unit. Fine adjustment to any specific PWM range is via a multi-turn potentiometer.

The analog output is microprocessor driven and does not usually require field calibration.

### Specifications:

PWM Range: 5Hz to 3KHz, selectable

PWM Amplitude: 5VDC to 24VDC typical, others avail.

Isolation: Input to Output to Power 1500 VAC (test)

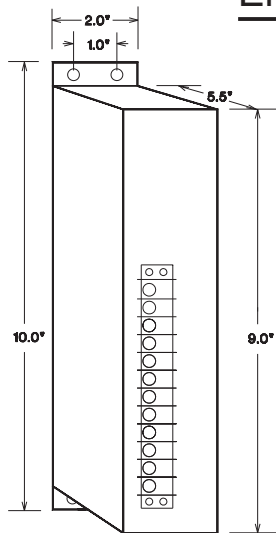
Accuracy/Linearity: +/-0.3% max., +/-0.1% typ.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

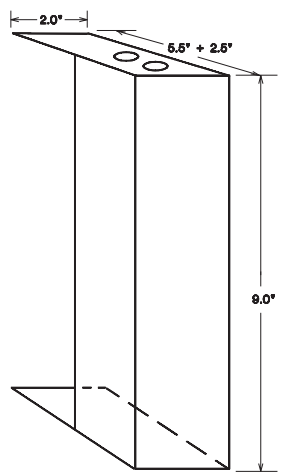
Temperature Effects: +/-0.5% max., 0.2% typ.  
(for 40 Deg.C. change)

# IUC-7X-PWM

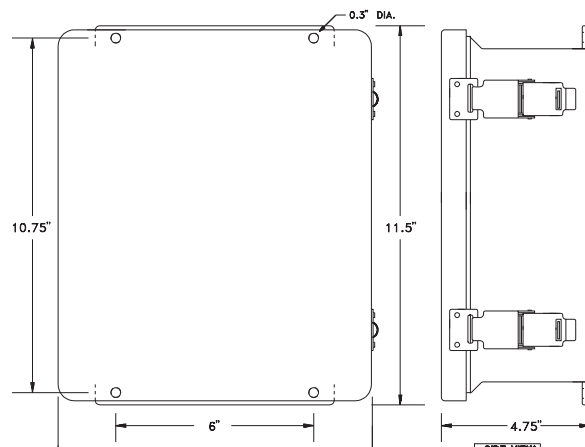
## Enclosures & Dimensions:



Standard Metal Enclosure

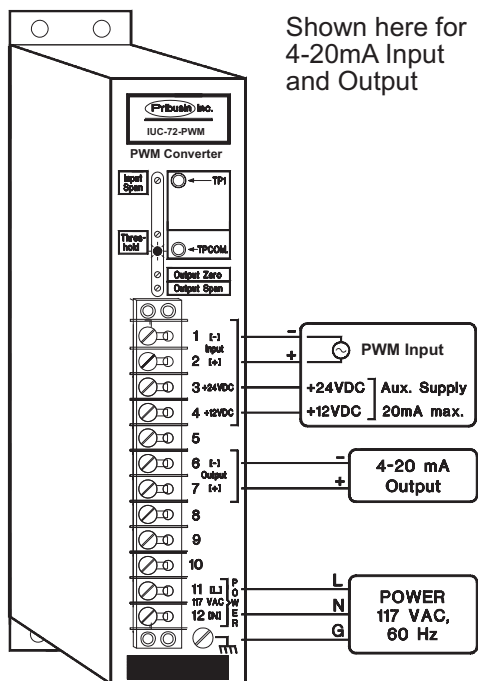


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

IUC-7X-PWM

Output

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A PWM Converter with a 1-5 VDC output in a metal enclosure with 24 VDC power is designated by: IUC-75-PWM-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

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Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: IUC-XX-HLS**

**Isolated High/Low Selector**



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

2 to 4 Inputs can be easily field configured for High or Low Input Selection

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-HLS is a microprocessor controlled High/Low selector. It is easily field configurable to up to 4 inputs. The unit can be set as a High selector in which case the output will read the highest of all active inputs. If set as a Low selector, the output will read the lowest of all active inputs.

This flexibility combined with easy field calibration allows for the fine tuning of a process on site with little effort. All that is required to change the calibration settings is a voltmeter and a small screwdriver.

### Specifications:

Accuracy/Linearity:

+/- 0.3% max., +/- 0.1% typ.

Operating Temperature:

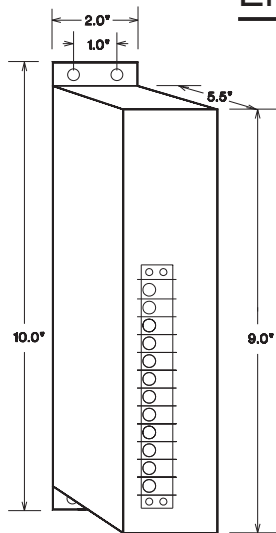
-40 Deg.C. to + 50 Deg.C.

Temperature Effects:

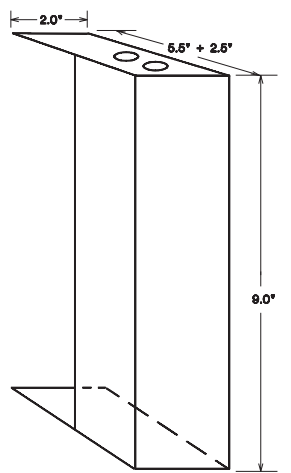
+/- 0.5% max., +/-0.2% typ. (for 40 Deg. change)

# IUC-XX-HLS

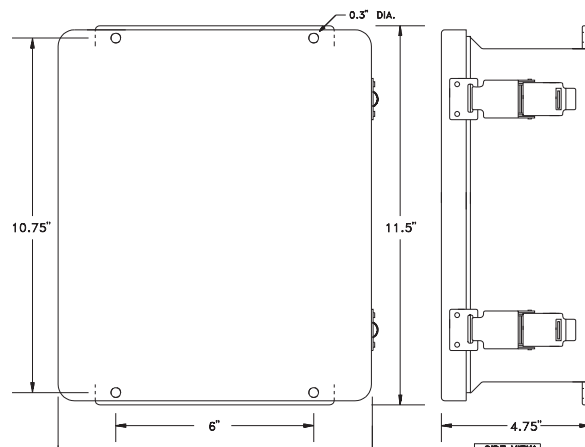
## Enclosures & Dimensions:



Standard Metal Enclosure



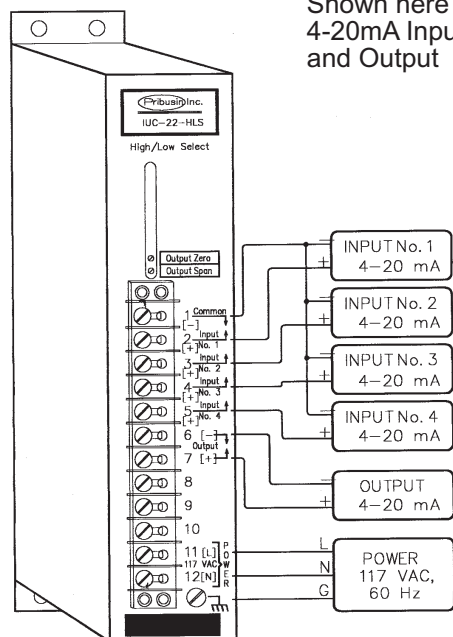
Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:

Shown here for  
4-20mA Input  
and Output



## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

## Model Designation:

IUC - X X - HLS

Input

Output

- 1: 1-5 mA ( $Z_{in}=1K \text{ Ohm}$ )
- 2: 4-20 mA ( $Z_{in}=250 \text{ Ohm}$ )
- 3: 0-1mA ( $Z_{in}=5K \text{ Ohm}$ )
- 4: 10-50 mA ( $Z_{in}=100 \text{ Ohm}$ )
- 5: 1-5 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 6: 0-10 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC ( $Z_{out}=250 \text{ Ohm}$ )
- 6: 0-10 VDC ( $Z_{out}=500 \text{ Ohm}$ )
- 7: Special Output

Example: High/Low selector with 1-5VDC Input & 4-20mA Output and 24VDC Power in a NEMA 4X enclosure is designated by:  
IUC-52-HLS-AN

If no options specified, unit is 117 VAC Power in metal enclosure

Manufactured By:

**Pribusin Inc.**

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Concord, Ontario, L4K 1R9  
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Fx: (905) 660-4068



### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

2 Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Outputs are isolated from Input and Power but NOT from each other

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-XX-DOP is a microprocessor controlled isolator which provides two separate 4-20mA outputs. The 2 outputs are isolated from the Input and from Power but are NOT isolated from each other. Both outputs are capable of driving 1000 Ohms of load each when configured as 4-20mA outputs.

This unit can be used to 'split' a single signal into two separate signals so that in the event that one output signal becomes shorted, through another device or wiring fault, the other output signal remains operational.

Applications include feeding a single control signal to two or more devices (PLC's, Chart Recorders, etc.) And allowing one device to be taken out of the loop without affecting the other one.

### Calibration:

The unit does not require any calibration when shipped from the factory. There are Zero and Span adjustment pots for output adjustment, if required.

### Specifications:

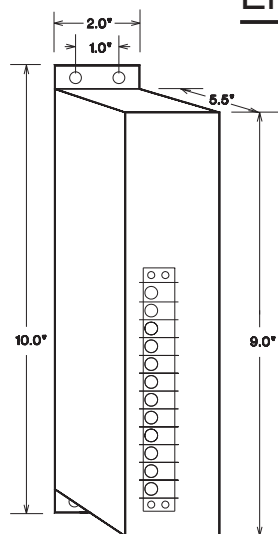
Accuracy/Linearity:  
+/- 0.3% max., +/- 0.1% typ.

Operating Temperature:  
-40 Deg.C. to + 50 Deg.C.

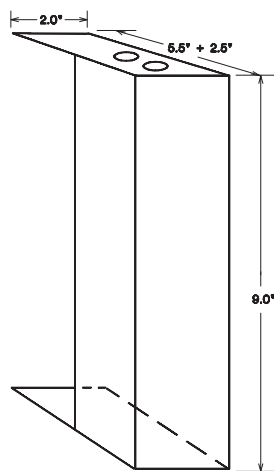
Temperature Effects:  
+/- 0.5% max., +/-0.2% typ. (for 40 Deg. change)

# IUC-XX-DOP

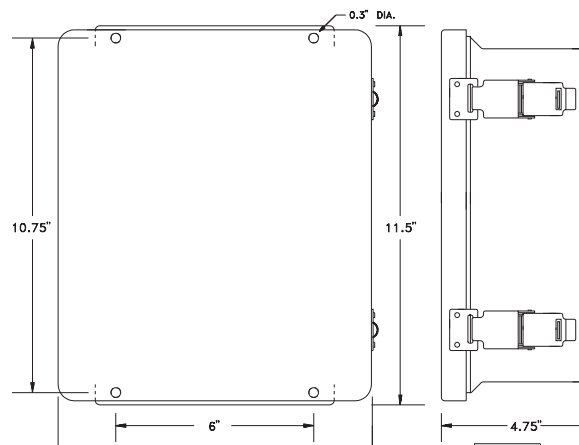
## Enclosures & Dimensions:



Standard Metal Enclosure

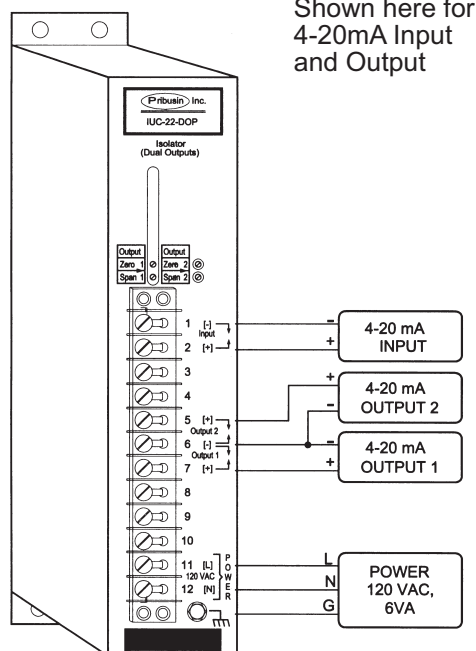


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

## Model Designation:

IUC - X X - DOP

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Isolator with 1-5VDC Input & 4-20mA Output and 24VDC Power in NEMA 4X enclosure is designated by: IUC-52-DOP-AN

If no options specified, unit is 117 VAC Power in metal enclosure

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068





### Standard Features:

High Input-Output-Power Isolation (1500VAC Test)

Inputs Available: 0-5 AAC

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

High Output Drive on Current Outputs

Peak-to-Peak Conversion with 1 KHz Upper Cut-off (Upper Cut-off may be specified as other)

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The IUC-7X-ACI converts a peak-to-peak AC current to a DC signal which can be one of several industry standards (4-20 mA, 1-5VDC, etc). Isolation is between input and output and power so that all three main circuits are isolated from each other.

The Input has an upper cut-off frequency (3 dB point) which is typically at 1 KHz but may be specified for other frequencies.

### Specifications:

Isolation: Input to Output to Power 1500 VAC (test)

AC Measurement: Peak-to-Peak

Cut-off (3dB): 1 KHz, unless otherwise specified

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.

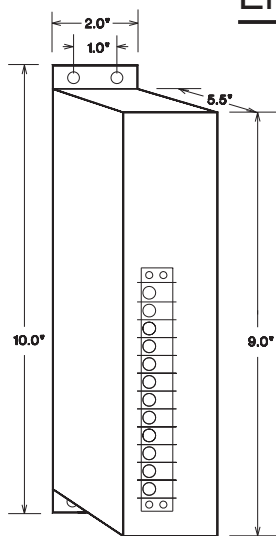
Ripple: 0.6% max.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

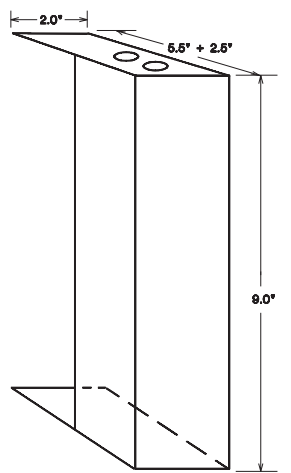
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# IUC-7X-ACI

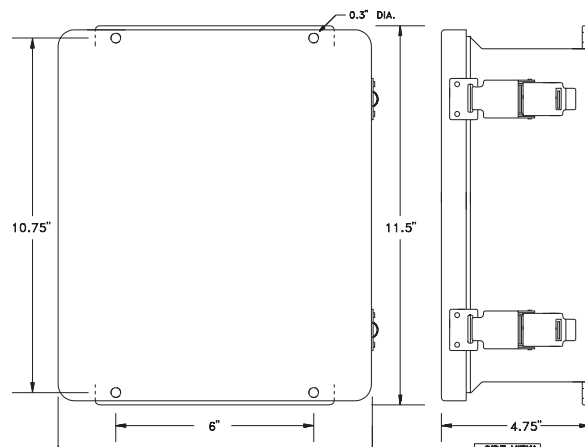
## Enclosures & Dimensions:



Standard Metal Enclosure



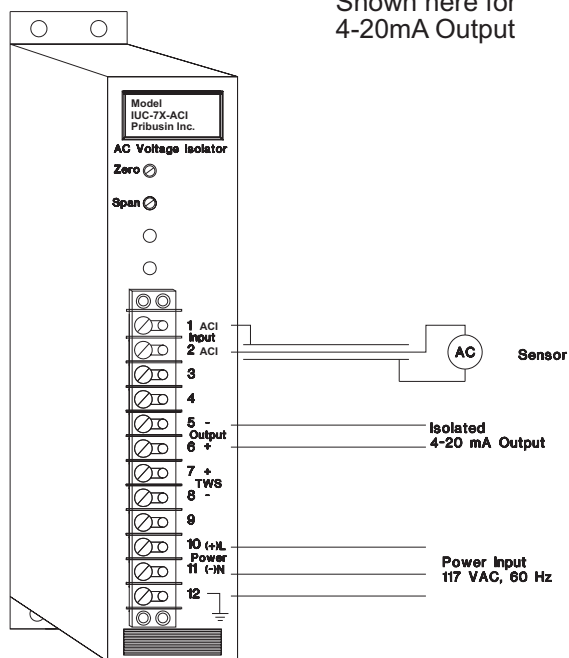
Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:

Shown here for  
4-20mA Output



## Model Designation:

IUC-7X-ACI

Output

- 1: 1-5 mA (4000 Ohm Drive)
- 2: 4-20 mA (1000 Ohm Drive)
- 3: 0-1 mA (20000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Peak-to-Peak converter with up to 0-5 AAC input  
and 4-20 mA Output in standard metal enclosure  
and 117 VAC Power is designated by: IUC-72-ACI

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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Ph: (905) 660-5336  
Fx: (905) 660-4068



Manufacturers of Process  
Controls and Instrumentation

# Model: ITC-XX-XX-DC

## Isolated Terminal Signal Conditioner



No cleaning must be provided

Din-rail mounting (width 22.5 mm.)

Pollution Degree 2

Installation Category II

Do Not Expose To Direct Sunlight

### Standard Features:

High Input-Output-Power Isolation  
(2000 VAC Test for 1 second)

Low Input Impedance on 4-20mA Inputs

Small Size - Fits on Terminal Block Rail

Industry Standard Inputs and Outputs (see back)

High Output Drive (1000 Ohms for 4-20 mA)

Two Wire Supply Option for Two Wire Transmitters

Power: 24 VDC 80 - 160 mA

High Noise Rejection

CSA Certification 2054910



The ITC-XX is a signal isolator that provides high isolation from Input to Output to Power in a small, easy to install package. The universal DIN rail mount often makes it possible to install the ITC-XX right next to the instrument that is to be isolated. The many different input and output configurations allow it to be used in a great variety of applications ranging from PLC front end conditioning.

The high output drive (1000 Ohms @ 4-20 mA) allows the ITC-XX to drive several other instruments directly from its output. The standard two wire supply allows the ITC-XX to be used with two wire field transmitters such as differential pressure transducers and temperature sensors, etc.

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired

### Specifications:

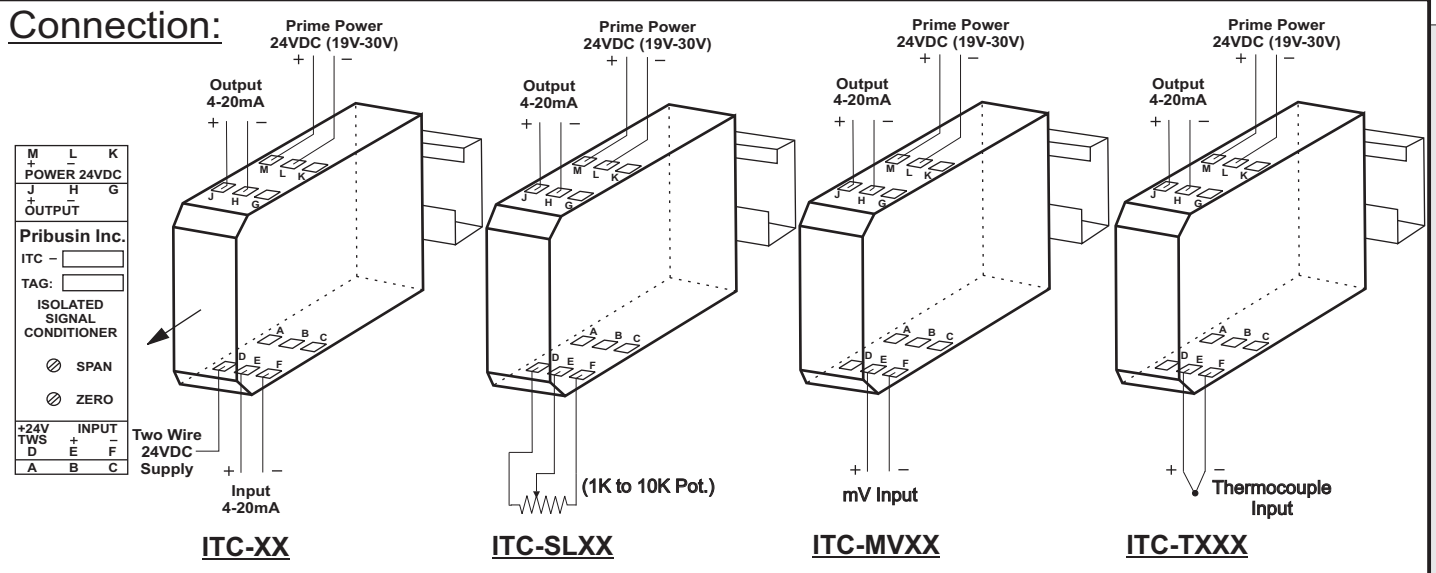
		ITC-XX	ITC-SLXX	ITC-MVXX	ITC-TXXX
Power <sup>1)</sup>	12VDC 24VDC 40VDC	170mA, 330mA max. 80mA, 160mA max. 55mA, 110mA max.	175mA max. 85mA max. 60mA max.	170mA max. 80mA max. 55mA max.	170mA max. 80mA max. 55mA max.
Isolation	High Input to Output to Power (2000 VAC Test for 1 second)				
Input Impedance	see Input table	10 Meg Ohm	10 Meg Ohm	10 Meg Ohm	
Accuracy / Linearity	+/-0.2% max., +/- 0.1% typ.	+/-0.2% max., +/- 0.1% typ.	+/-0.3% max., Drift 1µV/°C	Linear with Material ± 2°C	
Loop Res. D Effect	-0.1% per 100 Ohms change				
Common Mode Rej.	at 60 Hz = 120 dB				
Response Time	50 msec to 63%	75 msec to 63%	100 msec to 63%	100 msec to 63%	
Drift at 25 Deg.C	24 Hours: ± 0.03%, 30 Days: ± 0.1%			24 Hours: ± 0.3%, 30 Days: ± 0.8%	
Operating Temp.	-40 Deg. C. to + 50 Deg. C.				
Environment	Altitude: 0-6562 ft (0-2000 m) Humidity: 0-95% RH non-condensing				

<sup>1)</sup> **CAUTION** To be powered by a class 2 source.

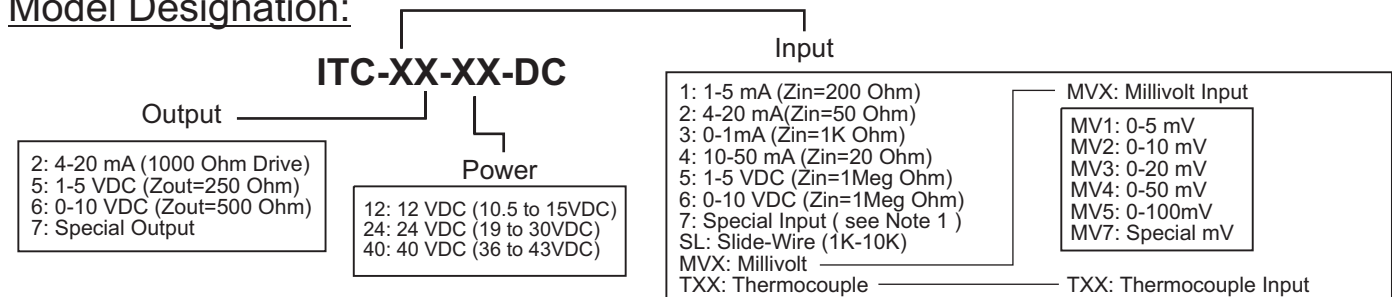
( Maximum Signal Input 30VAC or 60VDC or 5Amps) (Maximum Signal Output 30VDC or 50mA)

# ITC-XX-XX-DC

## Connection:



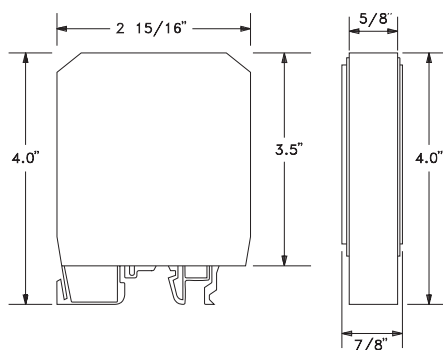
## Model Designation:



### Model Designation Examples:

1. Isolator with 4-20mA input, 4-20mA output, powered by 24VDC is: **ITC-22-24-DC**
2. Isolator with 0-50mV input, 0-10VDC outputs powered by 12VDC is: **ITC-MV46-12-DC**
3. Isolator with type 'K' thermocouple input for 0-750°F and 4-20mA output, powered by 24VDC is: **ITC-TK32-24-DC**

### Dimensions:



Range	Type	J	K	E	T	R	S
0 to 300F -18 to 150C	TJ1			TE1	TT1		
0 to 400F -18 to 204C	TJ2	TK1		TE2	TT2		
0 to 500F -18 to 260C	TJ3	TK2		TE3	TT3		
0 to 750F -18 to 400C	TJ4	TK3		TE4		TR1	TS1
0 to 1000F -18 to 538C	TJ5	TK4				TR2	TS2
0 to 1500F -18 to 816C		TK5				TR3	TS3
0 to 2000F -18 to 1093C			TK6			TR4	TS4
0 to 3200F -18 to 1760C						TR5	TS5
-350 to 1100F -200 to 600C	TJ6			TE5			

( Note 1. Maximum Signal Input 30VAC or 60VDC or 5Amps)

Manufactured By:

**Pribusin Inc.**  
www.pribusin.com  
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Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: ITC-79-FTF**

**Frequency To Frequency Isolator**



### Standard Features:

DIN-Rail Mount (small size)  
High Input-Output-Power Isolation (800VAC Test)  
Wide Input Frequency Range (from 0 Hz to 10 KHz)  
Many Input Types & Ranges (Voltage, Dry Contact)  
3 Standard Outputs (TTL, 24V, Dry Contact)  
Optional Buffer or Divider Function  
Adjustable Response Time for Noise Rejection  
Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)  
Microprocessor Controlled for High Accuracy  
24 VDC Supply for Dry Contact Input  
Power: 24 VDC  
CSA and NRTL Approval Pending

### Function:

The ITC-79-FTF is a Frequency to Frequency Isolator that is easily field configurable to one of many input types such as several voltages or dry contact. Three standard outputs are available (TTL, 24 VDC, and Dry Contact) which can be used individually or simultaneously. Discrete ON and OFF threshold adjustments allow for easy & accurate input signal conditioning. Adjustable response times allow for appropriate signal filtering.

The ITC-79-FTF-BUF is similar to the -FTF but has a microprocessor that can store incoming pulses in a buffer and release them slowly to a slower counting device.

The ITC-79-FTF-DIV is another variation of the -FTF and has the capability to divide the incoming frequency by any number between 1 and 65535.

### Calibration:

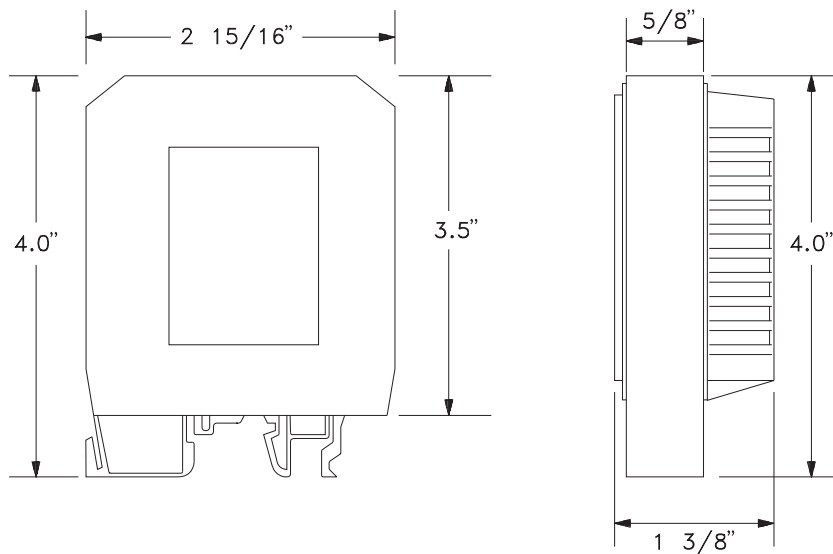
The ITC-79-FTF has individual ON and OFF threshold adjustment using multiturn potentiometers. All potentiometers have a test point where a voltage of -10 to +10 VDC indicates the threshold level as -100% to +100%. This allows for easy field calibration with the instrument running.

### Specifications:

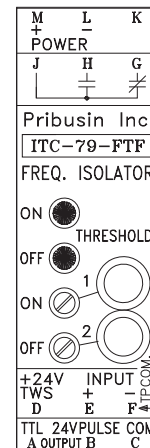
Isolation: Input to Output to Power 800 VAC (test)  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., 0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 0.4A @ 125VAC  
2A @ 30VDC

# ITC-79-FTF

## Dimensions:



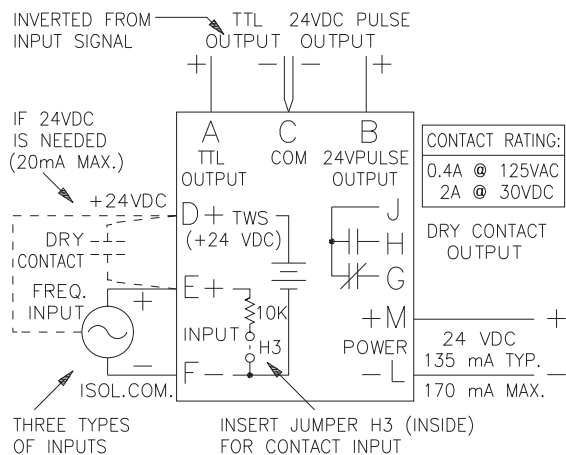
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

### ITC-79-FTF NORMAL CONNECTION



## Available Models:

### ITC-79-FTF: Frequency Isolator

Outputs: TTL, 24VDC, Dry Contact

### ITC-79-FTF-BUF: Frequency Isolator with Buffer

Outputs: TTL, 24VDC, Dry Contact  
Function: Store Pulses & Release Slowly

### ITC-79-FTF-DIV: Frequency Isolator with Divider

Outputs: TTL, 24VDC, Dry Contact  
Function: Divide Input by Division Factor

Manufactured By:

**Pribusin Inc.**

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### CANADA:

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101 Freshway Dr. Unit 57  
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Ph: (905) 660-5336  
Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: ITC-7X-STX**

**Isolated Terminal Strain Gauge Conditioner**



### Standard features:

High Input-Output-Power Isolation (1500VAC Test)  
Adjustable Excitation Voltage (0-10 VDC)  
Strain Gauges from 100 Ohms to 10 KOhms  
Small Size - Fits on Terminal Block Rail  
Industry Standard Inputs and Outputs (see back)  
High Output Drive (1000 Ohms for 4-20 mA)  
Power: 24 VDC, 80 mA  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The ITC-7X-STX provides high isolation from Input to Output to Power in a small, easy to install package. The universal DIN rail mount often makes it possible to install the ITC-7X-STX right next to other instruments that it is to be wired to. The many different input and output configurations allow it to be used in a great variety of Strain Gauge applications ranging from PLC front end conditioning to stand-alone operation of weight scales.

The high output drive (1000 Ohms @ 4-20 mA) allows the ITC-7X-STX to drive several other instruments directly from its output.

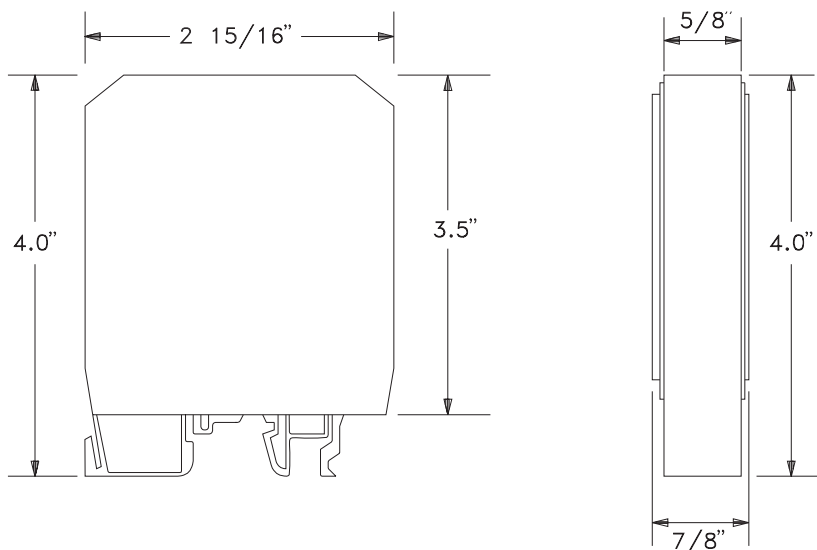
Any standard Strain Gauge that has a minimum resistance of 100 ohms may be used. Standard input ranges are readily available and custom ranges are available upon request.

### Specifications:

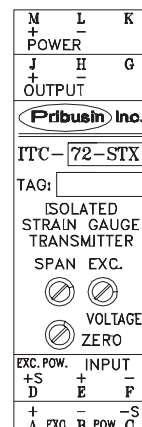
Isolation: 1500 VAC Input to Output to Power (Test)  
Power: 24 VDC (19-29VDC) @ 80 mA  
Excitation Voltage: Adjustable 0-10 VDC  
Accuracy/Linearity: +/- 0.2% max., +/- 0.1% typ.  
Loop Resistance  
Change Effects: -0.03% per 100 Ohms change (4-20 mA only) calibrated at 250 ohms  
Common Mode Rej.: at 60 Hz = 120 dB  
Response Time: 100 msec to 63% of final value  
500 msec to 99% of final value  
Temperature Effects: +/- 0.025% per Deg. C.  
Span Drift: +/- 0.025% per Deg. C.  
Zero Drift: 1 uV per mV offset per Deg. C. OR  
1 uV per Deg. C., whichever is greater  
Drift at 25 Deg. C.: 24 Hours: +/- 0.1%  
30 Days: +/- 0.2%  
Operating Temperature: -40 Deg. C. to + 50 Deg. C.  
Coupling Capacitance: Input-Output-Power = 20 pF

# ITC-7X-STX

## Dimensions:

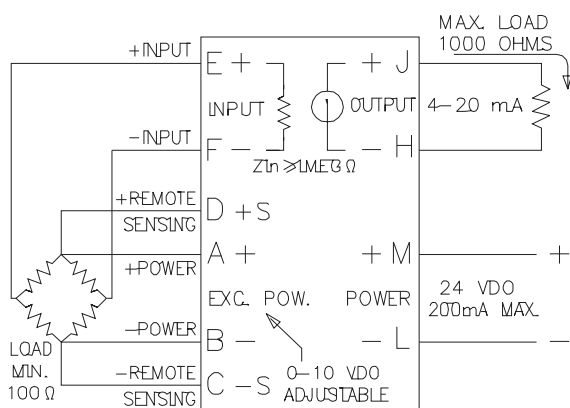


## Calibration:



Calibration is via three multi-turn pots for zero, span and excitation adjustments.

## Connection:



## Model Designation:

ITC-7X-STX

Output

Input

2: 4-20 mA (1000 Ohm Drive)

1: 1 mV/V  
2: 2 mV/V  
3: 3 mV/V  
7: Special Input  
Note: The input mV/V refers to the mV produced by the Strain Gauge at FULL deflection

Example: Strain Gauge conditioner with 1mV/V Input & 4-20mA Output is designated by:  
ITC-72-ST1

Manufactured By:

**Pribusin Inc.**

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### USA:

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Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



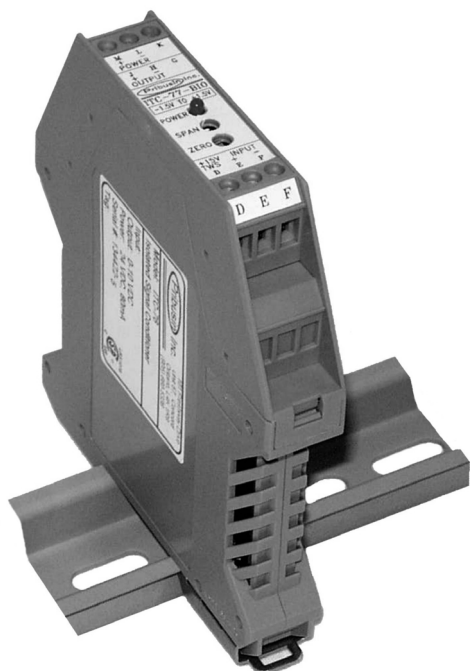
### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



## Model: ITC-XX-BIO

### Isolated Bi-Polar Signal Conditioner With High Surge Withstand Capability



#### Standard features:

High Input-Output-Power Isolation (1500VAC Test)  
Bi-Polar Voltage and mV Input & Output Signal Ranges  
Uni-Polar Current Ranges available also  
Small Size - Fits on Terminal Block Rail  
Industry Standard Inputs and Outputs (see back)  
Power: 24 VDC, 100 mA  
High Noise Rejection  
Complies with IEEE C37.90.1.1989

#### Function:

The ITC-XX-BIO provides high isolation and surge withstand capability from Input to Output to Power in a small, easy to install package. The universal DIN rail mount often makes it possible to install the ITC-XX-BIO right next to the instrument that is to be isolated. The many different input and output configurations allow it to be used in a great variety of applications ranging from PLC front end conditioning to adding an extra loop with lots of drive to an existing, almost fully loaded, loop.

Uni-polar and Bi-polar input and output ranges are available for voltages from as low as +/-100mV to +/-10VDC.

Uni-polar input and output ranges are available for currents from 0 to 20mA

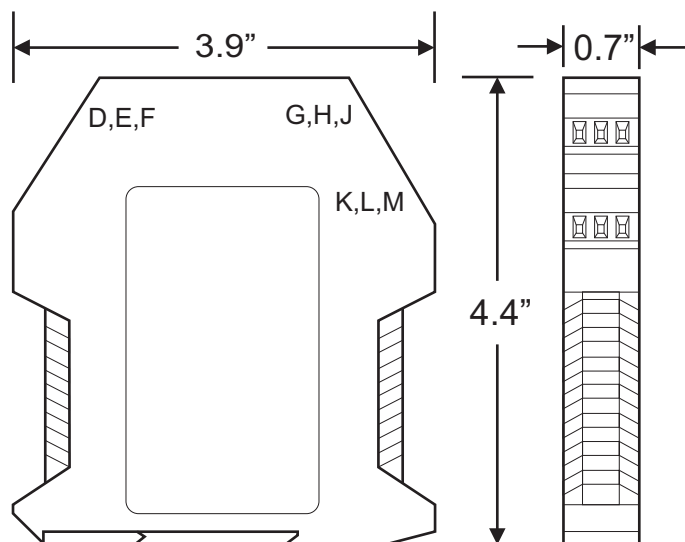
The surge withstand capability (SWC) complies with the IEEE C37.90.1.1989 standard.

#### Specifications:

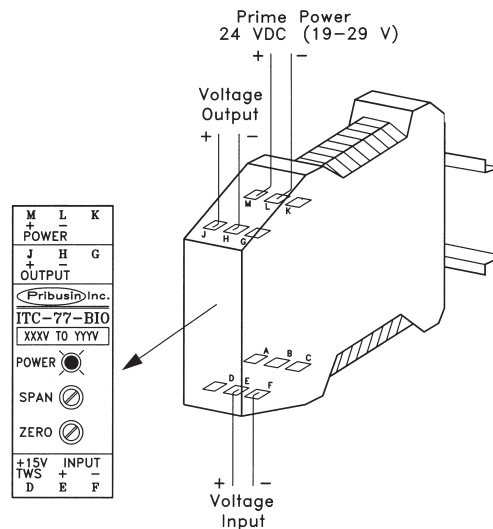
Isolation: 1500 VAC Input to Output to Power (Test)  
SWC: 3KV Peak, 1.5MHz Damped Oscillation @ 60Hz  
Input Impedance (4-20mA only): 50 Ohms  
Power: 24 VDC (19-29VDC) @ 100 mA,  
140mA if Two-Wire Supply is used  
Accuracy/Linearity: +/-0.1% max., +/- 0.05% typ.  
Loop Resistance  
Change Effects: -0.03% per 100 Ohms change  
(4-20 mA only) calibrated at 250 ohms  
Common Mode Rej.: at 60 Hz = 120 dB  
Response Time: 50 msec to 63% of final value  
250 msec to 99% of final value  
Temperature Effects: +/- 0.5% max., +/-0.2% typ.  
(for 40 Deg. C. change)  
Drift at 25 Deg. C.: 24 Hours: +/- 0.03%  
30 Days: +/-0.1%  
Operating Temperature: -40 Deg. C. to + 50 Deg. C.  
Coupling Capacitance: Input-Output-Power <10 pF

# ITC-XX-BIO

## Dimensions:

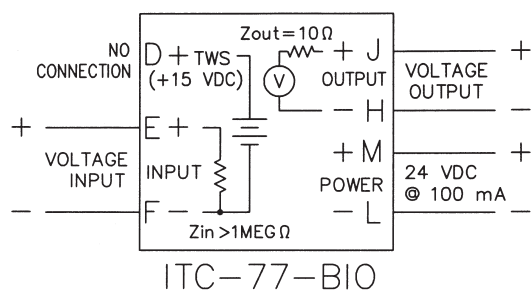


## Connection:



## Connection:

### NORMAL CONNECTION



## Model Designation:

ITC-X X-BIO

### Input

- 1: 1-5 mA (Zin=200 Ohm)
- 2: 4-20 mA (Zin=50 Ohm)
- 3: 0-1mA (Zin=1K Ohm)
- 4: 10-50 mA (Zin=20 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

### Output

- 2: 4-20 mA (600 Ohm Drive)
- 5: 1-5 VDC
- 6: 0-10 VDC
- 7: Special Output

Example: Isolator with 1-5VDC Input & 4-20mA Output is designated by: ITC-52-BIO

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

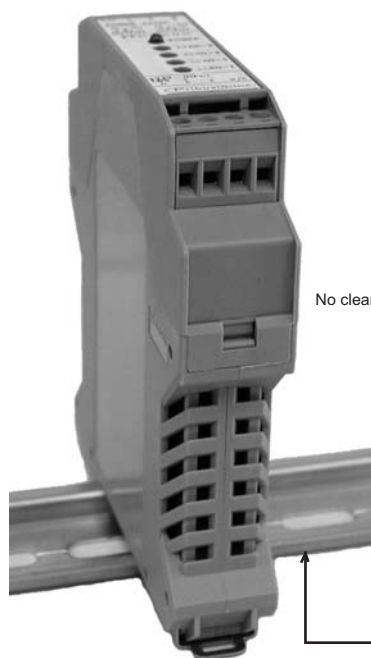
Pribusin Inc.  
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### CANADA:

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 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068

## Isolated Terminal Signal Conditioner



No cleaning must be provided

Din-rail mounting (width 22.5 mm.)

### Standard Features:

High Input-Output-Power Isolation  
(2000 VAC Test for 1 second)

Low Input Impedance on 4-20mA Inputs

Small Size - Fits on Terminal Block Rail

Industry Standard Inputs and Outputs (see back)

High Output Drive (1000 Ohms for 4-20 mA)

Two Wire Supply Option for Two Wire Transmitters

Power: 120 VAC, 50/60 Hz , 80 mA

High Noise Rejection

CSA Certification 2054910



Pollution Degree 2

Installation Category II

Do Not Expose To Direct Sunlight

The ITC-XX is a signal isolator that provides high isolation from Input to Output to Power in a small, easy to install package. The universal DIN rail mount often makes it possible to install the ITC-XX right next to the instrument that is to be isolated. The many different input and output configurations allow it to be used in a great variety of applications ranging from PLC front end conditioning.

The high output drive (1000 Ohms @ 4-20 mA) allows the ITC-XX to drive several other instruments directly from its output. The standard two wire supply allows the ITC-XX to be used with two wire field transmitters such as differential pressure transducers and temperature sensors, etc.

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired

### Specifications:

ifications:

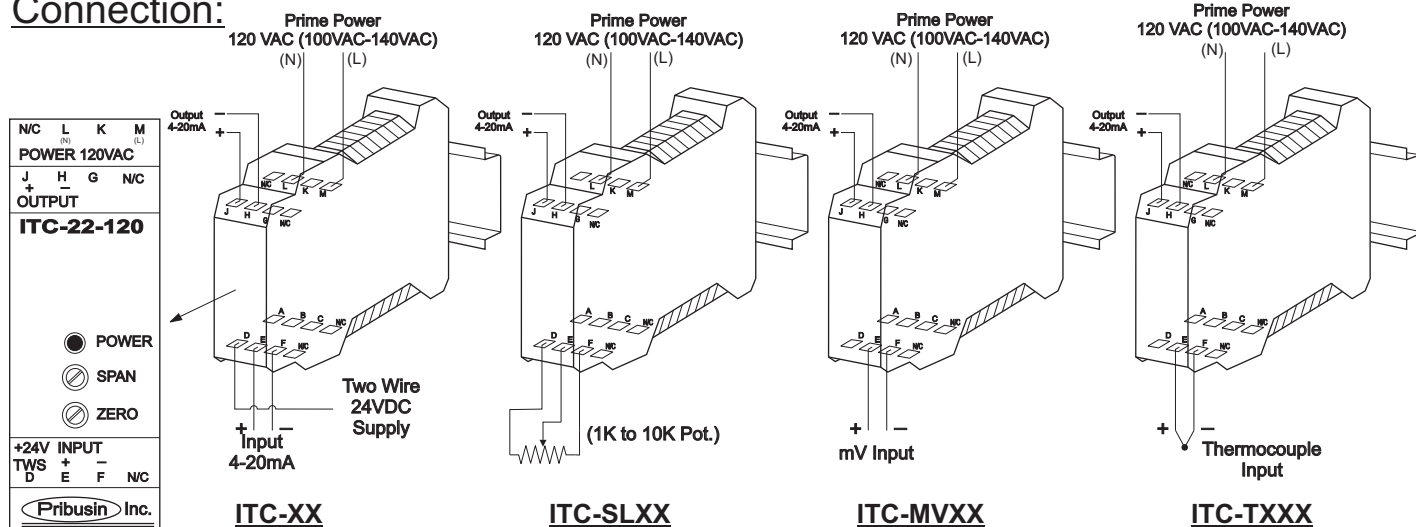
	ITC-XX	ITC-SLXX	ITC-MVXX	ITC-TXXX
Power 120 VAC	80mA	80mA	80mA	80mA
Isolation	High Input to Output to Power (2000 VAC Test for 1 second)			
Input Impedance	see Input table	10 Meg Ohm	10 Meg Ohm	10 Meg Ohm
Accuracy / Linearity	+/-0.2% max., +/- 0.1% typ.	+/-0.2% max., +/- 0.1% typ.	+/-0.3% max., Drift 1µV/°C	Linear with Material ± 2°C
Loop Res. D Effect	-0.1% per 100 Ohms change			
Common Mode Rej.	at 60 Hz = 120 dB			
Response Time	50 msec to 63%	75 msec to 63%	100 msec to 63%	100 msec to 63%
Drift at 25 Deg.C	24 Hours: ± 0.03%, 30 Days: ± 0.1%		24 Hours: ± 0.3%, 30 Days: ± 0.8%	
Operating Temp.	-40 Deg. C. to + 50 Deg. C.			
Environment	Altitude: 0-6562 ft (0-2000 m) Humidity: 0-95% RH non-condensing			

( Maximum Signal Input 30VAC or 60VDC or 5Amps )

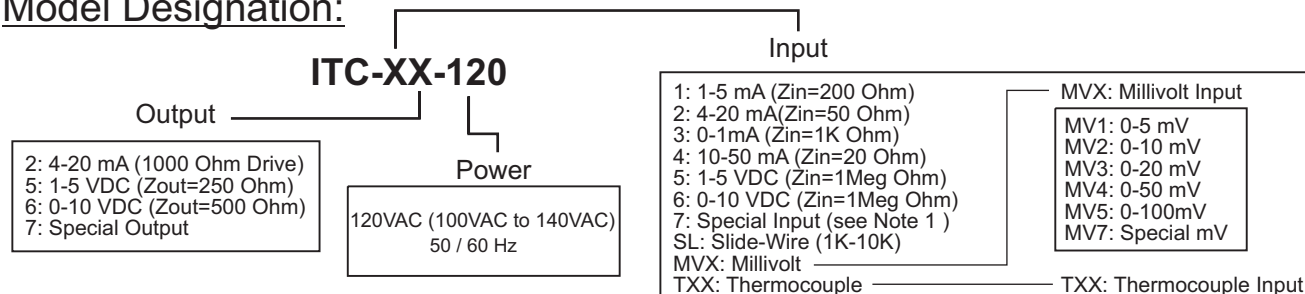
(Maximum Signal Output 30VDC or 50mA)

# ITC-XX-120

## Connection:



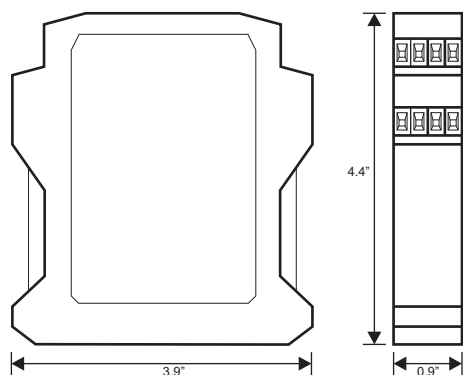
## Model Designation:



### Model Designation Examples:

1. Isolator with 4-20mA input, 4-20mA output, powered by 120VAC is: **ITC-22-120**
2. Isolator with 0-50mV input, 0-10VDC outputs powered by 120VAC is: **ITC-MV46-120**
3. Isolator with type 'K' thermocouple input for 0-750°F and 4-20mA output, powered by 120VAC is: **ITC-TK32-120**

### Dimensions:



Range	Type	J	K	E	T	R	S
0 to 300F -18 to 150C	TJ1			TE1	TT1		
0 to 400F -18 to 204C	TJ2	TK1		TE2	TT2		
0 to 500F -18 to 260C	TJ3	TK2		TE3	TT3		
0 to 750F -18 to 400C	TJ4	TK3		TE4		TR1	TS1
0 to 1000F -18 to 538C	TJ5	TK4				TR2	TS2
0 to 1500F -18 to 816C		TK5				TR3	TS3
0 to 2000F -18 to 1093C		TK6				TR4	TS4
0 to 3200F -18 to 1760C						TR5	TS5
-350 to 1100F -200 to 600C	TJ6			TE5			

( Note 1. Maximum Signal Input 30VAC or 60VDC or 5Amps )

Manufactured By:

**Pribusin Inc.**

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 Fx: (231) 788-2929



### CANADA:

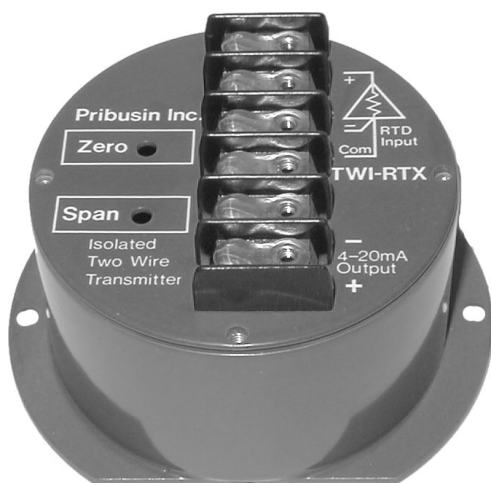
Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
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 Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-22**

**Loop Powered Isolator**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits Standard Explosion Proof Housing  
Industry Standard 4-20 mA Output  
Industry Standard 4-20 mA Input  
Requires No Additional Power Supply  
Drives up to 275 Ohms  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWI-22 is a loop powered isolator in a small, easy to install package. It has easily accessible screw terminals and is built in a rugged housing that fits into standard explosion proof housings. It is ideal for applications where loop isolation is required but power is not available or space is confined.

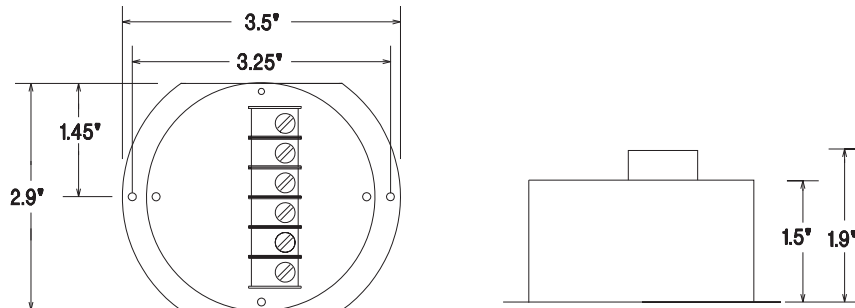
The output signal is generated from the incoming 4-20 mA signal which is isolated via a transformer. If the output is being driven into a 250 ohm impedance, the input to the isolator appears to be a 500 ohm impedance.

### Specifications:

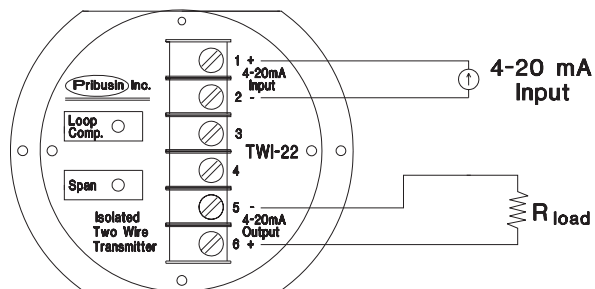
Input: 4-20 mA  
Output: 4-20 mA (max. 275 Ohm load)  
Isolation: 800 VAC Test  
Accuracy/Linearity:  $\pm 0.25\%$  max.,  $\pm 0.1\%$  typ  
Response Time: 10 msec to 63% of final value  
40 msec to 99% of final value  
Temperature Effects:  $\pm 0.025\%$  per Deg.C.  
Span Drift:  $\pm 0.025\%$  per Deg.C.  
Load Effects:  $\pm 0.2\%$  per 10 Ohm loop resistance change  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWI-22

## Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-MVX**

**Two Wire Isolated Millivolt Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits Standard Explosion Proof Housing  
Industry Standard 4-20 mA Output  
Standard Millivolt Ranges  
Special Ranges Available  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

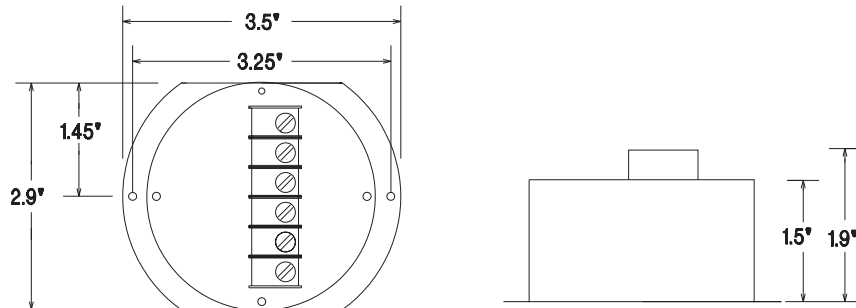
The TWI-MVX is an isolated two wire millivolt transmitter that comes in a small, explosion proof housing compatible package. It has easily accessible screw terminals and is built in a rugged housing. The many different millivolt ranges allow it to be used in a great variety of applications such as current measurement through a shunt, PLC front end conditioning, etc.

### Specifications:

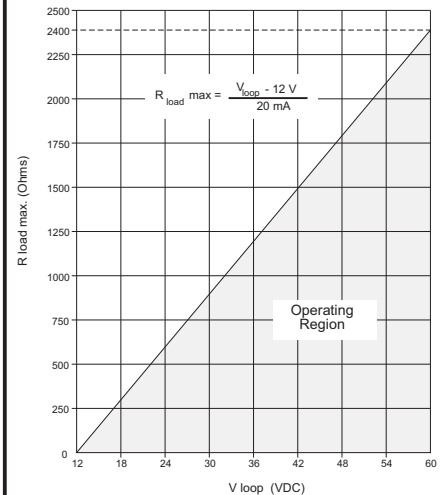
Isolation: 800 VAC (Test)  
Operating Power: 12 to 60 VDC  
Accuracy/Linearity:  $\pm 0.2\%$  max.,  $\pm 0.1\%$  typ.  
(Linear with Temperature for most Ranges)  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects:  $\pm 0.025\%$  per Deg.C.  
Span Drift:  $\pm 0.025\%$  per Deg.C.  
Zero Drift: 1  $\mu$ V per mV offset per Deg.C. OR  
1  $\mu$ V per Deg.C., whichever is greater  
Drift at 25 Deg. C.: 24 Hours:  $\pm 0.1\%$   
30 Days:  $\pm 0.2\%$   
Operating Temperature: -20 Deg. C. to + 50 Deg. C.  
Input Impedance: 1 Meg Ohm min.

# TWI-MVX

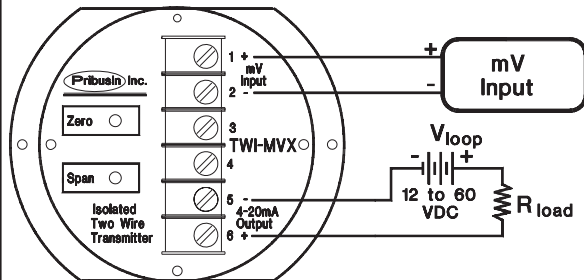
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWI-MVX  
Input

- 1: 0-5 mV
- 2: 0-10 mV
- 3: 0-20 mV
- 4: 0-50 mV
- 5: 0-100mV
- 7: Special Input

Example: Millivolt conditioner with 0-50mV Input & 4-20mA Output is designated by:  
TWI-MV4

Manufactured By:

**Pribusin Inc.**

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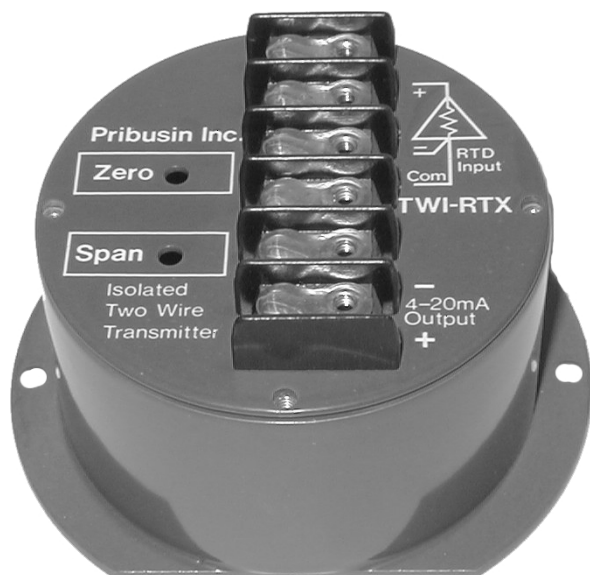


**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-RTX**

**Two Wire Isolated RTD Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits Standard Explosion Proof Housing  
Industry Standard 4-20 mA Output  
Standard Ranges for 100 Ohm Platinum  
Special Ranges and other RTD Types Available  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWI-RTX is an isolated two wire RTD transmitter in a small, easy to install package. It has easily accessible screw terminals and is built in a rugged housing. The many different temperature ranges allow it to be used in a great variety of temperature measurement applications.

Temperature Conversion Equations:

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$$

$$^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$$

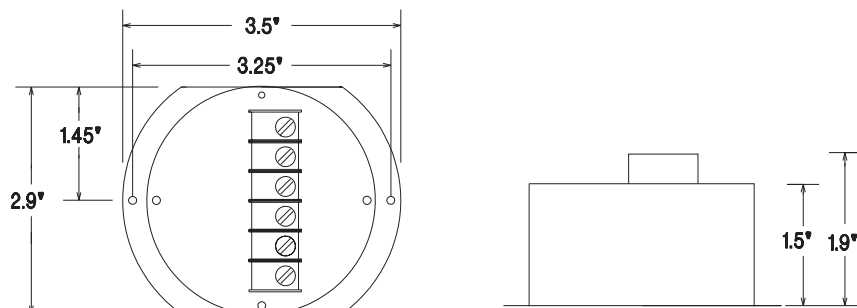
$$\text{Kelvin} = ^{\circ}\text{C} + 273.15 \quad \text{Rankin} = ^{\circ}\text{F} + 459.67$$

### Specifications:

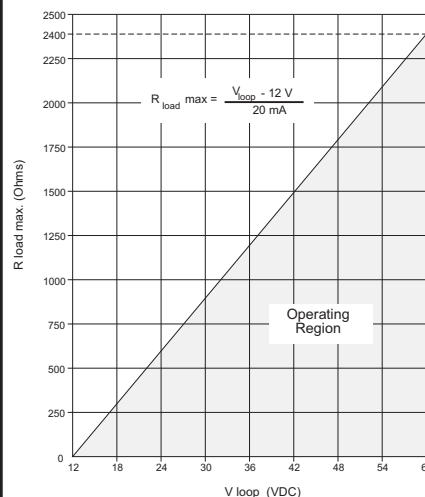
Output: 4-20 mA  
Isolation: 800 VAC Test  
Operating Power: 12 to 60 VDC  
RTD Type: Platinum, 100 Ohms at 0 Deg.C.,  
0.0385 Alpha  
Accuracy/Linearity: +/-0.25% max., +/- 0.1% typ  
(Linearized to RTD Curve).  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects: +/- 0.025% per Deg.C.  
Span Drift: +/-0.025% per Deg.C.  
Zero Drift: 1 milliohm per 1 ohm offset per Deg.C. or  
1 milliohm per Deg.C. whichever is larger  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWI-RTX

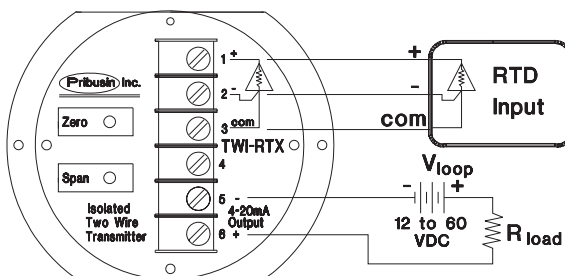
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWI-RTX  
Temperature Range

- 1: 0 to 300F (-18 to 150C)
- 2: 0 to 400F (-18 to 205C)
- 3: 0 to 500F (-18 to 260C)
- 4: 0 to 750F (-18 to 400C)
- 5: 0 to 1000F (-18 to 538C)
- 6: -350 to 1100F (-200 to 600C)
- 7: Special (must specify on order)

Example: Isolated RTD Transmitter for 100 Ohm Platinum RTD for 0-500 Deg.F. is designated by: TWI-RT3

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-TXX**

**Two Wire Isolated Thermocouple Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits in Standard Explosion Proof Housing  
Industry Standard 4-20 mA Output  
Standard Ranges for Type J,K,E,T,S,R  
Special Ranges and other Types available  
Cold Junction Compensated  
Standard Upscale Protection on all Units  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWI-TXX is an isolated two wire thermocouple transmitter that comes in a small, explosion proof housing compatible package. It has easily accessible screw terminals and is built into a rugged housing.. The many different Thermocouple types and ranges allow it to be used in a great variety of temperature measurement applications.

Upscale protection is standard on all units unless downscale protection is specified.

Temperature Conversion Equations:

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$$

$$^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$$

$$\text{Kelvin} = ^{\circ}\text{C} + 273.15$$

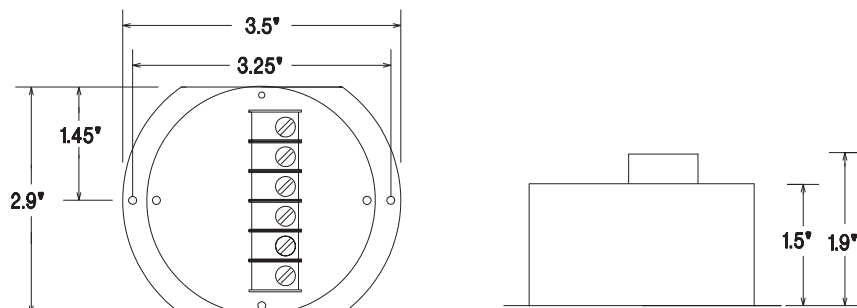
$$\text{Rankin} = ^{\circ}\text{F} + 459.67$$

### Specifications:

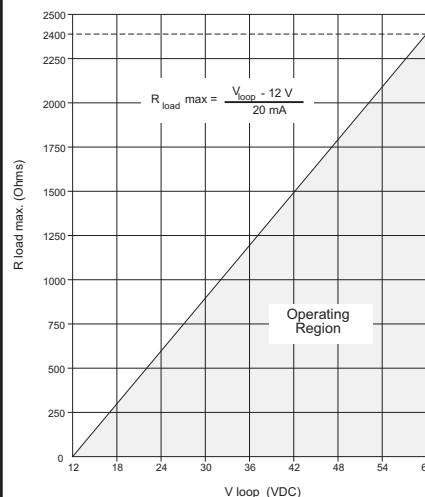
Isolation: 800 VAC (Test)  
Operating Power: 12 to 60 VDC  
Accuracy/Linearity: +/- 0.2% max., +/- 0.1% typ.  
(Linear with Temperature for most Ranges)  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
T/C Compensation: Cold Junction Compensation  
Temperature Effects: +/- 0.025% per Deg.C.  
Span Drift: +/- 0.025% per Deg.C.  
Zero Drift: 1 uV per mV offset per Deg.C. OR  
1 uV per Deg.C., whichever is greater  
Drift at 25 Deg. C.: 24 Hours: +/- 0.1%  
30 Days: +/- 0.2%  
Operating Temperature: -20 Deg. C. to + 50 Deg. C.  
Input Impedance: 1 Meg Ohm min.

# TWI-TXX

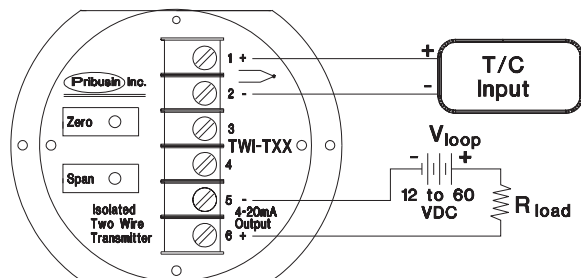
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWI-TXX

Example: An isolated thermocouple transmitter for a type 'K' thermocouple for 0-500F is designated by: TWI-TK2

Range	J	K	E	T	R	S
0 to 300F -18 to 150C	TJ1		TE1	TT1		
0 to 400F -18 to 204C	TJ2	TK1	TE2	TT2		
0 to 500F -18 to 260C	TJ3	TK2	TE3	TT3		
0 to 750F -18 to 400C	TJ4	TK3	TE4		TR1	TS1
0 to 1000F -18 to 538C	TJ5	TK4			TR2	TS2
0 to 1500F -18 to 816C		TK5			TR3	TS3
0 to 2000F -18 to 1093C		TK6			TR4	TS4
0 to 3200F -18 to 1760C					TR5	TS5
-350 to 1100F	TJ6	TK7	TE5			

Note: \* not linearized with temperature - linear with material only

Manufactured By:

**Pribusin Inc.**

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743 Marquette Ave.  
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### CANADA:

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-PH1**

**Two Wire Isolated pH Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits Standard Explosion Proof Housing  
Industry Standard 4-20 mA Output  
Input Impedance  $> 10^{12}$  Ohms  
Temperature Compensated by Thermistor  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWI-PH1 is an isolated two wire pH transmitter in a small, easy to install package. It has easily accessible screw terminals and is built in a rugged housing. A standard BNC connector allows direct plug-in of the pH probe.

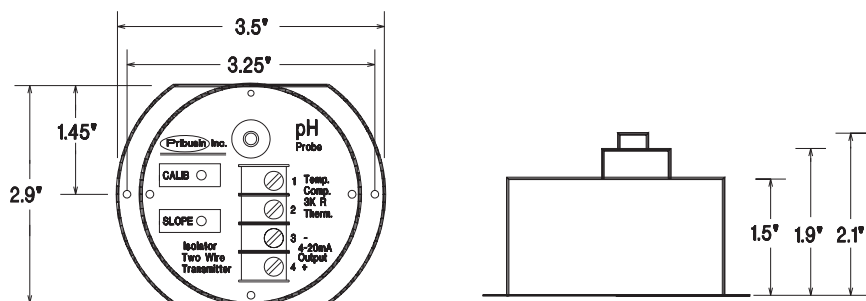
The TWI-PH1 consists of a pH signal conditioner complete with temperature compensation and an isolator. The temperature compensation is accomplished by means of a 3 KOhm thermistor. The isolated output prevents interaction between output signals if more than one pH transmitter is used in a system.

### Specifications:

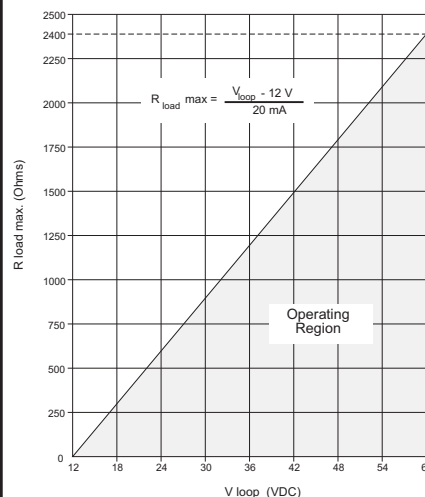
Range: 0-14 pH  
Output: 4-20 mA  
Isolation: 800 VAC Test  
Operating Power: 12 to 60 VDC  
Accuracy:  $\pm 0.01$  pH  
Temperature Compensation: 3 K Ohm thermistor  
(in pH probe)  
Connector: BNC (for pH probe)  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWI-PH1

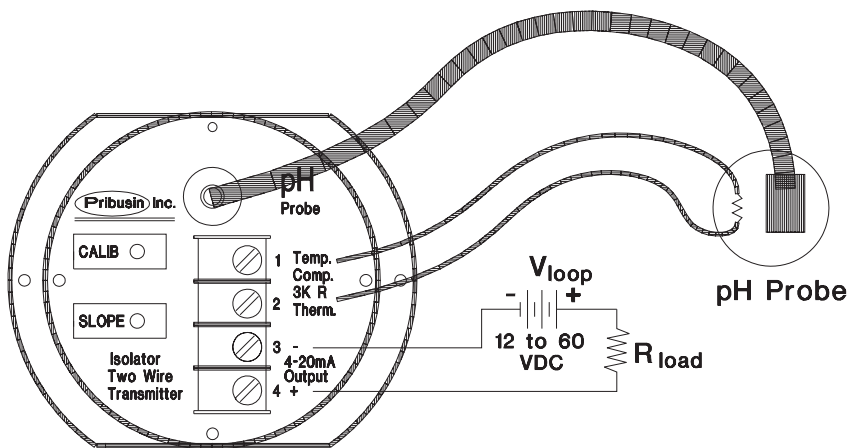
## Dimensions:



## Loop Characteristics:



## Connection:



Manufactured By:

**Pribusin Inc.**

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### CANADA:

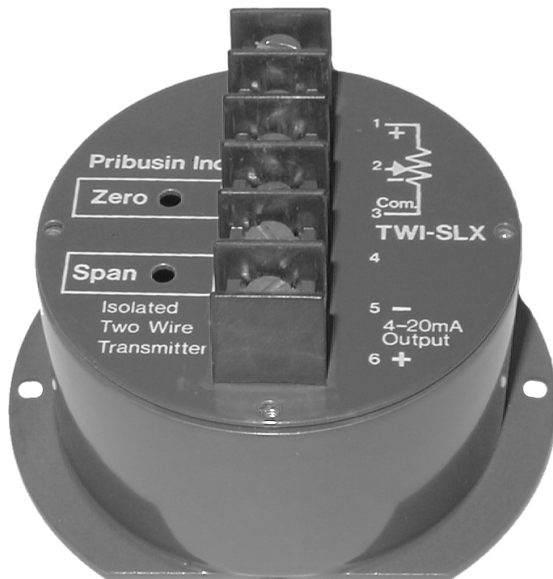
Pribusin Inc.  
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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-SLX**

**Two Wire Isolated Slidewire Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits Standard Explosion Proof Housing  
Industry Standard 4-20 mA Output  
Standard Ranges for Common Slidewires  
Special Ranges Available  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

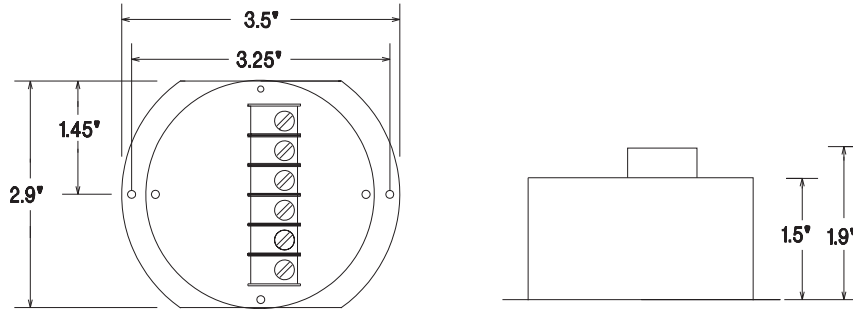
The TWI-SLX is an isolated two wire Slidewire transmitter in a small, easy to install package. It has easily accessible screw terminals and is built in a rugged housing. The many different input ranges allow it to be used in a great variety of position and/or deflection measurement applications.

### Specifications:

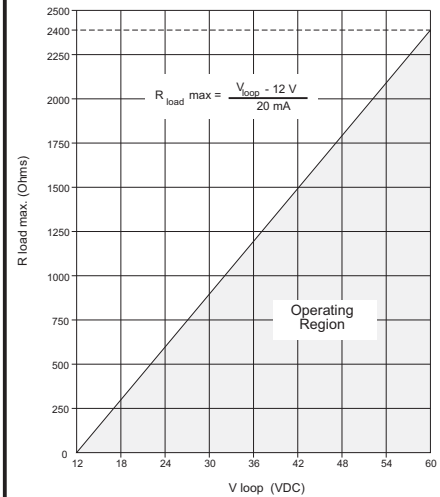
Output: 4-20 mA  
Isolation: 800 VAC Test  
Operating Power: 12 to 60 VDC  
Accuracy/Linearity:  $\pm 0.25\%$  max.,  $\pm 0.1\%$  typ  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects:  $\pm 0.025\%$  per Deg.C.  
Span Drift:  $\pm 0.025\%$  per Deg.C.  
Zero Drift: 1 milliohm per 1 ohm offset per Deg.C. or  
1 milliohm per Deg.C. whichever is larger  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWI-SLX

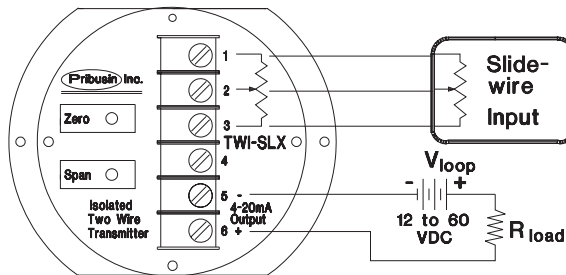
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWI-SLX  
Slidewire Range

- 1: 0 to 100 Ohms
- 2: 0 to 500 Ohms
- 3: 0 to 1K Ohms
- 4: 0 to 2K Ohms
- 5: 0 to 5K Ohms
- 6: 0 to 10K Ohms
- 7: Special (must specify on order)

Example: Isolated Slidewire Transmitter for 1K  
Slidewire is designated by: TWI-SL3

Manufactured By:

**Pribusin Inc.**

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Ph: (905) 660-5336  
Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

## Model: TWI-ORP

### Two Wire Isolated ORP Transmitter



#### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits Standard Explosion Proof Housing  
Industry Standard 4-20 mA Output  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

#### Function:

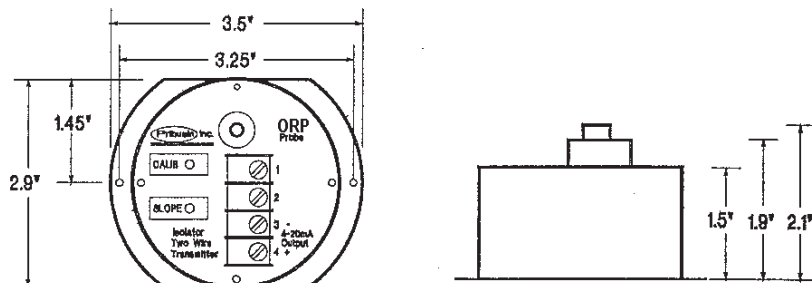
The TWI-ORP is an isolated two wire ORP transmitter in a small, easy to install package. It has easily accessible screw terminals and is built in a rugged housing. A standard BNC connector allows direct plug-in of the ORP probe.

#### Specifications:

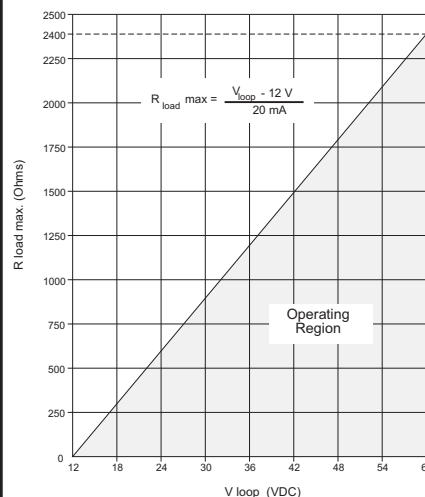
Output: 4-20 mA  
Isolation: 800 VAC Test  
Operating Power: 12 to 60 VDC  
Accuracy: +/- 0.2%  
Connector: BNC (for ORP probe)  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWI-ORP

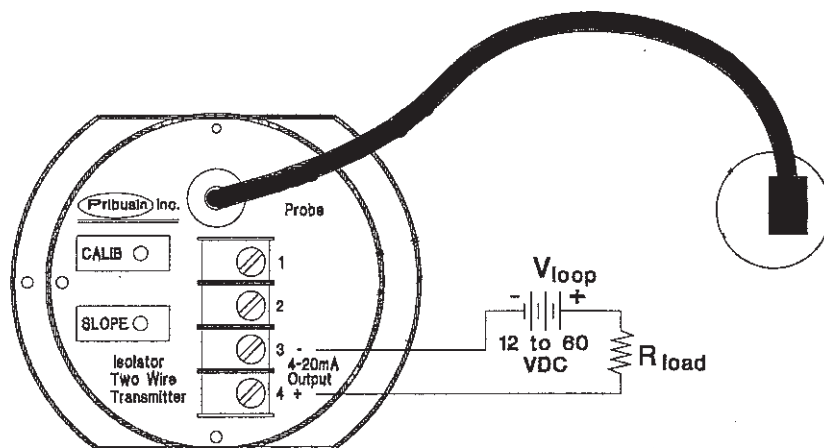
## Dimensions:



## Loop Characteristics:



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
 743 Marquette Ave.  
 Muskegon, MI 49442  
 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



Manufacturers of Process  
Controls and Instrumentation

# Model: TWI-22-TB (1992)

## Loop Powered Isolator



### Standard features:

- High Input-Output-Power Isolation (1500VAC Test)
- Small Size - Fits on Terminal Block Rail
- Industry Standard 4-20 mA Input and Output
- Powered From Input Loop
- Requires No Calibration
- Very Efficient (only 1.5V Loop Loss)
- High Output Drive (up to 700 Ohms)
- High Noise Rejection
- CSA and NRTL Approved (LR 51078)

### Function:

The TWI-22-TB (1992) is a loop powered current isolator which can be used in applications where loop isolation is required but power is not available and/or space is limited. The isolation is achieved via an isolation transformer. Every isolator is tested at 1500 VAC to ensure that the dielectric strength is sufficient.

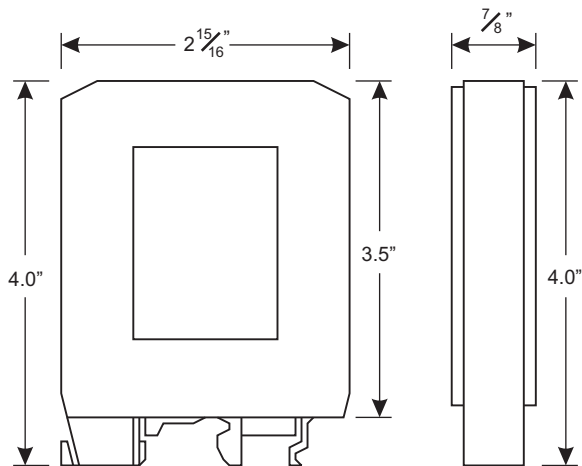
The output is capable of driving a load of 700 Ohms while only an additional 1.5 Volts are dropped across the input. For example, an output loop load of 250 Ohms would result in a total input impedance of:  $R(\text{load}) + R(\text{isolator})$ , where  $R(\text{isolator}) = 75 \text{ Ohms}$

### Specifications:

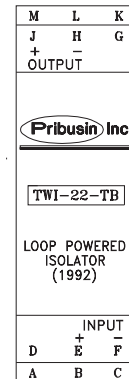
- Isolation: 1500 VAC Input-Output-Chassis (Test)
- Loop Loss: 1.5 VDC
- Input: 4-20 mA
- Output: 4-20 mA
- Accuracy/Linearity:  $\pm 0.1\%$  max.,  $\pm 0.05\%$  typ.
- Response Time: 10 msec to 63% of final value  
40 msec to 99% of final value
- Temperature Effects:  $\pm 0.5\%$  max.,  $\pm 0.2\%$  typ.  
for 40 Deg.C. change
- Drift at 25 Deg.C.:
  - 24 Hours  $\pm 0.05\%$  max.,  $\pm 0.03\%$  typ.
  - 30 Days  $\pm 0.1\%$  max.,  $\pm 0.05\%$  typ.
- Operating Temperature: -40 Deg. C. to + 50 Deg. C.

# TWI-22-TB (1992)

## Dimensions:

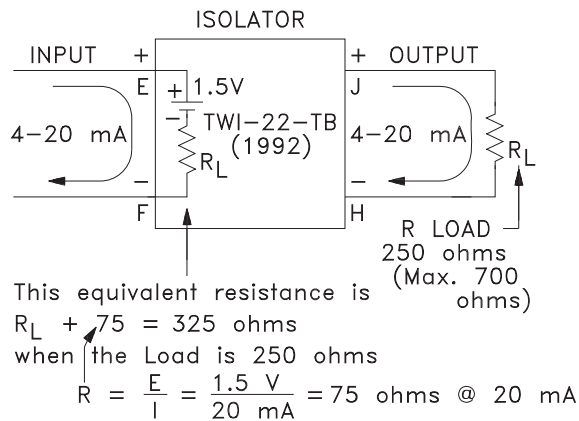


## Connection:

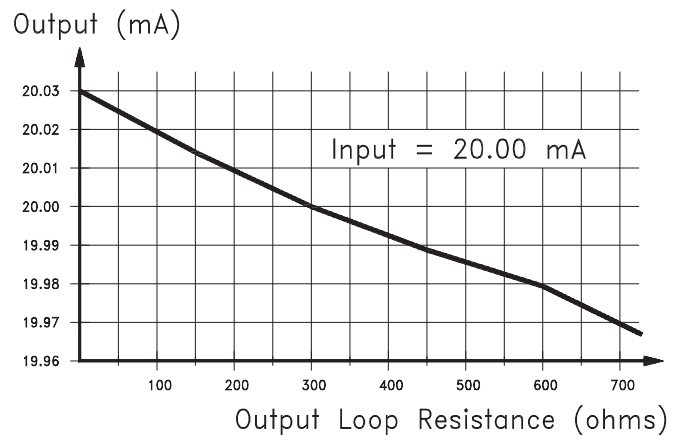


No Calibration is required on the TWI-22-TB (1992)

## Connection:



## Loop Resistance Effects:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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 Muskegon, MI 49442  
 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

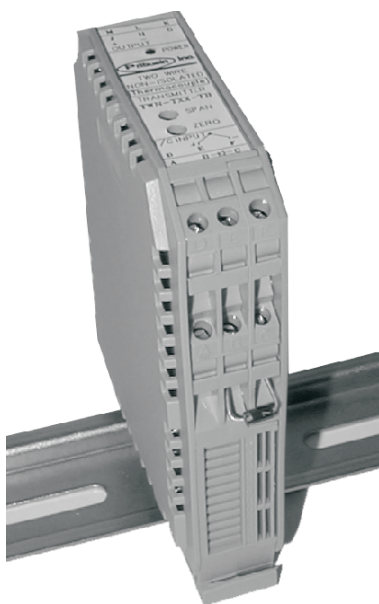
Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-25-TB (1992)**

## Loop Powered Isolator



### Standard features:

- High Input-Output-Power Isolation (1500VAC Test)
- Small Size - Fits on Terminal Block Rail
- Industry Standard 4-20 mA Input
- Industry Standard 1-5 VDC Output
- Powered From Input Loop
- Requires No Calibration
- Very Efficient (only 1.5V Input Loop Loss)
- High Noise Rejection
- CSA and NRTL Approved (LR 51078)

### Function:

The TWI-25-TB (1992) is a loop powered isolator which can be used in applications where loop isolation is required but power is not available and/or space is limited. The isolation is achieved via an isolation transformer. Every isolator is tested at 1500 VAC to ensure that the dielectric strength is sufficient.

The output impedance is 250 ohms and the output should be connected to a high impedance input to minimize loading effects.

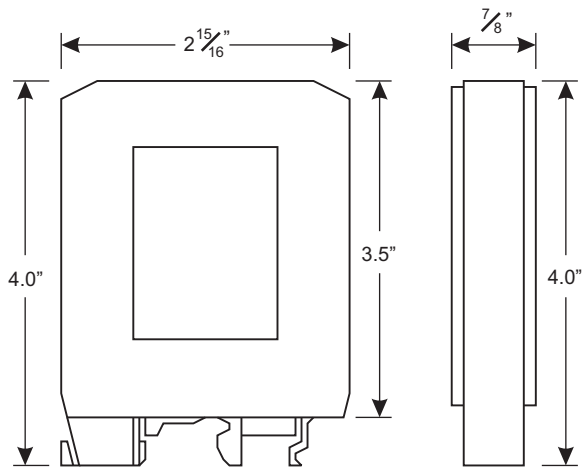
The total input loop load is 325 ohms.

### Specifications:

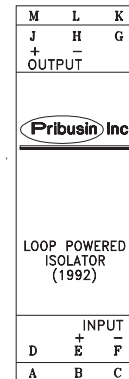
- Isolation: 1500 VAC Input-Output-Chassis (Test)
- Loop Loss: 1.5 VDC
- Input: 4-20 mA
- Output: 1-5 VDC
- Accuracy/Linearity:  $\pm 0.1\%$  max.,  $\pm 0.05\%$  typ.
- Response Time: 10 msec to 63% of final value  
40 msec to 99% of final value
- Temperature Effects:  $\pm 0.5\%$  max.,  $\pm 0.2\%$  typ.  
for 40 Deg.C. change
- Drift at 25 Deg.C.:
  - 24 Hours  $\pm 0.05\%$  max.,  $\pm 0.03\%$  typ.
  - 30 Days  $\pm 0.1\%$  max.,  $\pm 0.05\%$  typ.
- Operating Temperature: -40 Deg. C. to + 50 Deg. C.

# TWI-25-TB (1992)

## Dimensions:

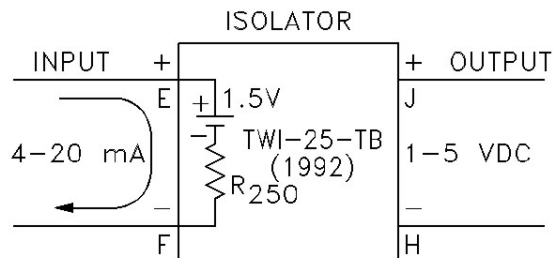


## Connection:



No Calibration is required on the  
TWI-25-TB (1992)

## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

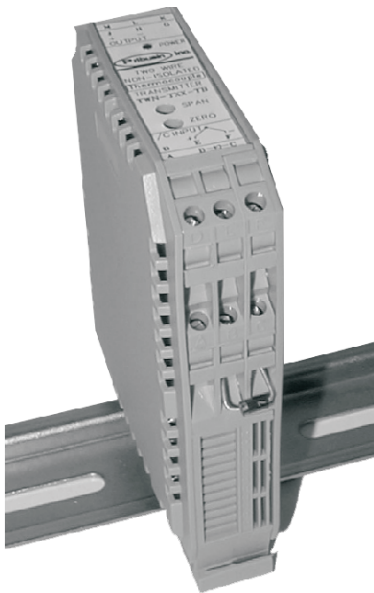
Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

# Model: TWI-FRX-TB

## Two Wire Isolated Frequency Transmitter



### Standard features:

- High Input-Output-Power Isolation (800VAC Test)
- Small Size - Fits on Terminal Block Rail
- Industry Standard 4-20 mA Output (2- or 3-Wire Connection)
- Three Input Types Available (0-100VAC, TTL, Optical Coupler)
- Adjustable Input Threshold
- Wide Operating Range (8 to 60 VDC)
- High Noise Rejection
- CSA and NRTL Approved (LR 51078)

### Function:

The TWI-FRX-TB is an isolated two wire frequency transmitter that provides high isolation from the frequency input to the 4-20 mA output. The small package and its DIN rail mount make it easy for the TWI-FRX-TB to be incorporated into larger control panels. There it may have applications such PLC front end conditioning. etc.

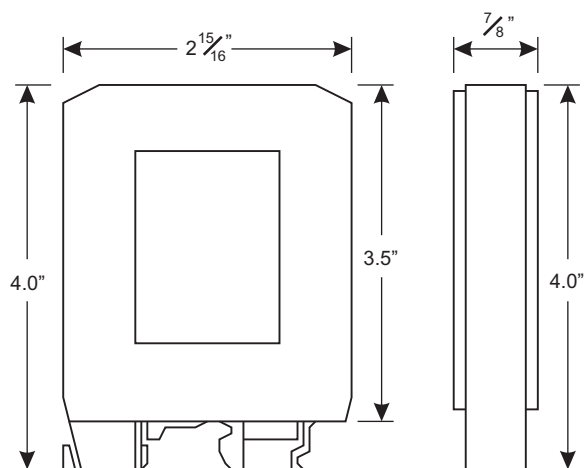
Seven standard frequency input ranges are available to choose from that cover frequencies as low as 70 Hz up to 8KHz. The Input can be either 0-100 VAC, 0-5VDC (TTL), or an optical coupler input. An adjustable threshold allows a lower threshold to be set for background noise immunity.

### Specifications:

- Isolation: 800 VAC Input to Output (Test)
- Power Requirement: 8 to 60 VDC
- Output: 4-20 mA
- Input Impedance: 10K Ohm for all input ranges
- Threshold: Adjustable from 50 mVAC to 10 VAC (for 0-100VAC Input)
- Accuracy/Linearity: +/-0.25% max., +/- 0.1% typ.
- Response Time: 250 msec to 63% of final value  
900 msec to 99% of final value
- Temperature Effects: +/- 0.025% typ.
- Line Effects: 0.03% per 10 VDC Line Change
- Operating Temperature: -20 Deg. C. to + 40 Deg. C.

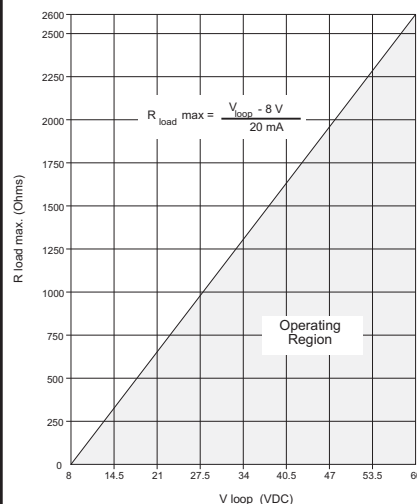
# TWI-FRX-TB

## Dimensions:



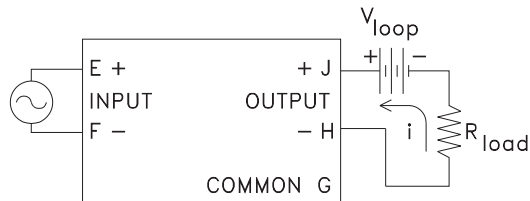
M	L	K
J	H	G
Pribusin Inc. Two Wire Transmitter		
● Power		
FREQUENCY		
● Ind.		
Threshold		
⊖ ZERO		
⊖ SPAN		
⊖ Adj.		
INPUT		
D	E	F
A	B	C

## Loop Characteristics:



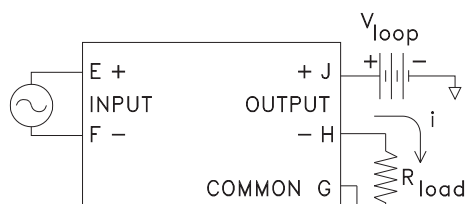
## Connection:

### TWO WIRE CONNECTION



TWI-FRX-TB

### THREE WIRE CONNECTION



TWI-FRX-TB

## Model Designation:

TWI-FRX-TB

### Frequency Range

- 1: 0-70 to 0-150 Hz
- 2: 0-140 to 0-250 Hz
- 3: 0-240 to 0-500 Hz
- 4: 0-480 to 0-1000 Hz
- 5: 0-960 to 0-2000 Hz
- 6: 0-1920 to 0-4000 Hz
- 7: 0-3840 to 0-8000 Hz

### Input Options

- Standard: 0-100 VAC
- TTL: 0-5 VDC TTL
- OPT: Optical Coupler

For an input other than 0-100 VAC, add -TTL or -OPT to model number when ordering

Example: Isolated Frequency Transmitter with 0-400 Hz Input & 4-20mA Output is designated by: TWI-FR3-TB

## Manufactured By:

**Pribusin Inc.**

www.pribusin.com  
info@pribusin.com

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

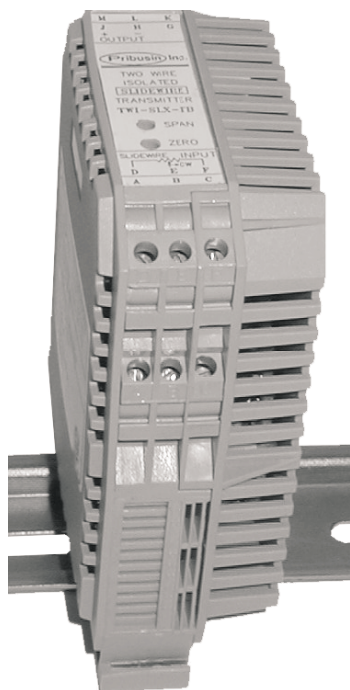


**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-MVX-TB**

**Two Wire Isolated Millivolt Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Millivolt Ranges  
Special Ranges Available  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

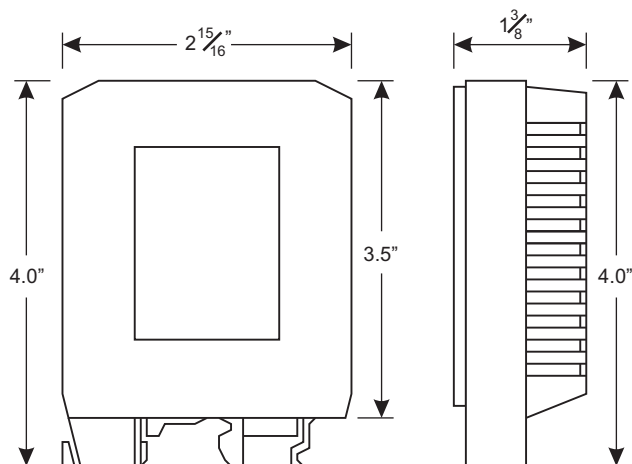
The TWI-MVX-TB is an isolated two wire millivolt transmitter that comes in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different millivolt ranges allow it to be used in a great variety of applications such as current measurement through a shunt, PLC front end conditioning, etc.

### Specifications:

Isolation: 800 VAC (Test)  
Operating Power: 12 to 60 VDC  
Accuracy/Linearity:  $\pm 0.2\%$  max.,  $\pm 0.1\%$  typ.  
(Linear with Temperature for most Ranges)  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects:  $\pm 0.025\%$  per Deg.C.  
Span Drift:  $\pm 0.025\%$  per Deg.C.  
Zero Drift: 1  $\mu$ V per mV offset per Deg.C. OR  
1  $\mu$ V per Deg.C., whichever is greater  
Drift at 25 Deg. C.: 24 Hours:  $\pm 0.1\%$   
30 Days:  $\pm 0.2\%$   
Operating Temperature: -20 Deg. C. to + 50 Deg. C.  
Input Impedance: 1 Meg Ohm min.

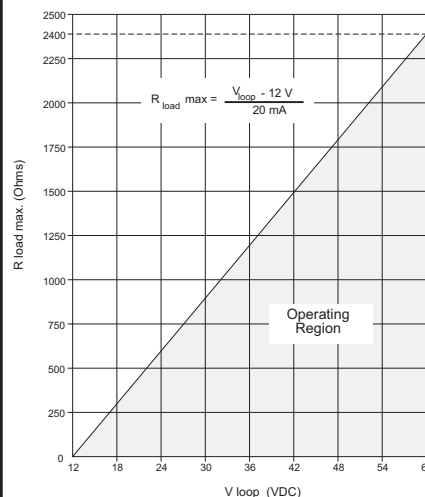
# TWI-MVX-TB

## Dimensions:

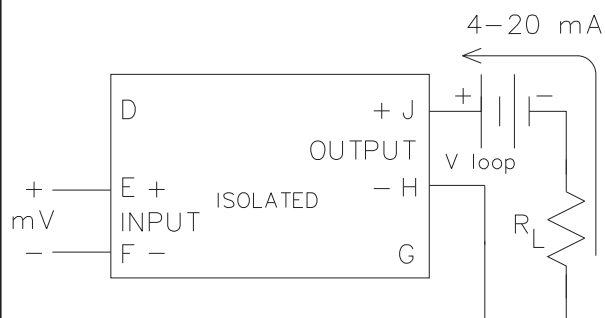


M	L	K
J	H	G
+	-	
OUTPUT		
<b>Pribusin Inc.</b>		
TWO WIRE ISOLATED TRANSMITTER		
<b>TWI-MVX-TB</b>		
⊕ SPAN		
⊕ ZERO		
INPUT		
D	E	F
A	B	C

## Loop Characteristics:



## Connection:



## Model Designation:

TWI-MVX-TB

Input

- 1: 0-5 mV
- 2: 0-10 mV
- 3: 0-20 mV
- 4: 0-50 mV
- 5: 0-100mV
- 7: Special Input

Example: Millivolt conditioner with 0-50mV Input & 4-20mA Output is designated by:  
TWI-MV4-TB

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

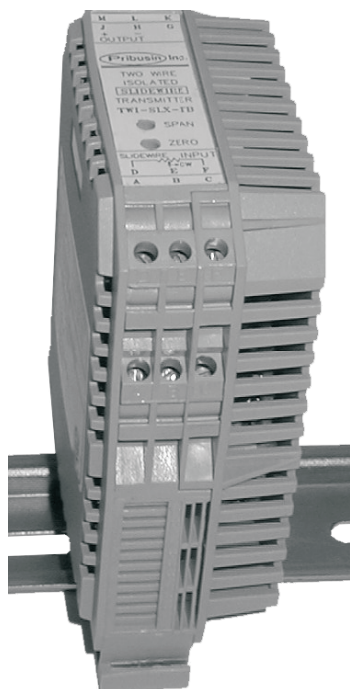
Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-RTX-TB**

**Two Wire Isolated RTD Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Ranges for 100 Ohm Platinum  
Special Ranges and other RTD Types Available  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWI-RTX-TB is an isolated two wire RTD transmitter in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different temperature ranges allow it to be used in a great variety of temperature measurement applications.

Temperature Conversion Equations:

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$$

$$^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$$

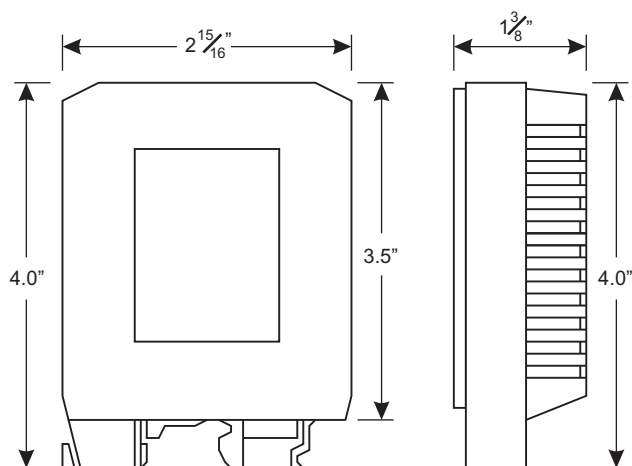
$$\text{Kelvin} = ^{\circ}\text{C} + 273.15 \quad \text{Rankin} = ^{\circ}\text{F} + 459.67$$

### Specifications:

Output: 4-20 mA  
Isolation: 800 VAC Test  
Operating Power: 12 to 60 VDC  
RTD Type: Platinum, 100 Ohms at 0 Deg.C.,  
0.0385 Alpha  
Accuracy/Linearity: +/-0.25% max., +/- 0.1% typ  
(Linearized to RTD Curve).  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects: +/- 0.025% per Deg.C.  
Span Drift: +/-0.025% per Deg.C.  
Zero Drift: 1 milliohm per 1 ohm offset per Deg.C. or  
1 milliohm per Deg.C. whichever is larger  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

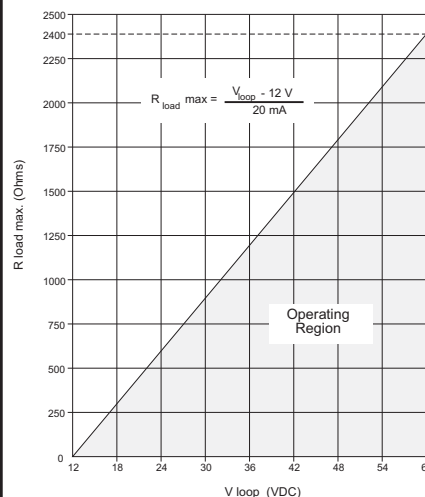
# TWI-RTX-TB

## Dimensions:

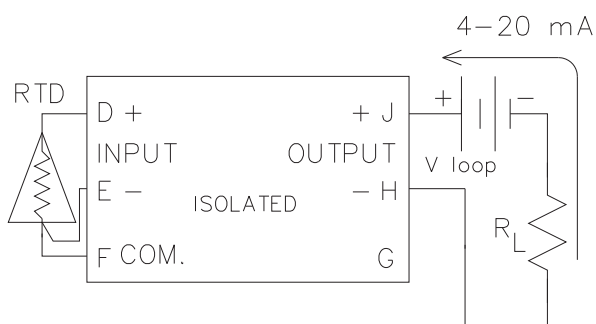


M	L	K
J	H	G
+ OUTPUT		
<b>Pribusin Inc.</b>		
TWO WIRE		
ISOLATED		
RTD		
TRANSMITTER		
TWI-RTX-TB		
⊕ SPAN		
⊕ ZERO		
RTD	INPUT	
+ D	- E	Com F
A	B	C

## Loop Characteristics:



## Connection:



## Model Designation:

TWI-RTX-TB

Temperature Range

- 1: 0 to 300F (-18 to 150C)
- 2: 0 to 400F (-18 to 205C)
- 3: 0 to 500F (-18 to 260C)
- 4: 0 to 750F (-18 to 400C)
- 5: 0 to 1000F (-18 to 538C)
- 6: -350 to 1100F (-200 to 600C)
- 7: Special (must specify on order)

Example: Isolated RTD Transmitter for 100 Ohm Platinum RTD for 0-500 Deg.F. is designated by: TWI-RT3-TB

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

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 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-TXX-TB**

**Two Wire Isolated Thermocouple Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Ranges for Type J,K,E,T,S,R  
Special Ranges and other Types available  
Cold Junction Compensated  
Standard Upscale Protection on all Units  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWI-TXX-TB is an isolated two wire thermocouple transmitter that comes in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different Thermocouple types and ranges allow it to be used in a great variety of temperature measurement applications.

Upscale protection is standard on all units unless downscale protection is specified.

Temperature Conversion Equations:

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$$

$$^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$$

$$\text{Kelvin} = ^{\circ}\text{C} + 273.15$$

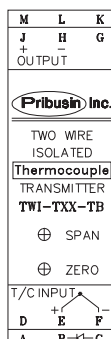
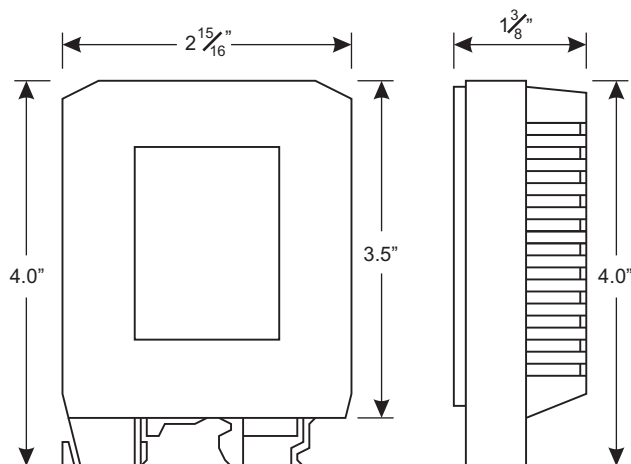
$$\text{Rankin} = ^{\circ}\text{F} + 459.67$$

### Specifications:

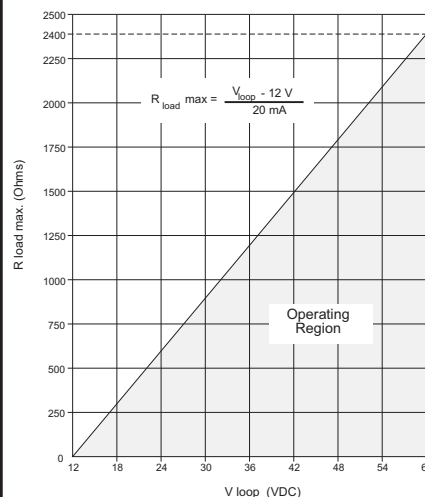
Isolation: 800 VAC (Test)  
Operating Power: 12 to 60 VDC  
Accuracy/Linearity:  $\pm 0.2\%$  max.,  $\pm 0.1\%$  typ.  
(Linear with Temperature for most Ranges)  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
T/C Compensation: Cold Junction Compensation  
Temperature Effects:  $\pm 0.025\%$  per Deg. C.  
Span Drift:  $\pm 0.025\%$  per Deg. C.  
Zero Drift: 1  $\mu\text{V}$  per mV offset per Deg. C. OR  
1  $\mu\text{V}$  per Deg. C., whichever is greater  
Drift at 25 Deg. C.: 24 Hours:  $\pm 0.1\%$   
30 Days:  $\pm 0.2\%$   
Operating Temperature: -20 Deg. C. to + 50 Deg. C.  
Input Impedance: 1 Meg Ohm min.

# TWI-TXX-TB

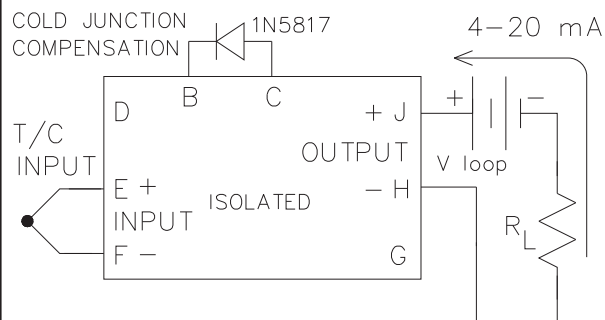
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWI-TXX-TB

Example: An isolated thermocouple transmitter for a type 'K' thermocouple for 0-500F is designated by: TWI-TK2-TB

Range	J	K	E	T	R	S
0 to 300F -18 to 150C	TJ1		TE1	TT1		
0 to 400F -18 to 204C	TJ2	TK1	TE2	TT2		
0 to 500F -18 to 260C	TJ3	TK2	TE3	TT3		
0 to 750F -18 to 400C	TJ4	TK3	TE4		TR1	TS1
0 to 1000F -18 to 538C	TJ5	TK4			TR2	TS2
0 to 1500F -18 to 816C		TK5			TR3	TS3
0 to 2000F -18 to 1093C		TK6			TR4	TS4
0 to 3200F -18 to 1760C					TR5	TS5
-350 to 1100F -200 to 600C	TJ6	TK7	TE5			

Note: \* not linearized with temperature - linear with material only

Manufactured By:

**Pribusin Inc.**  
www.pribusin.com  
info@pribusin.com

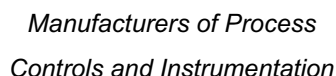
### USA:

Pribusin Inc.  
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Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

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Ph: (905) 660-5336  
Fx: (905) 660-4068



## Two Wire Isolated Slidewire Transmitter



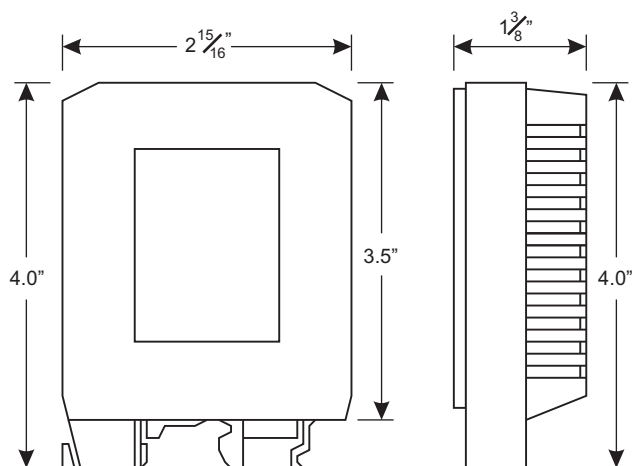
High Input to Output Isolation (800 VAC Test)  
Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Ranges for Common Slidewires  
Special Ranges Available  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

The TWI-SLX-TB is an isolated two wire Slidewire transmitter in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different input ranges allow it to be used in a great variety of position measurement applications.

Output: 4-20 mA  
Isolation: 800 VAC Test  
Operating Power: 12 to 60 VDC  
Accuracy/Linearity: +/-0.25% max., +/- 0.1% typ  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects: +/- 0.025% per Deg.C.  
Span Drift: +/-0.025% per Deg.C.  
Zero Drift: 1 milliohm per 1 ohm offset per Deg.C. or  
1 milliohm per Deg.C. whichever is larger  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature:-20 Deg. C. to + 40 Deg. C.

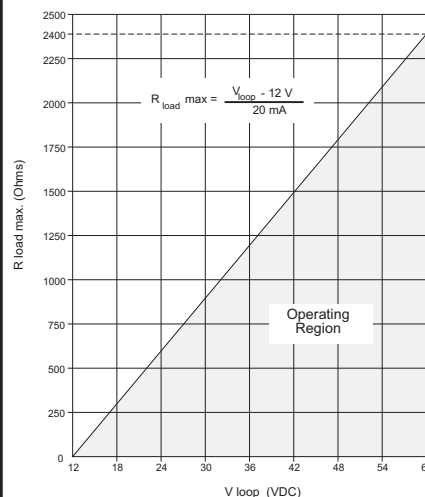
# TWI-SLX-TB

## Dimensions:

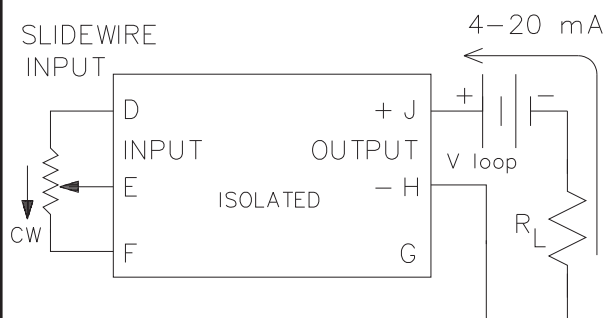


M	L	K
J	H	G
+	-	
OUTPUT		
Pribusin Inc.		
TWO WIRE		
ISOLATED		
SLIDEWIRE		
TRANSMITTER		
TWI-SLX-TB		
SPAN		
ZERO		
SLIDEWIRE INPUT	INPUT	
D	E	F
A	B	C

## Loop Characteristics:



## Connection:



## Model Designation:

TWI-SLX-TB

Input

- 1: 100 Ohms
- 2: 500 Ohms
- 3: 1K Ohms
- 4: 2K Ohms
- 5: 5K Ohms
- 6: 10K Ohms
- 7: Special (must specify on order)

Example: Isolated Slidewire transmitter for 1K Ohm  
Slidewire is designated by: TWI-SL3-TB

Manufactured By:

**Pribusin Inc.**

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### CANADA:

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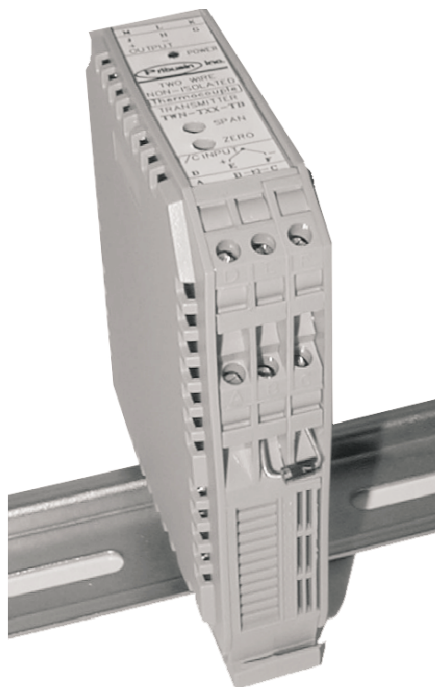


**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-ACI-TB**

**Two Wire Isolated Current Transmitter**



### Standard features:

High Input-Output-Power Isolation (1500VAC Test)  
0-5 AAC Input  
Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output (2- or 3-Wire Connection)  
Wide Operating Range (8 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approval Pending

### Function:

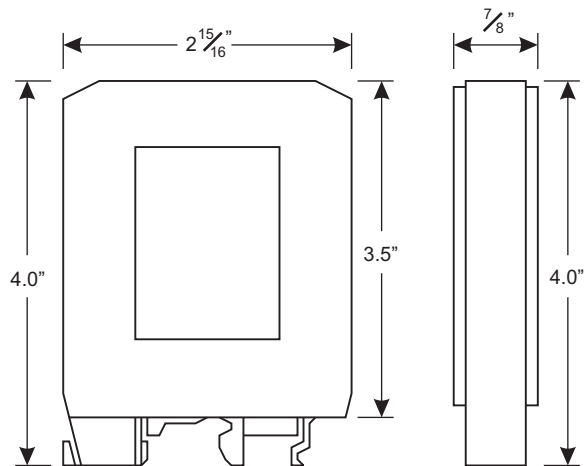
The TWI-ACI-TB is an isolated two wire current transmitter that provides high isolation from the current input to the 4-20 mA output. The small package and its DIN rail mount make it easy for the TWI-ACI-TB to be incorporated into larger control panels. There it may have applications such PLC front end conditioning, etc.

### Specifications:

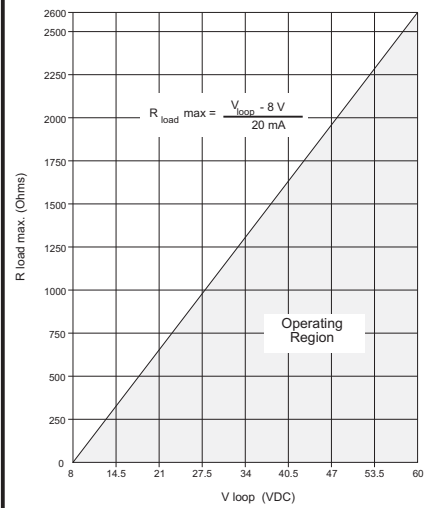
Isolation: 1500 VAC Input to Output (Test)  
Power Requirement: 8 to 60 VDC  
Input: 0-5 AAC  
Output: 4-20 mA  
Accuracy/Linearity: +/- 0.25% max., +/- 0.1% typ.  
Response Time: 200 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects: +/- 0.025% typ.  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWI-ACI-TB

## Dimensions:

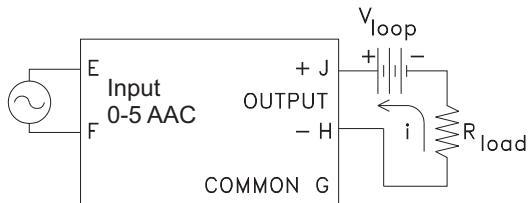


## Loop Characteristics:

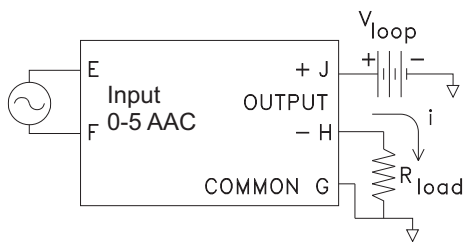


## Connection:

### TWO WIRE CONNECTION



### THREE WIRE CONNECTION



Manufactured By:

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### CANADA:

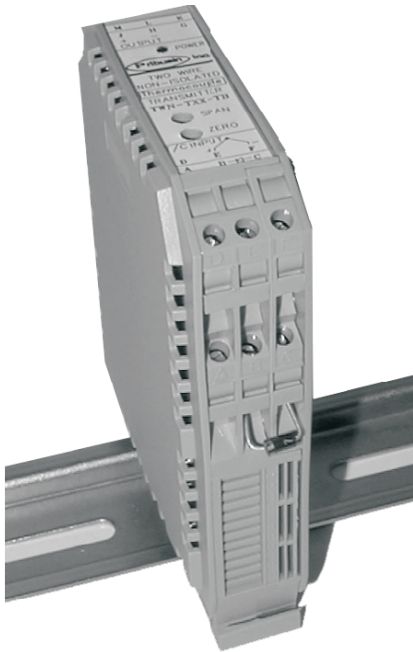
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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-ACV-TB**

**Two Wire Isolated Voltage Transmitter**



### Standard features:

High Input-Output-Power Isolation (1500VAC Test)

0-150 VAC Input

Small Size - Fits on Terminal Block Rail

Industry Standard 4-20 mA Output (2- or 3-Wire Connection)

Wide Operating Range (8 to 60 VDC)

High Noise Rejection

CSA and NRTL Approved

### Function:

The TWI-ACV-TB is an isolated two wire voltage transmitter that provides high isolation from the voltage input to the 4-20 mA output. The small package and its DIN rail mount make it easy for the TWI-ACV-TB to be incorporated into larger control panels. There it may have applications such PLC front end conditioning, etc.

### Specifications:

Isolation: 1500 VAC Input to Output (Test)

Power Requirement: 8 to 60 VDC

Input: 0-150 VAC

Output: 4-20 mA

Accuracy/Linearity: +/- 0.25% max., +/- 0.1% typ.

Response Time: 200 msec to 63% of final value

400 msec to 99% of final value

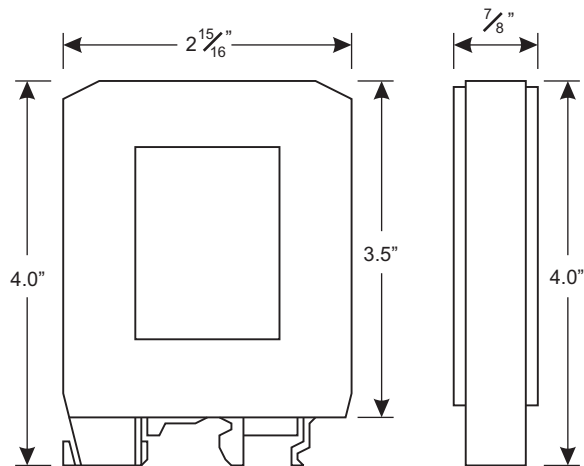
Temperature Effects: +/- 0.025% typ.

Line Effects: 0.03% per 10 VDC Line Change

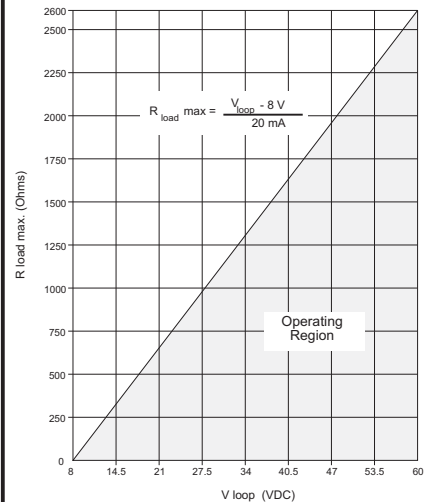
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWI-ACV-TB

## Dimensions:

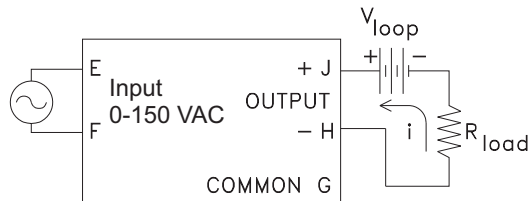


## Loop Characteristics:

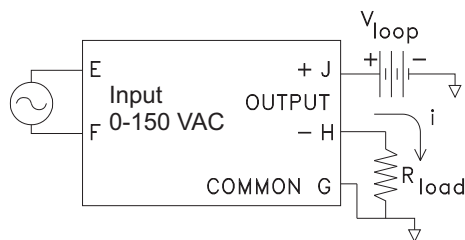


## Connection:

### TWO WIRE CONNECTION



### THREE WIRE CONNECTION



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### CANADA:

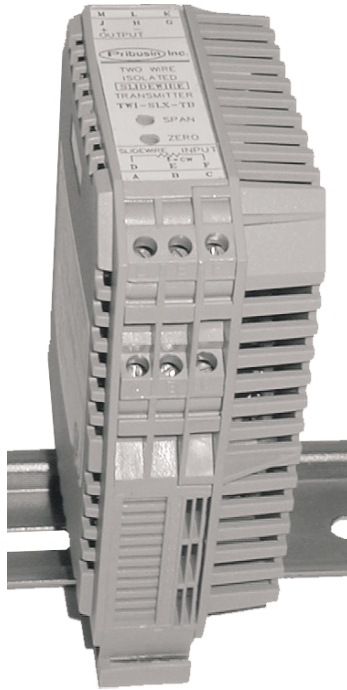
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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWI-MVX2-TB**

**Two Wire Isolated Transmitter**



### Standard features:

High Input to Output Isolation (800 VAC Test)  
Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Industry Standard Input Ranges  
Wide Operating Range (12 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWI-MVX2-TB is an isolated two wire transmitter that comes in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels.

The TWI-MVX2-TB is loop-powered from the 4-20 mA output loop making it ideal as a front end isolator for PLC's where:

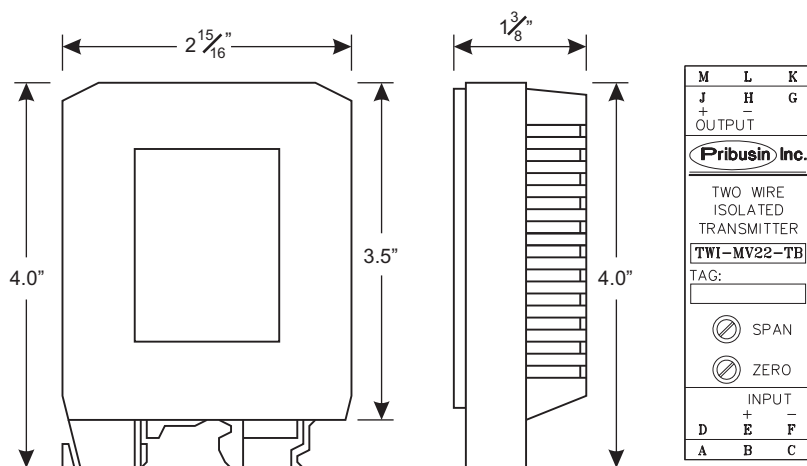
- 1) The input to the PLC has +24V & Input only (no common), as it appears as a tw-wire transmitter.
- 2) PLC's inputs need to be isolated
- 3) An already loaded loop is to be tapped into for PLC monitoring. The TWI-MVX2-TB poses a very small additional load on the existing loop.

### Specifications:

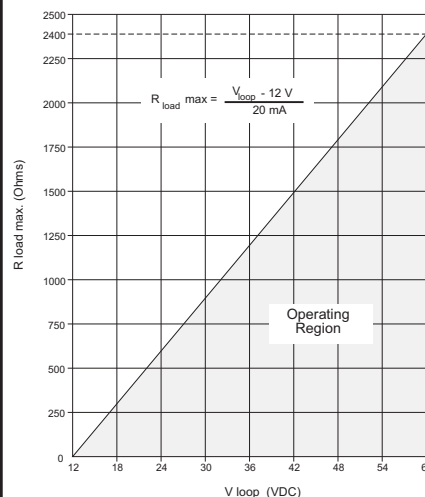
Isolation: 800 VAC (Test)  
Operating Power: 12 to 60 VDC  
Accuracy/Linearity: +/-0.2% max., +/- 0.1% typ.  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects: +/- 0.025% per Deg.C.  
Drift at 25 Deg. C.: 24 Hours: +/- 0.1%  
30 Days: +/-0.2%  
Operating Temperature: -20 Deg. C. to + 50 Deg. C.  
Input Impedance: varies, depending on input

# TWI-MVX2-TB

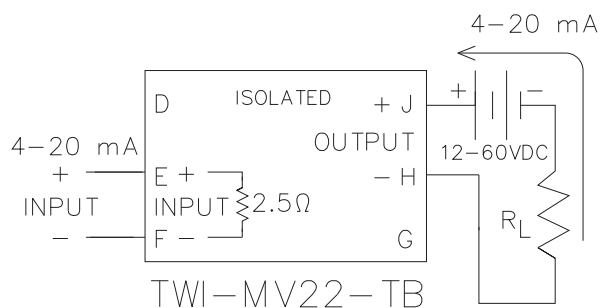
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWI-MVX2-TB

Input

2: 4-20 mA ( $Z_{in}=2.5\ ohms$ )  
3: 0-1 mA ( $Z_{in}=50\ ohms$ )

7: Special Input

Example: Isolator with 4-20 mA Input & 4-20mA Output is designated by: TWI-MV22-TB

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**Pribusin Inc.**

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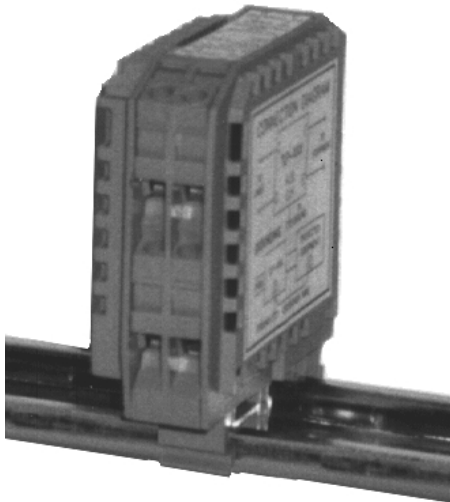
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### Standard features:

- Ideal for PLC-to-Transmitter Interfacing
- Connects to PLC like a Two-Wire Transmitter
- High Input-Output-Power Isolation (1500VAC Test)
- Small Size - Fits on Terminal Block Rail
- Fast Response Time (typ. 1 msec)
- Industry Standard 4-20mA Input and Output
- Loop-Powered - No External Power Required
- High Noise Rejection
- CSA and NRTL Approved (LR 51078)

### Function:

The OTC-22 provides high isolation from Input to Output in a small, easy to install package. The universal DIN rail mount often makes it possible to install the OTC-22 right next to the instrument that is to be isolated.

The OTC-22 is optically isolated to eliminate all electrical interference from input to output. Two-wire inputs and outputs require no external power to be applied to the OTC-22. The unit simply uses the existing power in the 4-20mA input & output loops. This makes it very easy to retrofit existing installations that show signal instability due to ground loops etc.

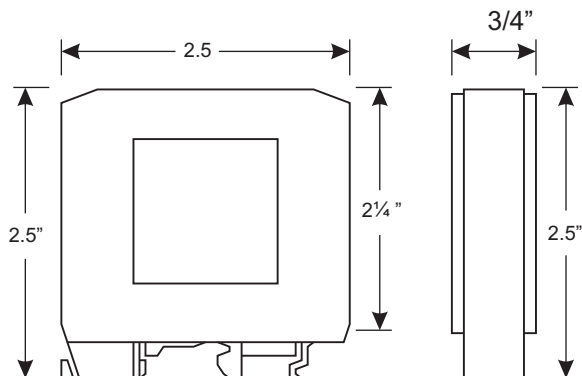
These properties make the OTC-22 ideal for front-end interfacing on PLC's that have two-wire inputs only. The OTC-22 essentially acts like a two-wire transmitter on the PLC side (OTC-22 output) and like a standard load on the transmitter side (OTC-22 input).

### Specifications:

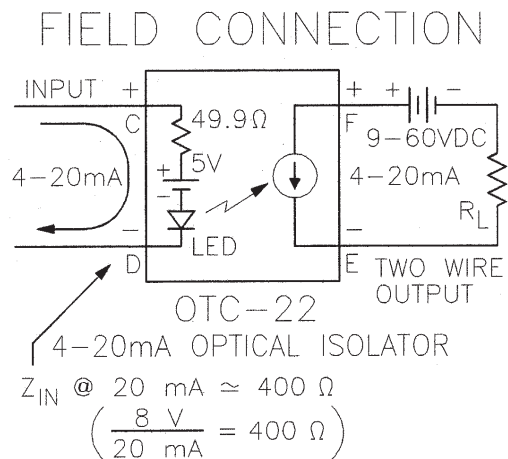
- Isolation: 1500 VAC Input to Output to Power (Test)
- Power: Loop-Powered  
(8.7V min. Required in 4-20mA loops)
- Accuracy/Linearity:  $\pm 0.1\%$  max.,  $\pm 0.05\%$  typ.
- Common Mode Rejection.: at 60 Hz = 120 dB
- Response Time: 1 msec to 99% of final value
- Temperature Effects:  $\pm 0.2\%$  max.,  $\pm 0.1\%$  typ.  
(for 50 Deg. C. change)
- Operating Temperature: -40 Deg. C. to + 50 Deg. C.

# OTC-22

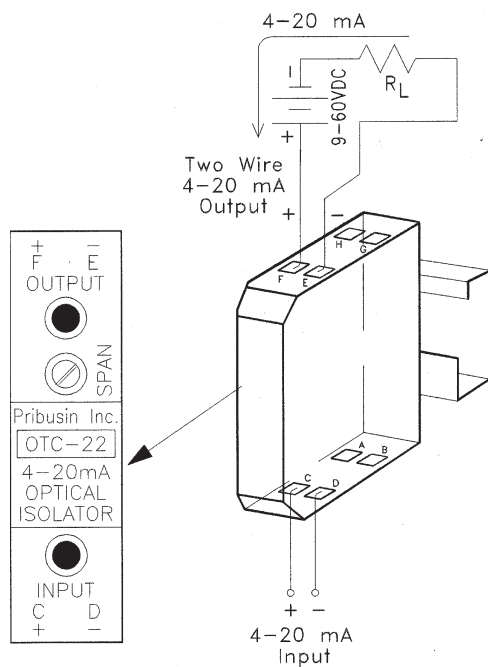
## Dimensions:



## Connection:



## Connection:



Manufactured By:

**Pribusin Inc.**

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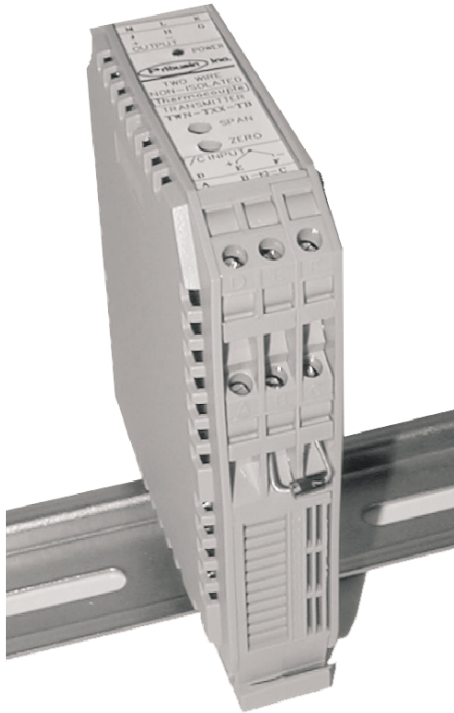


**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWN-RTX-TB**

**Two Wire Non-Isolated RTD Transmitter**



### Standard features:

Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Ranges for 100 Ohm Platinum  
Special Ranges and other RTD Types Available  
Wide Operating Range (8 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWN-RTX-TB is a non-isolated two wire RTD transmitter in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different temperature ranges allow it to be used in a great variety of temperature measurement applications.

Temperature Conversion Equations:

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$$

$$^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$$

$$\text{Kelvin} = ^{\circ}\text{C} + 273.15$$

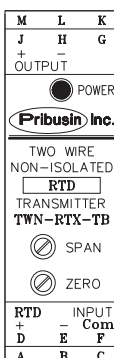
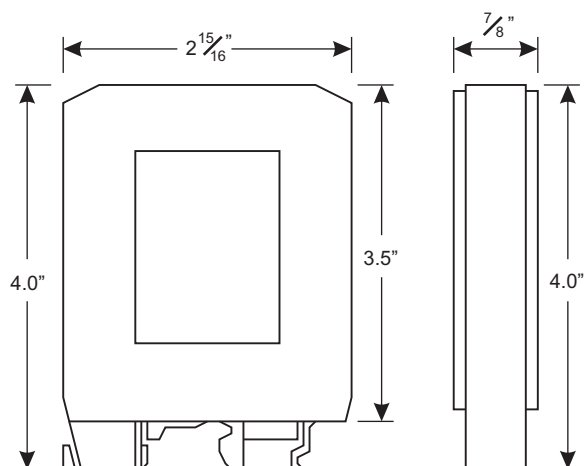
$$\text{Rankin} = ^{\circ}\text{F} + 459.67$$

### Specifications:

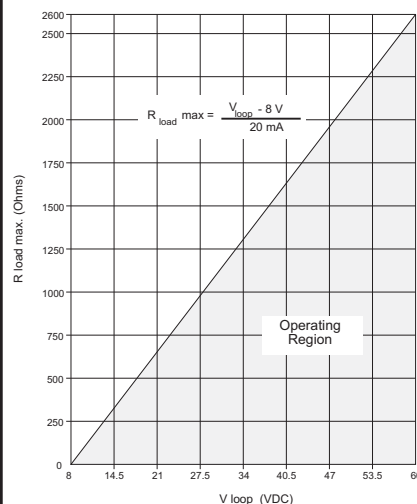
Output: 4-20 mA  
Operating Power: 8 to 60 VDC  
RTD Type: Platinum, 100 Ohms at 0 Deg. C.,  
0.0385 Alpha  
Accuracy/Linearity: +/- 0.25% max., +/- 0.1% typ  
(Linearized to RTD Curve).  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects: +/- 0.025% per Deg. C.  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# TWN-RTX-TB

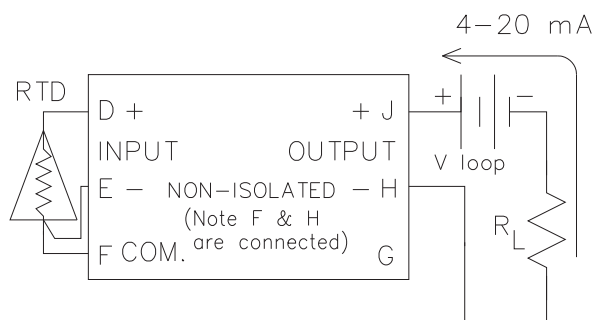
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWN-RTX-TB

Temperature Range

- 1: 0 to 300F (-18 to 150C)
- 2: 0 to 400F (-18 to 205C)
- 3: 0 to 500F (-18 to 260C)
- 4: 0 to 750F (-18 to 400C)
- 5: 0 to 1000F (-18 to 538C)
- 6: -350 to 1100F (-200 to 600C)
- 7: Special (must specify on order)

Example: Non-Isolated RTD Transmitter for 100 Ohm Platinum RTD for 0-500 Deg.F. is designated by: TWN-RT3-TB

Manufactured By:

**Pribusin Inc.**

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### CANADA:

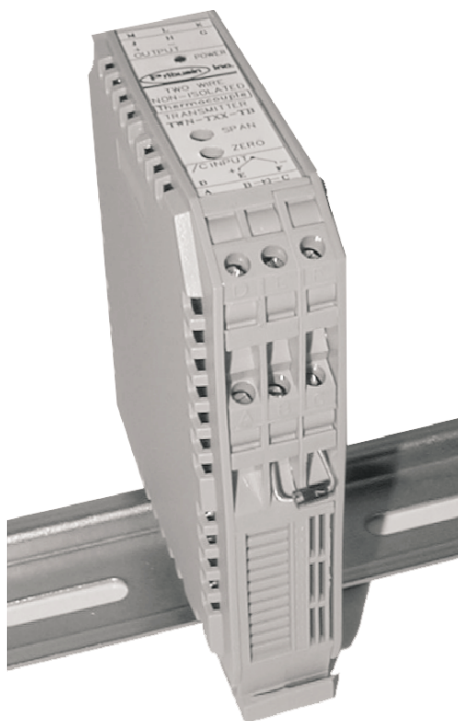
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Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWN-TXX-TB**

**Two Wire Thermocouple Transmitter**



### Standard features:

Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Ranges for Type J,K,E,T,S,R  
Special Ranges and other Types available  
Cold Junction Compensated  
Standard Upscale Protection on all Units  
Wide Operating Range (8 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The TWN-TXX-TB comes in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different Thermocouple types and ranges allow it to be used in a great variety of temperature measurement applications.

Upscale protection is standard on all units unless downscale protection is specified.

Temperature Conversion Equations:

$$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32) \quad ^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$$

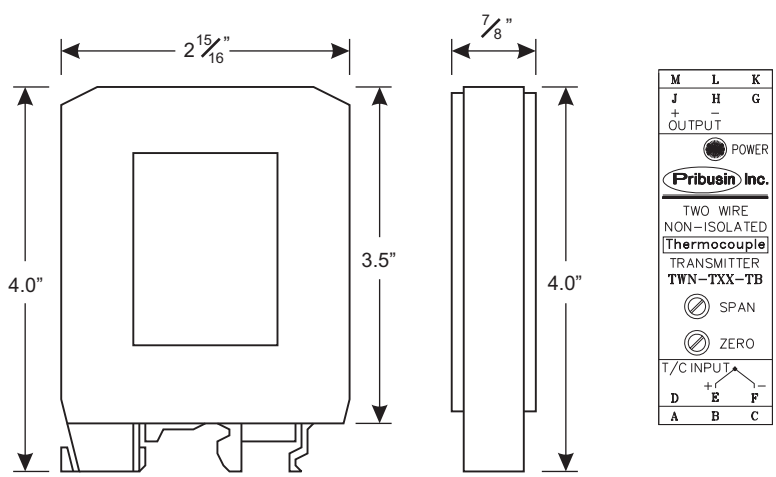
$$\text{Kelvin} = ^{\circ}\text{C} + 273.15 \quad \text{Rankin} = ^{\circ}\text{F} + 459.67$$

### Specifications:

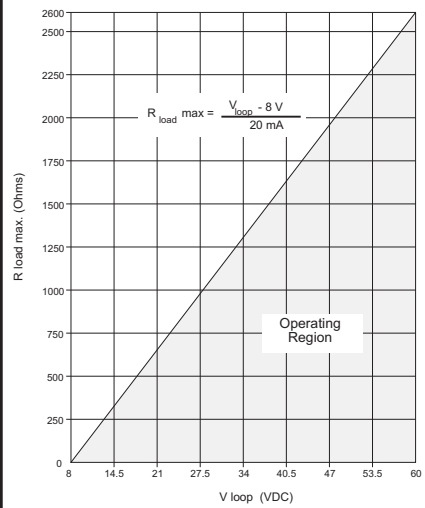
Operating Power: 8 to 60 VDC  
Accuracy/Linearity: +/- 0.2% max., +/- 0.1% typ.  
(Linear with Temperature for most Ranges)  
Response Time: 100 msec to 63% of final value  
500 msec to 99% of final value  
T/C Compensation: Cold Junction Compensation  
Temperature Effects: +/- 0.025% per Deg.C.  
Span Drift: +/- 0.025% per Deg.C.  
Zero Drift: 1 uV per mV offset per Deg.C. OR  
1 uV per Deg.C., whichever is greater  
Drift at 25 Deg. C.: 24 Hours: +/- 0.1%  
30 Days: +/- 0.2%  
Operating Temperature: -20 Deg. C. to + 50 Deg. C.  
Input Impedance: 1 Meg Ohm min.

# TWN-TXX-TB

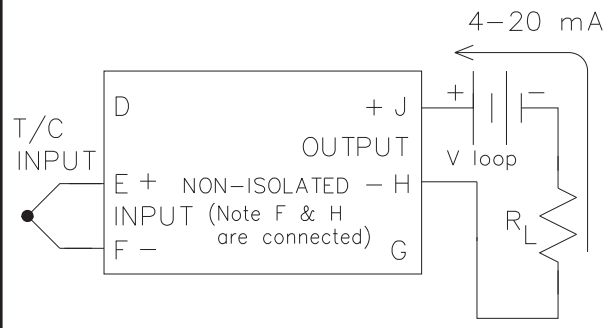
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWN-TXX-TB

Example: A non-isolated thermocouple transmitter for a type 'K' thermocouple for 0-500F is designated by: TWN-TK2-TB

Range	J	K	E	T	R	S
0 to 300F -18 to 150C	TJ1		TE1	TT1		
0 to 400F -18 to 204C	TJ2	TK1	TE2	TT2		
0 to 500F -18 to 260C	TJ3	TK2	TE3	TT3		
0 to 750F -18 to 400C	TJ4	TK3	TE4		TR1	TS1
0 to 1000F -18 to 538C	TJ5	TK4			TR2	TS2
0 to 1500F -18 to 816C		TK5			TR3	TS3
0 to 2000F -18 to 1093C		TK6			TR4	TS4
0 to 3200F -18 to 1760C					TR5	TS5
-350 to 1100F -200 to 600C	TJ6	TK7	TE5			

Note: \* not linearized with temperature - linear with material only

## Manufactured By:

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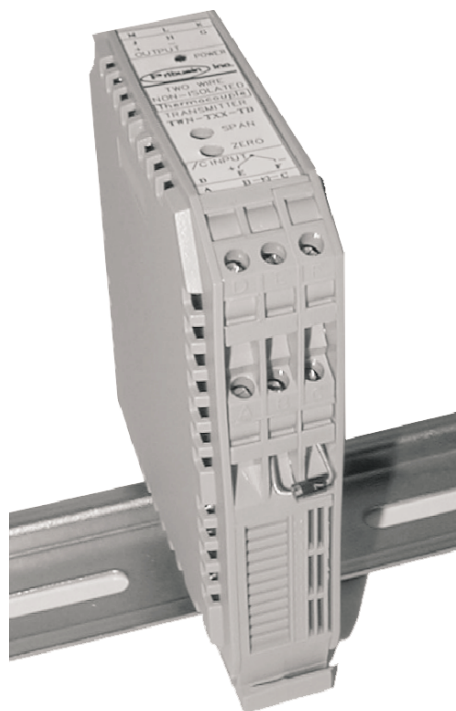
**CANADA:**  
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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

## Model: TWN-SLX-TB

### Two Wire Non-Isolated Slidewire Transmitter



#### Standard features:

Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Ranges for Common Slidewires  
Special Ranges Available  
Wide Operating Range (8 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

#### Function:

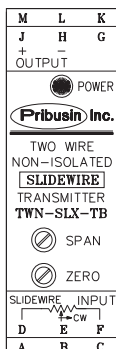
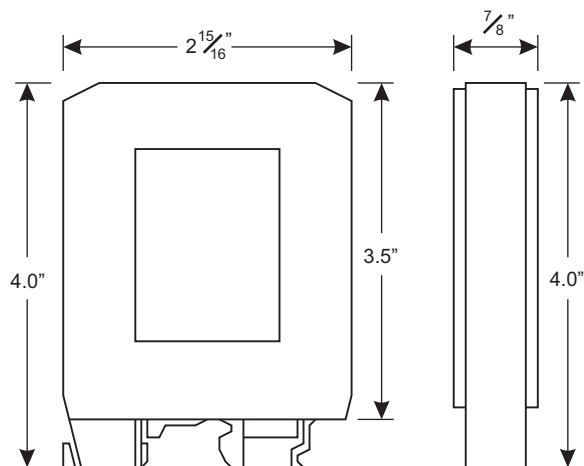
The TWN-SLX-TB is a non-isolated two wire Slidewire transmitter in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different input ranges allow it to be used in a great variety of position measurement applications.

#### Specifications:

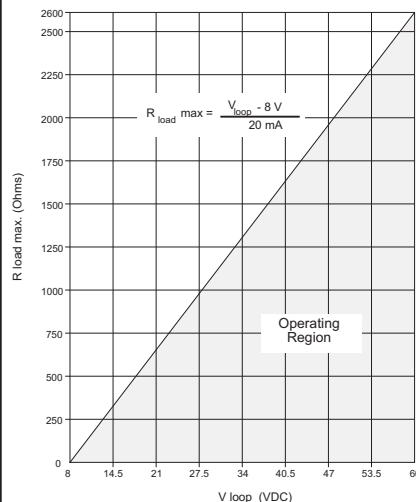
Output: 4-20 mA  
Operating Power: 8 to 60 VDC  
Accuracy/Linearity:  $\pm 0.25\%$  max.,  $\pm 0.1\%$  typ  
Response Time: 100 msec to 63% of final value  
400 msec to 99% of final value  
Temperature Effects:  $\pm 0.025\%$  per Deg.C.  
Span Drift:  $\pm 0.025\%$  per Deg.C.  
Zero Drift: 1 milliohm per 1 ohm offset per Deg.C. or  
1 milliohm per Deg.C. whichever is larger  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature: -20 Deg. C. to +40 Deg. C.

# TWN-SLX-TB

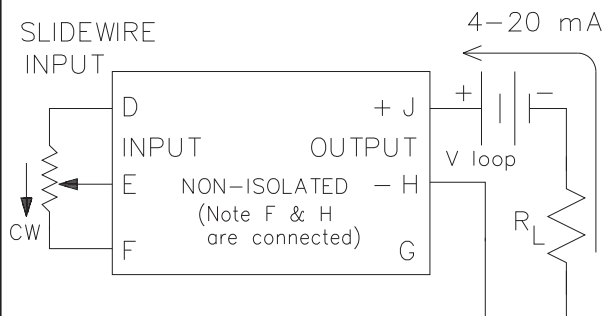
## Dimensions:



## Loop Characteristics:



## Connection:



## Model Designation:

TWN-SLX-TB

Input

- 1: 100 Ohms
- 2: 500 Ohms
- 3: 1K Ohms
- 4: 2K Ohms
- 5: 5K Ohms
- 6: 10K Ohms
- 7: Special (must specify on order)

Example: Non-Isolated Slidewire transmitter for 1K Ohm Slidewire is designated by: TWN-SL3-TB

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
 743 Marquette Ave.  
 Muskegon, MI 49442  
 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

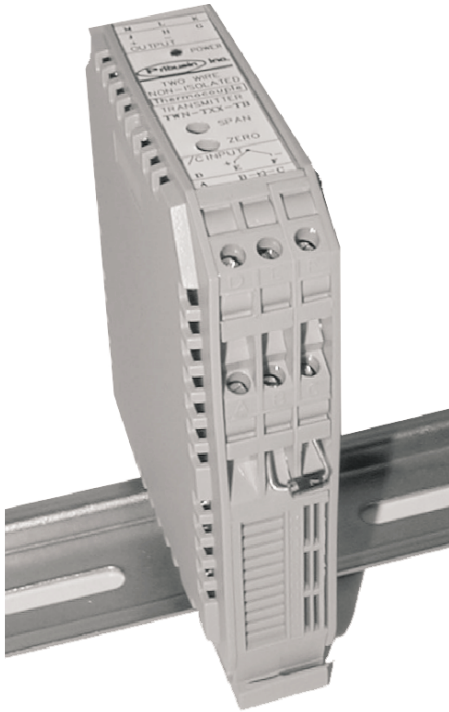
Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TWN-MVX-TB**

**Two Wire Non-Isolated Millivolt Transmitter**



### Standard features:

Small Size - Fits on Terminal Block Rail  
Industry Standard 4-20 mA Output  
Standard Ranges for Common mV Inputs  
Special Ranges Available  
Wide Operating Range (8 to 60 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

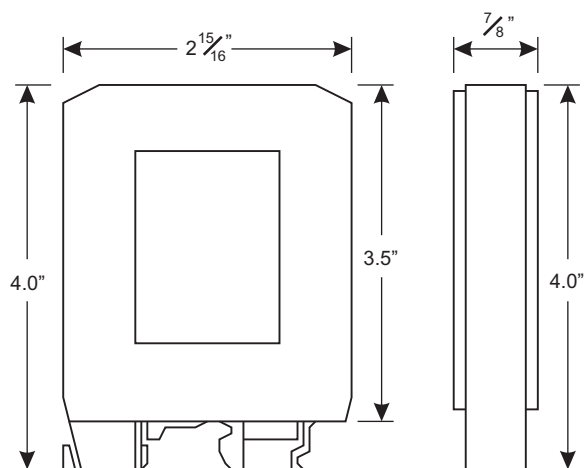
The TWN-MVX-TB is a non-isolated two wire Millivolt transmitter in a small, easy to install package. It has a universal DIN mount which makes it ideal for installation into crowded control panels. The many different input ranges allow it to be used in a great variety of millivolt measurement applications.

### Specifications:

Output: 4-20 mA  
Operating Power: 8 to 60 VDC  
Accuracy/Linearity:  $\pm 0.2\%$  max.,  $\pm 0.1\%$  typ  
Response Time: 100 msec to 63% of final value  
500 msec to 99% of final value  
Temperature Effects:  $\pm 0.025\%$  per Deg.C.  
Span Drift:  $\pm 0.025\%$  per Deg.C.  
Zero Drift: 1  $\mu$ V per mV offset per Deg.C. or  
1  $\mu$ V per Deg.C. whichever is larger  
Line Effects: 0.03% per 10 VDC Line Change  
Operating Temperature: -20 Deg. C. to +40 Deg. C.  
Input Impedance: 1 Meg Ohm min.

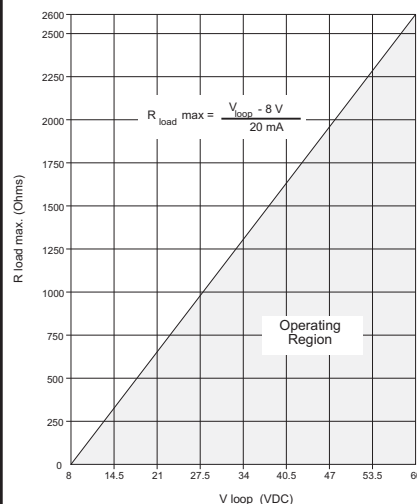
# TWN-MVX-TB

## Dimensions:

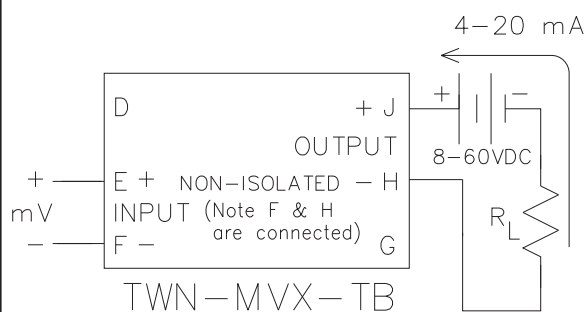


M	L	K
J	H	G
+	-	
OUTPUT		
POWER		
Pribusin Inc.		
TWO WIRE		
NON-ISOLATED		
MILLIVOLT		
TRANSMITTER		
TWN-MVX-TB		
SPAN		
ZERO		
INPUT		
+	-	
D	E	F
A	B	C

## Loop Characteristics:



## Connection:



## Model Designation:

TWN-MVX-TB

Input

- 1: 0-5 mV
- 2: 0-10 mV
- 3: 0-20 mV
- 4: 0-50 mV
- 5: 0-100 mV
- 7: Special (must specify on order)

Example: Non-Isolated millivolt transmitter for 20 mV is designated by: TWN-MV3-TB

Manufactured By:

**Pribusin Inc.**

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### USA:

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 Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068





### Standard Features:

User Configurable for Single or Dual Input Operation

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Various Input Options Available (Current, Frequency, T/C, RTD, ACV, ACI, others)

2 Form 'C' Relay Contact Outputs

Each Relay Contact has Individual Setpoint, Deadband and Delay Adjustment.

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The UA-XD is a microprocessor controlled single or dual trip. It is easily field configurable to operate in a large number of different modes. Each relay contact output is individually configurable to the following modes of operation: High/Low Trip, Normally Energized / De-energized. Additionally, both relays can be made to operate from the same input to give two levels of alarm for a single input.

A delay feature allows a 0-60 sec. adjustable ON delay to be added to the trip function in order to screen out intermittent and erroneous alarms. If the delay function is activated, the input must be greater than the setpoint for the time specified by the delay before the relay will activate. There is also a combined ON and OFF delay function which, in addition to delaying the relay 'turn-on' time, delays the relay 'turn-off' time.

### Calibration:

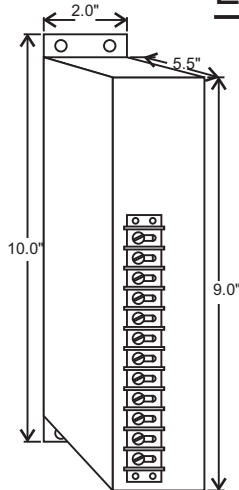
Each relay contact has three potentiometers that are used to adjust the setpoint, deadband and delay settings. The setpoint and deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-60 sec. A test point next to each potentiometer shows a voltage of 0-5 VDC for a setting of 0-100%.

### Specifications:

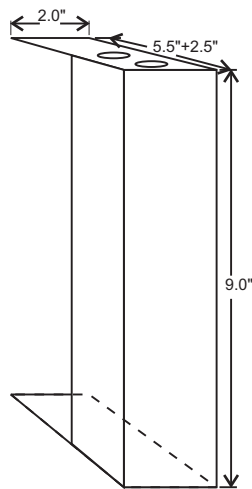
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

# UA-XD

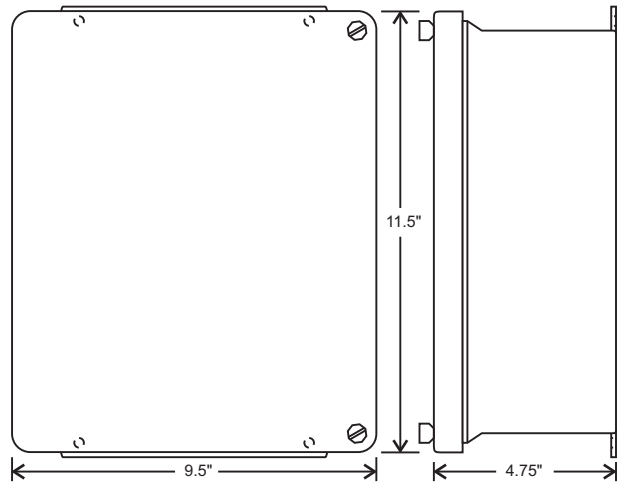
## Enclosures & Dimensions:



Standard Metal Enclosure

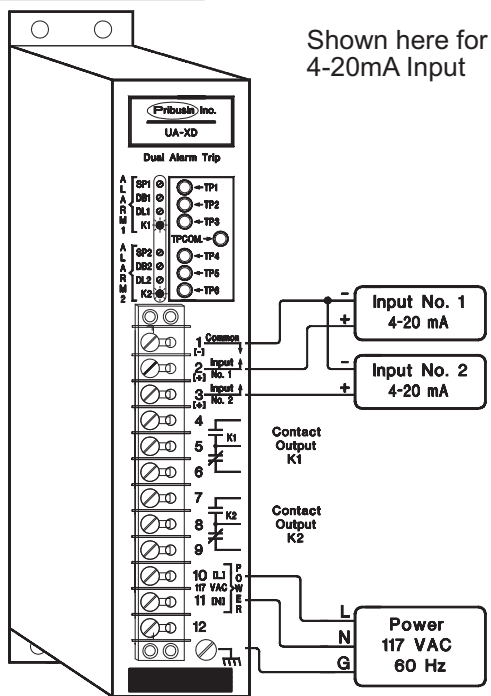


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

UA-XD

Input

- 1: 1-5 mA ( $Z_{in}=1K \text{ Ohm}$ )
- 2: 4-20 mA ( $Z_{in}=250 \text{ Ohm}$ )
- 3: 0-1mA ( $Z_{in}=5K \text{ Ohm}$ )
- 4: 10-50 mA ( $Z_{in}=100 \text{ Ohm}$ )
- 5: 1-5 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 6: 0-10 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 7: Special Input

Other Models

- TXX: Thermocouple (see UA-XD-TXX)
- TXX-DIF: Differential T/C (see UA-XD-TXX-DIFF)
- RTX: RTD Input (see UA-XD-RTX)
- FRX: Frequency (see UA-XD-FRX)

Example: Dual Alarm Trip with 4-20 mA Input in standard metal enclosure and 24VDC Power is designated by: UA-2D-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

www.pribusin.com  
info@pribusin.com

### USA:

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743 Marquette Ave.  
Muskegon, MI 49442  
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### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: UA-7D-FRX**

**Dual Frequency Alarm Trip**



### Standard Features:

Standard Frequency Input @ 24 VDC (Special Inputs Available)

Standard Frequency Ranges Available (Special Ranges Available)

2 Form 'C' Relay Contact Outputs

Each Relay Contact has Individual Setpoint, Deadband and Delay Adjustment.

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The UA-7D-FRX is a microprocessor controlled frequency alarm trip. It is easily field configurable to operate in a large number of different modes. Each relay contact output is individually configurable to the following modes of operation: High/Low Trip, Normally Energized / De-energized. Additionally, both relays operate from the same input to give two levels of alarm for a single input.

A delay feature allows a 0-60 sec. adjustable ON delay to be added to the trip function in order to screen out intermittent and erroneous alarms. If the delay function is activated, the input must be greater than the setpoint for the time specified by the delay before the relay will activate. There is also a combined ON and OFF delay function which, in addition to delaying the relay 'turn-on' time, delays the relay 'turn-off' time.

### Calibration:

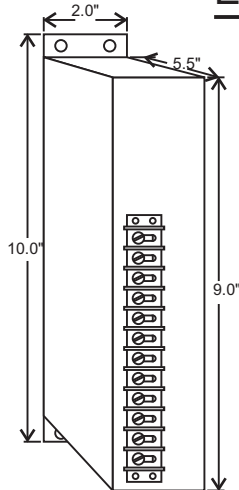
Each relay contact has three potentiometers that are used to adjust the setpoint, deadband and delay settings. The setpoint and deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-60 sec. A test point next to each potentiometer shows a voltage of 0-5 VDC for a setting of 0-100%.

### Specifications:

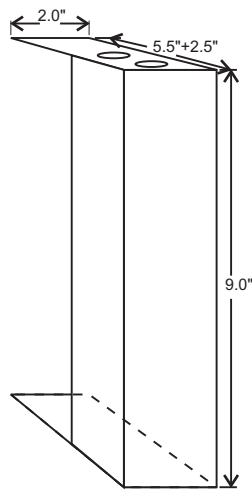
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

# UA-7D-FRX

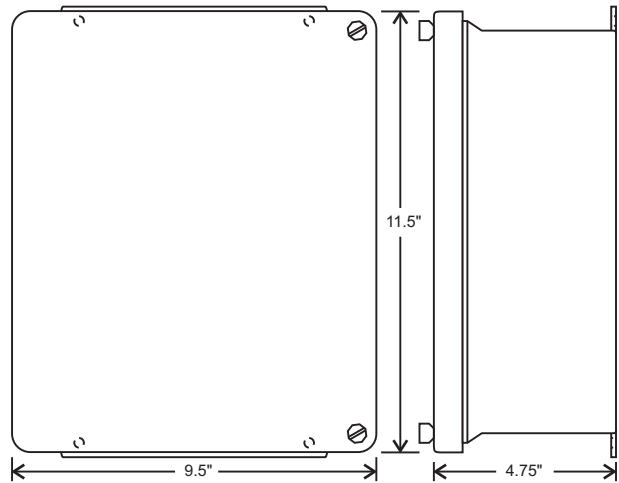
## Enclosures & Dimensions:



Standard Metal Enclosure

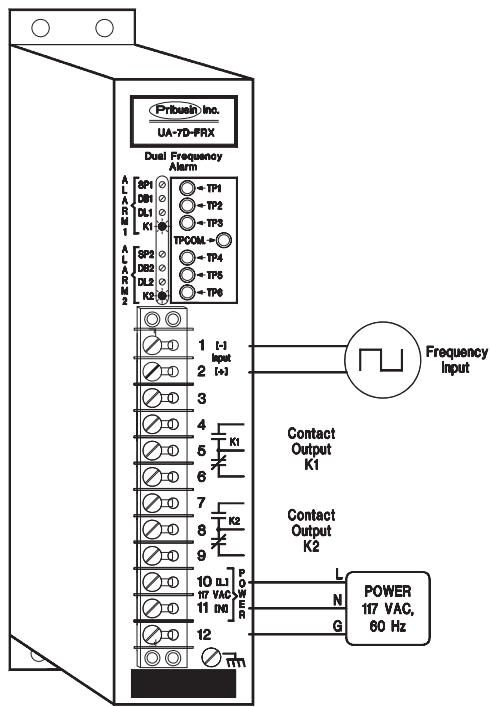


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

UA-7D-FRX

Frequency Range

- 1: 0 to 10 Hz
- 2: 0 to 100 Hz
- 3: 0 to 1000 Hz
- 4: 0 to 2500 Hz
- 5: 0 to 5000 Hz
- 6: 0 to 10 KHz
- 7: Special (must specify on order)

Example: Dual Alarm Trip with Frequency in the range from 0-1000 Hz @ 24 VDC is designated by: UA-7D-FR2

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

www.pribusin.com  
info@pribusin.com

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

- 100 Ohm Platinum 3-Wire RTD Input
- Standard Temperature Ranges Available (Special Ranges Available)
- 2 Form 'C' Relay Contact Outputs
- Each Relay Contact has Individual Setpoint, Deadband and Delay Adjustment.
- Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)
- Microprocessor Controlled for High Accuracy
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- High Noise Rejection
- CSA and NRTL Approved (LR 51078)

### Function:

The UA-7D-RTX is a microprocessor controlled RTD alarm trip. It is easily field configurable to operate in a large number of different modes. Each relay contact output is individually configurable to the following modes of operation: High/Low Trip, Normally Energized / De-energized. Additionally, both relays operate from the same input to give two levels of alarm for a single input.

A delay feature allows a 0-60 sec. adjustable ON delay to be added to the trip function in order to screen out intermittent and erroneous alarms. If the delay function is activated, the input must be greater than the setpoint for the time specified by the delay before the relay will activate. There is also a combined ON and OFF delay function which, in addition to delaying the relay 'turn-on' time, delays the relay 'turn-off' time.

### Calibration:

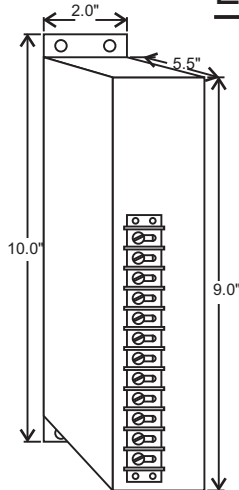
Each relay contact has three potentiometers that are used to adjust the setpoint, deadband and delay settings. The setpoint and deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-60 sec. A test point next to each potentiometer shows a voltage of 0-5 VDC for a setting of 0-100%.

### Specifications:

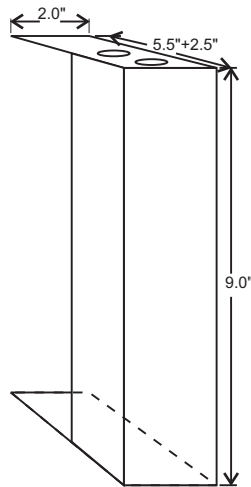
- RTD Type: Platinum, 100 Ohm at 0 Deg.C., 0.0385 Alpha
- Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.
- Operating Temperature: -40 Deg.C. to +50 Deg.C.
- Temperature Effects: +/- 0.5% max., +/- 0.2% typ. (for 40 Deg.C. change)
- Contact Rating: 10A 1/8Hp @ 125VAC
- 6A 1/8Hp @ 277VAC

# UA-7D-RTX

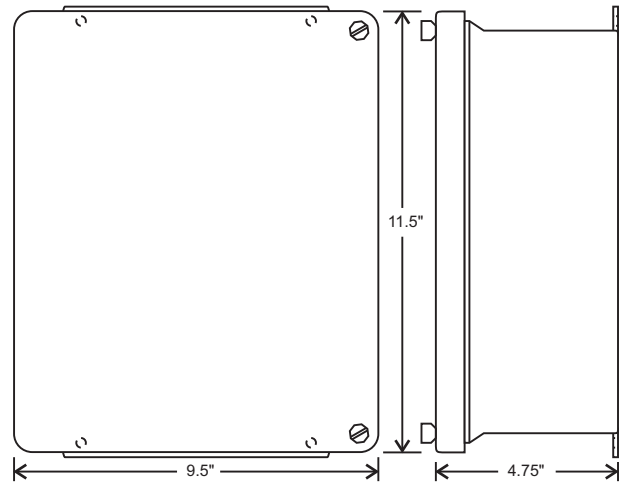
## Enclosures & Dimensions:



Standard Metal Enclosure

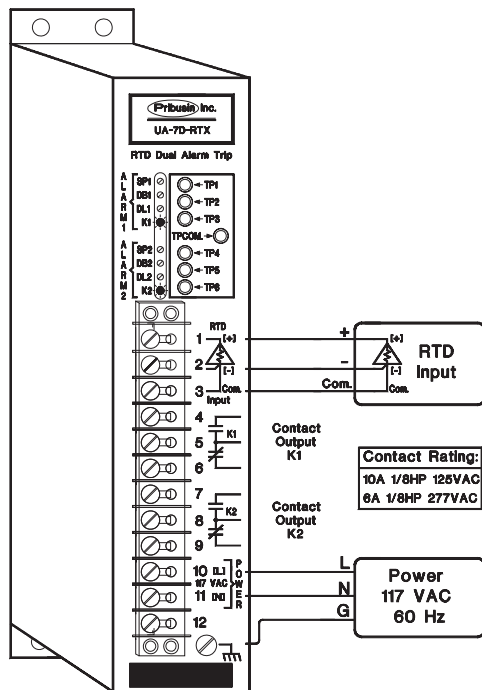


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

UA-7D-RTX

Temperature Range

- 1: 0 to 300F (-18 to 150C)
- 2: 0 to 400F (-18 to 240C)
- 3: 0 to 500F (-18 to 260C)
- 4: 0 to 750F (-18 to 400C)
- 5: 0 to 1000F (-18 to 538C)
- 6: -350 to 1100F (-200 to 600C)
- 7: Special (must specify on order)

Example: Dual Alarm Trip with 100 Ohm  
Platinum RTD for 0-500 Deg.F. is  
designated by: UA-7D-RT3

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

www.pribusin.com  
info@pribusin.com

### USA:

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743 Marquette Ave.  
Muskegon, MI 49442  
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Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: UA-7D-TXX**

**Thermocouple Dual Alarm Trip**



### Standard Features:

All Standard T/C Input Types

Many Standard Temperature Ranges (Special Ranges Available)

2 Form 'C' Relay Contact Outputs

Each Relay Contact has Individual Setpoint, Deadband and Delay Adjustment.

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The UA-7D-TXX is a microprocessor controlled Thermocouple alarm trip. It is easily field configurable to operate in a large number of different modes. Each relay contact output is individually configurable to the following modes of operation: High/Low Trip, Normally Energized / De-energized. Additionally, both relays operate from the same input to give two levels of alarm for a single input.

A delay feature allows a 0-60 sec. adjustable ON delay to be added to the trip function in order to screen out intermittent and erroneous alarms. If the delay function is activated, the input must be greater than the setpoint for the time specified by the delay before the relay will activate. There is also a combined ON and OFF delay function which, in addition to delaying the relay 'turn-on' time, delays the relay 'turn-off' time.

### Calibration:

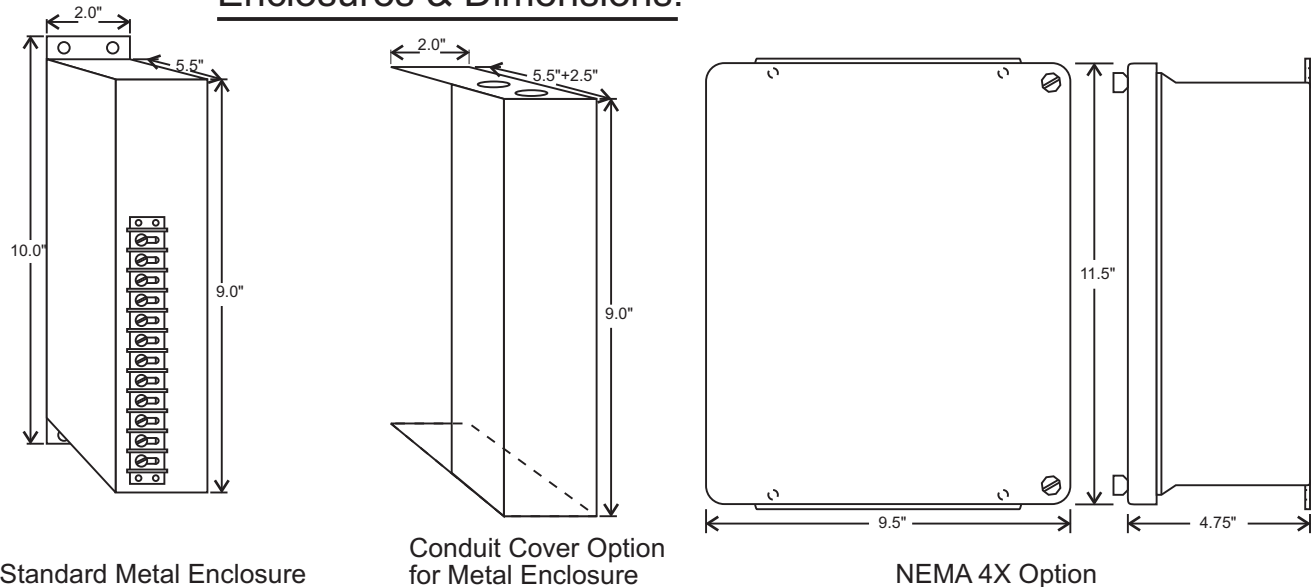
Each relay contact has three potentiometers that are used to adjust the setpoint, deadband and delay settings. The setpoint and deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-60 sec. A test point next to each potentiometer shows a voltage of 0-5 VDC for a setting of 0-100%.

### Specifications:

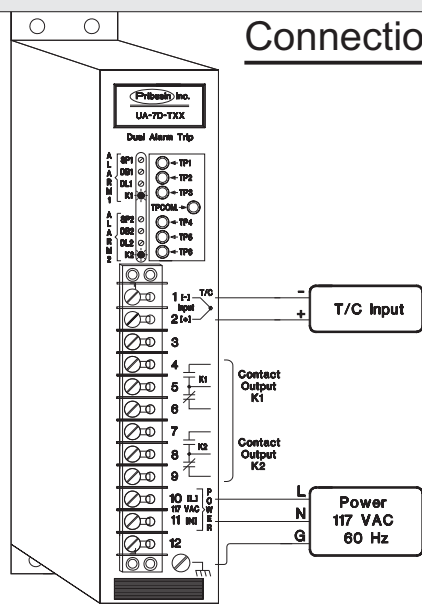
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

# UA-7D-TXX

## Enclosures & Dimensions:



## Connection:



## Model Designation:

Example: A Dual Alarm Trip for a type 'K' thermocouple input over a range of 0-500 F is designated by: UA-7D-TK2

Range	J	K	E	T	R	S
0 to 300F -18 to 150C	TJ1		TE1	TT1		
0 to 400F -18 to 204C	TJ2	TK1	TE2	TT2		
0 to 500F -18 to 260C	TJ3	TK2	TE3	TT3		
0 to 750F -18 to 400C	TJ4	TK3	TE4		TR1	TS1
0 to 1000F -18 to 538C	TJ5	TK4			TR2	TS2
0 to 1500F -18 to 816C		TK5			TR3	TS3
0 to 2000F -18 to 1093C		TK6			TR4	TS4
0 to 3200F -18 to 1760C					TR5	TS5
-350 to 1100F -200 to 600C	TJ6	TK7	TE5			

## Options: (Add to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

www.pribusin.com

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**USA:**

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Muskegon, MI 49442

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**CANADA:**

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Concord, Ontario, L4K 1R9

Ph: (905) 660-5336

Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: UA-7D-TXX-DIF**

**Differential T/C Dual Alarm Trip**



### Standard Features:

All Standard T/C Input Types

Measures Temperature Differential Accurately

Many Standard Temperature Ranges (Special Ranges Available)

2 Form 'C' Relay Contact Outputs

Each Relay Contact has Individual Setpoint, Deadband and Delay Adjustment.

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The UA-7D-TXX-DIF is a microprocessor controlled Thermocouple alarm trip. It is easily field configurable to operate in a large number of different modes. Each relay contact output is individually configurable to the following modes of operation: High/Low Trip, Normally Energized / De-energized. Additionally, both relays operate from the same input to give two levels of alarm for a single input.

A delay feature allows a 0-60 sec. adjustable ON delay to be added to the trip function in order to screen out intermittent and erroneous alarms. If the delay function is activated, the input must be greater than (high trip) or lower than (low trip) the setpoint for the time specified by the delay before the relay will activate. There is also a combined ON and OFF delay function which, in addition to delaying the relay 'turn-on' time, delays the relay 'turn-off' time.

### Calibration:

Each relay contact has three potentiometers that are used to adjust the setpoint, deadband and delay settings. The setpoint and deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-60 sec. A test point next to each potentiometer shows a voltage of 0-5 VDC for a setting of 0-100%.

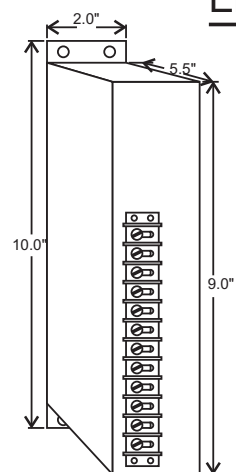
### Specifications:

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

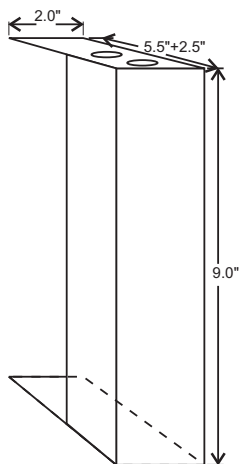
Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

# UA-7D-TXX-DIF

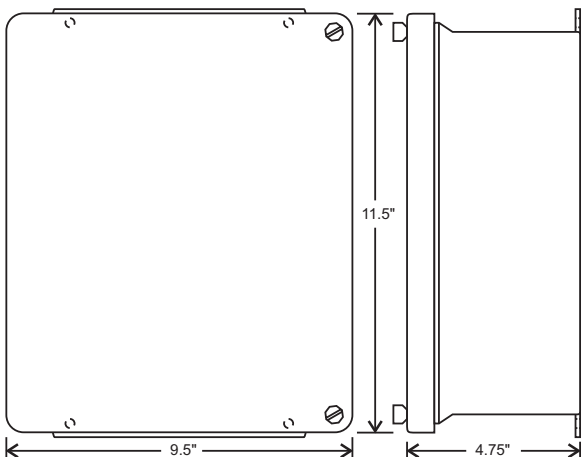
## Enclosures & Dimensions:



Standard Metal Enclosure

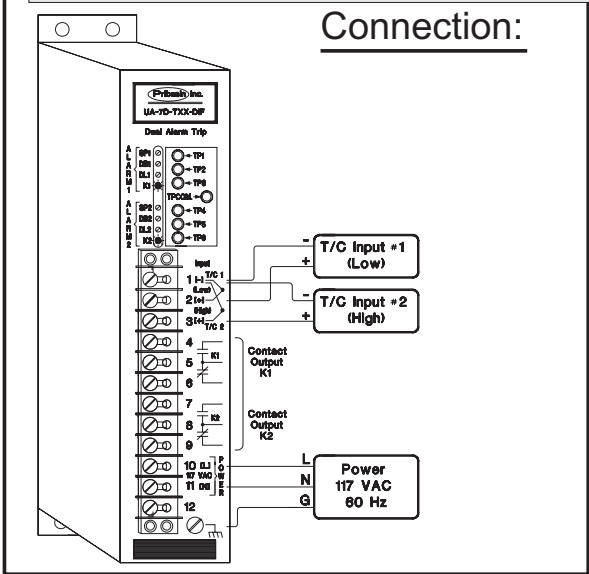


Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:



## Options:

 (Add to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (above)
- N - NEMA 4X enclosure (see above)

## Model Designation:

Example: A Dual Alarm Trip for a type 'K' thermocouple input over a differential range of 0-50 F is designated by:  
UA-7D-TK2-DIF

Range	J	K	E	T	R	S
0 to 30F 0 to 17C	TJ1		TE1	TT1		
0 to 40F 0 to 22C	TJ2	TK1	TE2	TT2		
0 to 50F 0 to 28C	TJ3	TK2	TE3	TT3		
0 to 75F 0 to 42C	TJ4	TK3	TE4		TR1	TS1
0 to 1000F 0 to 56C	TJ5	Tk4			TR2	TS2
0 to 1500F -18 to 816C		TK5			TR3	TS3
0 to 2000C 0 to 22C		TK6			TR4	TS4
0 to 3200F -18 to 1760C					TR5	TS5
-350 to 1100F 0 to 42C	Tj6	Tk7	TE5			

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

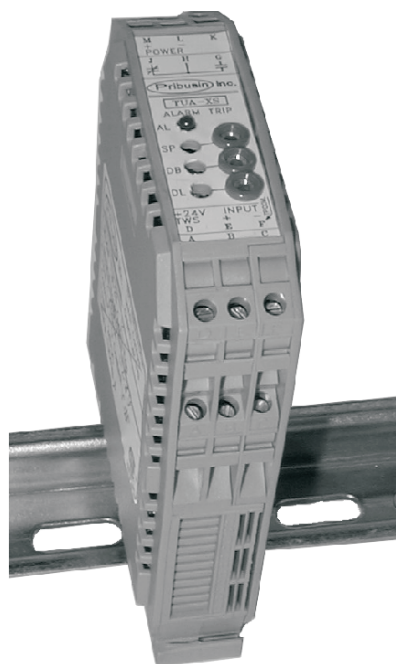
### USA:

Pribusin Inc.  
4319 E. Apple Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
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Fx: (905) 660-4068



### Standard features:

High Input-Output-Power Isolation (1500VAC Test)

Small Size - Fits on Terminal Block Rail

1 Form "C" Contact Output with ON delay or ON and OFF delay

Individual Setpoint, Deadband, Delay Adjustment

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 24 VDC, 60 mA

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The TUA-XS Alarm Trip is a microprocessor based instrument. It can operate as a high trip or as a low trip (selectable by push-on pins inside the instrument). The relay can be configured as a normally-energized or normally de-energized. A built in two wire supply can be used to connect two wire sensors to the TUA-XS. The output is a SPDT (form "C") contact rated at 10 Amps, 1/8 Hp at 125 VAC. The deadband can be adjusted from 0-100%. The delay is adjustable from 0-1 minute and can be configured as ON delay only or as ON and OFF delay.

### Calibration:

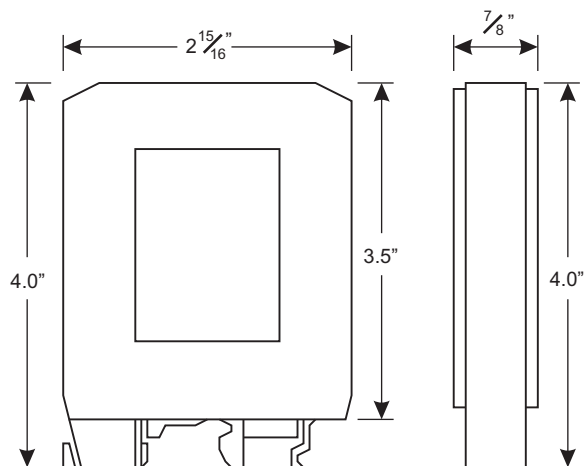
The TPz (Test Points) are used to calibrate the setpoint, deadband, and delay functions of the TUA-XS. A voltage of 0-5 VDC on TPz represents a setting of 0-100% of the parameter z. Any parameter can be changed while the TUA-XS is in operation thus making it easy to perform field adjustments.

### Input Selection:

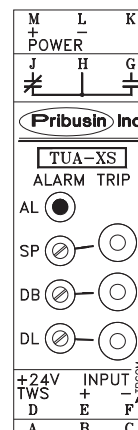
X=1: 1 to 5 mA (Zin=1K Ohm)  
X=2: 4 to 20 mA (Zin=250 Ohm)  
X=3: 0 to 1 mA (Zin=5K Ohm)  
X=4: 10 to 50 mA (Zin=100 Ohm)  
X=5: 1 to 5 VDC (Zin=1Meg Ohm)  
X=6: 0 to 10 VDC (Zin=1Meg Ohm)  
X=7: Special Input

# TUA-XS

## Dimensions:

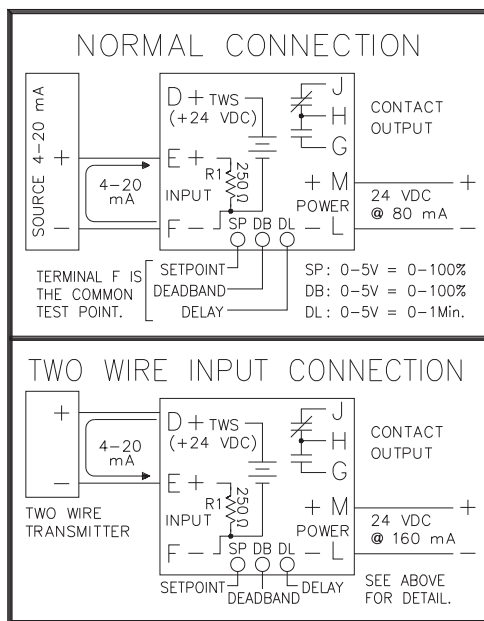


## Connection:



Calibration is made easy by multi-turn potentiometers with test points for meter connection

## Connection:



## Configuration:

	Out	In
H1	High Trip	Low Trip
H2	Energized	De-Eng.
H3	4-20mA I/P	0-20mA I/P
H4	ON Delay Only	OFF and ON Delay

The above table shows H3 for a 4-20 mA or 0-20 mA device. The same offset/zero-based input configuration holds true for all other input types.

## Specifications:

Accuracy/Linearity: +/-0.3% max., +/-0.1% typ.  
 Response Time: approx. 100msec  
 Operating Temperature: -40 Deg.C to +50 Deg.C  
 Contact Rating: 10A 1/8 Hp @ 125 VAC  
 6A 1/8 Hp @ 277 VAC

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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### CANADA:

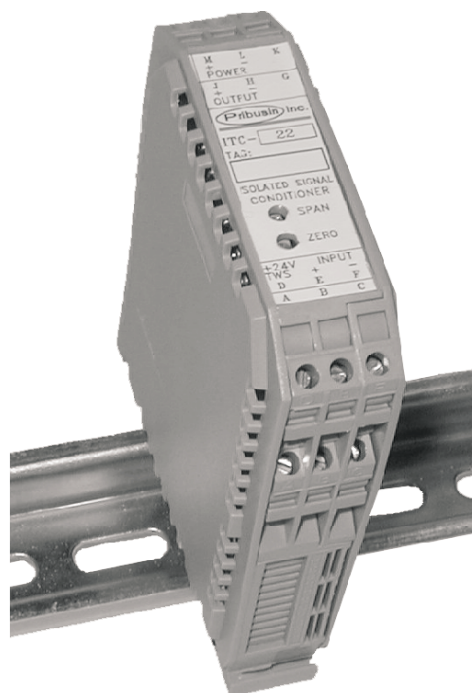
Pribusin Inc.  
 101 Freshway Dr. Unit 57  
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 Ph: (905) 660-5336  
 Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TUA-XHL**

**Terminal Universal Hi-Lo Alarm**



### Standard features:

High Input-Output-Power Isolation (1500VAC Test)

Small Size - Fits on Terminal Block Rail

1 Form "C" Contact Output with ON delay or ON and OFF delay

Individual Hi-Alarm and Lo-Alarm Setpoints and Delay Adjustment

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

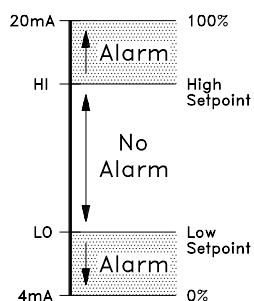
Power: 24 VDC, 60 mA

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The TUA-XHL Hi-Lo Alarm Trip is a microprocessor based instrument. It operates as a combined high trip and low trip to detect conditions that fall outside a specified operating window. The relay can be configured as a normally-energized or normally de-energized. A built in two wire supply can be used to connect two wire sensors to the TUA-XHL.



The output is a SPDT (form "C") contact rated at 10 Amps, 1/8 Hp at 125 VAC. The High and Low setpoints can be adjusted individually to allow for monitoring virtually any operating window. The delay is adjustable from 0-1 minute and can be configured as ON delay only or as ON and OFF delay. This feature helps prevent nuisance alarms.

### Calibration:

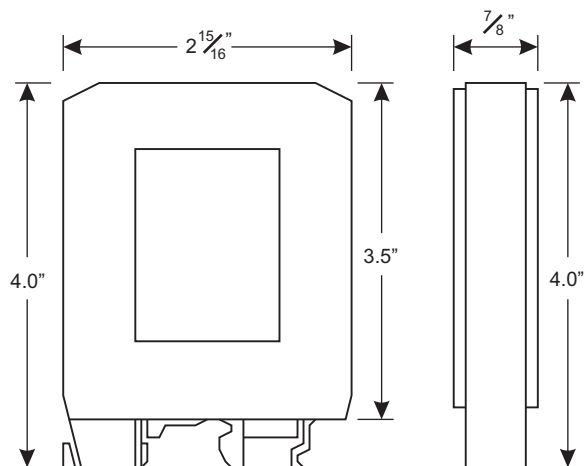
The TPz (Test Points) are used to calibrate the setpoint and delay functions of the TUA-XHL. A voltage of 0-5 VDC on TPz represents a setting of 0-100% of the parameter z. Any parameter can be changed while the TUA-XHL is in operation thus making it easy to perform field adjustments.

### Input Selection:

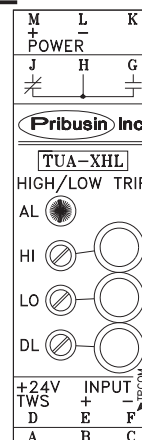
- X=1: 1 to 5 mA ( $Z_{in}=1K\ \Omega$ )
- X=2: 4 to 20 mA ( $Z_{in}=250\ \Omega$ )
- X=3: 0 to 1 mA ( $Z_{in}=5K\ \Omega$ )
- X=4: 10 to 50 mA ( $Z_{in}=100\ \Omega$ )
- X=5: 1 to 5 VDC ( $Z_{in}=1Meg\ \Omega$ )
- X=6: 0 to 10 VDC ( $Z_{in}=1Meg\ \Omega$ )
- X=7: Special Input

# TUA-XHL

## Dimensions:

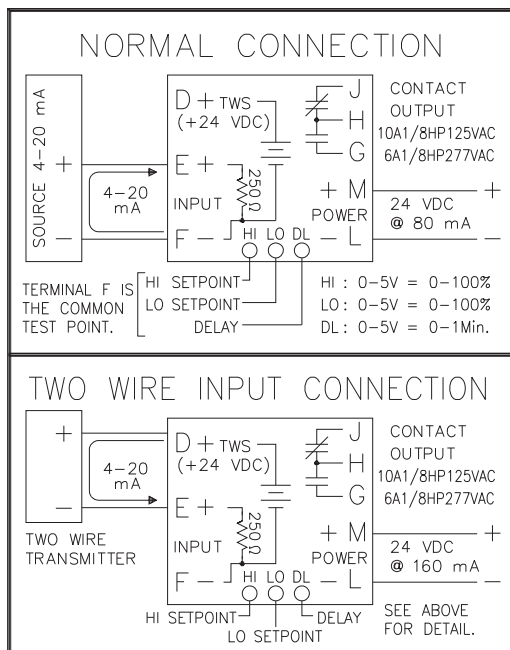


## Connection:



Calibration is made easy by multi-turn potentiometers with test points for meter connection

## Connection:



## Configuration:

Jumper	Out	In
H1-1	N/A	N/A
H1-2	Relay Energized	Relay De-Eng.
H1-3	4-20mA Input	0-20mA Input
H1-4	ON Delay Only	ON and OFF Delay

The above table shows H3 for a 4-20 mA or 0-20 mA device. The same offset/zero-based input configuration holds true for all other input types.

## Specifications:

Accuracy/Linearity: +/-0.3% max., +/-0.1% typ.  
 Response Time: approx. 100msec  
 Operating Temperature: -40 Deg.C to +50 Deg.C  
 Contact Rating: 10A 1/8 Hp @ 125 VAC  
 6A 1/8 Hp @ 277 VAC

Manufactured By:

**Pribusin Inc.**

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### CANADA:

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 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

User Configurable for Single or Dual Input Operation  
Scalable 4-Digit LED Display  
Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)  
Various Input Options Available (V, I, T/C, RTD )  
2 Form 'C' Relay Contact Outputs  
Each Relay Contact has Individual Setpoint and Deadband Adjustment.  
Easy Field Calibration  
Microprocessor Controlled for High Accuracy  
Two Wire Supply Option for Two Wire Transmitters  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
High Noise Rejection  
CSA and NRTL Approved (LR 51078)

### Function:

The UA-XD-IND is a microprocessor controlled single or dual trip with 4-Digit LED display. It is easily field configurable to operate in a large number of different modes. Each relay contact output is individually configurable to the following modes of operation: High/Low Trip , Normally Energized / De-energized. Additionally, both relays can be made to operate from the same input to give two levels of alarm for a single input.

A delay feature allows a 0-5 min. adjustable ON delay to be added to the trip function in order to screen out intermittent and erroneous alarms. If the delay function is activated, the input must be greater than the setpoint for the time specified by the delay before the relay will activate. There is also a combined ON and OFF delay function which, in addition to delaying the relay 'turn-on' time, delays the relay 'turn-off' time.

The 4-digit LED display is scalable to engineering units from 0-9990.

### Calibration:

Each relay contact has two potentiometers that are used to adjust the setpoint and deadband settings. The setpoint and deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-5 min. A rotary switch allows setpoint, deadband, delay and full scale values to be shown on the display during adjustments.

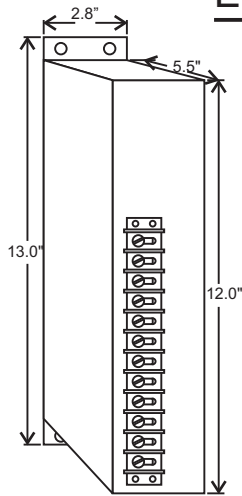
### Specifications:

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

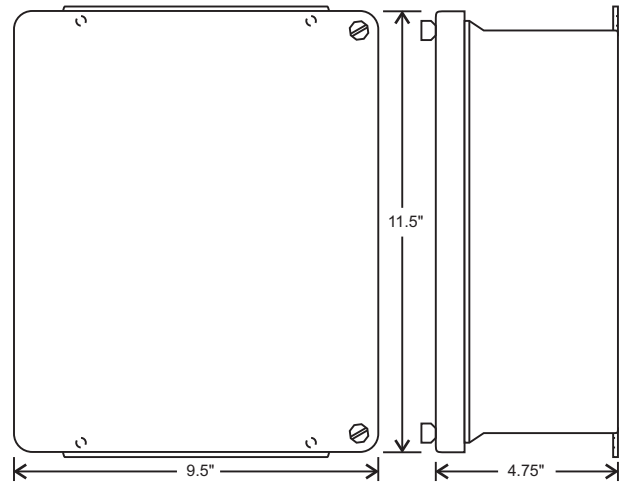


# UA-XD-IND

## Enclosures & Dimensions:

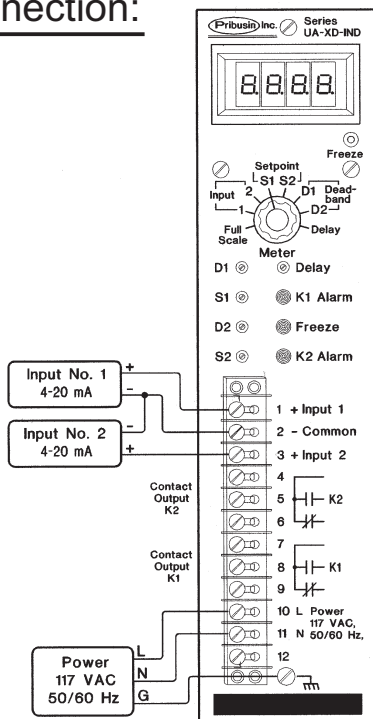


Standard Metal Enclosure



NEMA 4X Option

## Connection:



## Model Designation:

UA-XD-IND

Input

- 1: 1-5 mA ( $Z_{in}=1K \text{ Ohm}$ )
- 2: 4-20 mA ( $Z_{in}=250 \text{ Ohm}$ )
- 3: 0-1mA ( $Z_{in}=5K \text{ Ohm}$ )
- 4: 10-50 mA ( $Z_{in}=100 \text{ Ohm}$ )
- 5: 1-5 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 6: 0-10 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 7: Special Input

Other Models

- TXX: Thermocouple (see UA-XD-TXX)
- TXX-DIF: Differential T/C (see UA-XD-TXX-DIFF)
- RTX: RTD Input (see UA-XD-RTX)

Example: Dual Indicating Alarm Trip with 4-20 mA Input in standard metal enclosure and 24VDC Power is designated by: UA-2D-IND-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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### CANADA:

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 Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: XUA-XD**

**Explosion-Proof Universal Alarm**



### Standard features:

Class I Gr. B, C & D; Class II Gr. E, F & G

Small Size - Mounts directly on Conduit

Single or Dual Channel Operating Modes

3 Form "C" Contacts

Easily Adjustable Setpoint and Deadband

High-Trip or Low-Trip Operation

Normally Energized or De-Energized Relay Mode

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Power: 24 VDC, 60 mA

High Noise Rejection

### Function:

The XUA-XD Alarm Trip is a microprocessor based instrument. It has a single or dual channel mode of operation. It can be configured as a high trip or as a low trip (selectable by push-on pins inside the instrument). The relays can be configured as a normally-energized or normally de-energized. The output is 3 SPDT (form "C") contacts rated at 0.4 Amps, at 125 VAC. The 3rd relay is used as an input fail (below 2mA) in the case of 4-20mA inputs.

The deadband can be adjusted from 0-100%. The delay is selectable as 0 or 5 minutes ON delay.

### Calibration:

The TPz (Test Points) are used to calibrate the setpoint and deadband functions of the XUA-XD. A voltage of 0-5 VDC on TPz represents a setting of 0-100% of the parameter z. Any parameter can be changed while the XUA-XD is in operation thus making it easy to perform field adjustments.

### Input Selection:

X=1: 1 to 5 mA (Zin=1K Ohm)

X=2: 4 to 20 mA (Zin=250 Ohm)

X=3: 0 to 1 mA (Zin=5K Ohm)

X=4: 10 to 50 mA (Zin=100 Ohm)

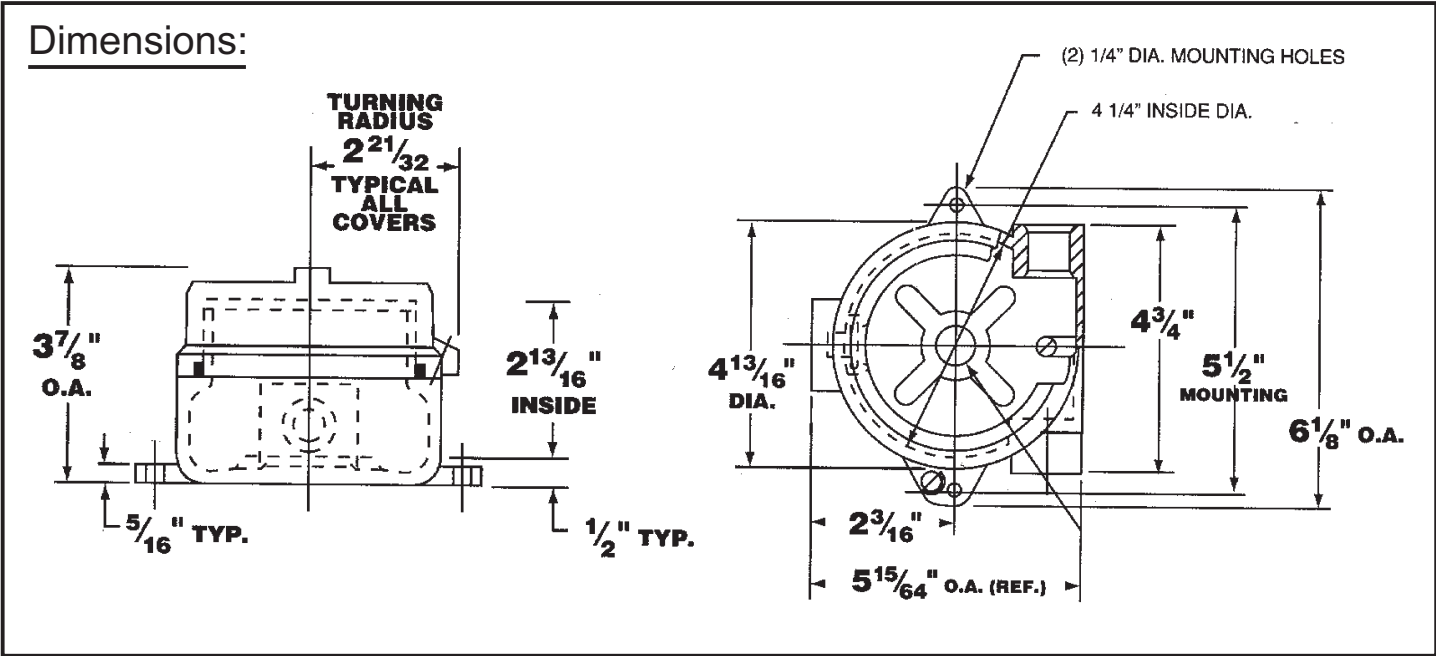
X=5: 1 to 5 VDC (Zin=1Meg Ohm)

X=6: 0 to 10 VDC (Zin=1Meg Ohm)

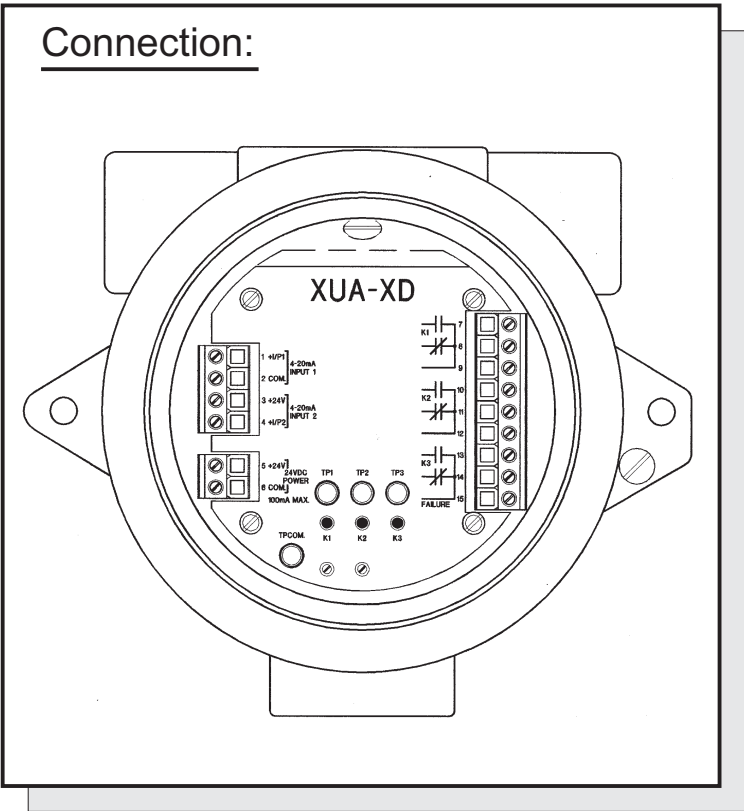
X=7: Special Input

# XUA-XD

## Dimensions:



## Connection:



## Configuration:

	OUT	IN
H1	High Trip	Low Trip
H2	Energized	De-Energ.
H3	No Delay	ON Delay
H4	Single	Dual

The above table shows the jumper configuration for the XUA-XD.

## Specifications:

Accuracy/Linearity:  $\pm 0.3\%$  max.,  $\pm 0.1\%$  typ.  
Operating Temperature:  $-40$  Deg.C to  $+50$  Deg.C  
Contact Rating: 0.4A @ 125 VAC

Manufactured By:

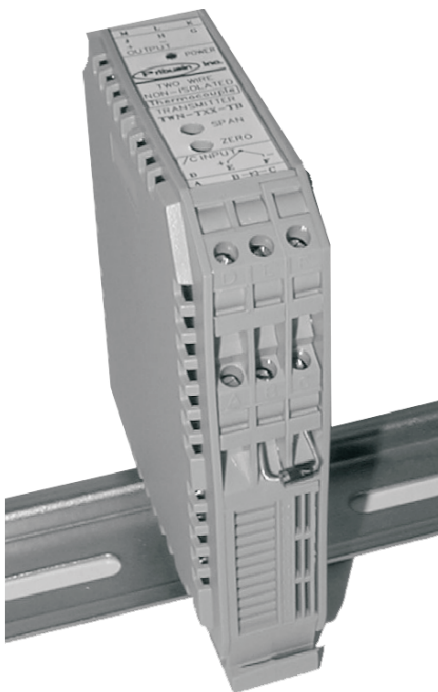
**Pribusin Inc.**

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### Standard features:

High Input-Output-Power Isolation (1500VAC Test)

Small Size - Fits on Terminal Block Rail

1 Form "C" Contact Output with ON delay or ON and OFF delay

Individual Setpoint, Deadband, Delay Adjustment

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 24 VDC, 60 mA

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The TUA-7S-THR is a thermistor input alarm trip. It can operate as a high trip or as a low trip (selectable by push-on pins inside the instrument). The relay can be configured as a normally-energized or normally de-energized. The output is a SPDT (form "C") contact rated at 10 Amps, 1/8 Hp at 125 VAC. The deadband can be adjusted from 0-100%. The delay is adjustable from 0-1 minute and can be configured as ON delay only or as ON and OFF delay.

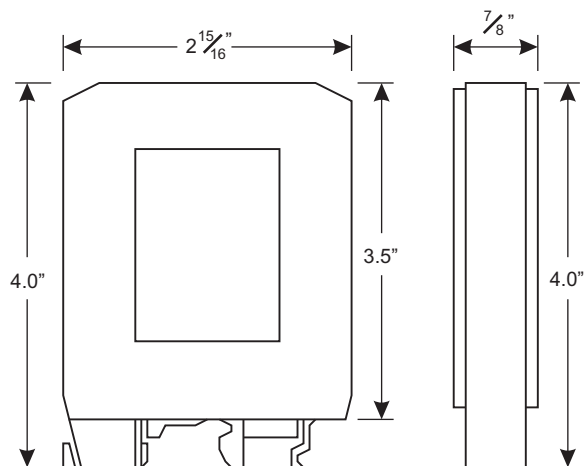
**-HLI version:** The TUA-7S-THR-HLI has an additional thermistor fail detect function which activates the relay if the thermistor either becomes shorted or open circuited. The thermistor short threshold is defined as an input of less than 20 ohms and the open circuit threshold is defined as an input of greater than 100K ohms.

### Calibration:

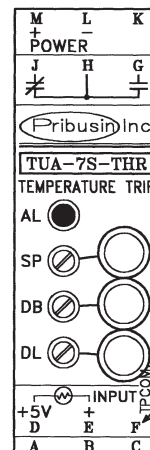
The TPz (Test Points) are used to calibrate the setpoint, deadband, and delay functions of the TUA-XS. A voltage of 0-5 VDC on TPz represents a setting of 0-100% of the parameter z. Any parameter can be changed while the TUA is in operation thus making it easy to perform field adjustments.

# TUA-7S-THR

## Dimensions:



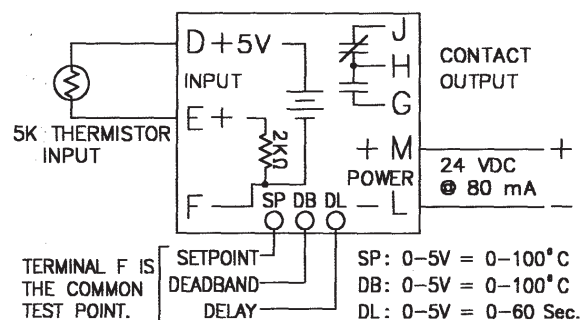
## Connection:



Calibration is made easy by multi-turn potentiometers with test points for meter connection

## Connection:

### NORMAL CONNECTION



## Configuration:

Jumper	Out	In
H1-1	High Trip	Low Trip
H1-2	Relay Energized	Relay De-Eng.
H1-3	N/A	N/A
H1-4	<u>ON</u> Delay Only	<u>ON</u> and <u>OFF</u> Delay

## Specifications:

Accuracy/Linearity: 4% for 0-30 Deg.C Range  
 1% for 40-80 Deg.C Range  
 3% for 90-100 Deg.C Range  
 Response Time: 100msec (not incl. thermistor response)  
 Operating Temperature: -40 Deg.C to +50 Deg.C  
 Contact Rating: 10A 1/8 Hp @ 125 VAC  
 6A 1/8 Hp @ 277 VAC

Manufactured By:

**Pribusin Inc.**

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### Standard Features:

Standard Industry Input Signals

Full 100% Differential Range

2 Form 'C' Relay Contact Outputs

Each Relay Contact has Individual Deadband and Delay Adjustment.

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

CSA and NRTL Approved (LR 51078)

### Function:

The UA-XD-DIF is a microprocessor controlled Differential Alarm Trip. It measures the differential between the two input signals and operates the two relays as follows:

Input 1 > Input 2 + Deadband ==> Relay K1 operates

Input 2 > Input 1 + Deadband ==> Relay K2 operates

Input 1 = Input 2 ==> No relay operates

Each relay contact is individually configurable for Normally Energized / De-energized operation.

A delay feature allows a 0-60 sec. adjustable ON delay to be added to the trip function in order to screen out intermittent and erroneous alarms.

### Calibration:

Each relay contact has two potentiometers that are used to adjust the deadband and delay settings. The deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-60 sec. A test point next to each potentiometer shows a voltage of 0-5 VDC for a setting of 0-100%.

### Specifications:

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

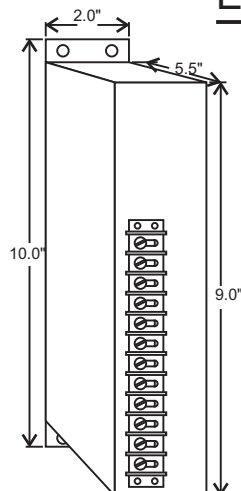
Temperature Effects: +/- 0.5% max., +/- 0.2% typ.  
(for 40 Deg.C. change)

Contact Rating: 10A 1/8Hp @ 125VAC

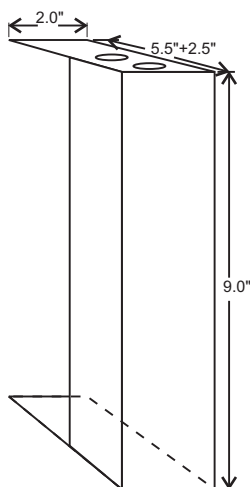
6A 1/8Hp @ 277VAC

# UA-XD-DIF

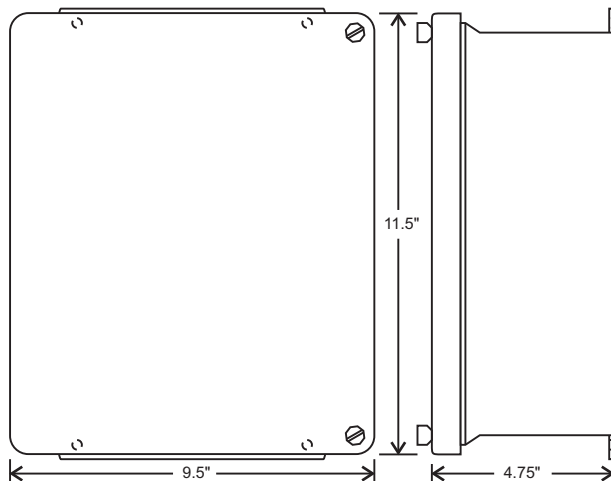
## Enclosures & Dimensions:



Standard Metal Enclosure



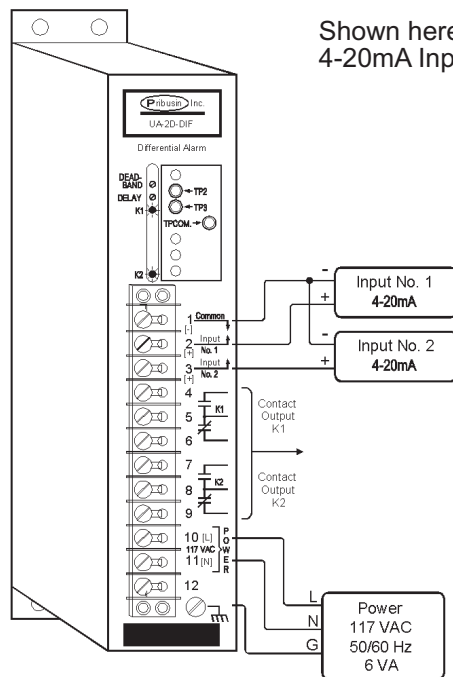
Conduit Cover Option  
for Metal Enclosure



NEMA 4X Option

## Connection:

Shown here for  
4-20mA Input



## Model Designation:

UA-XD-DIF

Input

- 1: 1-5 mA ( $Z_{in}=1K\ \Omega$ )
- 2: 4-20 mA ( $Z_{in}=250\ \Omega$ )
- 3: 0-1mA ( $Z_{in}=5K\ \Omega$ )
- 4: 10-50 mA ( $Z_{in}=100\ \Omega$ )
- 5: 1-5 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 6: 0-10 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 7: Special Input

Other Models

- TXX: Thermocouple (see UA-XD-TXX)
- TXX-DIF: Differential T/C (see UA-XD-TXX-DIFF)
- RTX: RTD Input (see UA-XD-RTX)
- FRX: Frequency (see UA-XD-FRX)

Example: Differential Alarm Trip with 4-20 mA Inputs in standard metal enclosure and 24VDC Power is designated by: UA-2D-DIF-A

If no options specified, unit is 117 VAC Power in metal enclosure

## Options: (Add letters to end of Model Number)

- A - 24 VDC Prime Power
- B - 240 VAC Prime Power (not CSA approved)
- T - 200 mA Two Wire Supply (24 VDC unreg.)
- C - Conduit Cover for Metal Enclosure (see above)
- N - NEMA 4X enclosure (see above)

Manufactured By:

**Pribusin Inc.**

www.pribusin.com  
info@pribusin.com

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

## Universal Power Supply



### Standard Features:

Standard 117 VAC Line Power  
Other Primary Power Inputs Available  
Industry Standard Output Voltages (see back)  
Several Current Ratings  
Special Output Voltage/Current Ratings Available  
High Efficiency HexFET Switching Power Supply Technology  
Current Limit Protection  
Overvoltage Protection  
Thermal Shutdown Protection  
CSA and NRTL Approval Pending

### Function:

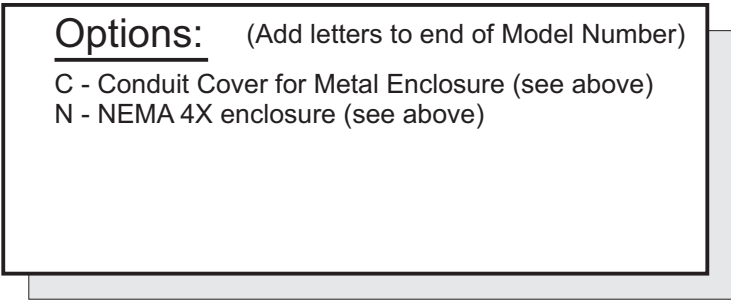
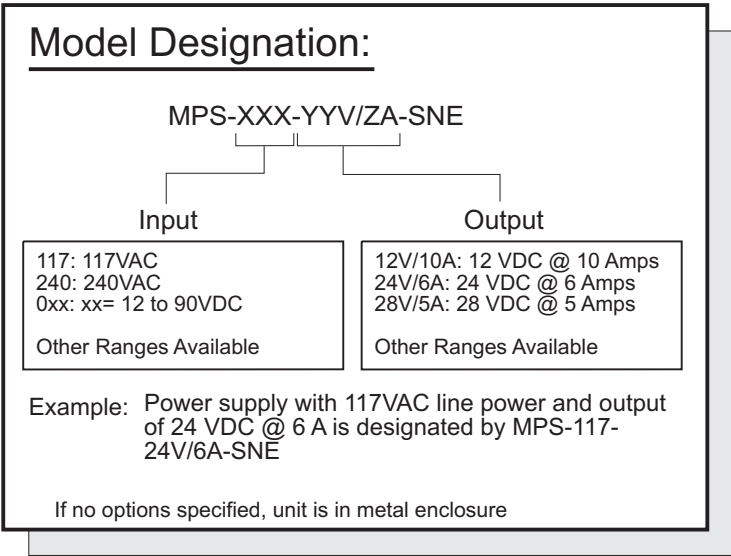
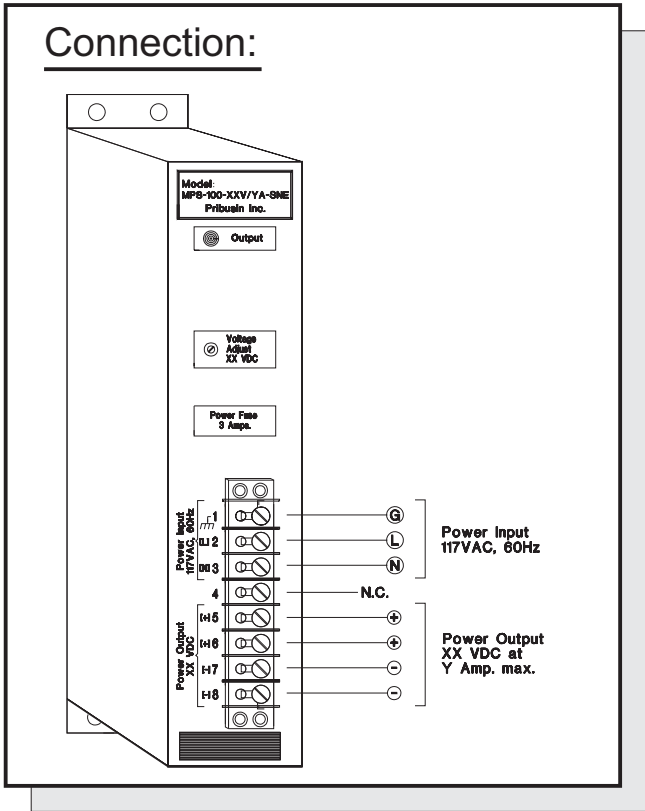
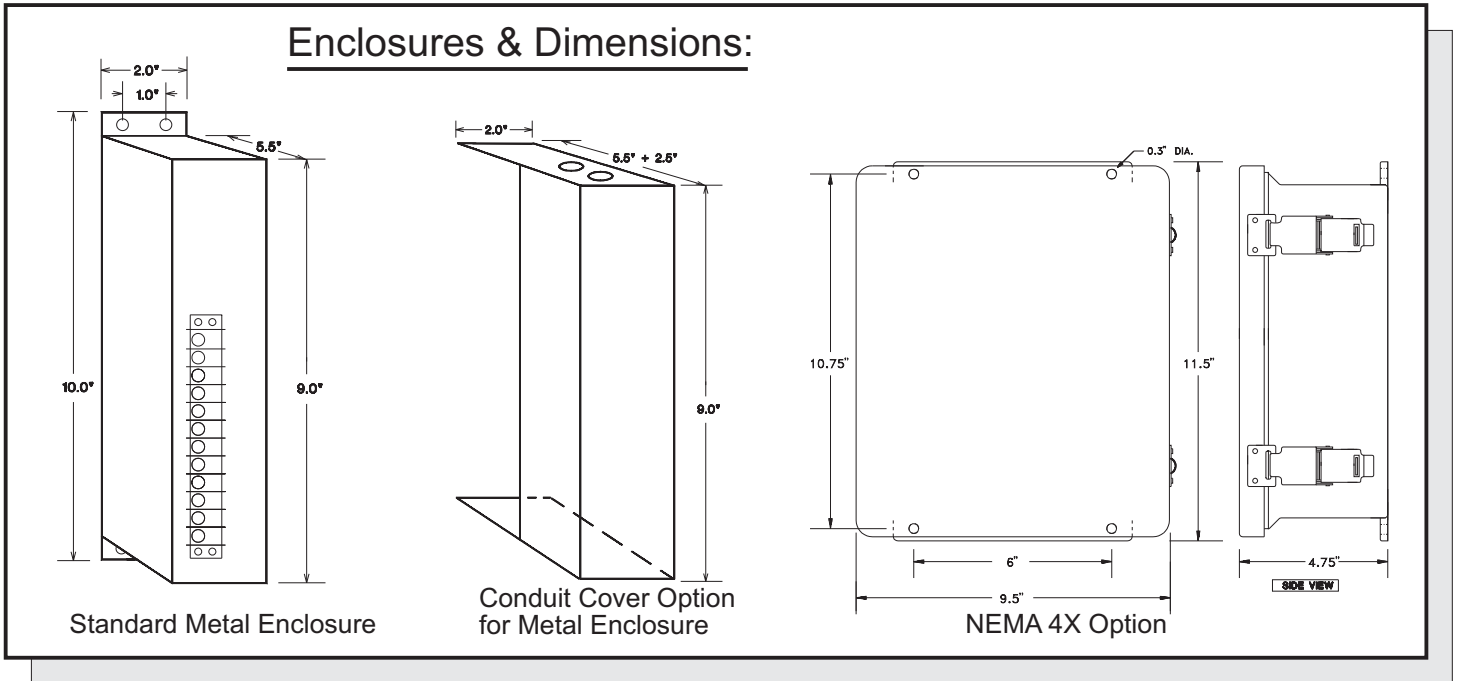
The MPS series power supplies are reliable, efficient power supplies that can be used in general purpose power supply applications. Primary power input can be 117VAC, 240VAC or any DC voltage between 12 and 90 VDC. The rugged design provides excellent power characteristics right up to the rated maximum load. Three way protection ensures that the power supply has a long service life.

- 1) Current limiting at 130% of rated output current protects the power supply from damage due to excess current drain
- 2) A crowbar circuit protects the power supply from overvoltage by shutting down the primary switching logic. To restore operation, the input to the supply must be turned off for a length of time to allow the main filter capacitor to discharge.
- 3) Thermal shutdown protection protects the output diodes and the switching transistor from overheating. The power supply will shut down and automatically restart once these devices have cooled down again.

### Specifications:

Power Input: 117 VAC 60 Hz, standard  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Output Ripple: Less than 70 mV  
Regulation: +/-1% for 0-100% Load

# MPS-XXX-YYV/ZA-SNE



Manufactured By:

**Pribusin Inc.**

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Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TPS-24V-1/4A**

**24 VDC Terminal Power Supply**



**Standard features:**

High Power to Output Isolation (1500 VAC Test)  
Small Size - Fits on Terminal Block Rail  
24 VDC Output @ 250 mA (unregulated)  
Power 117 VAC, 60 Hz  
Protected by Fast-acting Fuse  
CSA and NRTL Approval Pending

**Function:**

The TPS-24V-1/4 is an isolated 24 VDC Power Supply. It is ideal for supplying power to other DIN rail mount instruments such as the series ITC, TWI, TWN or any other 24 VDC powered instrument. Its small size and easy installation make it ideal for crowded control panels where an isolated power supply is required.

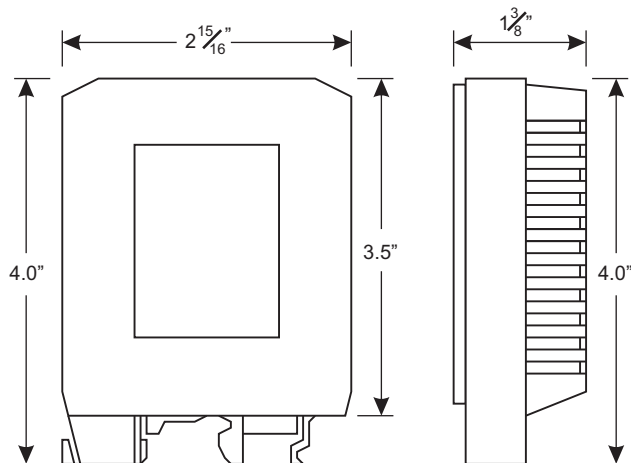
The built in fast-acting fuse protects the power supply from damage in case of a short circuit at the output.

**Specifications:**

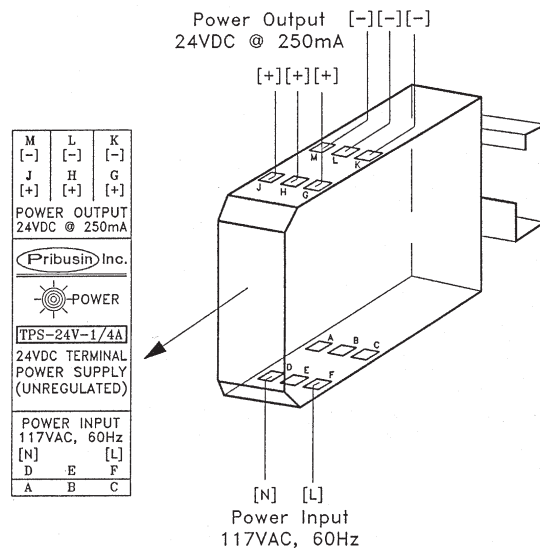
Isolation: 1500 VAC (Test)  
Power: 117 VAC, 60 Hz  
Fuse: AGC 1/4A  
Output: 24 VDC, 250 mA max. (unregulated)  
Operating Temperature: -40 Deg. C. to + 50 Deg. C.

# TPS-24V-1/4A

## Dimensions:

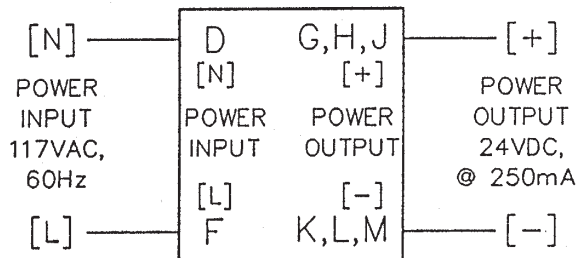


## Connection:



## Connection:

### Field Connections



TPS-24V-1/4A  
24VDC POWER SUPPLY

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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743 Marquette Ave.  
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Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

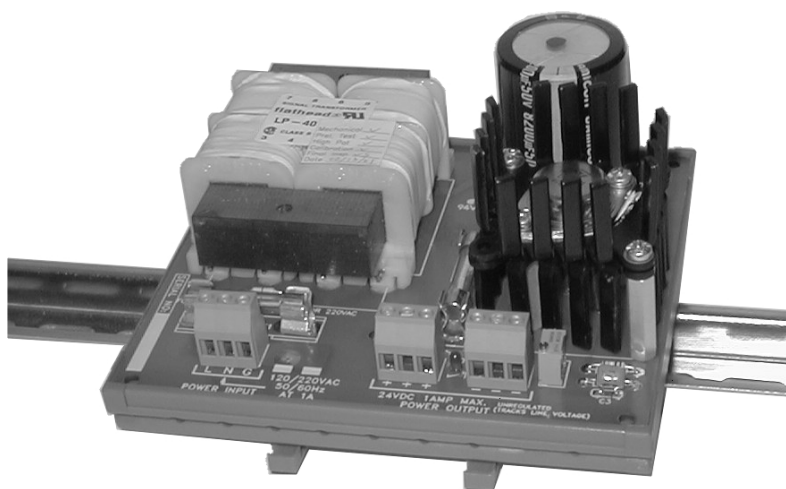
Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

**Model: ITC-24V/1A**

**24 VDC Terminal Power Supply**



**Standard features:**

High Power to Output Isolation (1500 VAC Test)  
Small Size - Fits on Terminal Block Rail  
24 VDC Output @ 1A (Regulated)  
Power 117 VAC, 60 Hz  
Protected by Fast-acting Fuse  
CSA and NRTL Approved (Lr51078)

**Function:**

The ITC-24V/1A is an isolated 24 VDC Power Supply. It is ideal for supplying power to other DIN rail mount instruments such as the series ITC, TWI, TWN or any other 24 VDC powered instrument. Its small size and easy installation make it ideal for crowded control panels where an isolated power supply is required.

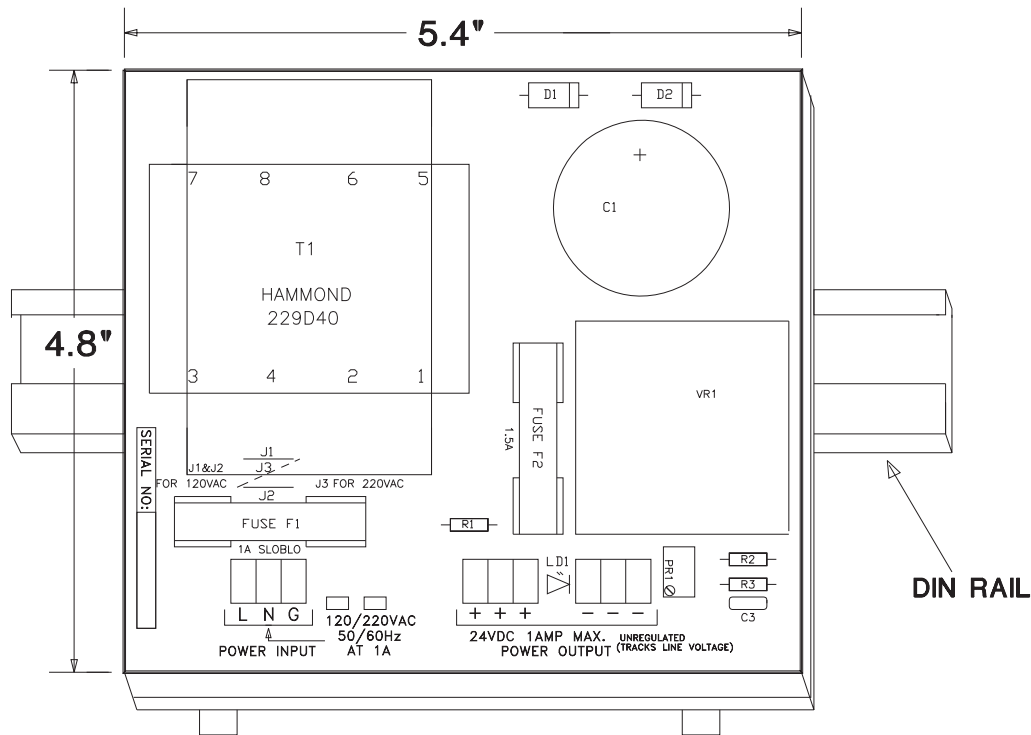
The built in fast-acting fuse protects the power supply from damage in case of a short circuit at the output.

**Specifications:**

Isolation: 1500 VAC (Test)  
Power: 117 VAC, 60 Hz  
Fuse: Primary: MDL1 Secondary: AGC 1.5  
Output: 24 VDC, 1 A max. (Regulated)  
Operating Temperature: -40 Deg. C. to + 50 Deg. C.

# ITC-24V/1A

## Dimensions & Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: SDP-XV/3A**

**3A Step-Down Power Supply**



### Standard Features:

Step-Down from 24VDC to 5V, 12V, & more

Small Size - Fits on Terminal Block Rail

24 VDC Input @ 3A max.

Protected by Fast-acting Fuse

CSA and NRTL Approved

### Function:

The SDP-XV/3A is a 24 VDC Step-Down Power Supply that provides a lower voltage output from a 24VDC input. It is ideal for supplying power to other devices that require a lower voltage without having to install a separate 117VAC powered supply. Its small size allows it to fit into crowded control panels.

The built in fast-acting fuse protects the power supply from damage in case of a short circuit at the output.

### Specifications:

Power: 24 VDC, 3A max.

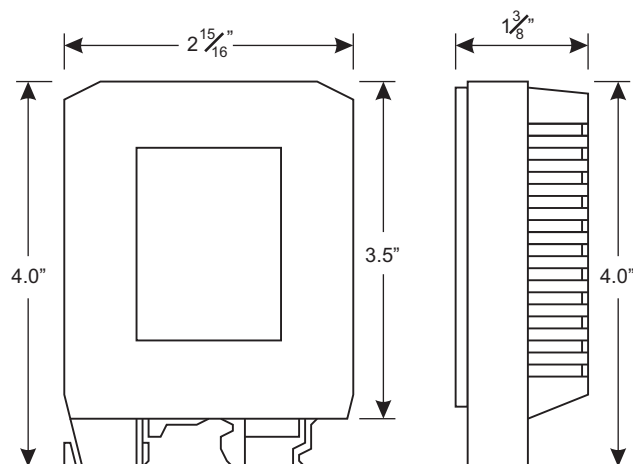
Fuse: AGC 3A

Output: 5VDC, 12VDC (3A max.), Others available

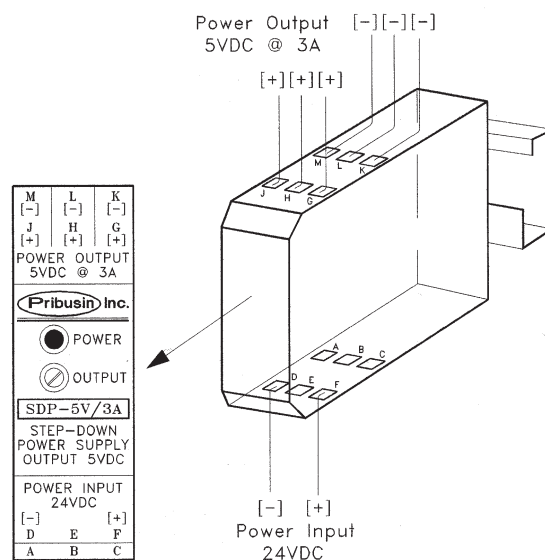
Operating Temperature: -40 Deg. C. to + 50 Deg. C.

# SDP-XV/3A

## Dimensions:

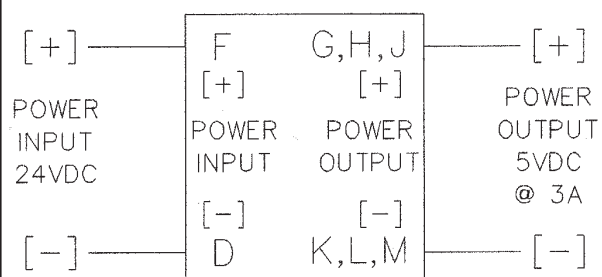


## Connection:



## Connection:

### Field Connections



SDP-5V/3A  
STEP-DOWN POWER SUPPLY

## Model Designation:

SDP-XV/YA

Output

5V/3A: 5 VDC @ 3 Amp  
12V/3A: 12 VDC @ 3 Amp  
Other Ranges Available

Example: Power supply with output of 12 VDC @ 3 A is designated by SDP-12V/3A

Manufactured By:

**Pribusin Inc.**

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Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

Step-Up from 5VDC or 12VDC to 12V, 24V, & more

Small Size - Fits on Terminal Block Rail

Current Input 3A max.

Protected by Fast-acting Fuse

CSA and NRTL Approved

### Function:

The SUP-XV/YA is a Step-Up Power Supply that provides a higher output voltage from a 5 or 12VDC input. It is ideal for supplying power to other devices that require a higher voltage without having to install a separate 117VAC powered supply. Its small size allows it to fit into crowded control panels.

The built in fast-acting fuse protects the power supply from damage in case of a short circuit at the output.

Because the power supply is limited to a 3A max input current the output current will depend on the step-up voltage ratio. The greater the step-up voltage ratio, the lower the available output current will be. The output current is calculated as:

$$\text{Output Current} = 1.9 \times \frac{V_{\text{in}}}{V_{\text{out}}}$$

### Specifications:

Power: 5 or 12 VDC, 3A max.

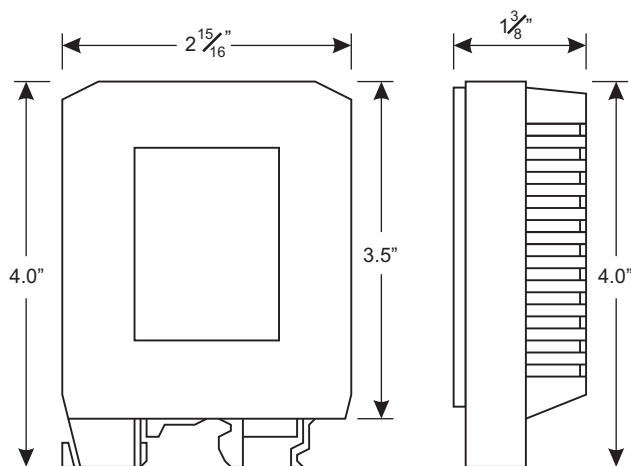
Fuse: AGC 3A

Output: 12VDC@1.8A, 24VDC@1A, Others available

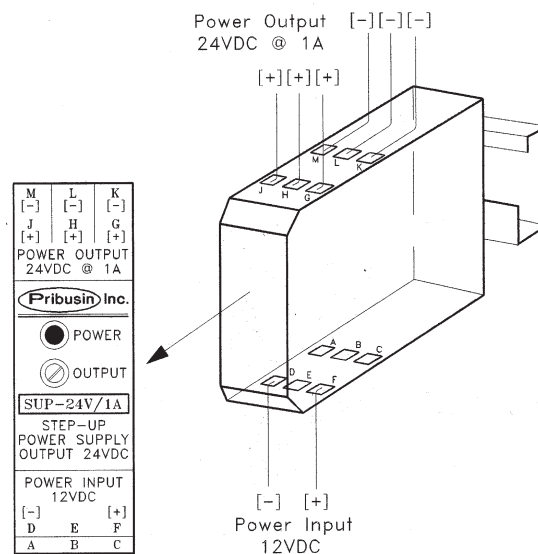
Operating Temperature: -40 Deg. C. to + 50 Deg. C.

# SUP-XV/YA

## Dimensions:

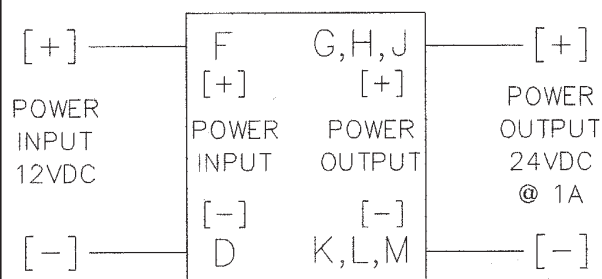


## Connection:



## Connection:

### Field Connections



## Model Designation:

SUP-XV/YA

Output

12V/0.8A: 12 VDC @ 0.8 Amp (Vin=5V@3A)  
24V/1A: 24 VDC @ 1 Amp (Vin=12V@3A)  
24V/0.8A: 24VDC @0.8Amp (Vin=10V@3A)

Other Ranges Available

Example: Power supply with output of 24 VDC @ 1 A is designated by SUP-24V/1A

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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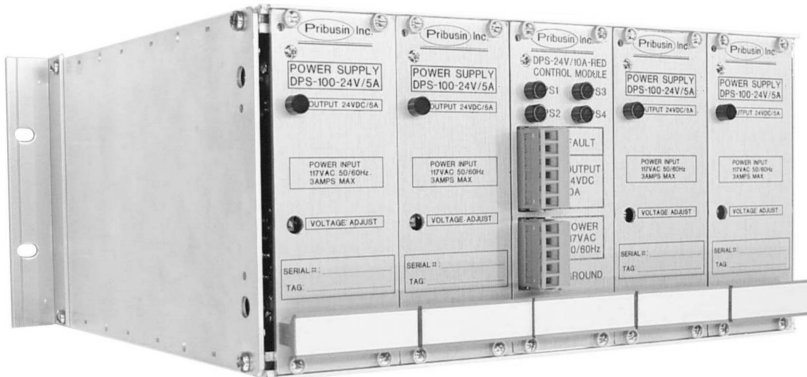


### CANADA:

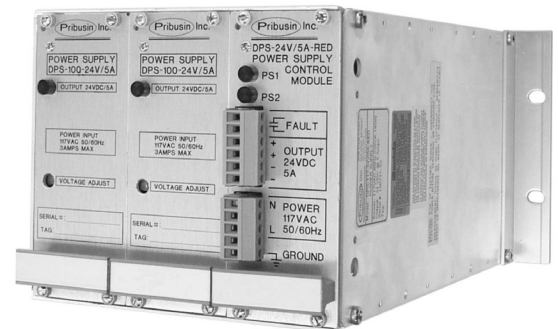
Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



## Redundant Power Supply



**10 Amp. Model**



**5 Amp. Model**

### Function:

The DPS series redundant power supplies are reliable, efficient power supplies that provide uninterrupted output even if one supply module should fail. Each power supply module is hot-swappable while the other module(s) remain operational. A central control module provides individual power supply module failure indication along with a common fault alarm contact.

Three way protection ensures that the power supply has a long service life.

- 1) Current limiting at 130% of rated output current protects the power supply from damage due to excess current drain
- 2) A crowbar circuit protects the power supply from overvoltage by shutting down the primary switching logic. To restore operation, the input to the supply must be turned off for a length of time to allow the main filter capacitor to discharge.
- 3) Thermal shutdown protection protects the output diodes and the switching transistor from overheating. The power supply will shut down and automatically restart once these devices have cooled down again.

### Standard Features:

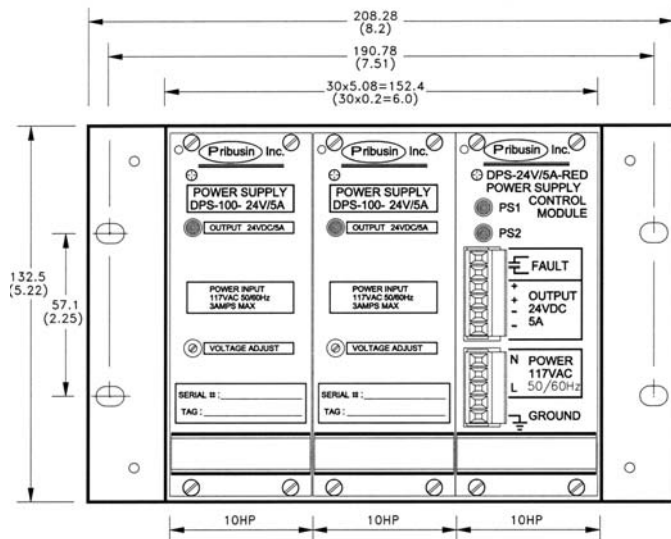
- Standard 117 VAC Line Power
- Various Output Voltage & Current Combinations
- High Efficiency HexFET Switching Power Supply Technology
- Current Limit Protection
- Overvoltage Protection
- Thermal Shutdown Protection
- Fault Indication Lights

### Specifications:

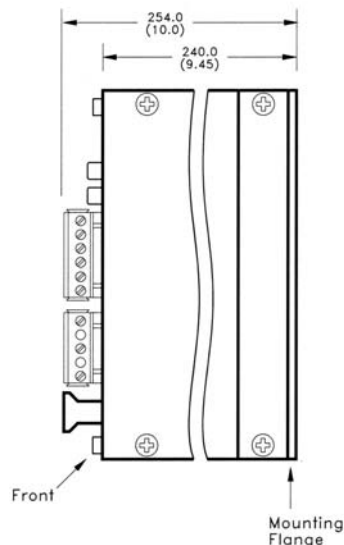
- Power Input: 117 VAC 60 Hz
- Power Consumption:
  - 5A version: 220VA, 145W
  - 10A version: 450VA, 300W
- Input Power Fuse:
  - 5A version: 6A
  - 10A version: 12A
- Operating Temperature: -40 Deg.C. to +50 Deg.C.
- Output Ripple: Less than 70 mV
- Regulation: +/-1% for 0-100% Load

# DPS-XXV/YA-RED-S

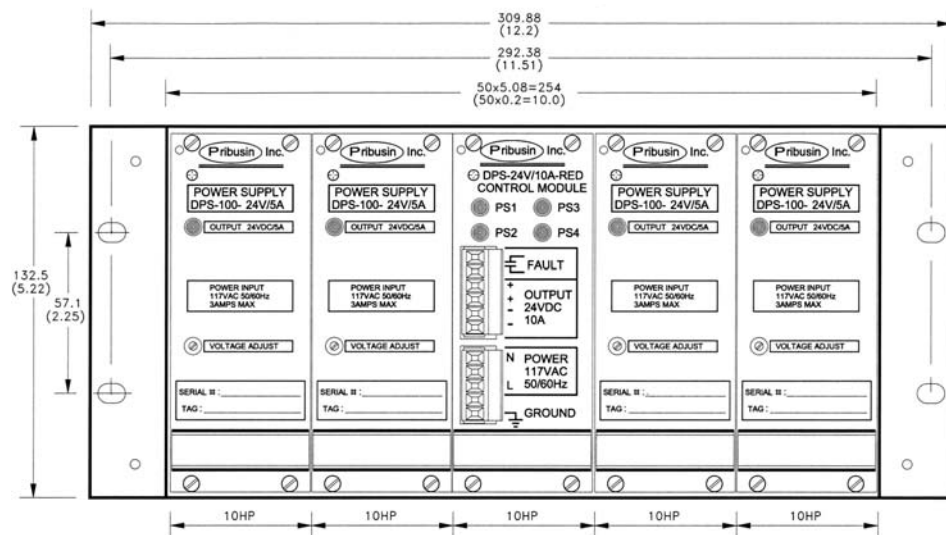
**DPS-24V/5A-RED-S (Front View):**



**Side View for 5A & 10A:**



**DPS-24V/10A-RED-S (Front View):**



## Model Designation:

DPS-XXV/YA-RED-S

Output

12V/5A: 12 VDC @ 5 Amps  
12V/10A: 12 VDC @ 10 Amps  
24V/5A: 24 VDC @ 5 Amps  
24V/10A: 24 VDC @ 10 Amps

Other Ranges Available

Example:

Redundant power supply with  
24VDC, 5 A output is designated  
by DPS-24V/5A-RED-S

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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Fx: (905) 660-4068



### Standard Features:

Standard 117 VAC Line Power  
Other Primary Power Inputs Available  
Industry Standard Output Voltages (12V, 24V)  
Several Current Ratings  
Low Battery Voltage Drop-out  
Special Output Voltage/Current Ratings Available  
High Efficiency HexFET Switching Power Supply Technology  
Current Limit Protection  
Overvoltage Protection  
Thermal Shutdown Protection

### Function:

The MPS series power supplies are reliable, efficient power supplies that can be used in general purpose power supply applications. Primary power input can be 117VAC, 240VAC or any DC voltage between 12 and 90 VDC. The rugged design provides excellent power characteristics right up to the rated maximum load. Three way protection ensures that the power supply has a long service life.

The integrated battery charger and low-voltage drop-out provide continuous load power during short main power outages. The only external components required are a 12 or 24 volt lead-acid battery.

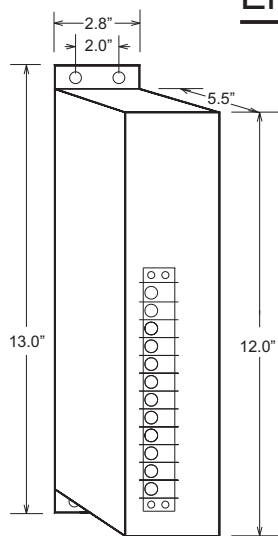
### Specifications:

Power Input: 117 VAC 60 Hz, standard  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Output Ripple: Less than 70 mV  
Regulation: +/-1% for 0-100% Load

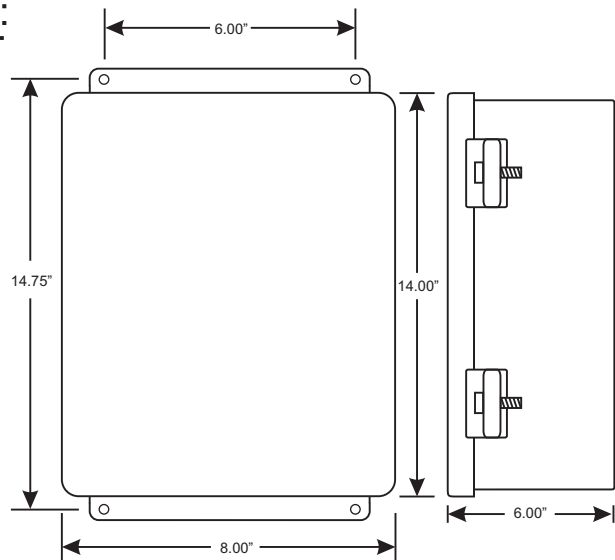
- 1) Current limiting at 130% of rated output current protects the power supply from damage due to excess current drain
- 2) A crowbar circuit protects the power supply from overvoltage by shutting down the primary switching logic. To restore operation, the input to the supply must be turned off for a length of time to allow the main filter capacitor to discharge.
- 3) Thermal shutdown protection protects the output diodes and the switching transistor from overheating. The power supply will shut down and automatically restart once these devices have cooled down again.

# MPS-100-BC-UV

## Enclosures & Dimensions:

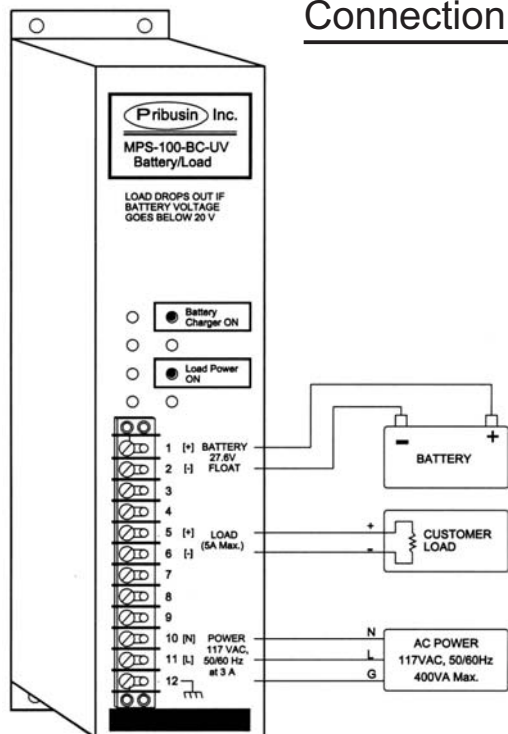


Standard Metal Enclosure



NEMA 4 Option

## Connection:



## Options:

N - NEMA 4 enclosure (see above)

(Add letters to end of Model Number)

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: NTC-XX-ADD**

**Non-Isolated Adder/Subtractor**



### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

1 to 4 Inputs can be easily field configured for Addition or Subtraction (Each Input has Scaling Adjustment)

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply Option for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-ADD is a microprocessor controlled Adder/Subtractor. It is easily field configurable to any combination of adding inputs or subtracting inputs. Furthermore, each input can be scaled by a factor of 0-1.25 (or 0-2.5) to allow for unequal process inputs. This flexibility combined with easy field calibration allows for the fine tuning of a process on site with little effort. All that is required to change the calibration settings is a voltmeter and a small screwdriver.

Example: Adding two Flows of different sized pipes.

Pipe1 = 2 x Pipe2 (by Volume)

Scaling Input #1 by 0.67 and Input #2 by 0.33 will result in a combined flow total of 1.0 max.  
(for scaling factor of 1.25: TP1=3.35V, TP2=1.65V)

### Calibration:

The Test Points (TP1 to TP4) and potentiometers K1 to K4 are used to adjust the scaling factors for the four inputs. The scaling factors can be in the range of 0-1.25 or 0-2.5 and can be read with a voltmeter at the Test Points. The Test Points show a voltage of 0-5 VDC for a scaling factor of 0-100% of the selected range (1.25 or 2.50).

### Specifications:

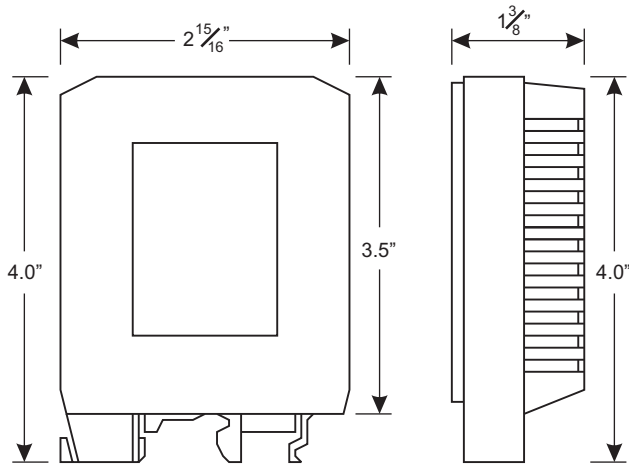
Accuracy/Linearity:  
+/- 0.3% max., +/- 0.1% typ.

Operating Temperature:  
-40 Deg.C. to + 50 Deg.C.

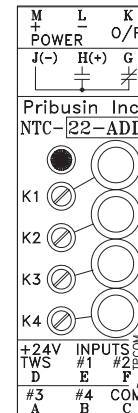
Temperature Effects:  
+/- 0.5% max., +/-0.2% typ. (for 40 Deg. change)

# NTC-XX-ADD

## Dimensions:

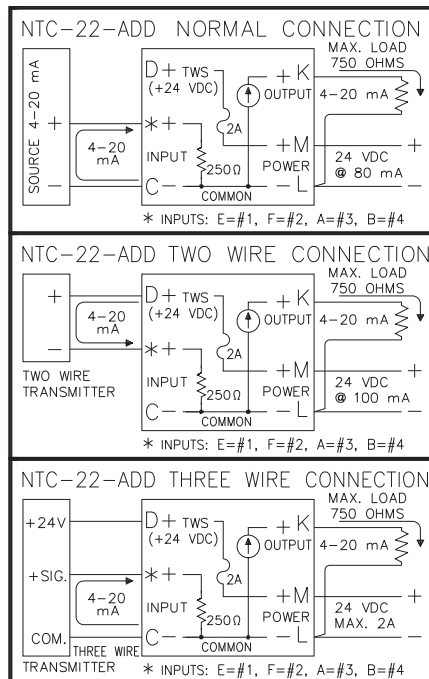


## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:



## Model Designation:

NTC-XX-ADD

Input

Output

- 1: 1-5 mA ( $Z_{in}=1K\ \Omega$ )
- 2: 4-20 mA ( $Z_{in}=250\ \Omega$ )
- 3: 0-1mA ( $Z_{in}=5K\ \Omega$ )
- 4: 10-50 mA ( $Z_{in}=100\ \Omega$ )
- 5: 1-5 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 6: 0-10 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 7: Special Input

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC ( $Z_{out}=250\ \Omega$ )
- 6: 0-10 VDC ( $Z_{out}=500\ \Omega$ )
- 7: Special Output

Example: Adder with 1-5VDC Input & 4-20mA Output and 24VDC Power is designated by: NTC-52-ADD

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**

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 Ph: (231) 788-2900  
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### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: NTC-7X-FRX**

**Non-Isolated Frequency Converter**



### Standard Features:

DIN-Rail Mounted (small size)

Wide Input Frequency Ranges (from 5 Hz to 10 KHz)

Industry Standard Output: 4-20 mA, 1-5 VDC, more  
(see back)

Special Low Frequency Input Version Available -  
Model NTC-7X-FRL (from 0.005 Hz to 10 Hz)

Easy Field Calibration (Typ. calibration time < 2 min.  
using handheld meter only)

Microprocessor Controlled for High Accuracy

24 VDC Supply for Open Collector Input or Dry  
Contact Input

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-7X-FRX is a microprocessor controlled Frequency to analog output converter that is easily field configurable to any frequency input from 0-5 Hz to 0-10 KHz. Adjustments to the input settings can be made while the instrument is operating. This flexibility combined with easy field calibration allows for the fine tuning of a process on site with little effort. All that is required to change the calibration settings is a voltmeter and a small screwdriver.

A special low frequency input version (FRL) is available for frequency inputs between 0.005 Hz and 10 Hz.

For more specialized frequency inputs, another instrument the NTC-7X-FRW offers more flexibility by providing adjustability for both the 0% input frequency and the 100% input frequency. This allows for a specific frequency window to be extracted. See Model NTC-7X-FRW Data Sheet.

### Calibration:

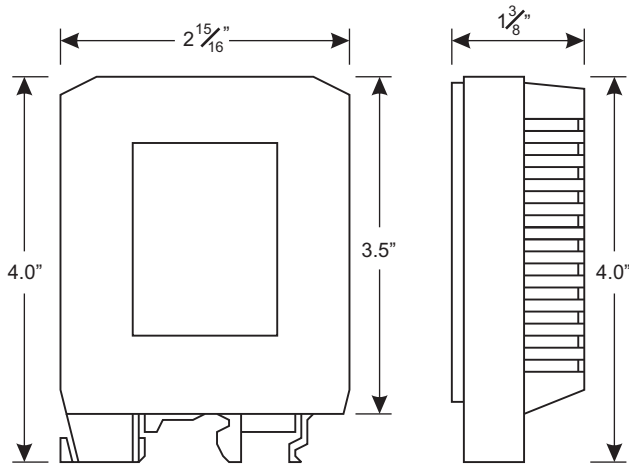
The NTC-7X-FRX has 11 input frequency ranges that are selectable via jumpers inside the instrument. Each range offers full adjustability from its minimum to its maximum frequency via a multi turn potentiometer. The potentiometer has a test point where a voltage of 0-5 VDC indicates a setting of 0-100%. This allows for easy field calibration with the instrument running.

### Specifications:

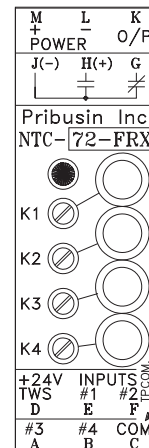
Accuracy/Linearity:  $\pm 0.3\%$  max.,  $\pm 0.1\%$  typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects:  $\pm 0.5\%$  max., 0.2% typ.  
(for 40 Deg.C. change)

# NTC-7X-FRX

## Dimensions:



## Calibration:

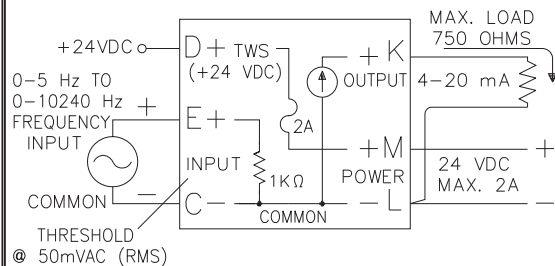


Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output

### NTC-72-FRX NORMAL CONNECTION



## Model Designation:

NTC-7X-FRX

Output

Other Models

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

- FRL: Low Input Frequency
- FRW: Frequency Window (See NTC-7X-FRW)
- FRT: Frequency Trip (See NTC-7X-FRT)

Example: A Frequency Converter with a 1-5 VDC output with 24 VDC power is designated by: NTC-75-FRX

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: NTC-7X-FRT**

**Non-Isolated Frequency Converter & Trip**



### Standard Features:

DIN-Rail Mount (small size)

Wide Input Frequency Ranges (from 5 Hz to 10 KHz)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Trip Function has Setpoint, Deadband and Delay Adjustment

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

24 VDC Supply for Open Collector Input or Dry Contact Input

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-7X-FRT is a microprocessor controlled Frequency to analog output converter that is easily field configurable to any frequency input from 0-10 Hz to 0-10 KHz. It has a single form "C" contact that has individual setpoint, deadband and delay adjustments. In addition, there is an analog output that converts the input frequency to any one of several standard outputs.

The Setpoint and Deadband are adjustable from 0-100 % of the calibrated input frequency. The deadband is an absolute type deadband, meaning that it is always linked to the setpoint. Once it is set to a certain value, it need not be adjusted again if the setpoint is re-adjusted. The delay function adds an optional delay on the relay trip function of 0-60 sec. This is helpful in eliminating false alarms.

### Calibration:

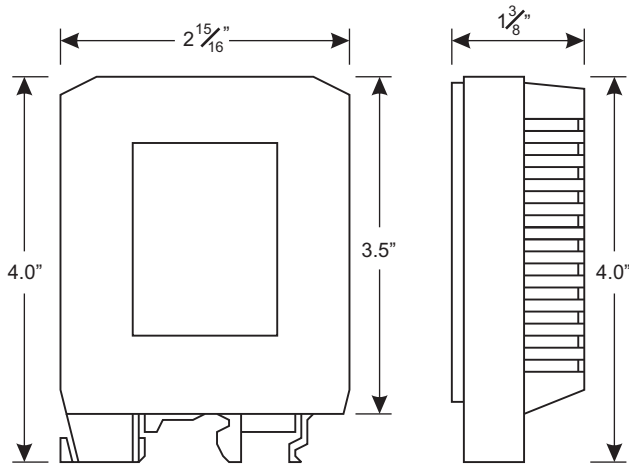
The NTC-7X-FRT has 11 input frequency ranges which offer full adjustability from their minimum to their maximum frequency via a multi turn potentiometer. The setpoint, deadband and delay each have their own potentiometer. All potentiometers have a test point where a voltage of 0-5 VDC indicates a setting of 0-100%. This allows for easy field calibration with the instrument running.

### Specifications:

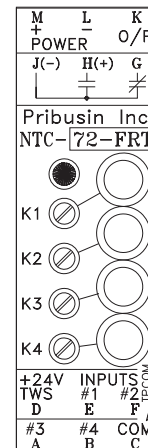
Accuracy/Linearity:  $\pm 0.3\%$  max.,  $\pm 0.1\%$  typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects:  $\pm 0.5\%$  max., 0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 0.4A @ 125VAC  
2A @ 30VDC

# NTC-XX-FRT

## Dimensions:



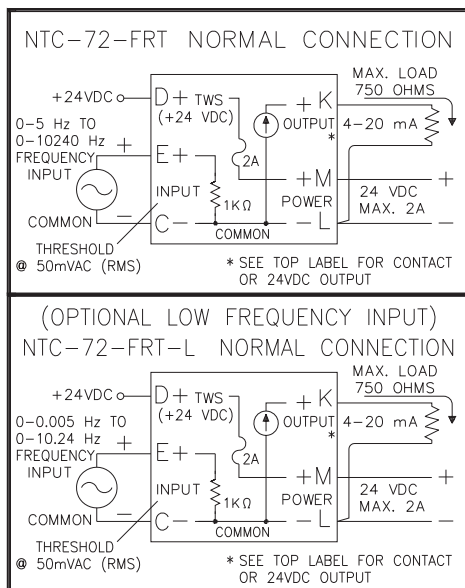
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-7X-FRT

Output

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A Frequency Converter with a 1-5 VDC output with 24 VDC power is designated by: NTC-75-FRT

## Options: (Add letters to end of Model Number)

- R - RS485 Serial Output
- L - Low Frequency Input (0.005 Hz to 10 Hz)

Manufactured By:

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

# Model: NTC-7X-FRW

## Non-Isolated Frequency Window Converter



### Standard Features:

DIN-Rail Mounted (small size)

Wide Input Frequency Ranges (from 5 Hz to 10 KHz)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Built-in Scaling Option for Further Flexibility

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

24 VDC Supply for Open Collector Input or Dry Contact Input

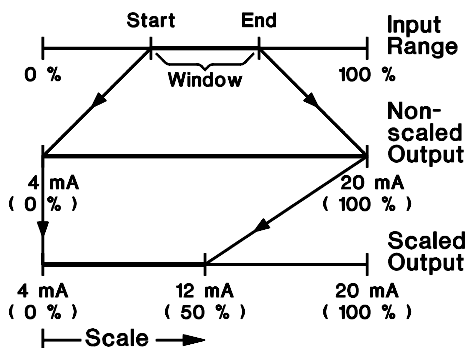
Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-7X-FRW is a microprocessor controlled frequency to analog output converter that is easily field configurable (see Calibration). A Start and End adjustment determines the 0% input frequency and the 100% input frequency. Hence, a frequency range that is not zero based can be extracted and converted. An optional scaling input allows for output scaling.



### Calibration:

The NTC-7X-FRW has 11 input frequency ranges that are selectable via jumpers inside the instrument. Each range offers full adjustability of Start and End frequencies via two multi turn potentiometers. Each potentiometer has a test point where a voltage of 0-5 VDC indicates a setting of 0-100%. This allows for easy field calibration with the instrument running.

### Specifications:

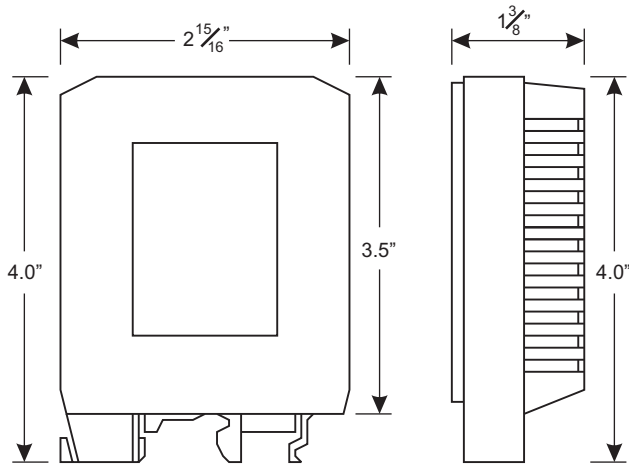
Accuracy/Linearity:  $\pm 0.3\%$  max.,  $\pm 0.1\%$  typ.

Operating Temperature:  $-40$  Deg.C. to  $+50$  Deg.C.

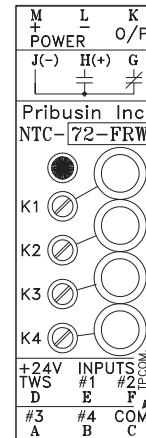
Temperature Effects:  $\pm 0.5\%$  max.,  $0.2\%$  typ.  
(for 40 Deg.C. change)

# NTC-7X-FRW

## Dimensions:



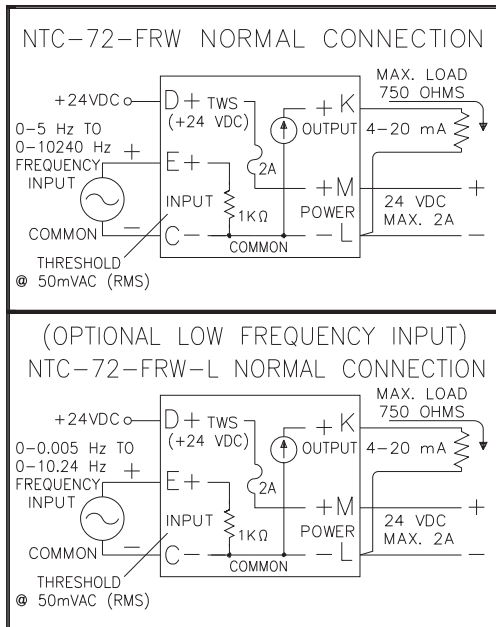
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-7X-FRW

Output

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A Frequency Converter with a 1-5 VDC output with 24 VDC power is designated by: NTC-75-FRW

## Options: (Add letters to end of Model Number)

- R - RS485 Serial Output
- L - Low Frequency Input (0.005 Hz to 10 Hz)

Manufactured By:

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### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Dry Contact (Form 'C') or 24VDC Pulse Output

Standard Built-in Linearizations (Linear, Square Root, 1.5 Power)

Other Linearizations Available

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-X8-LIN is a microprocessor based integrator with linearizer. It has one analog input and a contact or pulse output. The contact or pulse output is the time integrated output of the analog input. The integration range can be easily adjusted to anything from 0.25 CPH (counts per hour) to 8192 CPH. The integration output can be either a dry contact (form 'C') or a 24 VDC pulse.

Two built-in linearizing functions can be activated via jumpers and the NTC-X8-LIN will then first linearize the input before integrating it. The two functions are Square Root and 1.5 Power. Other linearizations are available. In most cases an equation is sufficient or a lookup table if one is available. Consult factory or representative for specific applications.

### Calibration:

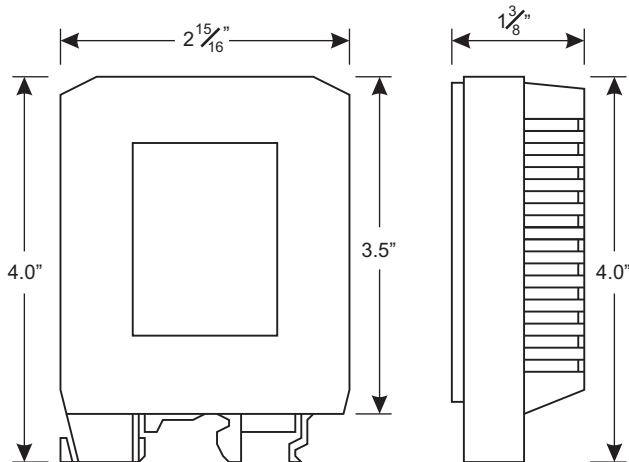
Two potentiometers, Integ. Span and Drop Out, are used for the integration constant and lower limit linearization drop out. Each of the pots has a test point associated with it. The Test Points show a voltage of 0-5 VDC for a parameter value of 0-100%.

### Specifications:

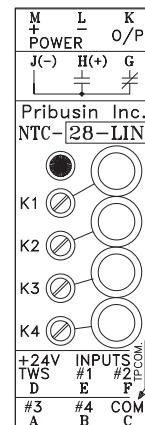
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# NTC-X8-LIN

## Dimensions:



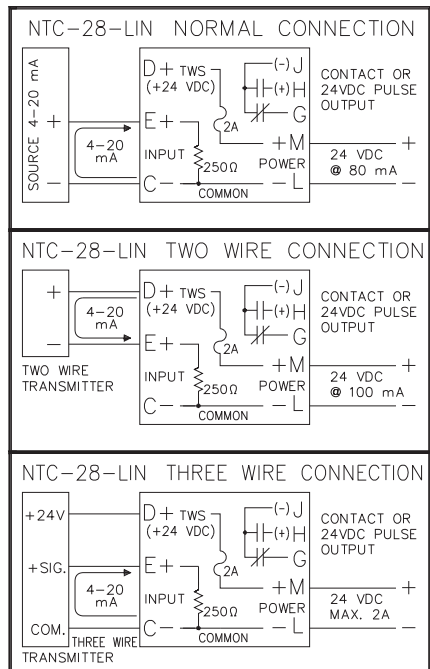
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-X8-LIN

Input

- 1: 1-5 mA ( $Z_{in}=1K \text{ Ohm}$ )
- 2: 4-20 mA ( $Z_{in}=250 \text{ Ohm}$ )
- 3: 0-1mA ( $Z_{in}=5K \text{ Ohm}$ )
- 4: 10-50 mA ( $Z_{in}=100 \text{ Ohm}$ )
- 5: 1-5 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 6: 0-10 VDC ( $Z_{in}=1\text{Meg Ohm}$ )
- 7: Special Input

Example: Integrator with 4-20 mA Input and 24V pulse output is designated by: NTC-28-LIN-P

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output  
P - 24 VDC Pulse Output (Instead of 'C' Contact)

Manufactured By:

**Pribusin Inc.**  
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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: NTC-XX-LNT**

**Non-Isolated Integrator With Linearizer**



### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Standard Built-in Linearizations (Linear, Square Root, 1.5 Power)

Other Linearizations Available

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-LNT is a microprocessor based integrator with linearizer. It has one analog input, one analog output and a contact (or pulse) output. The contact or pulse output is the integrated output of the analog input. The integration range can be easily adjusted to anything from 0.25 CPH (counts per hour) to 8192 CPH. The integration output can be either a dry contact or a 24 VDC pulse.

Two built-in linearizing functions can be activated via jumpers and the NTC-XX-LNT will then first linearize the input before integrating it. The two functions are Square Root and 1.5 Power. The analog output reflects the linearized input if a linearization has been activated. Otherwise it is a linear follower of the input.

### Calibration:

Two potentiometers, Integ. Span and Drop Out, are used for the integration constant and lower limit linearization drop out. Each of the pots has a test point associated with it. The Test Points show a voltage of 0-5 VDC for a parameter value of 0-100%.

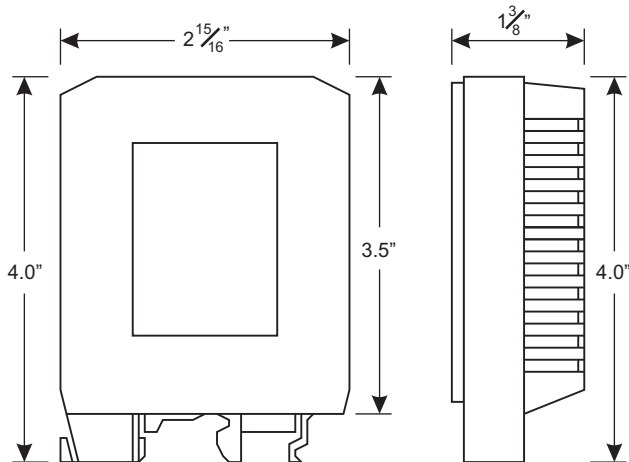
### Specifications:

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 0.4A @ 125VAC  
2A @ 30VDC

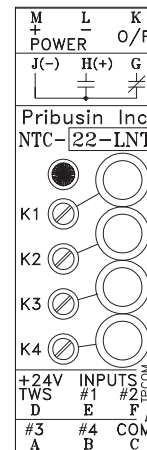


# NTC-XX-LNT

## Dimensions:



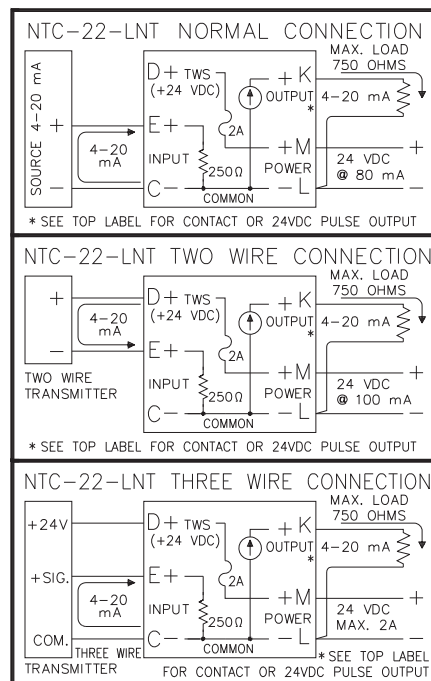
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-XX-LNT

Input

Output

- 1: 1-5 mA ( $Z_{in}=1K\ \Omega$ )
- 2: 4-20 mA ( $Z_{in}=250\ \Omega$ )
- 3: 0-1mA ( $Z_{in}=5K\ \Omega$ )
- 4: 10-50 mA ( $Z_{in}=100\ \Omega$ )
- 5: 1-5 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 6: 0-10 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 7: Special Input

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC ( $Z_{out}=250\ \Omega$ )
- 6: 0-10 VDC ( $Z_{out}=500\ \Omega$ )
- 7: Special Output

Example: Integrator with 4-20 mA Input and 4-20 mA Output and 24V pulse output is designated by: NTC-22-LNT-P

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

P - 24 VDC Pulse Output (Instead of 'C' Contact)

Manufactured By:

**Pribusin Inc.**

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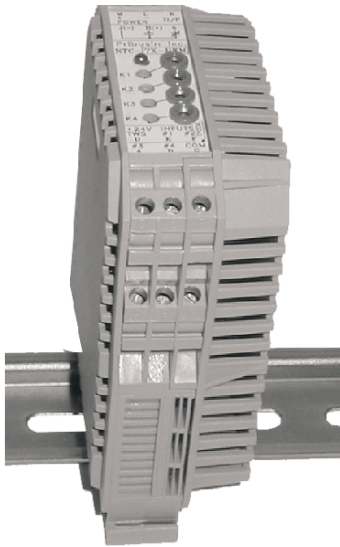
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### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Standard Built-in Linearizations (Linear, Square Root, 1.5 Power, 2.5 Power)

Other Linearizations and Lookup Table Available

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Power Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-LNZ is a microprocessor based linearizer. It comes standard with 3 fixed linearizations (Square Root, Parshall Flume, Weir) or can optionally be programmed with a custom lookup table for specialized curves. For even greater flexibility, an adjustable power function is available to linearize most flumes and weirs that are somewhat odd-sized.

If the adjustable 'raise to a power' function is used to linearize weirs and flumes, it is often sufficient to adjust only one point on the curve (usually 50% point) so that it represents the linearized output. All other points from 0-100% will then quite often fall on the linearized curve with very little error.

In addition, the input and/or output can be inverted so that special linearizations can be achieved. This is especially useful when measuring levels in an inverted fashion, ie. from the top down.

### Calibration:

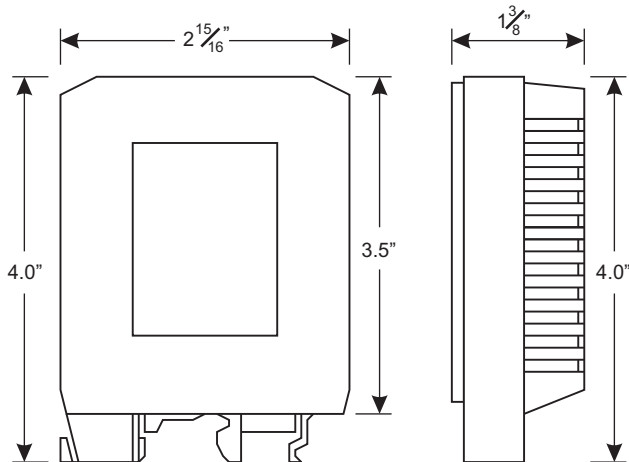
Two potentiometers, Drop Out and Power, are used for lower limit linearization drop out and the exponential power. Each of the pots has a test point associated with it. The Test Points show a voltage of 0-5 VDC for a parameter value of 0-100%.

### Specifications:

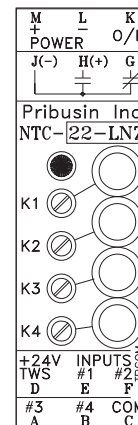
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# NTC-XX-LNZ

## Dimensions:



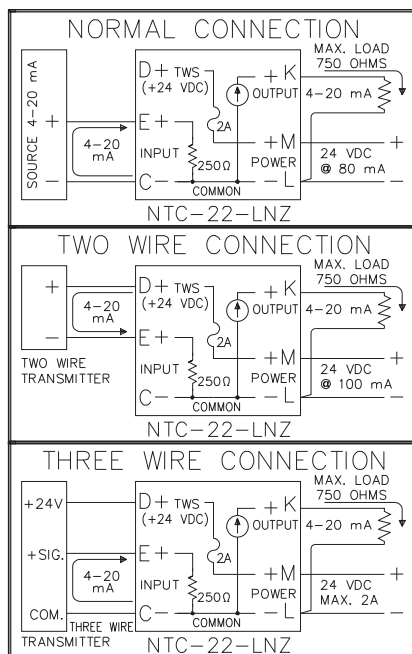
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20 mA Input and Output



## Model Designation:

NTC-XX-LNZ

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Linearizer with 4-20 mA Input and 4-20 mA Output and 24VDC power is designated by:NTC-22-LNZ

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

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### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Easily Field Configurable for 1 to 4 Inputs

Each Input has Individual Scaling Adjustment

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-MUL is a microprocessor controlled multiplier. It is easily field configurable for 1 to 4 inputs with each input having its own scaling factor. The scaling factor for each input can be set from 0 to 2.0. All settings can be changed while the unit is operating - all that is required is a voltmeter and a small screwdriver.

### Calibration:

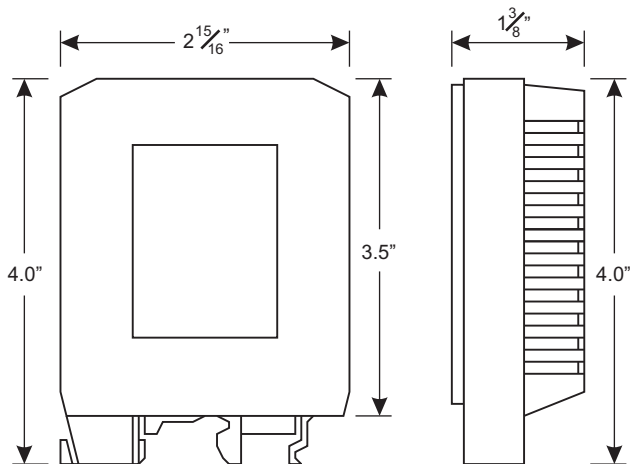
The Test Points (TP1 to TP4) and potentiometers K1 to K4 are used to adjust the scaling factors for the four inputs. The scaling factors can be in the range of 0-2.0 and can be read with a voltmeter at the Test Points. The Test Points show a voltage of 0-5 VDC for a scaling factor of 0-100% (0-2.0).

### Specifications:

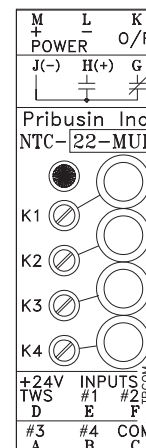
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# NTC-XX-MUL

## Dimensions:



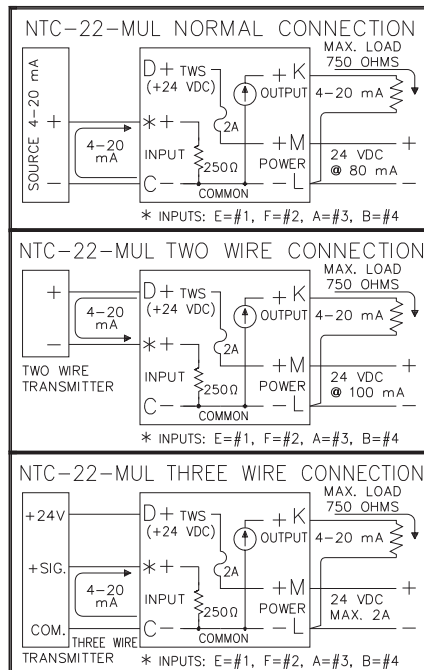
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-XX-MUL

Input

Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Multiplier with 4-20 mA Input and 4-20 mA Output and 24VDC Power is designated by: NTC-22-MUL

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**  
www.pribusin.com  
info@pribusin.com

**USA:**  
Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



**CANADA:**  
Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs (PDT): 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Outputs (PDR): 4-20 mA, 1-5 VDC, more (see back)

Easily Field Configurable to use any one of 6 Industry Standard Pulse Trains

Custom Pulse Trains Available

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-PDX family of instruments make up a pulse duration transmission system that can be used to transmit an analog signal over a twisted pair (or a leased class A telephone line). The transmitter can have any one of the standard inputs such as 4-20 mA, 1-5 VDC, etc. The receiver can have any one of the same or a different analog output.

The output of the transmitter is a dry contact but can be an optional 24 VDC pulse. Correspondingly, the input of the receiver can accept either a dry contact or a 24 VDC pulse.

### Model Designation:

NTC-X7-PDT

Input

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

NTC-7X-PDR

Output

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A Pulse Duration Transmitter with 4-20 mA input is an NTC-27-PDT, a receiver with a 1-5VDC output is an NTC-75-PDR.

### Specifications:

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 0.4A @ 125 VAC, 2A @ 30VDC

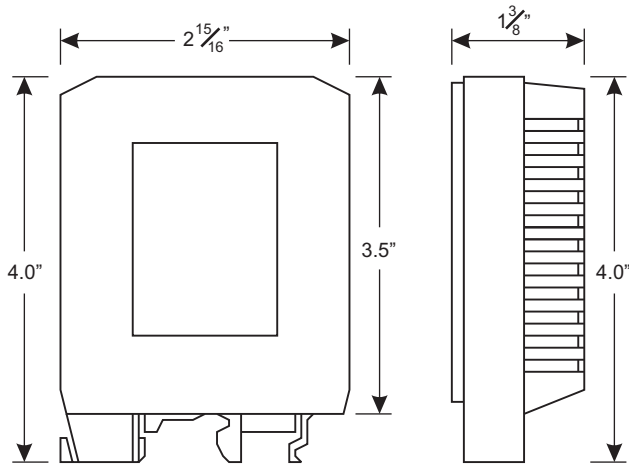
### Options: (Add letters to end of Model Number)

R - RS485 Serial Output (on receiver only)

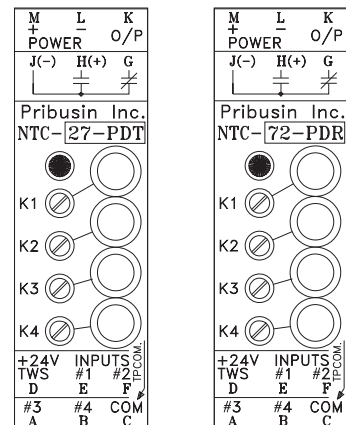
P - 24VDC Pulse Output (Instead of 'C' Contact)

# NTC-XX-PDX

## Dimensions:

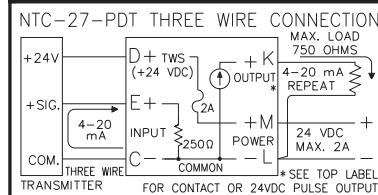
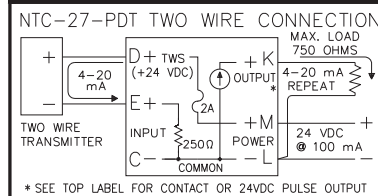
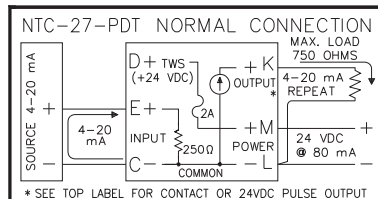
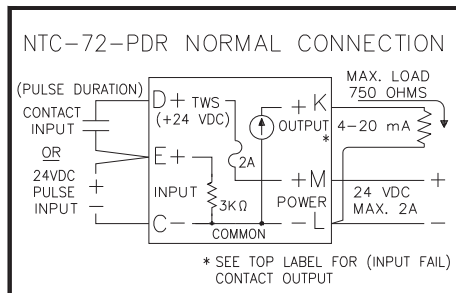


## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connections:



## Available Pulse Trains:

1. 0.00 - 13.33 Sec.
2. 3.00 - 12.00 Sec.
3. 6.66 - 12.00 Sec.
4. 1.00 - 4.00 Sec.
5. 6.66 - 13.33 Sec.
6. 0.00 - 7.50 Sec.
7. Custom Pulse Train
8. Custom Pulse Train

All Pulse Trains have a 15 second cycle time.

Manufactured By:

**Pribusin Inc.**  
[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

**USA:**  
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 Muskegon, MI 49442  
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**CANADA:**  
 Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
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 Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: NTC-XX-RWN**

**Non-Isolated Range Window Transmitter**



### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 0-20 mA, 0-5 VDC, and more (see back)

Industry Standard Output: 0-20 mA, 0-5 VDC, more (see back)

Both Input and Output can be Scaled for Maximum Flexibility

Output Signal has Reverse Acting Option

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

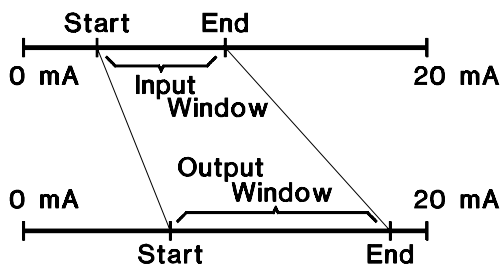
High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-RWN is a microprocessor controlled range window transmitter. It is easily field configurable for any input and output range. The selected input range is then linearly converted to the selected output range. In addition, the output signal can be reversed to invert it from the output.

This instrument is ideal in an application where a transmitter is used only part of its full working range to provide a full scale output of 0-20 mA, 0-5 VDC, etc.



### Calibration:

Four potentiometers are used to set the input and output range start and end points. These points are adjustable from 0-100% and can be read with a voltmeter at the Test Points. The Test Points show a voltage of 0-5 VDC for a setting of 0-100%.

### Specifications:

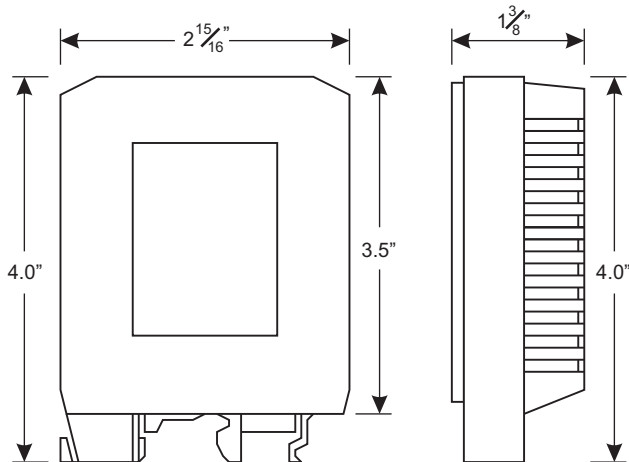
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
(@ Output=Input)

Operating Temperature: -40 Deg.C. to +50 Deg.C.

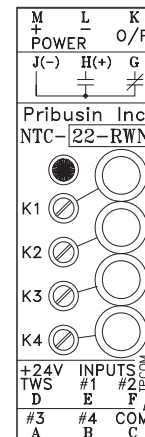
Temperature Effects: +/- 0.5% max., +/- 0.2% typ.  
(for 40 Deg.C. change)

# NTC-XX-RWN

## Dimensions:



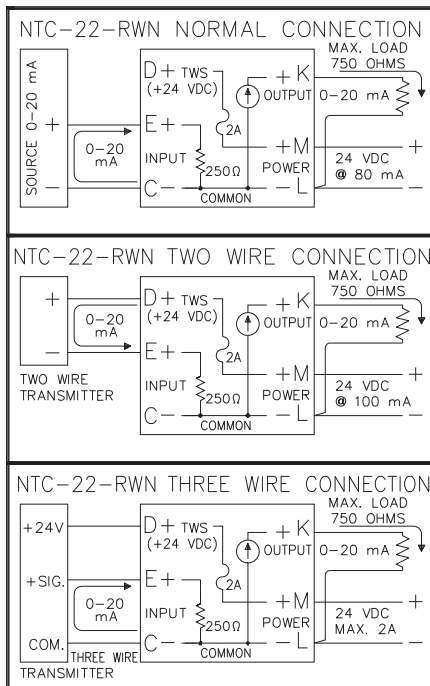
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-XX-RWN

Input

Output

- 1: 0-5 mA (Zin=1K Ohm)
- 2: 0-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 0-50 mA (Zin=100 Ohm)
- 5: 0-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 0-5 mA (3000 Ohm Drive)
- 2: 0-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 0-50 mA (250 Ohm Drive)
- 5: 0-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: Range Window Transmitter with 0-20 mA Input and 0-20 mA Output and 24VDC Power is designated by: NTC-22-RWN

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**  
[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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**CANADA:**  
 Pribusin Inc.  
 101 Freshway Dr. Unit 57  
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 Ph: (905) 660-5336  
 Fx: (905) 660-4068



**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: NTC-XX-SIN**

**Non-Isolated Square Root Extractor**



### Standard Features:

DIN-Rail Mount (small Size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Drop Out Setting for Lower Limit Input

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-SIN is a microprocessor controlled Square Root Extractor. It has an adjustable drop out setting which defines the lower limit of the output at which the square root extraction ceases. This feature is important especially in environments where signals are noisy since low input signals produce large results after the square root function. For example, an input of 1% translates into an output of 10%. Therefore, if the input fluctuates by approximately 1% in the lower (4-5 mA) region, the output may vary by more than 10%. By setting the drop out to a few percent above 10% output, the actual output will remain at 4 mA until the true output rises above the drop out setting.

### Calibration:

A multi-turn potentiometers is used to adjust the drop out setting for the input. The drop out can be in the range of 0-50% and can be read with a voltmeter at the test point. The test point shows a voltage of 0-5 VDC for a drop out setting of 0-50%.

### Specifications:

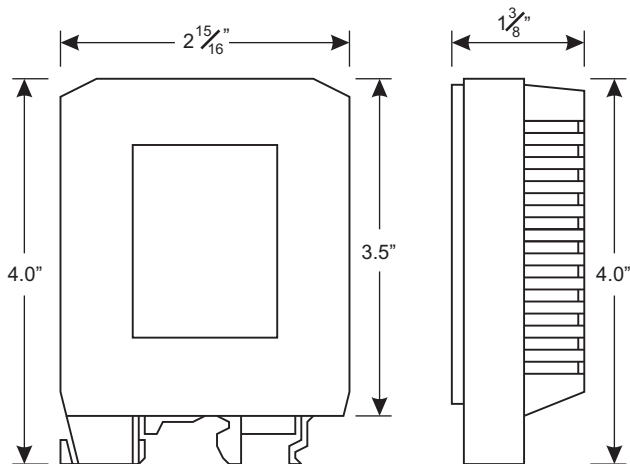
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
(@ 20-100% Output)

Operating Temperature: -40 Deg.C. to +50 Deg.C.

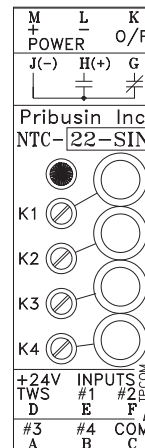
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# NTC-XX-SIN

## Dimensions:



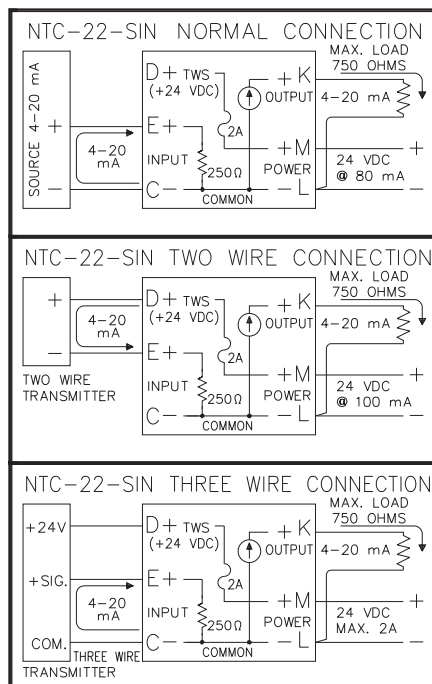
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-XX-SIN

Input

Output

- 1: 1-5 mA ( $Z_{in}=1K\ \Omega$ )
- 2: 4-20 mA ( $Z_{in}=250\ \Omega$ )
- 3: 0-1mA ( $Z_{in}=5K\ \Omega$ )
- 4: 10-50 mA ( $Z_{in}=100\ \Omega$ )
- 5: 1-5 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 6: 0-10 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 7: Special Input

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC ( $Z_{out}=250\ \Omega$ )
- 6: 0-10 VDC ( $Z_{out}=500\ \Omega$ )
- 7: Special Output

Example: Square Root Extractor with 4-20 mA Input and 4-20 mA Output and 24VDC Power is designated by: NTC-22-SIN

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
 743 Marquette Ave.  
 Muskegon, MI 49442  
 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

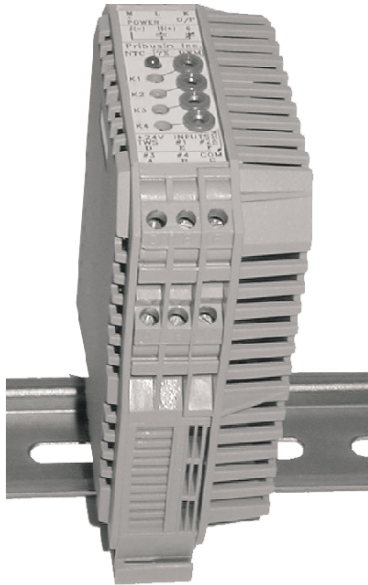
Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068

**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

# Model: NTC-XX-UNV

**Non-Isolated Universal Signal Conditioner**  
For Special Purpose (Custom) Applications



## Standard Features:

DIN-Rail Mount (small size)

Industry Standard Input: 4-20 mA, 1-5 VDC, more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Up to 4 Analog Inputs and 4 Adjustable Function Parameters.

Form 'C' Contact Available

Microprocessor Controlled for High Accuracy and Flexibility

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

## Function:

The NTC-XX-UNV is the basic hardware platform for many specialized signal conditioning applications. Its programmable microprocessor allows for complex and highly accurate mathematical signal manipulation functions.

Four variable potentiometers are available for additional function adjustability or for setting constants or operating parameters. In addition, there are jumpers available to further define and select modes of operation.

The output of the NTC-XX-UNV can have up to one relay and one analog output.

**DO NOT ORDER THIS INSTRUMENT WITHOUT CONSULTING FACTORY OR REPRESENTATIVE FIRST**

## Calibration:

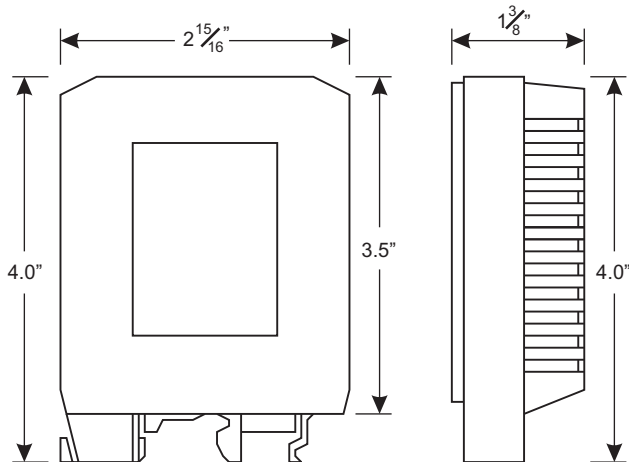
All Calibration is done via multi-turn potentiometers. Each potentiometer has a test point associated with it. The test point shows a voltage of 0-5 VDC representing 0-100% of the parameter setting on the potentiometer. This makes for very easy field adjustment even with the instrument under power and running.

## Specifications:

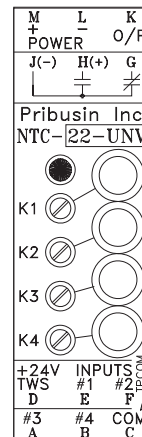
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)  
Contact Rating: 0.4A @ 125VAC  
2A @ 30VDC

# NTC-XX-UNV

## Dimensions:



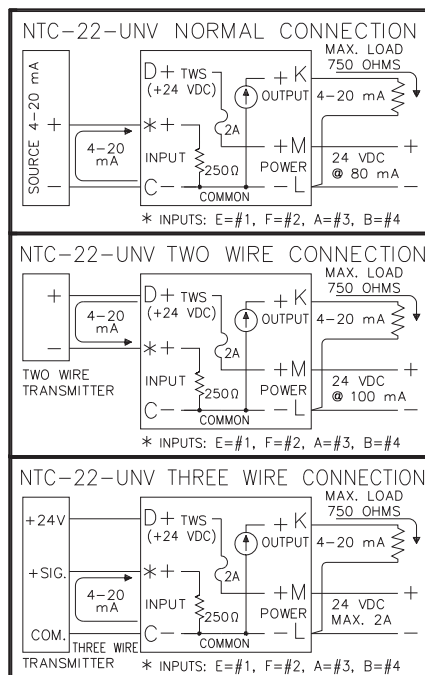
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-X X-UNV

Input

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

Output

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output
- 8: Pulse Output
- 9: Frequency Output

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

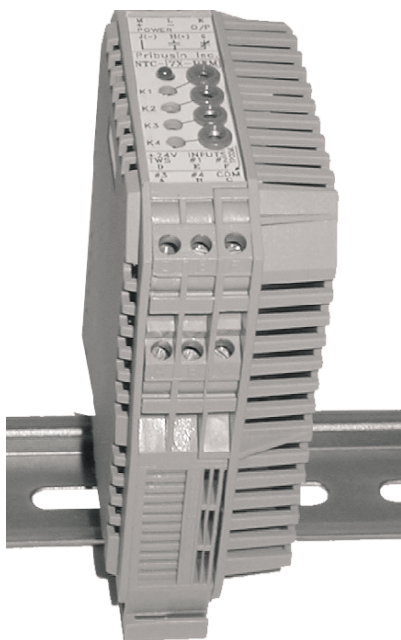
### USA:

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### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Input: 4-20 mA, 1-5 VDC, more (see back)

Multi-unit RS-485 Serial Communication Interface (up to 127 units per RS-485 bus)

Up to 4 Analog or Contact Inputs

Optional Analog and Relay Output

Microprocessor Controlled for High Accuracy and Flexibility

Easy Field Setup - No Special Calibration Required

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-485 is the basic hardware platform for a variety of different remote signal acquisition applications. Four analog or contact inputs are available for data input. A multi-drop RS-485 communications interface allows up to 127 units to be connected via a single bus

The data is interrogated from a PC host at 9600 Baud in MODBUS protocol. The PC may run any software that is capable of interpreting this protocol. Evaluation and test software is provided free of charge. Software drivers for various development platforms such as VisualBasic™ & LabView™ are also available.

Custom software may be available - consult factory or your sales representative.

### Field Setup:

The only setup required in the field is setting a unique device address for each NTC. This is done using push-on jumper pins inside the unit. No other field calibration is required.

### Specifications:

Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.

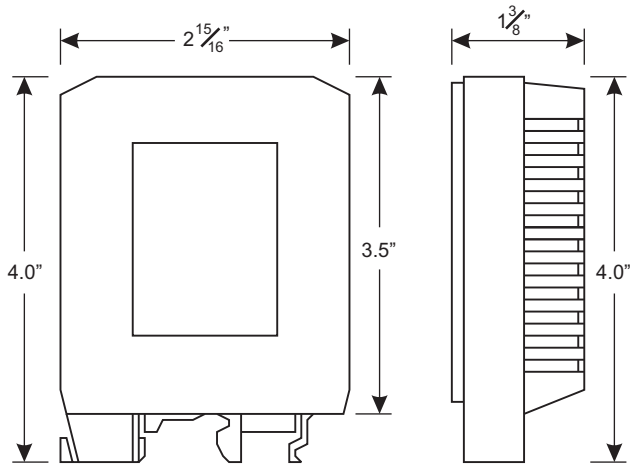
Operating Temperature: -40 Deg.C. to +50 Deg.C.

Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

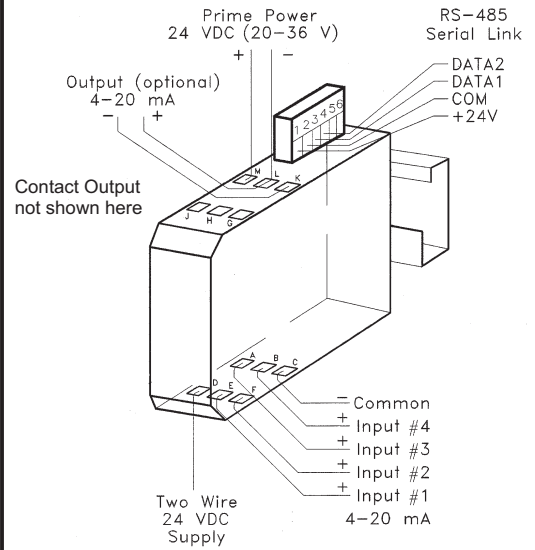
Power: 24VDC, 80mA max.

# NTC-XX-485

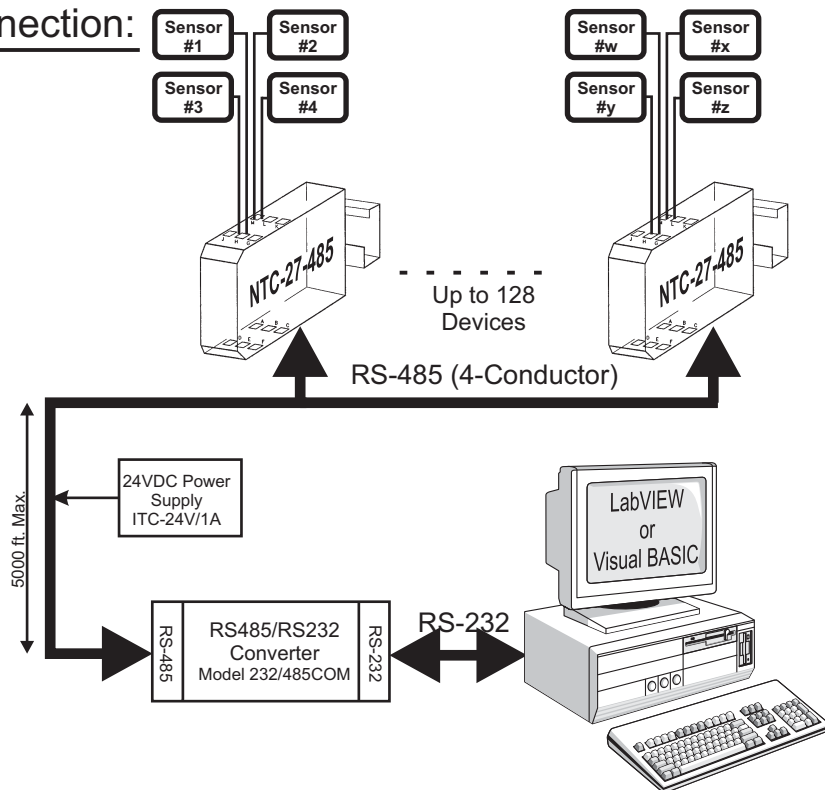
## Dimensions:



## Connection:



## Connection:



## Model Designation:

NTC-X X-485

### Input

- 1: 1-5 mA ( $Z_{in}=1K\ \Omega$ )
- 2: 4-20 mA ( $Z_{in}=250\ \Omega$ )
- 3: 0-1mA ( $Z_{in}=5K\ \Omega$ )
- 4: 10-50 mA ( $Z_{in}=100\ \Omega$ )
- 5: 1-5 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 6: 0-10 VDC ( $Z_{in}=1Meg\ \Omega$ )
- 7: Special Input

### Output

- 1: 1-5 mA (3000  $\Omega$  Drive)
- 2: 4-20 mA (750  $\Omega$  Drive)
- 3: 0-1mA (15K  $\Omega$  Drive)
- 4: 10-50 mA (250  $\Omega$  Drive)
- 5: 1-5 VDC ( $Z_{out}=250\ \Omega$ )
- 6: 0-10 VDC ( $Z_{out}=500\ \Omega$ )
- 7: Special Output
- 0: No Output

Manufactured By:

**Pribusin Inc.**

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### CANADA:

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 101 Freshway Dr. Unit 57  
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 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

DIN-Rail Mounted (small size)

Wide Input PWM Range (from 5 Hz to 3 KHz)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

Microprocessor Controlled for High Accuracy

24 VDC Supply for Open Collector Input or Dry Contact Input

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-7X-PWM is a microprocessor controlled PWM to analog output converter that can convert a PWM input in the range from 0-5 Hz to 0-3KHz to an analog signal. The PWM frequency is not adjustable and must be specified when ordering.

The NTC-7X-PWM operates over a wide duty cycle range of at least 5% to 95%. The duty cycle range depends on the PWM frequency. The lower the PWM frequency the wider the duty cycle range that can be converted.

### Calibration:

The NTC-7X-PWM has a fixed PWM input range that is specified when ordering. No calibration is required.

The analog output is microprocessor driven and does not usually require field calibration.

### Specifications:

PWM Range: 5Hz to 3KHz

PWM Amplitude: 5VDC to 24VDC typical, others avail.

Accuracy/Linearity: +/-0.3% max., +/-0.1% typ.

Operating Temperature: -40 Deg.C. to +50 Deg.C.

Temperature Effects: +/-0.5% max., 0.2% typ.

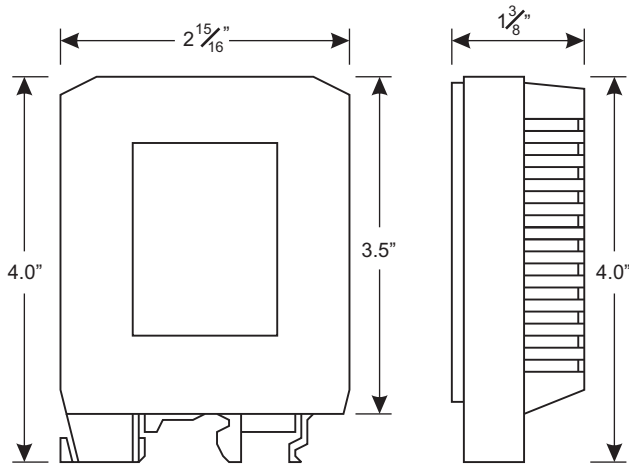
(for 40 Deg.C. change)

Power: 24VDC, 80mA max.



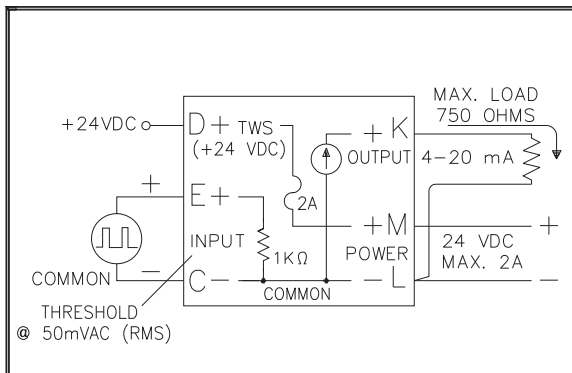
# NTC-7X-PWM

## Dimensions:



## Connection:

Shown here for  
4-20mA Output



## Model Designation:

NTC-7X-PWM

Output

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA(750 Ohm Drive)
- 3: 0-1mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output

Example: A PWM Converter with a 1-5 VDC output with 24 VDC power is designated by: NTC-75-PWM

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068





### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Input: 4-20 mA, 1-5 VDC, more (see back)

Industry Standard Output: 4-20 mA, 1-5 VDC, more (see back)

2 to 4 Inputs can be easily field configured for High or Low Input Selection

Microprocessor Controlled for High Accuracy and Flexibility

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-XX-HLS is a microprocessor controlled High/Low selector. It is easily field configurable to up to 4 inputs. The unit can be set as a High selector in which case the output will read the highest of all active inputs. If set as a Low selector, the output will read the lowest of all active inputs.

This flexibility combined with easy field calibration allows for the fine tuning of a process on site with little effort. All that is required to change the calibration settings is a voltmeter and a small screwdriver.

### Calibration:

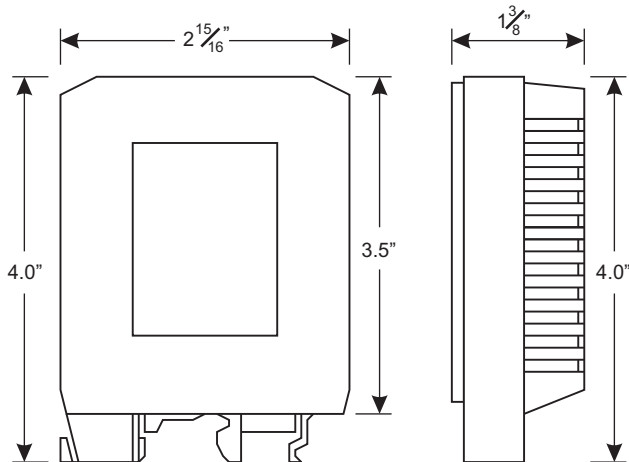
All Calibration is done via multi-turn potentiometers. Each potentiometer has a test point associated with it. The test point shows a voltage of 0-5 VDC representing 0-100% of the parameter setting on the potentiometer. This makes for very easy field adjustment even with the instrument under power and running.

### Specifications:

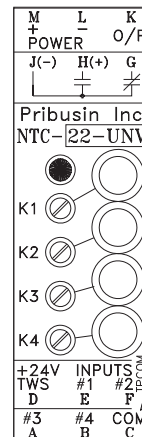
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# NTC-XX-HLS

## Dimensions:



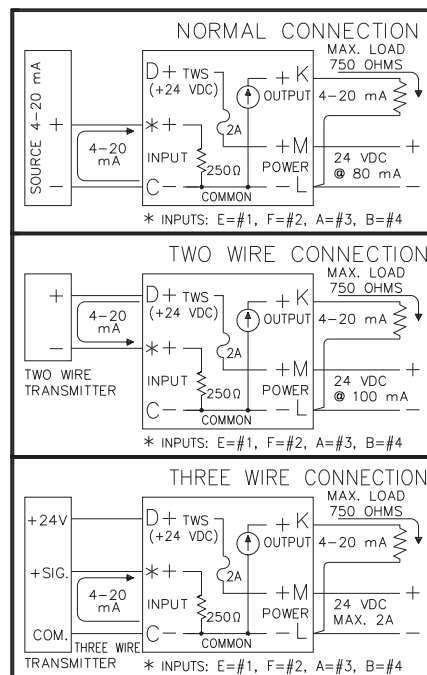
## Calibration:



Calibration is made easy by multi turn potentiometers with test jacks for meter connection.

## Connection:

Shown here for 4-20mA Output



## Model Designation:

NTC-X X-HLS

Input

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

Output

- 1: 1-5 mA (3000 Ohm Drive)
- 2: 4-20 mA (750 Ohm Drive)
- 3: 0-1 mA (15000 Ohm Drive)
- 4: 10-50 mA (250 Ohm Drive)
- 5: 1-5 VDC (Zout=250 Ohm)
- 6: 0-10 VDC (Zout=500 Ohm)
- 7: Special Output
- 8: Pulse Output
- 9: Frequency Output

## Options: (Add letters to end of Model Number)

R - RS485 Serial Output

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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 Ph: (231) 788-2900  
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### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Easily Adjustable Output Frequency

24VDC Square Wave Output

Easy Field Calibration (Typ. calibration time < 2 min. using handheld meter only)

Microprocessor Controlled for High Accuracy

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

CSA and NRTL Approved

### Function:

The NTC-X9-LFX is a microprocessor based frequency transmitter. It has one analog input and a square wave output. The output frequency is adjustable from 0-500Hz to 0-1000Hz for 0-100% of input signal. The output frequency is linear with respect to the input signal.

A low-end frequency cutoff turns off the output frequency below 15% of input signal. For a 0-20mA input range this means that the output frequency will turn off below 3mA.

### Calibration:

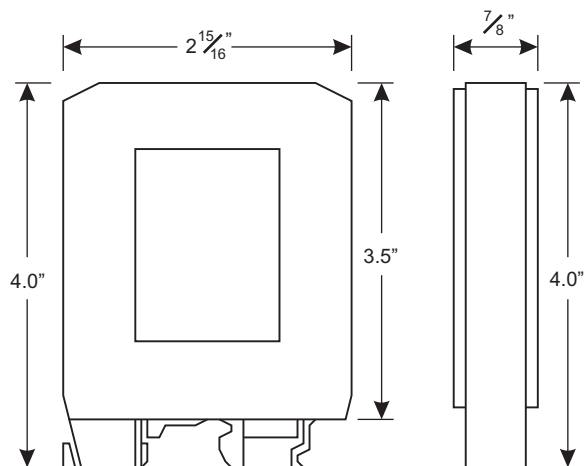
The unit comes factory pre-calibrated. Re-calibration is possible using the input zero & span potentiometers. This allows the unit to be calibrated for specific frequency ranges.

### Specifications:

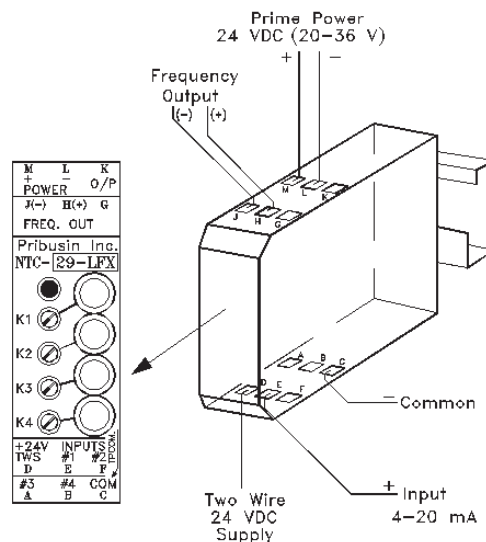
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# NTC-X9-LFX

## Dimensions:

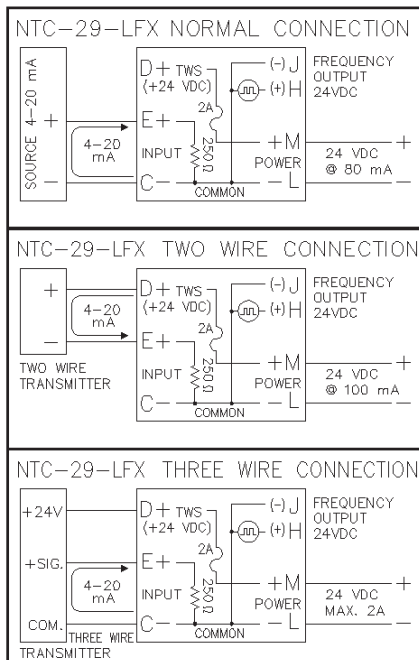


## Connection:



## Connection:

Shown here for  
4-20mA Input



## Model Designation:

NTC-X9-LFX

Input

Frequency Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 100Hz
- 2: 200Hz
- 3: 500Hz
- 4: 750Hz
- 5: 1000Hz

- 7: Special Frequency

Example: Frequenct Transmitter with 4-20 mA Input and 500Hz output is designated by: NTC-29-LF3

## Options: (Add letters to end of Model Number)

None available at this time

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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### USA:

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### CANADA:

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101 Freshway Dr. Unit 57  
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Fx: (905) 660-4068



### Standard Features:

DIN-Rail Mount (small size)

Industry Standard Inputs: 4-20 mA, 1-5 VDC, and more (see back)

Easily Adjustable Output Frequency

24VDC Square Wave Output

Two Wire Supply for Two Wire Transmitters

Power: 24 VDC

High Noise Rejection

### Function:

The NTC-X9-HFX is a high frequency transmitter. It has one analog input and a square wave output. The output frequency is adjustable from 0-1KHz to 0-100KHz for 0-100% of input signal. The output frequency is linear with respect to the input signal.

### Calibration:

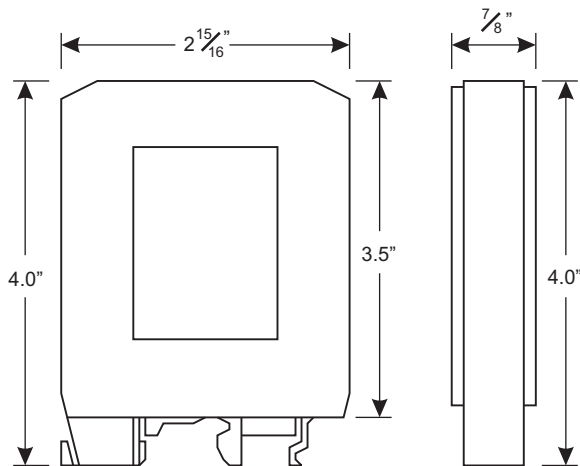
The unit comes factory pre-calibrated. Re-calibration is possible using the input zero & span potentiometers. This allows the unit to be calibrated for specific frequency ranges.

### Specifications:

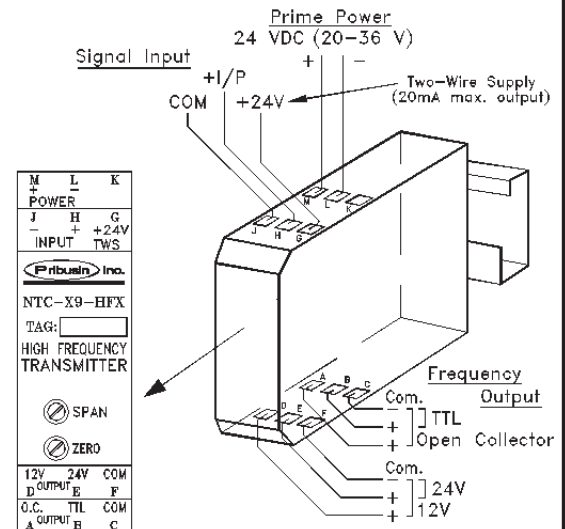
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.  
Operating Temperature: -40 Deg.C. to +50 Deg.C.  
Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)

# NTC-X9-HFX

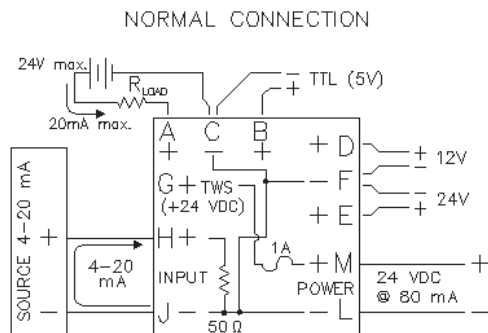
## Dimensions:



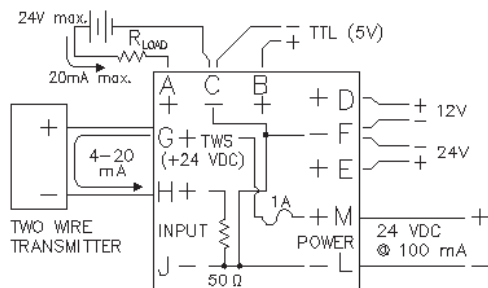
## Connection:



## Connection:



### TWO WIRE INPUT CONNECTION



## Model Designation:

NTC-X9-HFX

Input

Frequency Output

- 1: 1-5 mA (Zin=1K Ohm)
- 2: 4-20 mA (Zin=250 Ohm)
- 3: 0-1mA (Zin=5K Ohm)
- 4: 10-50 mA (Zin=100 Ohm)
- 5: 1-5 VDC (Zin=1Meg Ohm)
- 6: 0-10 VDC (Zin=1Meg Ohm)
- 7: Special Input

- 1: 0-1KHz
- 2: 0-2KHz
- 3: 0-5KHz
- 4: 0-10KHz
- 5: 0-50KHz
- 6: 0-100KHz
- 7: Special Frequency

Example: Frequency Transmitter with 4-20 mA Input and 2KHz output is designated by: NTC-29-HF2

## Options: (Add letters to end of Model Number)

None available at this time

Manufactured By:

**Pribusin Inc.**  
www.pribusin.com  
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### USA:

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### CANADA:

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Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using a Phone Line  
Uses MODBUS Protocol for Reliable Data Transfer  
1 Dry Contact and 1 Analog Input  
1 'C' Relay Contact and 1 Analog Output  
Uses Analog Half-Duplex Leased Telephone Line  
No Calibration Required  
Microprocessor Controlled for High Accuracy  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
Built-in Overvoltage Protection on Telephone Line  
High Noise Rejection



### Function:

The RCI-100-FSK is a bi-directional remote communication system that exchanges the status of 1 dry contact input and 1 analog input between a master and remote unit. Both the master and remote unit have inputs and outputs to allow remote monitoring and remote control.

Since the master and remote units are connected via leased telephone line, and hence are 'always-on', a change in signal at one end is transmitted to the other end with very little delay. This makes this unit ideal for real-time monitoring of remote tanks, pumps, etc.

The bi-directional operation allows for control signals to be sent back to the remote site to take action based on the incoming monitored signal.

This unit may also be used as a remote unit in a multi-remote system where the master is a multi-channel device such as the RCI-200, -400 or -800.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: Analog Phone Line, Half-Duplex  
BAUD Rate: 2400 BAUD  
Transmission Output: -6dB max., -8dB typ.  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

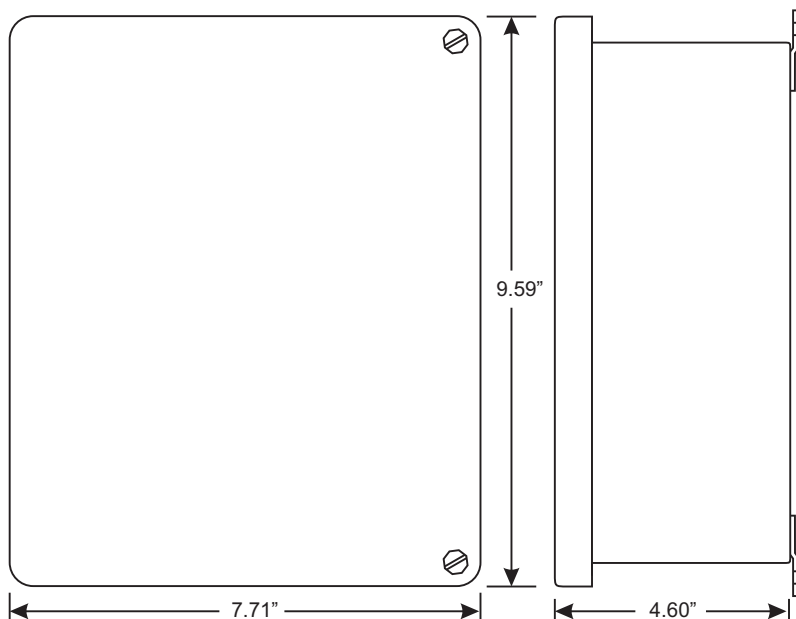


# RCI-100-FSK

## Enclosures & Dimensions:

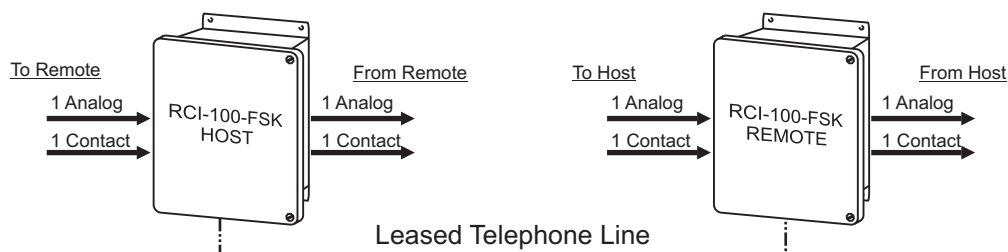
**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:

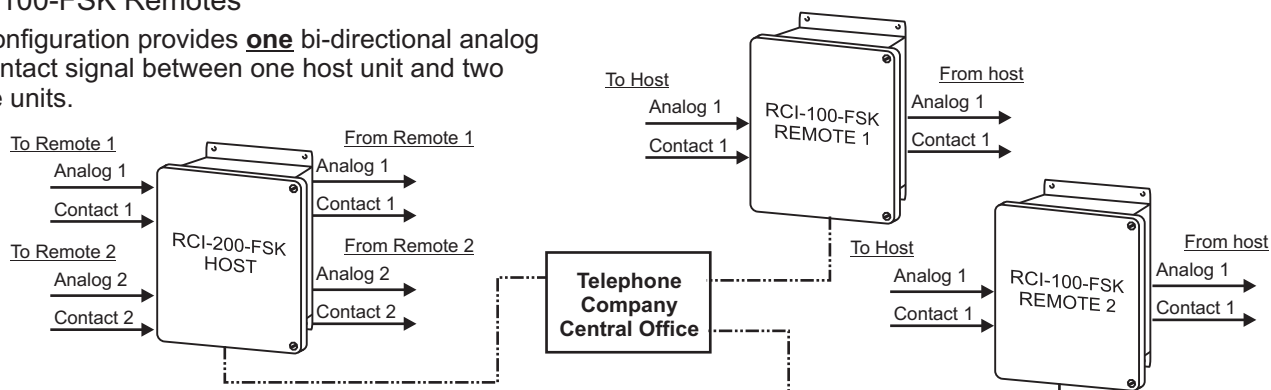
### 1. Point-to-Point System: 2 RCI-100-FSK Units



### 2. Host-to-Multi-Remote System:

- 1 RCI-200-FSK Host
- 2 RCI-100-FSK Remotes

This configuration provides **one** bi-directional analog and contact signal between one host unit and two remote units.



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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#### USA:

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#### CANADA:

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Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068





### Standard Features:

Bi-directional Communication using a Phone Line  
Uses MODBUS Protocol for Reliable Data Transfer  
2 Dry Contacts and 2 Analog Inputs  
2 'C' Relay Contacts and 2 Analog Outputs  
Uses Analog Half-Duplex Leased Telephone Line  
No Calibration Required  
Microprocessor Controlled for High Accuracy  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
Built-in Overvoltage Protection on Telephone Line  
High Noise Rejection



### Function:

The RCI-200-FSK is a bi-directional remote communication system that exchanges the status of 2 dry contact inputs and 2 analog inputs between a master and remote unit. Both the master and remote unit have inputs and outputs to allow remote monitoring and remote control.

Since the master and remote units are connected via leased telephone line, and hence are 'always-on', a change in signal at one end is transmitted to the other end with very little delay. This makes this unit ideal for real-time monitoring of remote tanks, pumps, etc.

The bi-directional operation allows for control signals to be sent back to the remote site to take action based on the incoming monitored signal.

This unit may also be used as a remote unit in a multi-remote system where the master is a multi-channel device such as the RCI-400 or RCI-800.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

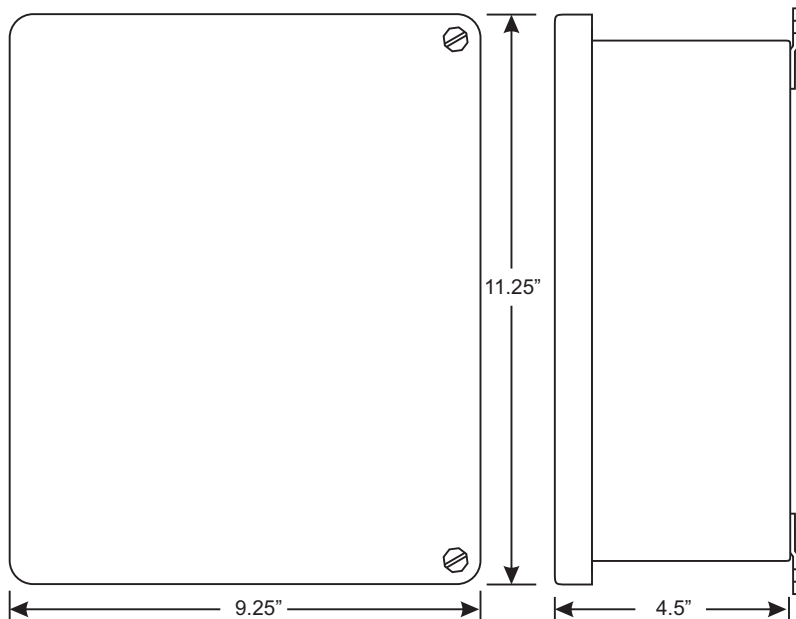
Transmission Medium: Analog Phone Line, Half-Duplex  
BAUD Rate: 2400 BAUD  
Transmission Output: -6dB max., -8dB typ.  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-200-FSK

## Enclosures & Dimensions:

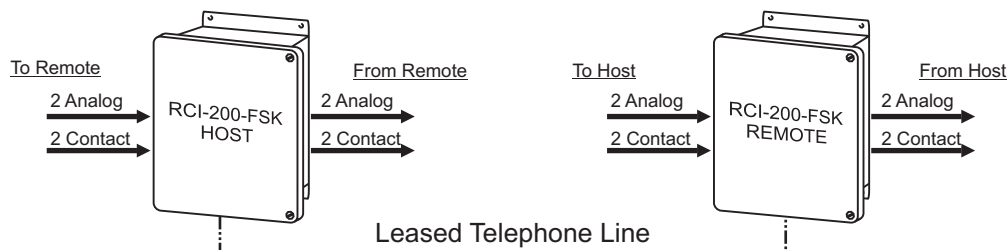
**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:

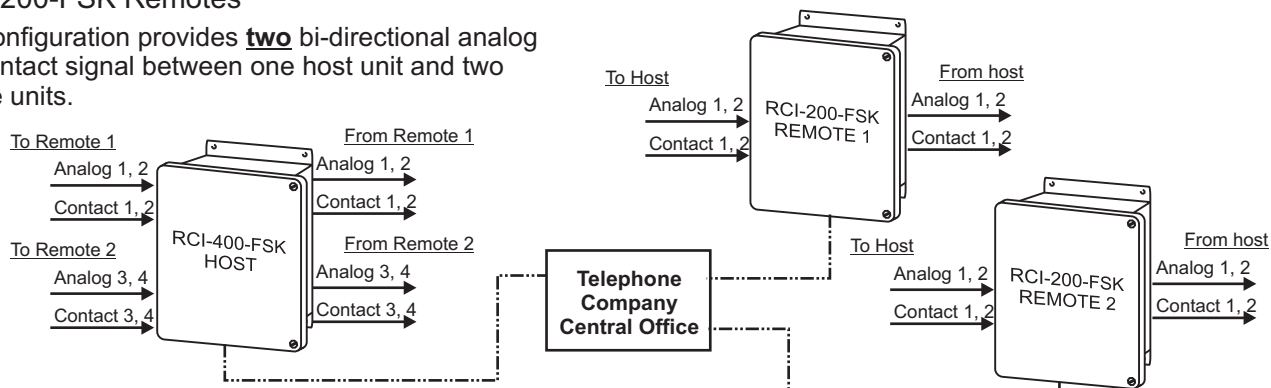
### 1. Point-to-Point System: 2 RCI-200-FSK Units



### 2. Host-to-Multi-Remote System:

- 1 RCI-400-FSK Host
- 2 RCI-200-FSK Remotes

This configuration provides **two** bi-directional analog and contact signal between one host unit and two remote units.



Manufactured By:

**Pribusin Inc.**

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Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



#### CANADA:

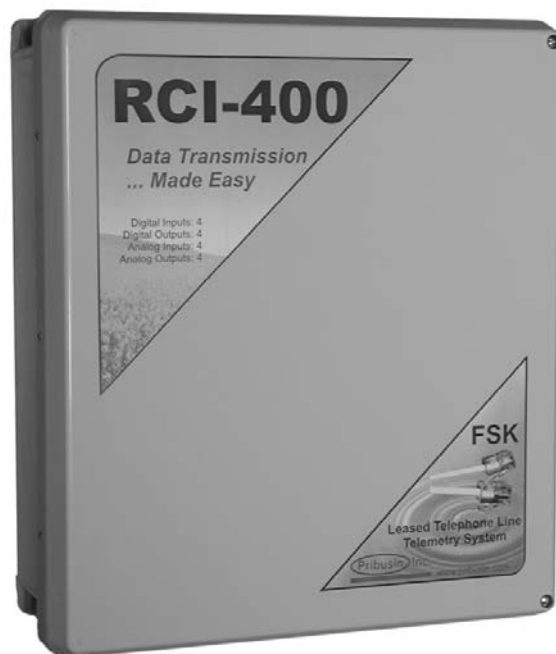
Pribusin Inc.  
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Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



Manufacturers of Process  
Controls and Instrumentation

# Model: RCI-400-FSK

## Leased-Line Remote Control Signal Interface



### Standard Features:

Bi-directional Communication using a Phone Line  
Uses MODBUS Protocol for Reliable Data Transfer  
4 Dry Contacts and 4 Analog Inputs  
4 'C' Relay Contacts and 4 Analog Outputs  
Uses Analog Half-Duplex Leased Telephone Line  
No Calibration Required  
Microprocessor Controlled for High Accuracy  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
Built-in Overvoltage Protection on Telephone Line  
High Noise Rejection



### Function:

The RCI-400-FSK is a bi-directional remote communication system that exchanges the status of 4 dry contact inputs and 4 analog inputs between a master and remote unit. Both the master and remote unit have inputs and outputs to allow remote monitoring and remote control.

Since the master and remote units are connected via leased telephone line, and hence are 'always-on', a change in signal at one end is transmitted to the other end with very little delay. This makes this unit ideal for real-time monitoring of remote tanks, pumps, etc.

The bi-directional operation allows for control signals to be sent back to the remote site to take action based on the incoming monitored signal.

This unit may also be used as a remote unit in a multi-remote system where the master is a multi-channel device such as the RCI-800.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

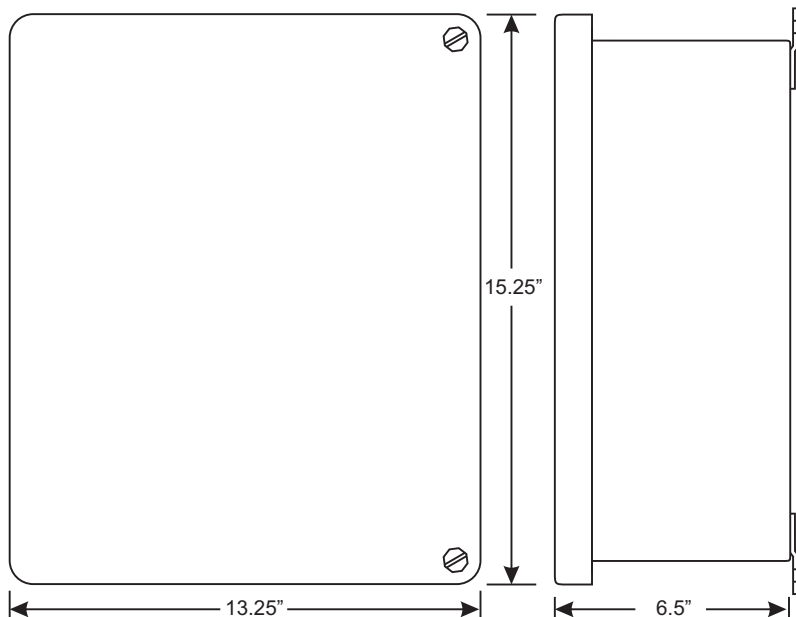
Transmission Medium: Analog Phone Line, Half-Duplex  
BAUD Rate: 2400 BAUD  
Transmission Output: -6dB max., -8dB typ.  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-400-FSK

## Enclosures & Dimensions:

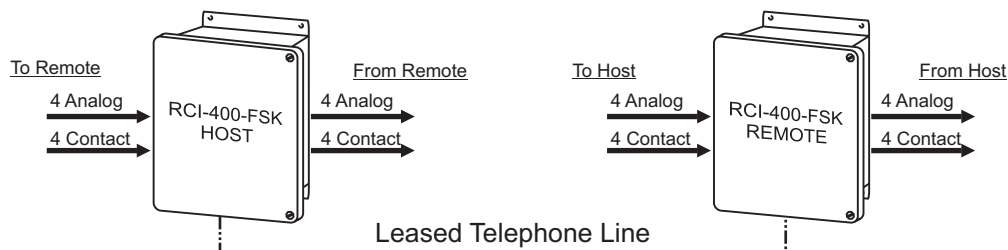
**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:

### 1. Point-to-Point System: 2 RCI-400-FSK Units

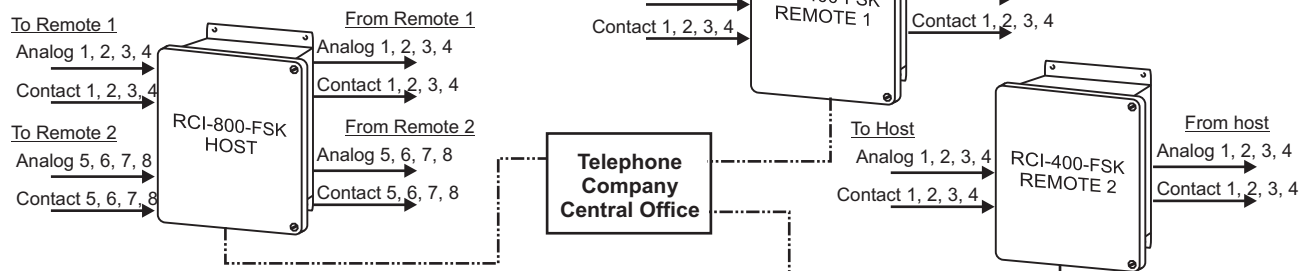


### 2. Host-to-Multi-Remote System:

1 RCI-800-FSK Host

2 RCI-400-FSK Remotes

This configuration provides **four** bi-directional analog and contact signal between one host unit and two remote units.



Manufactured By:

**Pribusin Inc.**

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Fx: (231) 788-2929



#### CANADA:

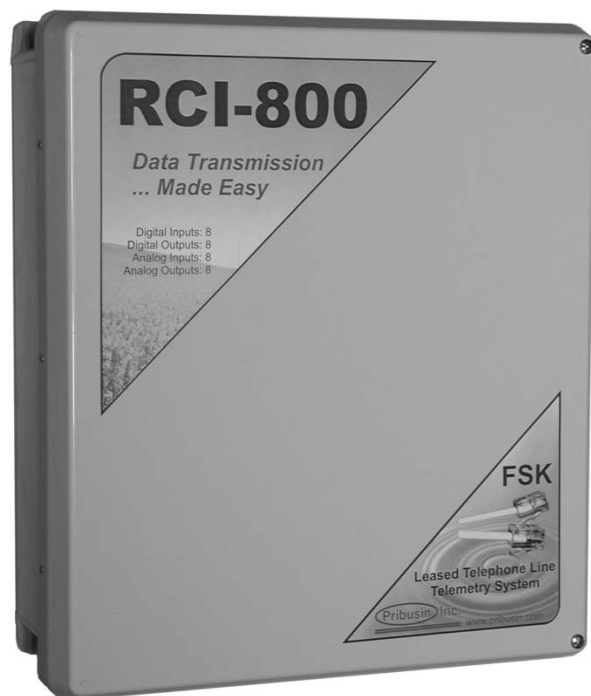
Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



Manufacturers of Process  
Controls and Instrumentation

# Model: RCI-800-FSK

## Leased-Line Remote Control Signal Interface



### Standard Features:

Bi-directional Communication using a Phone Line  
Uses MODBUS Protocol for Reliable Data Transfer  
8 Dry Contacts and 8 Analog Inputs  
8 'C' Relay Contacts and 8 Analog Outputs  
Uses Analog Half-Duplex Leased Telephone Line  
No Calibration Required  
Microprocessor Controlled for High Accuracy  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
Built-in Overvoltage Protection on Telephone Line  
High Noise Rejection



### Function:

The RCI-800-FSK is a bi-directional remote communication system that exchanges the status of 8 dry contact inputs and 8 analog inputs between a master and remote unit. Both the master and remote unit have inputs and outputs to allow remote monitoring and remote control.

Since the master and remote units are connected via leased telephone line, and hence are 'always-on', a change in signal at one end is transmitted to the other end with very little delay. This makes this unit ideal for real-time monitoring of remote tanks, pumps, etc.

The bi-directional operation allows for control signals to be sent back to the remote site to take action based on the incoming monitored signal.

This unit may also be used as a remote unit in a multi-remote system where the master is a multi-channel device such as the RCI-800.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

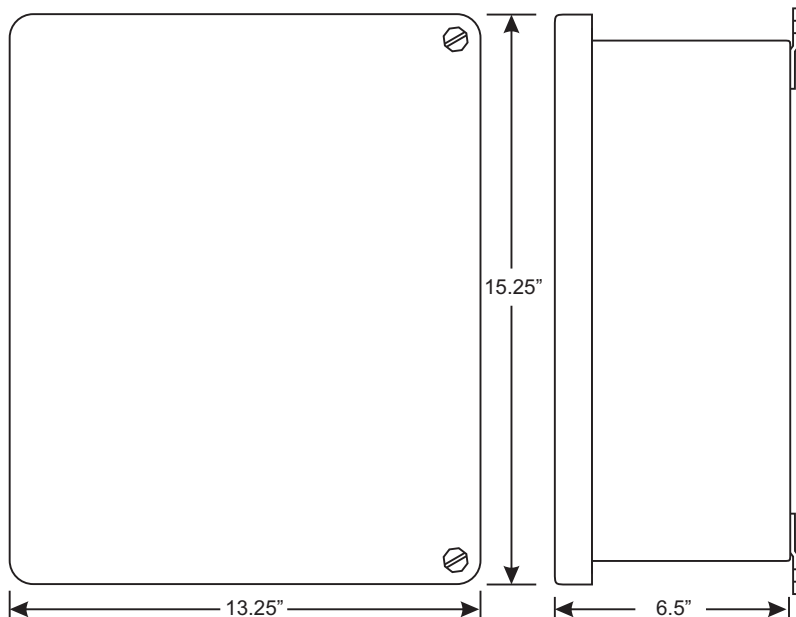
Transmission Medium: Analog Phone Line, Half-Duplex  
BAUD Rate: 2400 BAUD  
Transmission Output: -6dB max., -8dB typ.  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-800-FSK

## Enclosures & Dimensions:

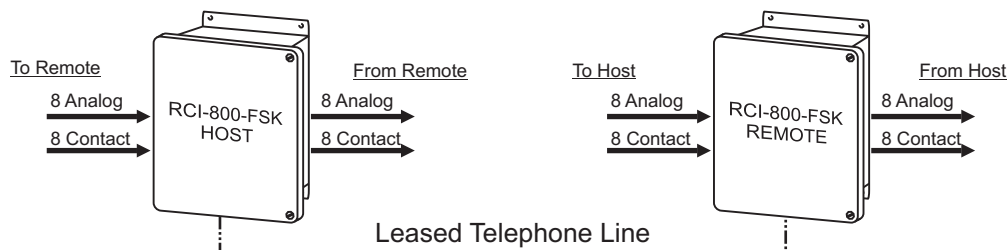
**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:

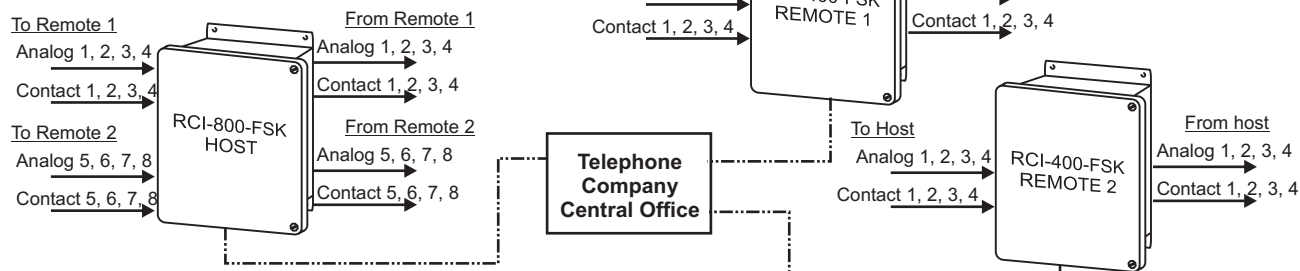
### 1. Point-to-Point System: 2 RCI-800-FSK Units



### 2. Host-to-Multi-Remote System:

- 1 RCI-800-FSK Host
- 2 RCI-400-FSK Remotes

This configuration provides **four** bi-directional analog and contact signal between one host unit and two remote units.



## Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

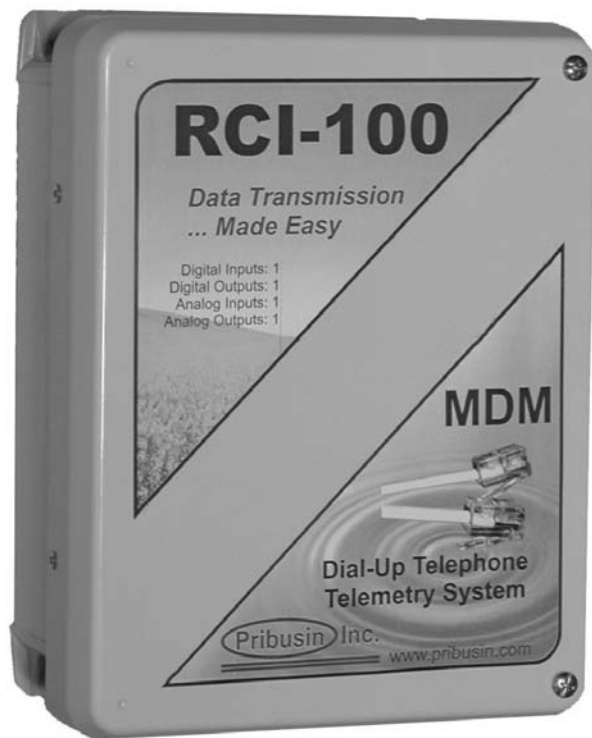
### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using Phone Line  
Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval  
Point-to-Point or Host-to-Multi-Point Operation  
1 Dry Contact and 1 Analog Input  
1 'C' Relay Contact and 1 Analog Output  
Configurable to Initiate and/or Answer A Call  
Uses Standard Voice Telephone Line  
No Calibration Required  
Microprocessor Controlled for High Accuracy  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
Built-in Overvoltage Protection on Telephone Line  
High Noise Rejection

### Function:

The RCI-100-MDM is a bi-directional dial-up communication system that exchanges the status of 1 dry contact input and 1 analog input between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: Analog Voice Grade Phone Line  
BAUD Rate: 2400 BAUD typ., 9600, 14.4K available  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

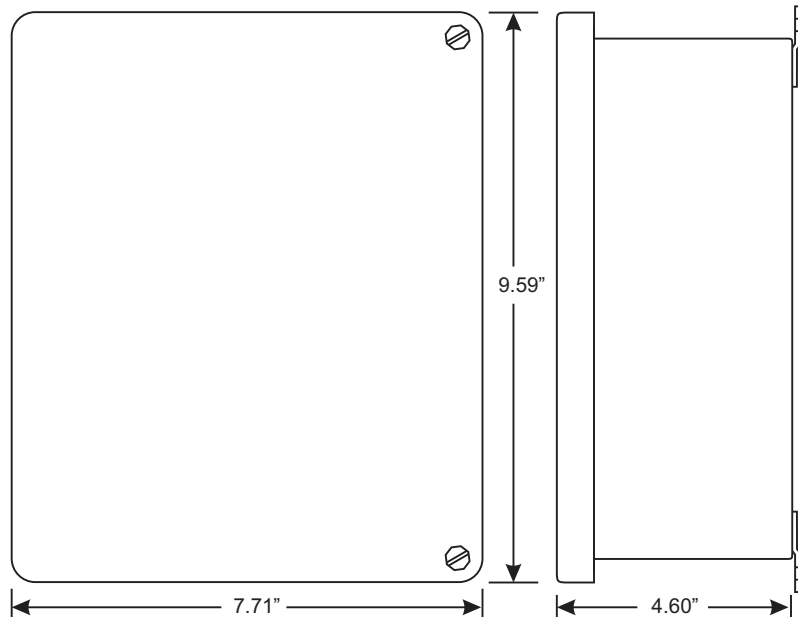


# RCI-100-MDM

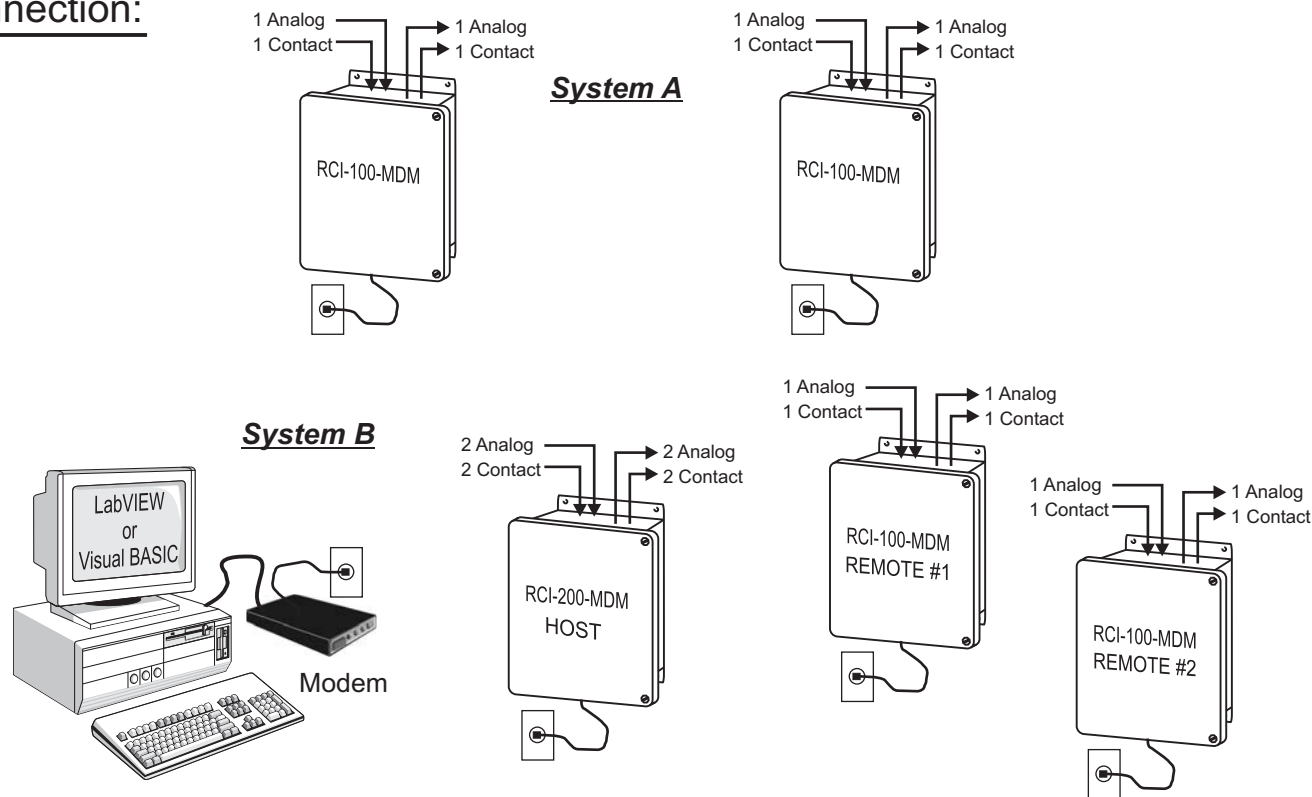
## Enclosures & Dimensions:

**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

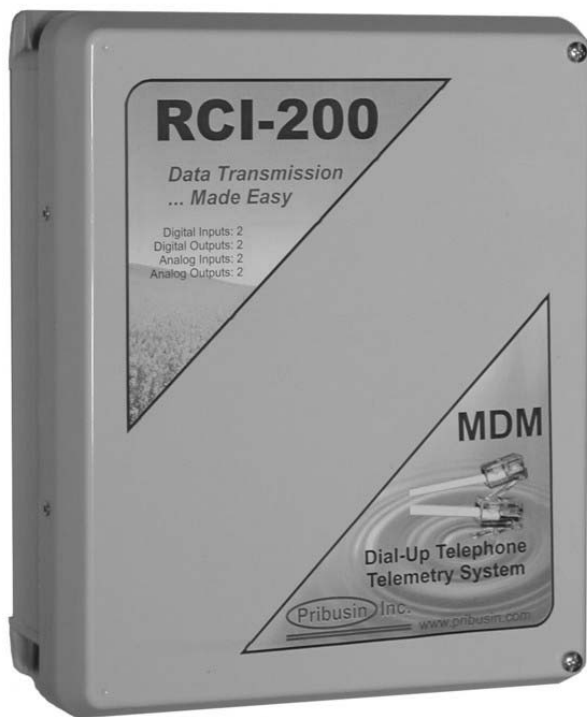
Pribusin Inc.  
 743 Marquette Ave.  
 Muskegon, MI 49442  
 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068





### Standard Features:

Bi-directional Communication using Phone Line  
Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval  
Point-to-Point or Host-to-Multi-Point Operation  
2 Dry Contact and 2 Analog Inputs  
2 'C' Relay Contacts and 2 Analog Outputs  
Configurable to Initiate and/or Answer A Call  
Uses Standard Voice Telephone Line  
No Calibration Required  
Microprocessor Controlled for High Accuracy  
Power: 117 VAC 50/60 Hz (Optional 24 VDC)  
Built-in Overvoltage Protection on Telephone Line  
High Noise Rejection

### Function:

The RCI-200-MDM is a bi-directional dial-up communication system that exchanges the status of 2 dry contact inputs and 2 analog inputs between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

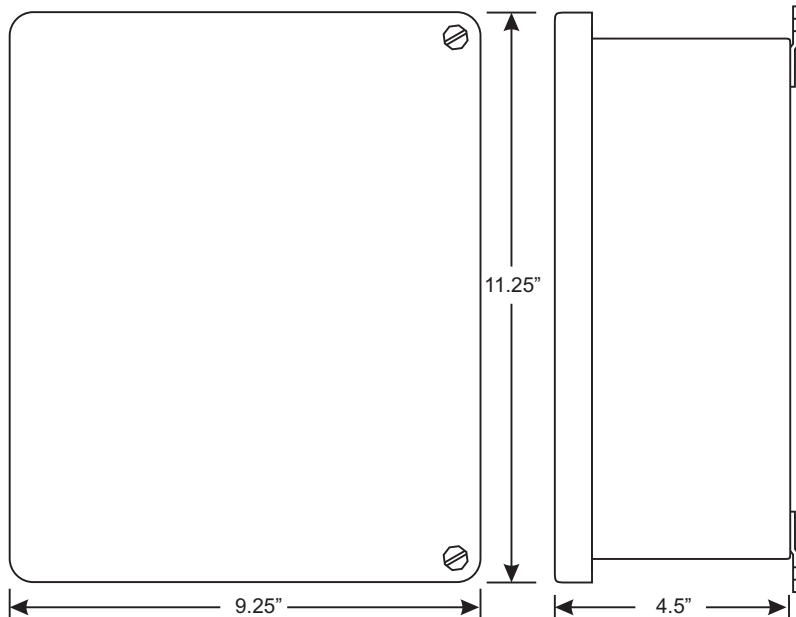
Transmission Medium: Analog Voice Grade Phone Line  
BAUD Rate: 2400 BAUD typ., 9600, 14.4K available  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-200-MDM

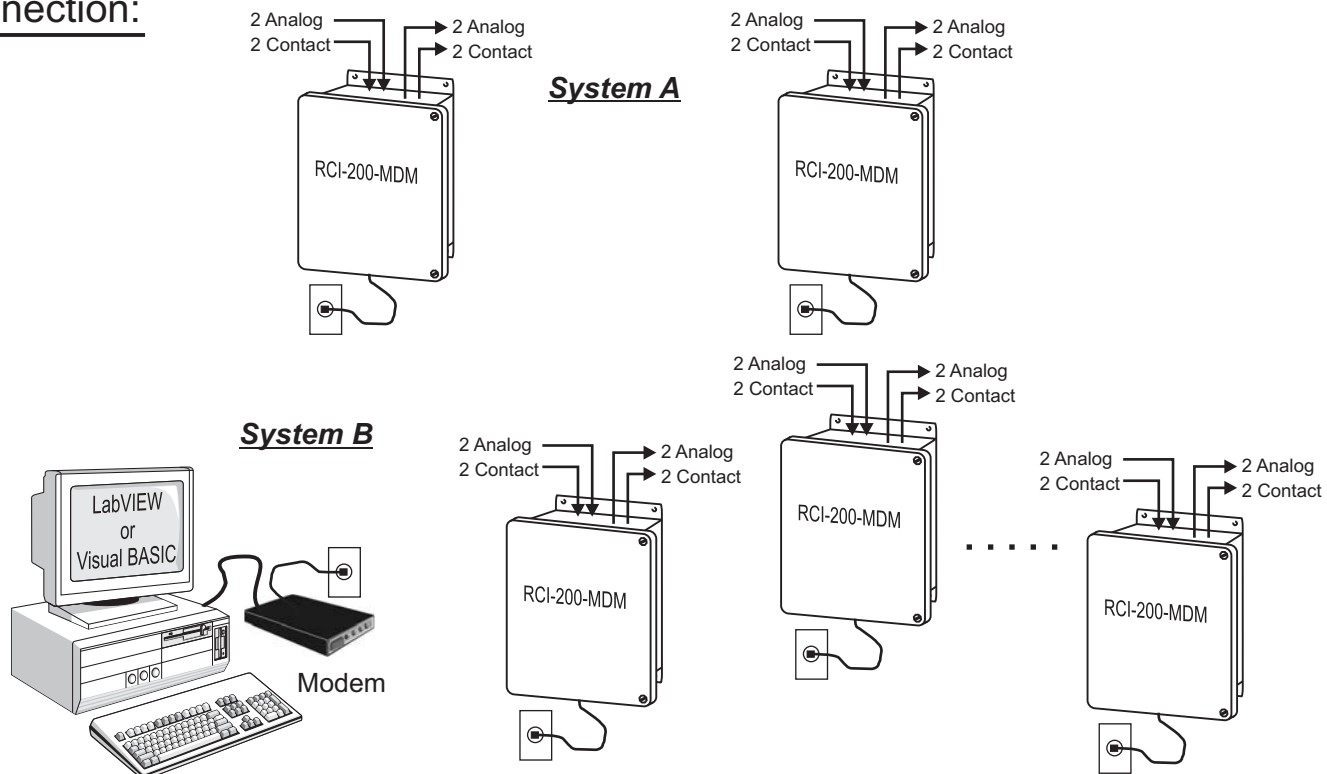
## Enclosures & Dimensions:

**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

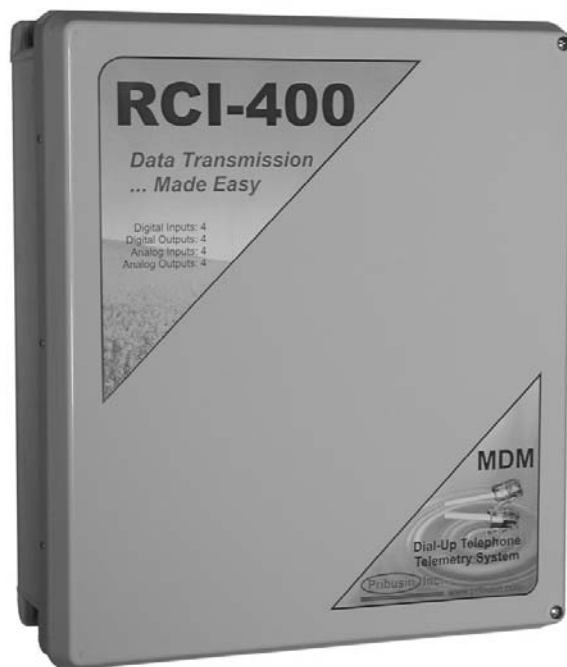
### USA:

Pribusin Inc.  
 743 Marquette Ave.  
 Muskegon, MI 49442  
 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

- Bi-directional Communication using Phone Line
- Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval
- Point-to-Point or Host-to-Multi-Point Operation
- 4 Dry Contact and 4 Analog Inputs
- 4 'C' Relay Contacts and 4 Analog Outputs
- Configurable to Initiate and/or Answer A Call
- Uses Standard Voice Telephone Line
- No Calibration Required
- Microprocessor Controlled for High Accuracy
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- Built-in Overvoltage Protection on Telephone Line
- High Noise Rejection

### Function:

The RCI-400-MDM is a bi-directional dial-up communication system that exchanges the status of 4 dry contact inputs and 4 analog inputs between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

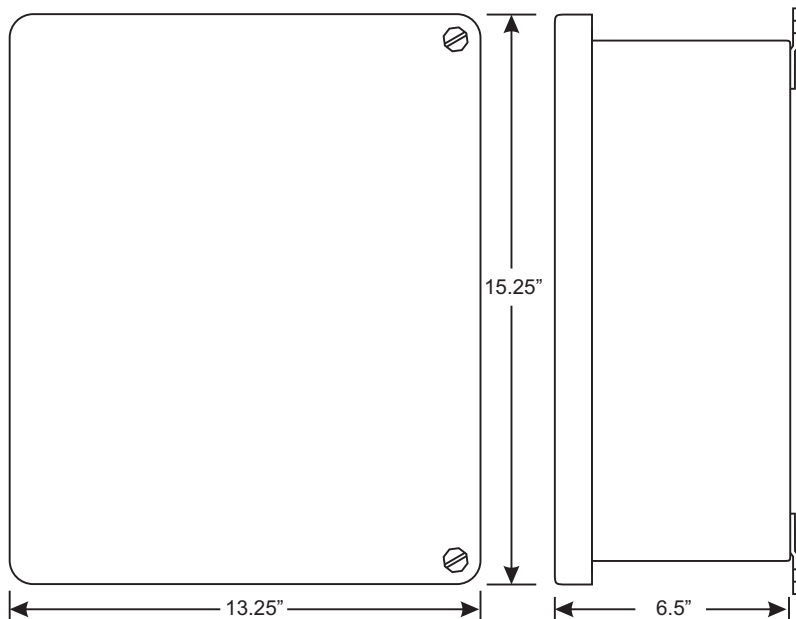
Transmission Medium: Analog Voice Grade Phone Line  
BAUD Rate: 2400 BAUD typ., 9600, 14.4K available  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-400-MDM

## Enclosures & Dimensions:

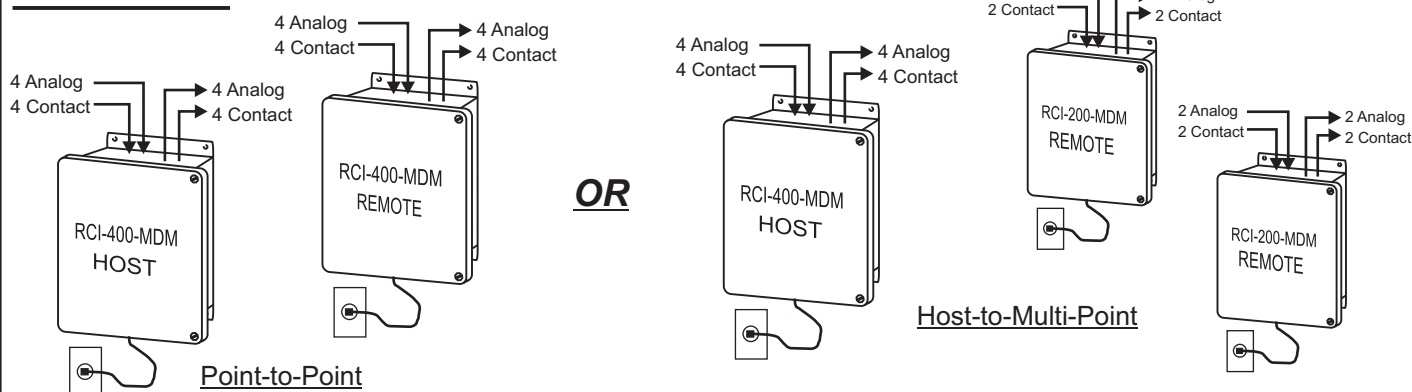
**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display

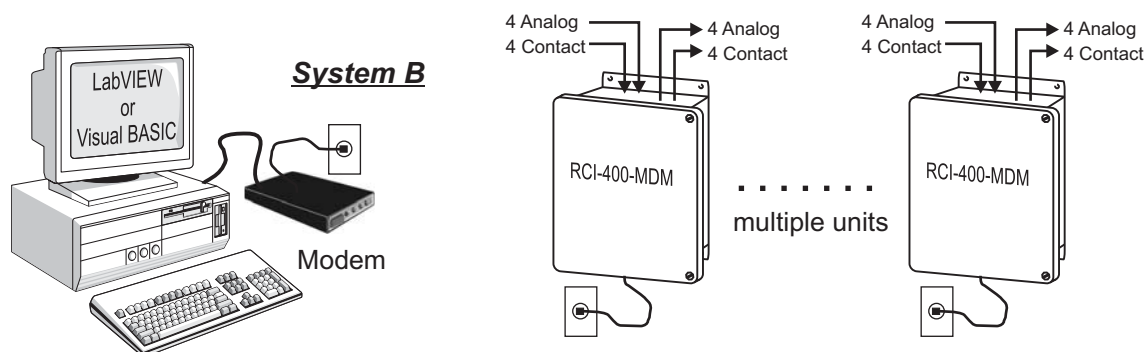


## Connection:

### System A



### System B



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

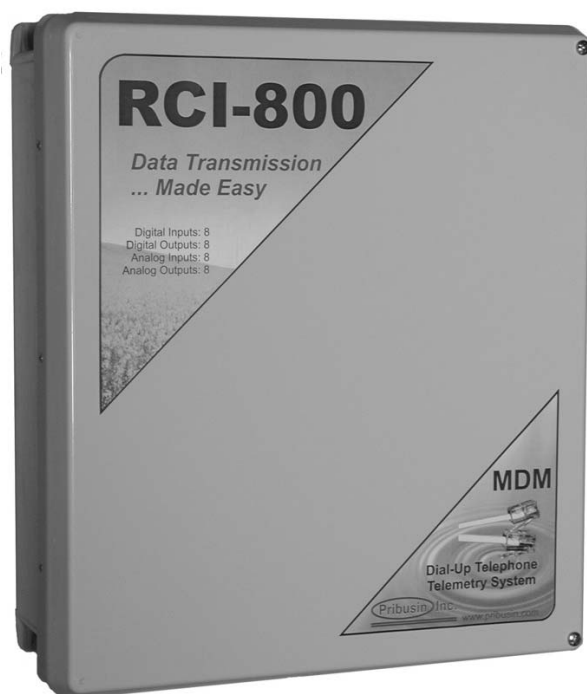
#### USA:

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 Muskegon, MI 49442  
 Ph: (231) 788-2900  
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#### CANADA:

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### Standard Features:

- Bi-directional Communication using Phone Line
- Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval
- Point-to-Point or Host-to-Multi-Point Operation
- 8 Dry Contact and 4 Analog Inputs
- 8 'C' Relay Contacts and 4 Analog Outputs
- Configurable to Initiate and/or Answer A Call
- Uses Standard Voice Telephone Line
- No Calibration Required
- Microprocessor Controlled for High Accuracy
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- Built-in Overvoltage Protection on Telephone Line
- High Noise Rejection

### Function:

The RCI-800-MDM is a bi-directional dial-up communication system that exchanges the status of 8 dry contact inputs and 8 analog inputs between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

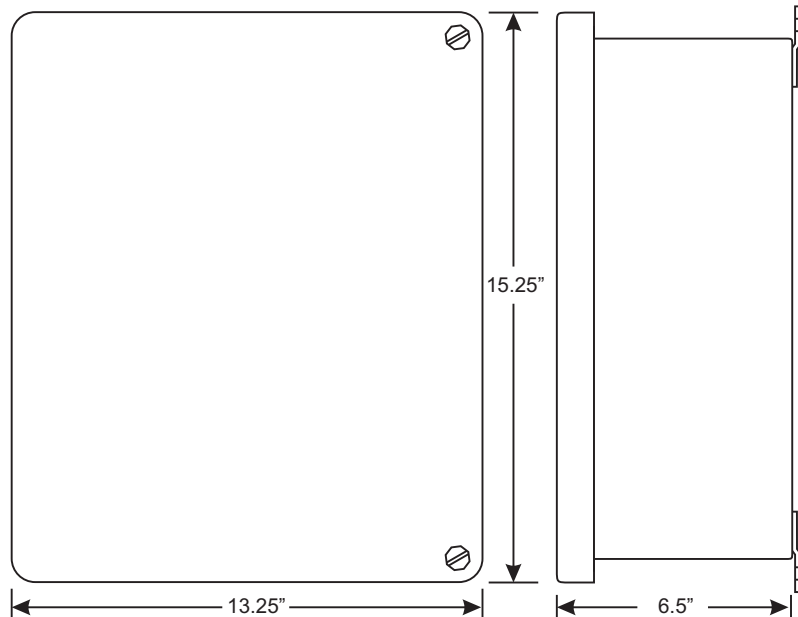
Transmission Medium: Analog Voice Grade Phone Line  
BAUD Rate: 2400 BAUD typ., 9600, 14.4K available  
Operating Temperature: -20 Deg.C. to +50 Deg.C.  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz  
(24VDC Available)  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-0

# RCI-800-MDM

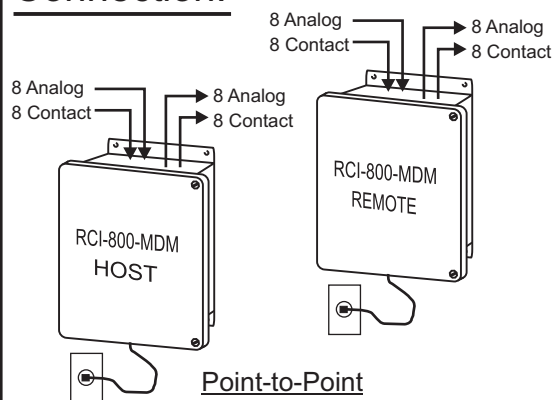
## Enclosures & Dimensions:

**Options:** (Add letters to end of Model Number)

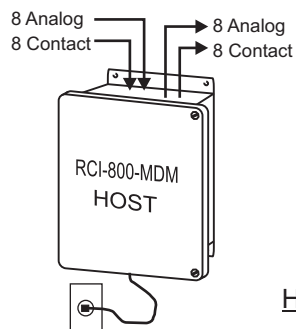
D - 8-Digit Scanning Display



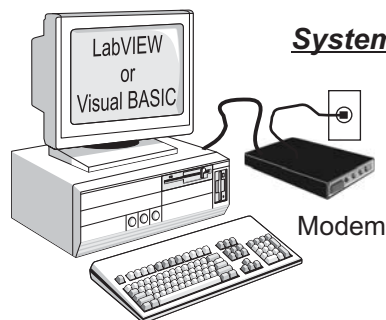
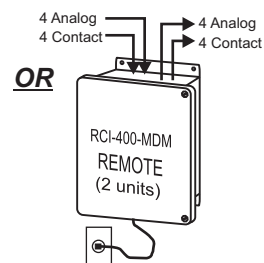
## Connection:



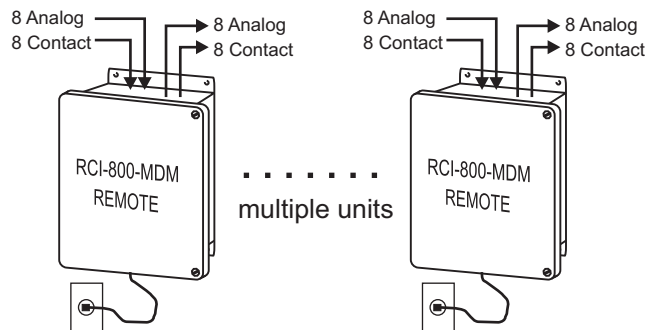
### System A



Host-to-Multi-Point



### System B



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

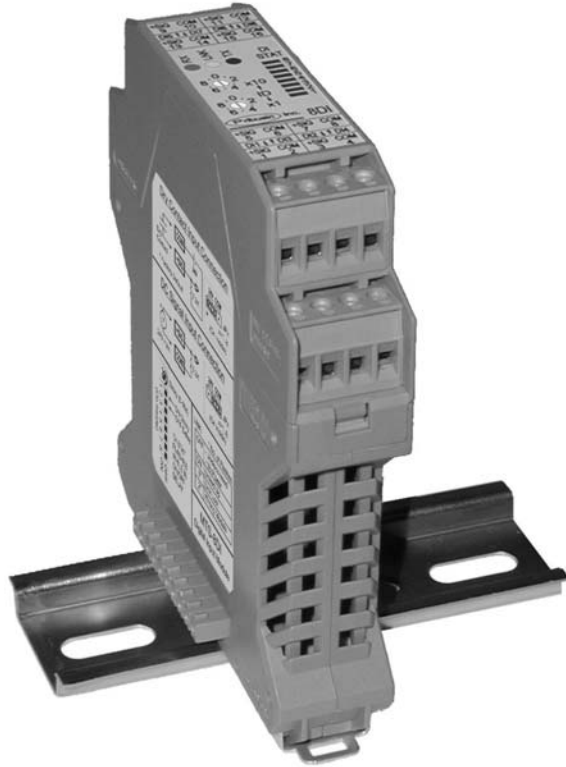
### USA:

Pribusin Inc.  
 743 Marquette Ave.  
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 Ph: (231) 788-2900  
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### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Function:

The MTS-8DI is an 8 channel digital input module. It provides digital input capability for an MTS series telemetry system. The MTS-8DI communicates with its counterpart, the MTS-8DO digital output module.

Each input can be configured as a dry or wet contact input. An adjustable ON/OFF delay can be invoked to provide hysteresis. The input status of each channel is indicated individually. While an input is in its ON or OFF delay mode the indicator flashes.

Deployment and installation is as simple as plugging the needed I/O modules into the communications module and assigning unique module ID's. Power and communication for the modules are provided through an integral bus.

### Standard Features:

8 Digital Inputs

Inputs Individually Selectable as Dry or Wet Contacts

Input Status Indication

Adjustable On/Off Delay For Hysteresis

Integrated Power & Data Bus Reduces Wiring

Modular Design Provides Maximum Flexibility

No Programming Required - Easy to Configure

Microprocessor Controlled for High Accuracy

Power: 24 VDC (From Integrated Bus)

Easy Future Expansion

### Configuration:

The MTS-8DI input module must be paired up with the MTS-8DO output module. Both modules must be set to the same ID with the ID Selector Switches. Each input can be selected as 'Dry Contact' input or 'DC Signal' input with jumpers JP1-JP8. An ON/OFF delay can be imposed from 0-16 seconds to filter out nuisance signals or noise.

### Specifications:

Inputs: Dry Contact (excited with 24V from Module)  
DC Signal (0-24VDC max.)

Input Impedance: 1200 ohms

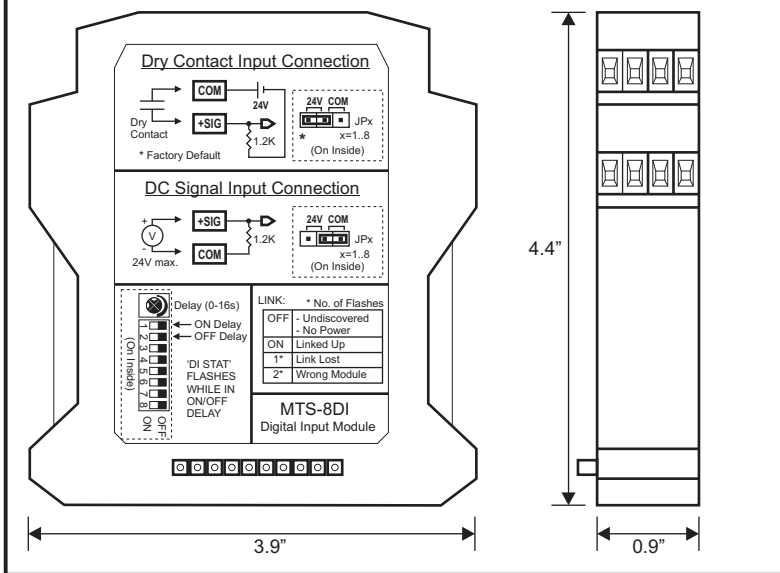
Reverse Polarity Protection: Yes

Power Consumption: 0.5VA (All Inputs Open)  
4.8VA (All Inputs Closed)

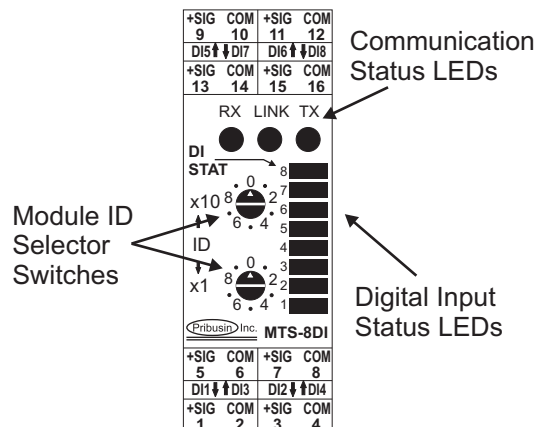


# MTS-8DI

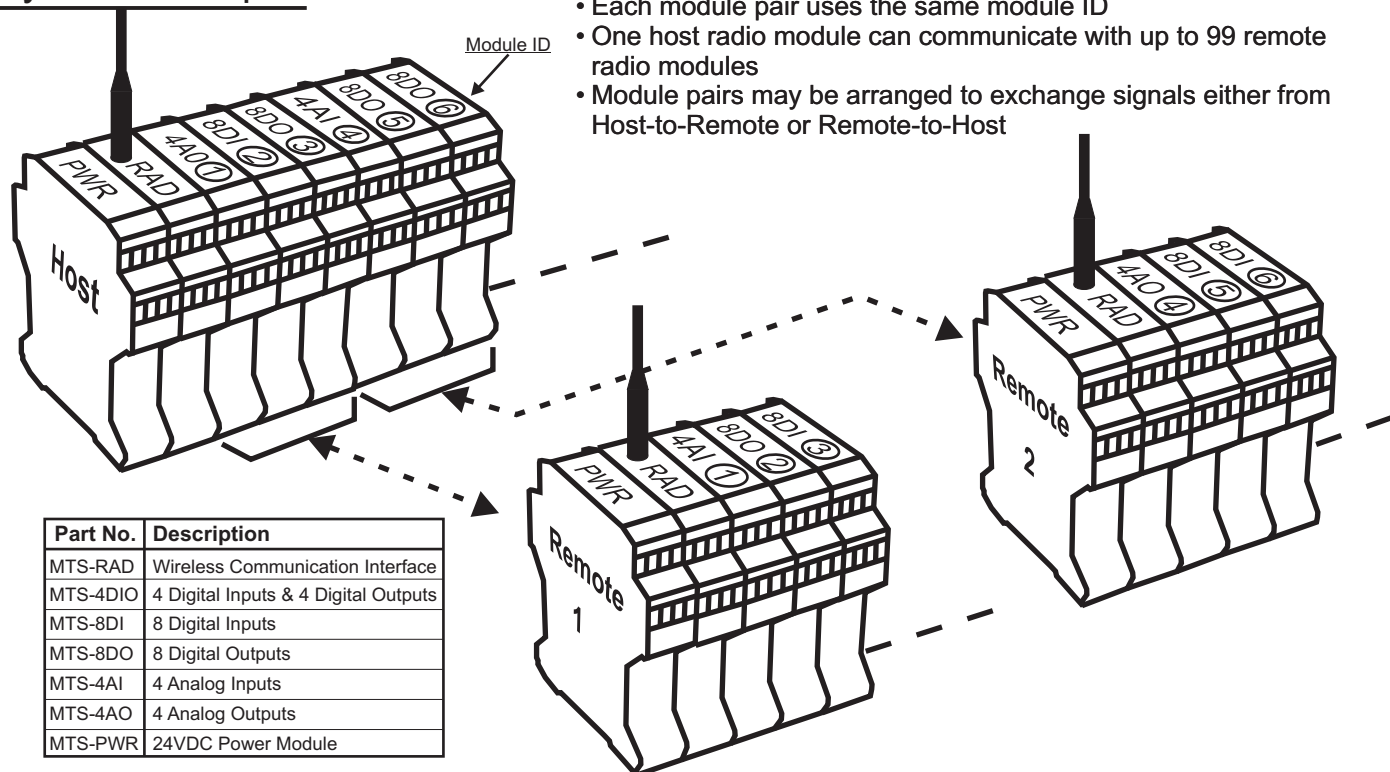
## Module Dimensions:



## Top View:



## System Example:



## Manufactured By:

**Pribusin Inc.**

www.pribusin.com  
info@pribusin.com

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929

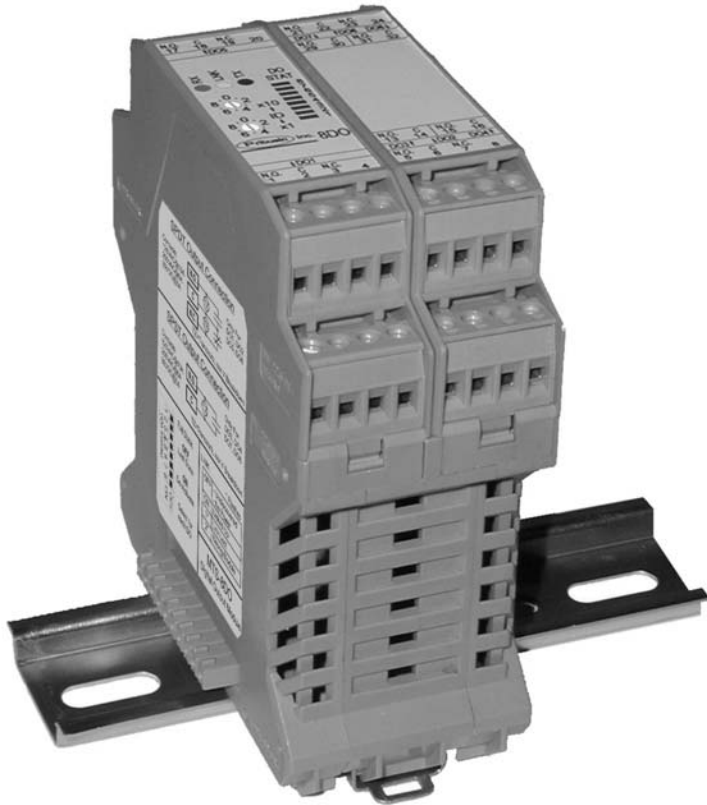


### CANADA:

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101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



## 4 Channel Digital Input & Output Module



### Function:

The MTS-4DIO is a 4 channel digital input and output module. It provides bidirectional digital input and output capability for an MTS series telemetry system. There are 4 digital inputs (wet or dry) and 4 Digital outputs (form 'A' Relay contacts). The MTS-4DIO communicates with another MTS-4DIO module.

Each input can be configured as a dry or wet contact input. An adjustable ON/OFF delay can be invoked to provide hysteresis. The input status of each channel is indicated individually. While an input is in its ON or OFF delay mode the indicator flashes.

Relay outputs can be configured to go into a predetermined state during communication fail events.

Deployment and installation is as simple as plugging the needed I/O modules into the communications module and assigning unique module ID's. Power and communication for the modules are provided through an integral bus.

### Standard Features:

4 Digital Inputs & 4 Digital Outputs (Relay Contacts)  
Inputs Individually Selectable as Dry or Wet Contacts  
Selectable Fault Condition State for Digital Outputs  
Input & Output Status Indication  
Adjustable On/Off Delay For Input Hysteresis  
Integrated Power & Data Bus Reduces Wiring  
Modular Design Provides Maximum Flexibility  
No Programming Required - Easy to Configure  
Microprocessor Controlled for High Accuracy  
Power: 24 VDC (From Integrated Bus)  
Easy Future Expansion

### Configuration:

The MTS-4DIO module must be paired up with another MTS-4DIO module. Both modules must be set to the same ID with the ID Selector Switches. Each input can be selected as 'Dry Contact' input or 'DC Signal' input with jumpers JP1-JP4. An ON/OFF delay can be imposed from 0-16 seconds to filter out nuisance signals or noise.

### Specifications:

Inputs: 4 Dry Contact (24V excitation from Module)  
or 4 DC Signal (0-24VDC max.)  
Input Impedance: 1200 ohms  
Reverse Polarity Protection (Input): Yes  
Outputs: 4 SPST Relay Contacts  
Contact Rating: 125VAC/3A; 250VAC/1A; 30VDC/3A  
Contact Arc Suppression: Yes (MOV)  
Power Consumption: 0.5VA (All I/O Open)  
4.8VA (All I/O Closed)

# Module Dimensions:

The diagram illustrates the MTS-4DIO module, a 4-channel digital input/output unit. It features a central 16-pin D-sub connector with the following labels and functions:

- Communication Status LEDs:** Located at the top, these include RX (Receive), LINK (Link), and TX (Transmit) LEDs.
- Module ID Selector Switches:** Two rotary switches labeled "ID" and "STAT" are used to select the module's identity and status.
- I/O Status LEDs:** A row of 16 LEDs at the bottom indicates the status of each I/O channel.
- Pin Configuration:** The 16 pins are organized into two groups of 8 pins each, labeled DI3 and DI4. Each group includes a +SIG (Signal) and COM (Common) pin.

The module is manufactured by **Princeton Inc.** and is labeled **MTS-4DIO**.

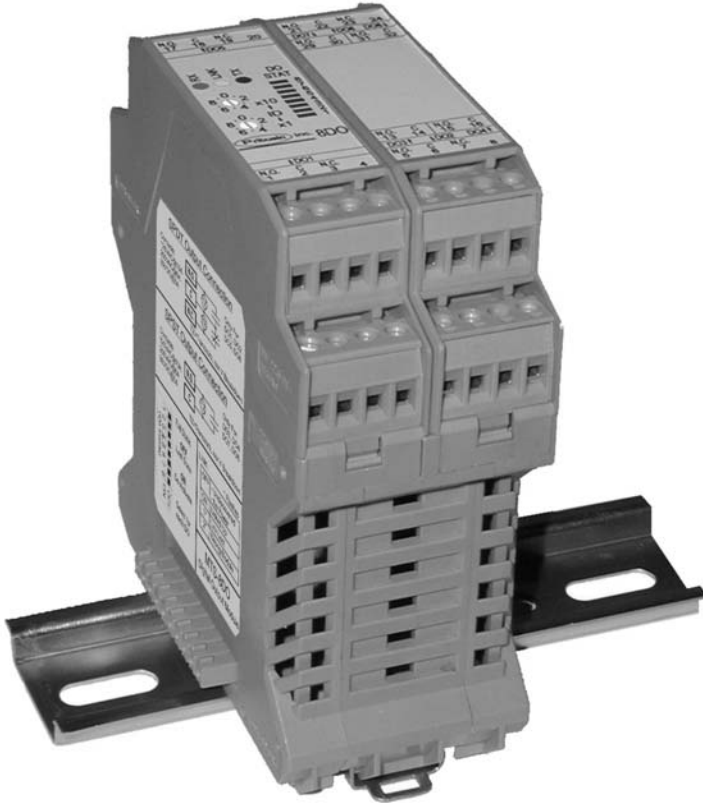
### System Example:

The diagram illustrates a system architecture where a central Host module communicates with two Remote modules. The Host module is labeled 'Host' and has a 'PWR' (Power) section, a 'RAD' (Radio) section, and four sections of digital/analog inputs/outputs: 4AI (Analog Inputs), 4AO (Analog Outputs), 8DI (Digital Inputs), and 8DO (Digital Outputs). It also has a '4DIO' section. The Remote modules are labeled 'Remote 1' and 'Remote 2'. They have a similar structure but with a 'RAD' section and a '4DIO' section. Dashed lines indicate communication paths between the Host and the Remote modules.

- Each Input module must have an Output module counterpart
- Each module pair uses the same module ID
- One host radio module can communicate with up to 99 remote radio modules
- Module pairs may be arranged to exchange signals either from Host-to-Remote or Remote-to-Host

Part No.	Description
MTS-RAD	Wireless Communication Interface
MTS-4DIO	4 Digital Inputs & 4 Digital Outputs
MTS-8DI	8 Digital Inputs
MTS-8DO	8 Digital Outputs
MTS-4AI	4 Analog Inputs
MTS-4AO	4 Analog Outputs
MTS-1FI	1 Frequency/Pulse Input
MTS-1FO	1 Frequency/Pulse Output
MTS-PWR	24VDC Power Module

Rev.A Subject to change without notice



### Function:

The MTS-8DO is an 8 channel digital output module. It provides digital output capability for an MTS series telemetry system. The MTS-8DO communicates with its counterpart, the MTS-8DI digital input module.

4 outputs are SPDT (form 'C') outputs with one Normally-Open and one Normally Closed connection, while the remaining 4 outputs are SPST (form 'A') outputs with a Normally Open connection. The output status of each channel is indicated individually.

Deployment and installation is as simple as plugging the needed I/O modules into the communications module and assigning unique module ID's. Power and communication for the modules are provided through an integral bus.

Optional power supply modules add battery backup and solar power capability.

### Standard Features:

- 8 Digital Outputs (Relay Contacts)
- Form 'C' Contacts (4) and Form 'A' Contacts (4)
- Output Status Indication
- Selectable Fault Condition State
- Integrated Power & Data Bus Reduces Wiring
- Modular Design Provides Maximum Flexibility
- No Programming Required - Easy to Configure
- Microprocessor Controlled for High Accuracy
- Power: 24 VDC (From Integrated Bus)
- Easy Future Expansion

### Configuration:

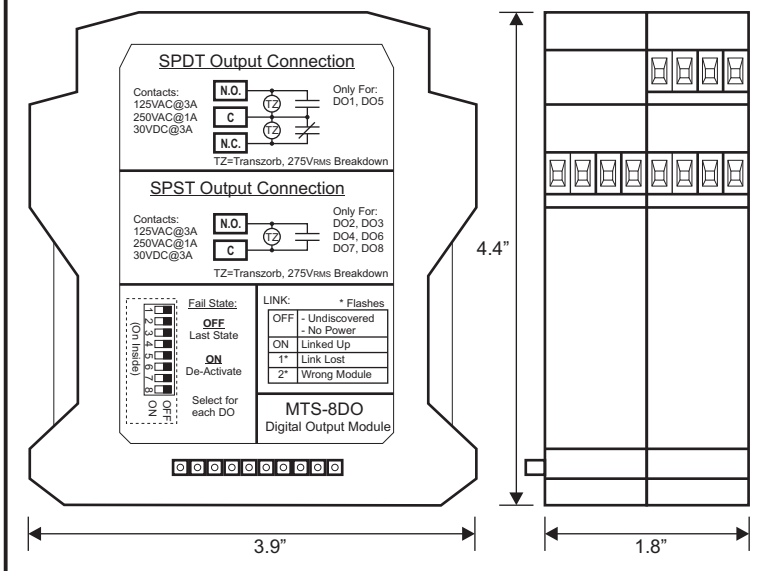
The MTS-8DO output module must be paired up with the MTS-8DI input module. Both modules must be set to the same ID with the ID Selector Switches. Each output can be configured to remain in its last state or deactivate during a communications fail condition.

### Specifications:

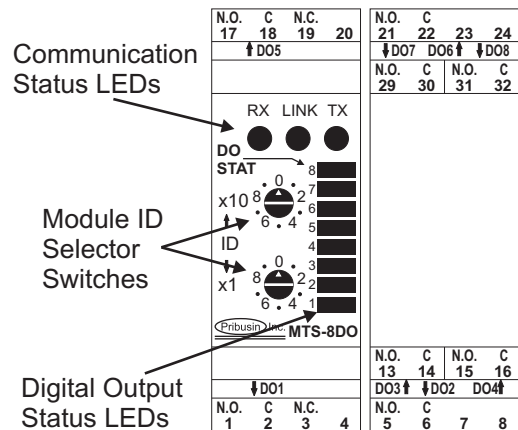
- Outputs: 4 SPST & 4 SPDT Relay Contacts
- Contact Rating: 125VAC @ 10A
- 277VAC @ 6A
- 30VDC @ 5A
- Contact Arc Suppression: Yes (MOV)
- Power Consumption: 0.5VA (All Inputs Open)
- 4.8VA (All Inputs Closed)

# MTS-8DO

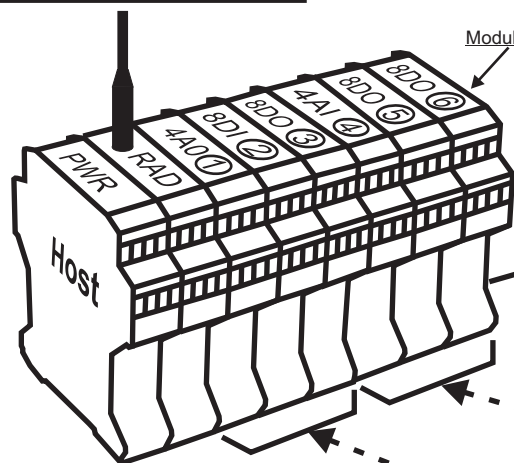
## Module Dimensions:



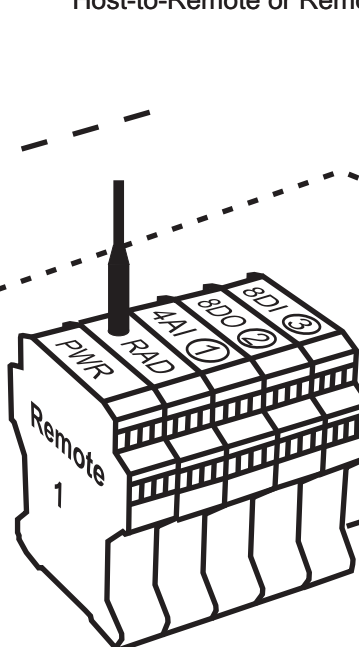
## Top View:



## System Example:



- Each Input module must have an Output module counterpart
- Each module pair uses the same module ID
- One host radio module can communicate with up to 99 remote radio modules
- Module pairs may be arranged to exchange signals either from Host-to-Remote or Remote-to-Host



Part No.	Description
MTS-RAD	Wireless Communication Interface
MTS-4DIO	4 Digital Inputs & 4 Digital Outputs
MTS-8DI	8 Digital Inputs
MTS-8DO	8 Digital Outputs
MTS-4AI	4 Analog Inputs
MTS-4AO	4 Analog Outputs
MTS-PWR	24VDC Power Module

## Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)

[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Function:

The MTS-4AI is a 4 channel analog input module. It provides analog input capability for an MTS series telemetry system. The MTS-4AI communicates with its counterpart, the MTS-4AO analog output module.

Inputs can be wired to be sinking or sourcing depending on the 4-20mA signal source. 24VDC is also available on the input terminals for 3- and 4-wire connections. Input resolution is 16-bits for high accuracy.

Deployment and installation is as simple as plugging the needed I/O modules into the communications module and assigning unique module ID's. Power and communication for the modules are provided through an integral bus.

### Standard Features:

- 4 Analog Inputs (4-20mA)
- 2-Wire Sinking or Sourcing Inputs
- 24V Power Supply Output for 3- & 4- Wire Inputs
- Integrated Power & Data Bus Reduces Wiring
- Modular Design Provides Maximum Flexibility
- No Programming Required - Easy to Configure
- Microprocessor Controlled for High Accuracy
- Power: 24 VDC (From Integrated Bus)
- Easy Future Expansion

### Configuration:

The MTS-4AI input module must be paired up with the MTS-4AO output module. Both modules must be set to the same ID with the ID Selector Switches. Each input can be wired as either sinking or sourcing type.

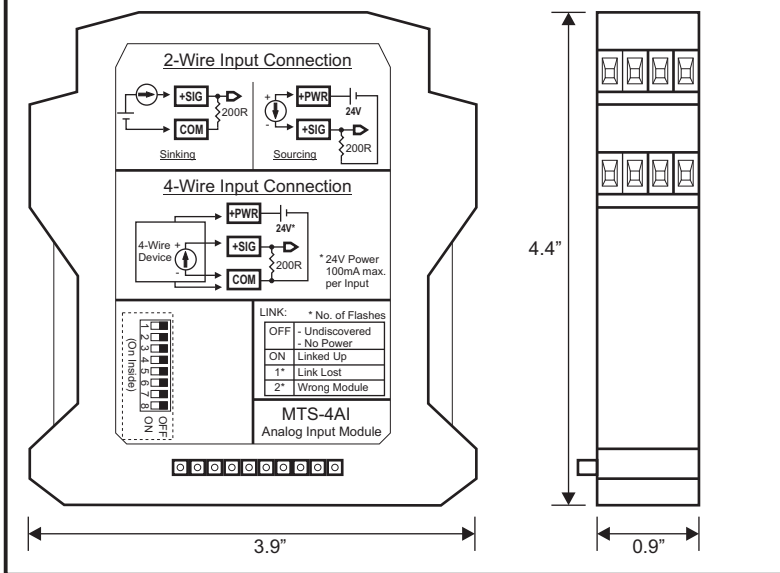
### Specifications:

- Inputs: 4-20mA sinking (200 ohm load)
- 4-20mA sourcing (max. 20mA)
- 3- & 4-Wire (24VDC @ 100mA max.)
- Power Consumption: TBD
- Input Impedance: 200 ohms
- Reverse Polarity Protection: Yes

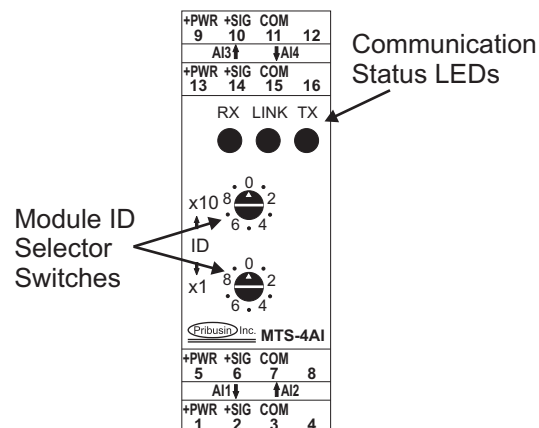


# MTS-4AI

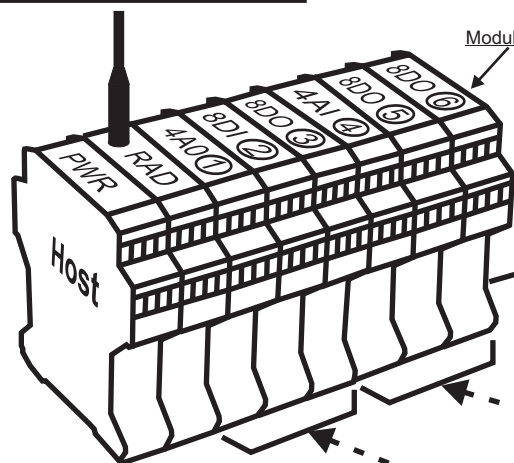
## Module Dimensions:



## Top View:



## System Example:



- Each Input module must have an Output module counterpart
- Each module pair uses the same module ID
- One host radio module can communicate with up to 99 remote radio modules
- Module pairs may be arranged to exchange signals either from Host-to-Remote or Remote-to-Host

Part No.	Description
MTS-RAD	Wireless Communication Interface
MTS-4DIO	4 Digital Inputs & 4 Digital Outputs
MTS-8DI	8 Digital Inputs
MTS-8DO	8 Digital Outputs
MTS-4AI	4 Analog Inputs
MTS-4AO	4 Analog Outputs
MTS-PWR	24VDC Power Module

## Manufactured By:

**Pribusin Inc.**

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[info@pribusin.com](mailto:info@pribusin.com)

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### CANADA:

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 Fx: (905) 660-4068

## 4 Channel Analog Output Module



### Function:

The MTS-4AO is a 4 channel analog output module. It provides analog output capability for an MTS series telemetry system. The MTS-4AO communicates with its counterpart, the MTS-4AI analog input module.

Outputs are isolated from each other to provide added protection and to prevent ground loops. Output resolution is 16-bits for high accuracy.

Outputs can be wired to be sinking or sourcing depending on the 4-20mA signal source.

Deployment and installation is as simple as plugging the needed I/O modules into the communications module and assigning unique module ID's. Power and communication for the modules are provided through an integral bus.

### Standard Features:

4 Analog Outputs (4-20mA)

Outputs are Isolated to 1.5kV

24V Power Supply Output for Sourcing 4-20mA

Integrated Power & Data Bus Reduces Wiring

Modular Design Provides Maximum Flexibility

No Programming Required - Easy to Configure

Microprocessor Controlled for High Accuracy

Power: 24 VDC (From Integrated Bus)

Easy Future Expansion

### Configuration:

The MTS-4AO output module must be paired up with the MTS-4AI input module. Both modules must be set to the same ID with the ID Selector Switches. Each output can be wired as either sinking or sourcing type.

### Specifications:

Outputs: 4-20mA sinking

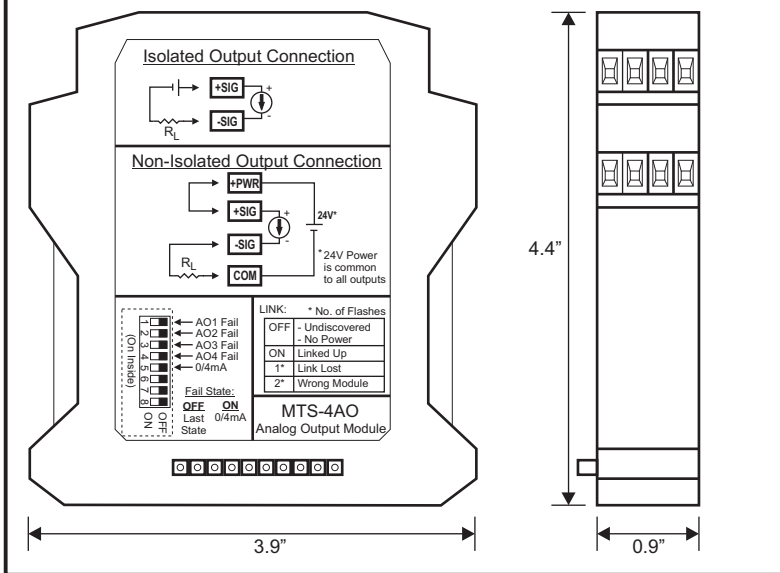
4-20mA sourcing (max. 20mA)

Power Consumption: TBD

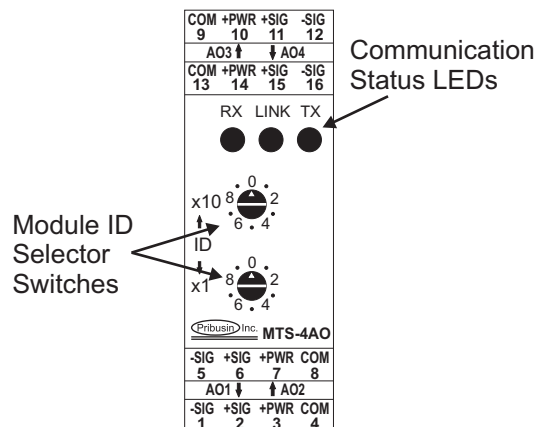
Isolation: 1.5kV, Optically Isolated

# MTS-4AO

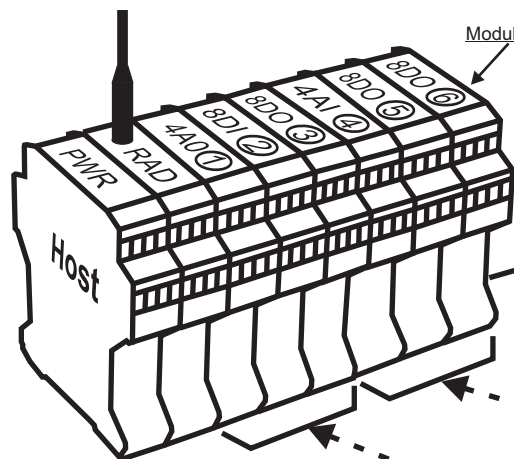
## Module Dimensions:



## Top View:



## System Example:



- Each Input module must have an Output module counterpart
- Each module pair uses the same module ID
- One host radio module can communicate with up to 99 remote radio modules
- Module pairs may be arranged to exchange signals either from Host-to-Remote or Remote-to-Host

Part No.	Description
MTS-RAD	Wireless Communication Interface
MTS-4DIO	4 Digital Inputs & 4 Digital Outputs
MTS-8DI	8 Digital Inputs
MTS-8DO	8 Digital Outputs
MTS-4AI	4 Analog Inputs
MTS-4AO	4 Analog Outputs
MTS-PWR	24VDC Power Module

## Manufactured By:

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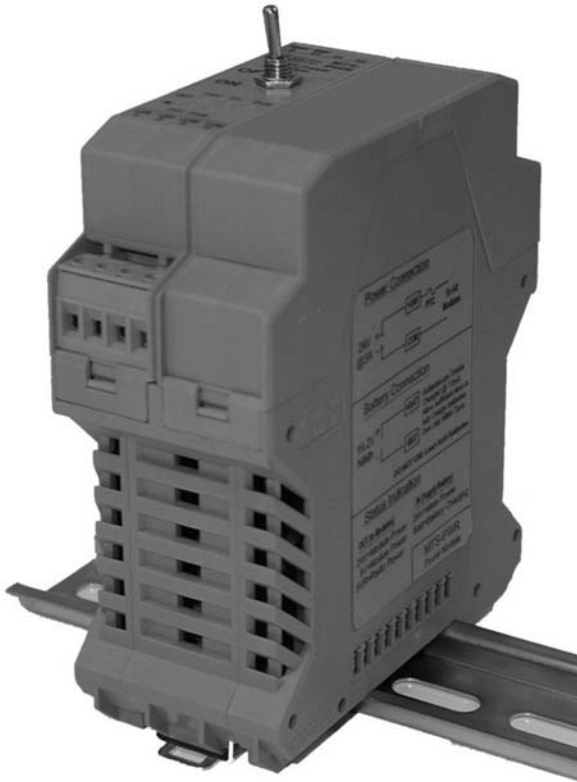


### CANADA:

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 Fx: (905) 660-4068



## Power Module



### Function:

The MTS-PWR is a power supply and distribution module for any MTS based telemetry system. It provides the necessary power to all modules in an MTS stack in an easy to integrate module. It gives visual indication on the status of the power supply as well as a simple ON/OFF switch to allow maintenance or expansion of the MTS modules.

An optional external battery pack can be connected to the MTS-PWR to provide a backup power source. Batteries are NiMh type which have high power density and no memory effect.

Deployment and installation is as simple as plugging the needed I/O modules into the communications module and assigning unique module ID's. Power and communication for the modules are provided through an integral bus.

### Standard Features:

Provides Power to All Modules via Integrated Bus  
Battery Backup Capability  
Power Status Indication  
Integrated Power & Data Bus Reduces Wiring  
Modular Design Provides Maximum Flexibility  
Power: 24 VDC, 3A max.

### Configuration:

The MTS-PWR requires no configuration.

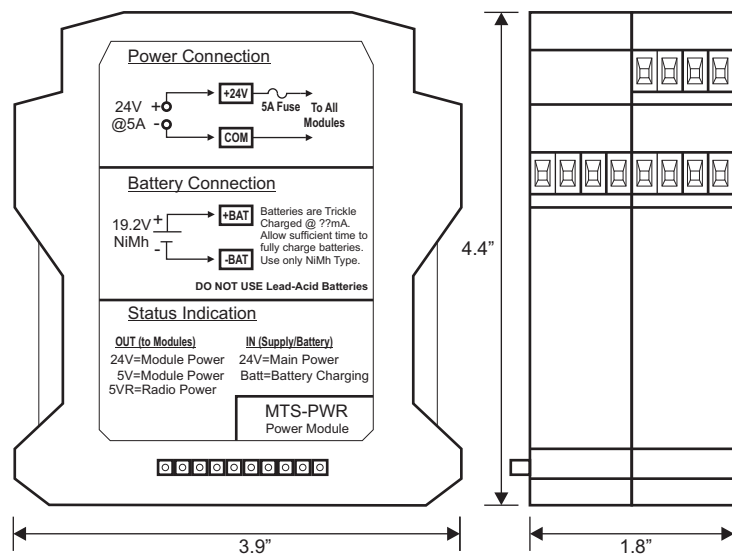
If the Battery Backup option is used, simply connect the batteries to the terminals as indicated on the connection diagram.

### Specifications:

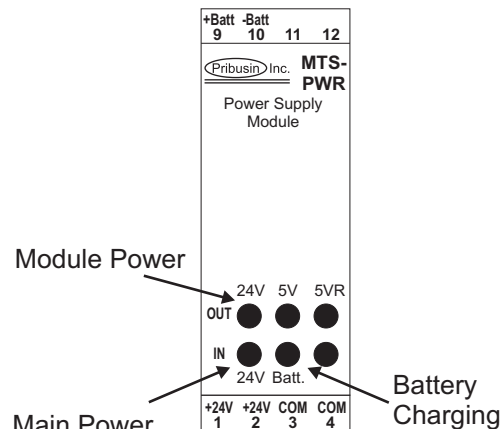
Input Power: 24VDC, 3A max.  
Output Power: 24VDC, 2A max.  
5VDC, 1A max. (x2)  
Reverse Polarity Protection: Yes  
Battery Type: NiMh  
Battery Charging Current: TBD

# MTS-PWR

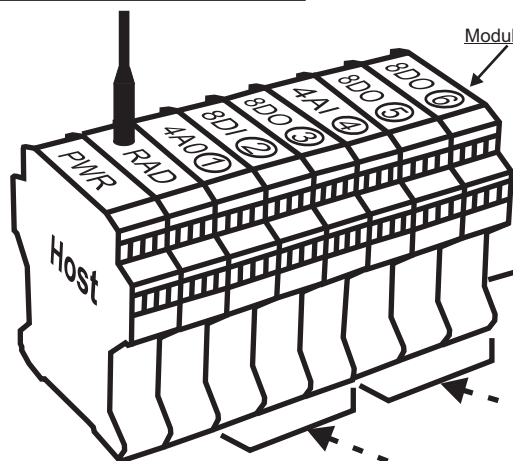
## Module Dimensions:



## Top View:



## System Example:



- Each Input module must have an Output module counterpart
- Each module pair uses the same module ID
- One host radio module can communicate with up to 99 remote radio modules
- Module pairs may be arranged to exchange signals either from Host-to-Remote or Remote-to-Host

Part No.	Description
MTS-RAD	Wireless Communication Interface
MTS-4DIO	4 Digital Inputs & 4 Digital Outputs
MTS-8DI	8 Digital Inputs
MTS-8DO	8 Digital Outputs
MTS-4AI	4 Analog Inputs
MTS-4AO	4 Analog Outputs
MTS-PWR	24VDC Power Module

Manufactured By:

**Pribusin Inc.**

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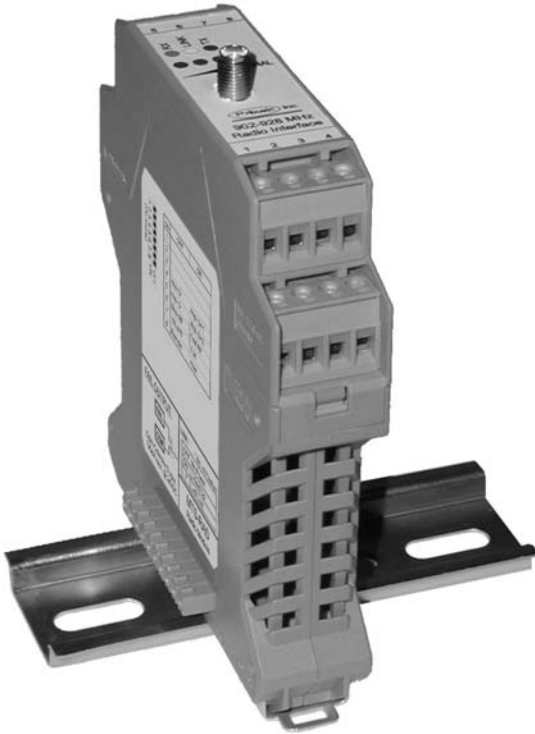
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 Fx: (905) 660-4068



### Function:

The MTS-RAD is a license-free radio communications module that forms the backbone of an MTS telemetry system. These modules can be configured as 'Host' or 'Remote' by a single DIP switch. Systems can be setup in a 'Point-to-Point' or 'Point-to-Multi-Point' topology. Multiple frequency hop tables allow several MTS radio systems to operate in close proximity.

Typical indoor range is 1500+ ft. Outdoor range can be extended to 12+ Miles with directional antennas. A signal strength indicator shows the amount of RF signal received. Pribusin offers a complete line of antennas and accessories for all types of installations.

The MTS-RAD can also be used as a stand-alone Wireless RS-232/RS-485 link between PLCs etc.

Deployment and installation is as simple as plugging the needed I/O modules into the communications module and assigning unique module ID's. The MTS-RAD automatically discovers the I/O modules that are attached to it and does all necessary configuration. Power and communication for the modules are provided through an integral bus.

### Standard Features:

License-Free Radio (902-928MHz)  
Spread-Spectrum, Frequency-Hopping Technology  
RF Signal Strength Indication  
Loss of Signal Output  
Point-to-Point or Point-to-Multi-Point Topologies  
Automatic Recognition of Attached I/O Modules  
1 Watt RF Output for 12+ Mile Range (Outdoor)  
Integrated Power & Data Bus Reduces Wiring  
Modular Design Provides Maximum Flexibility  
No Programming Required - Easy to Configure  
Power: 24 VDC (From Integrated Bus)

### Configuration:

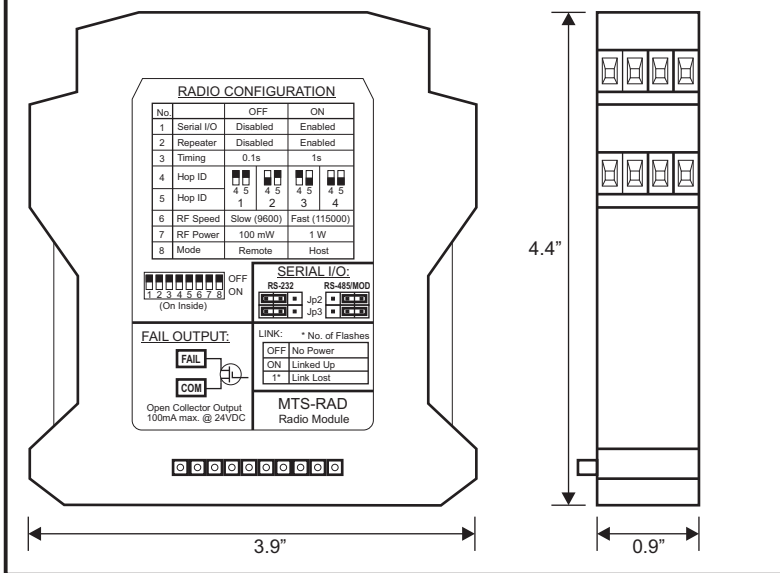
The MTS-RAD uses a number of DIP switches that define the following operating parameters: Host/Remote, RF Power, RF Speed, Hop Table. All MTS-RAD modules in a system must be configured the same way (but only one as Host) in order for them to establish a radio link.

### Specifications:

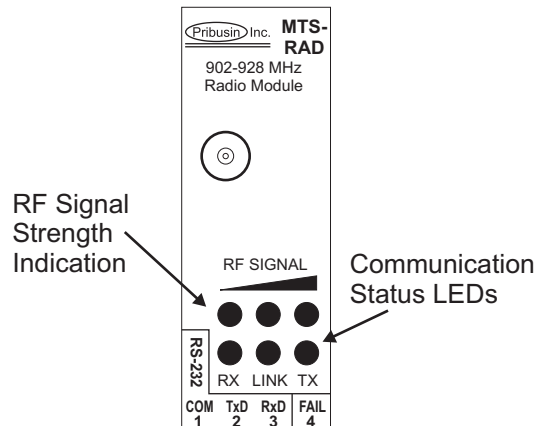
RF Output: 100mW/1000mW selectable  
Range: 1500+ ft. Indoor, depending on obstructions  
12+ mi Outdoor with YAGI Antenna  
RF Band: 902-928MHz, License-Free ISM Band  
Receiver Sensitivity: -110dBm  
Comm. Speed: 9600/115000 Baud Selectable  
Power Consumption: 2.5VA @1W RF Output  
1.5VA @100mW RF Output  
Temperature: -40°C to +70°C (Operating)

# MTS-RAD

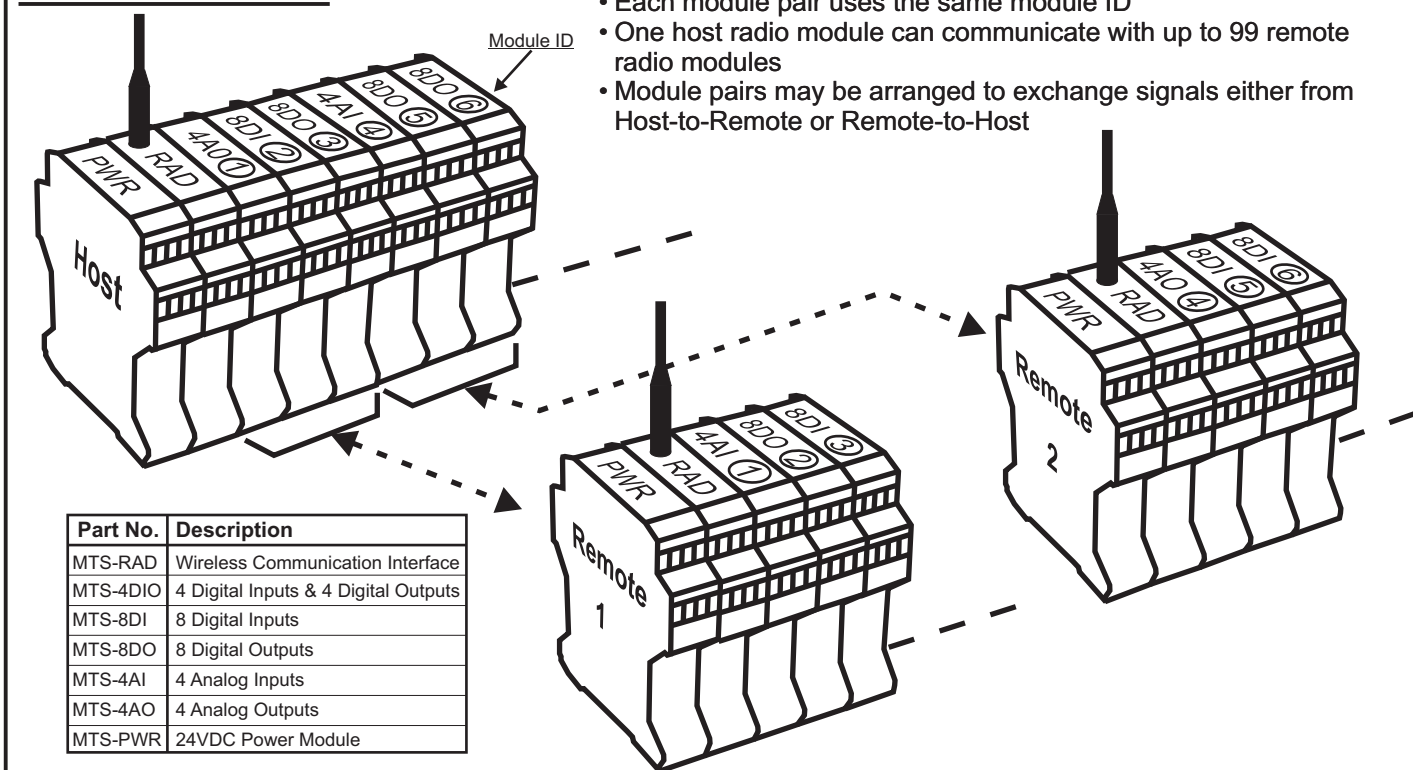
## Module Dimensions:



## Top View:



## System Example:



## Manufactured By:

**Pribusin Inc.**  
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101 Freshway Dr. Unit 57  
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Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

Rugged and Weatherproof Enclosure

Corrosion Resistant Fiberglass Construction

Built-in 35mm DIN Rail

Optional 120VAC to 24VDC Power Supply



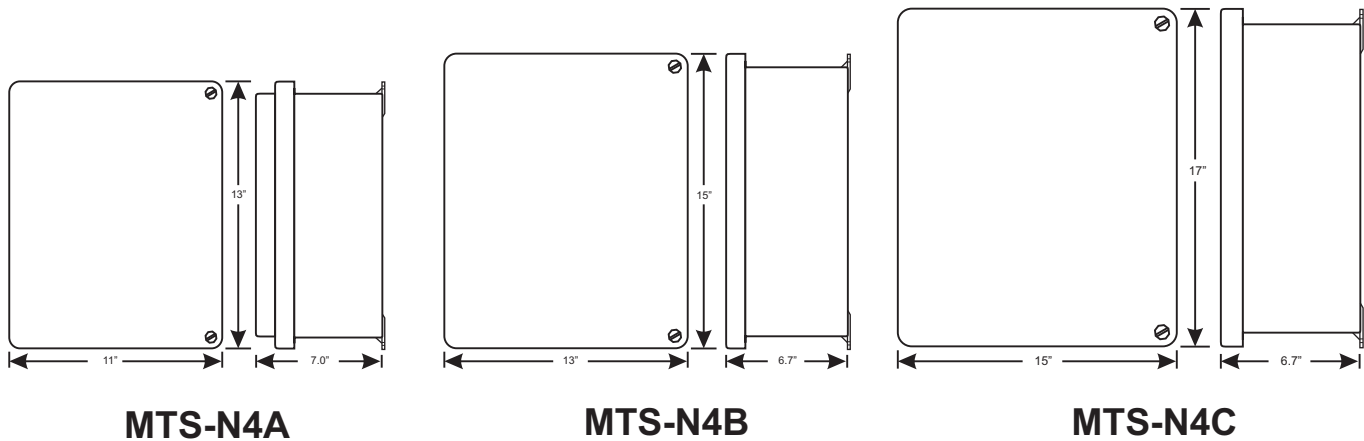
**MTS-N4A-120**



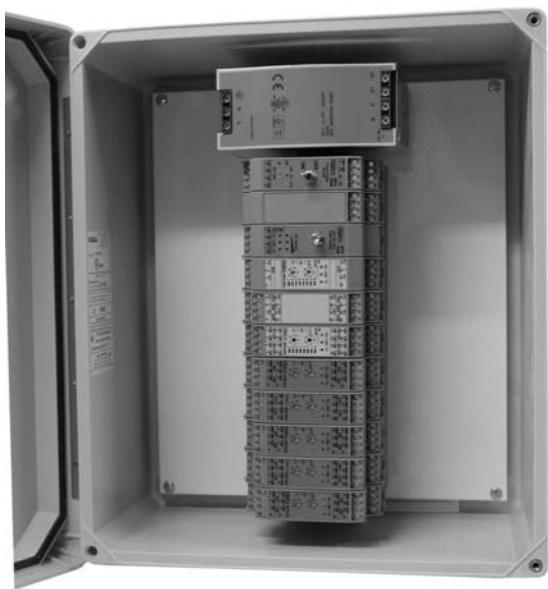
**MTS-N4B-120**

# MTS-N4X

## Enclosure Dimensions:



## Typical Application:



## Sizing & Price:

Model No.	Module Space	DIN Rails	Power Supply	Price
MTS-N4A	8	1	NO	\$140
MTS-N4B	11	1	NO	\$150
MTS-N4C	22	2	NO	\$175
MTS-N4A-120	8	1	YES	\$260
MTS-N4B-120	11	1	YES	\$270
MTS-N4C-120	22	2	YES	\$295

**NOTE:** The MTS-PWR & MTS-8DO modules are double-wide and account for 2 module spaces in the above table.

**NOTE:** The MTS-4NC enclosure has 2 DIN rails that can each accommodate 11 modules. An interconnect cable is provided to link the stacks together.

Manufactured By:

**Pribusin Inc.**

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Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
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## Remote Control Signal Interface With 900MHz Radio Frequency Link



### Standard Features:

Bi-directional Communication using License-free 900MHz Radio Band

Spread-Spectrum Radio Technology Provides Reliable Communication

Re-Transmission & Error Correction Algorithms ensure Accurate Data Transmission

1 Dry Contact and 1 Analog Input

1 'C' Relay Contact and 1 Analog Output

Point-to-Point or Host-to-Multipoint Topologies

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection



### Function:

The RCI-100-RF9 is a bi-directional data communication system that exchanges the status of 1 dry contact input and 1 analog input between a master and one or more remote units. A basic system consists of one master station and one remote station each with 1 dry contact and 1 analog inputs and 1 'C' relay contact and 1 analog output. All signals are bi-directional so that data may be read from the remote station and sent to it.

The license-free spread-spectrum radio technology allows small systems to be set up with very little effort and at low cost. The technology ensures high communication reliability even in RF-intensive environments.

Antennas, such as directional Yagi or Patch antennas, are sold separately.

### Options:

- A: 24VDC Power
- B: 240VAC Power
- N12: NEMA 12 Enclosure

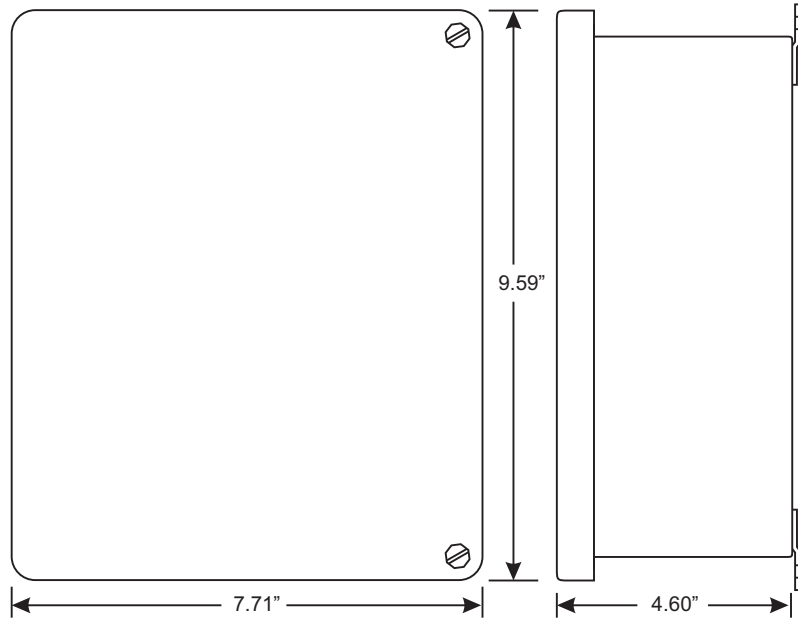
### Specifications:

Media: 900MHz Spread-Spectrum Radio  
Range: up to 1500ft indoors with omnidirectional antenna  
up to 12 miles line-of-sight with directional antenna  
Protocol: MODBUS ASCII, 9600 BAUD  
RF Connector: N-Female (Bottom of Enclosure)  
Radio Power Output: 100mW, 1W (selectable)  
Operating Temperature: -4°F to +140°F (-20°C to +60°C)  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz, 24VDC Available  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

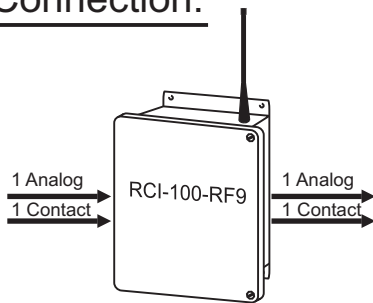


# RCI-100-RF9

## Enclosures & Dimensions:

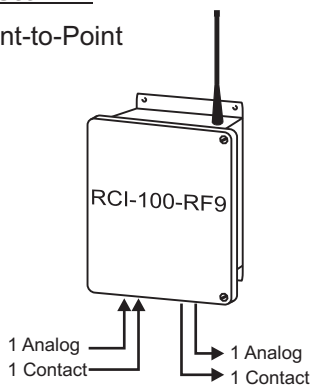


## Connection:

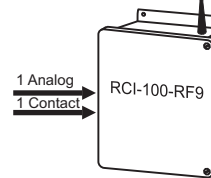


### **System A**

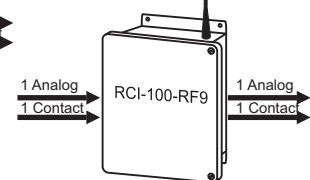
Point-to-Point



### **Remote 1**



### **Remote 2**

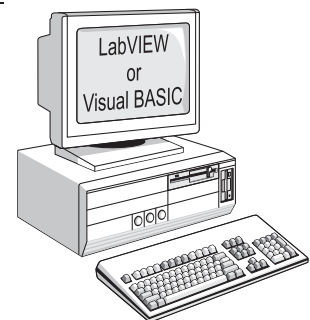
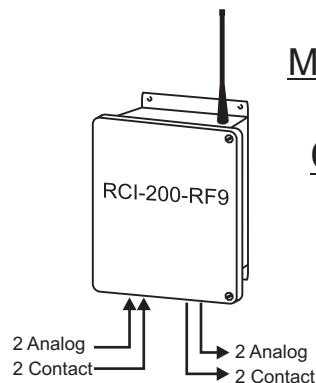


### **System B**

Master to Multi-Remote

### **Master**

**OR**



Manufactured By:

**Pribusin Inc.**

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### **USA:**

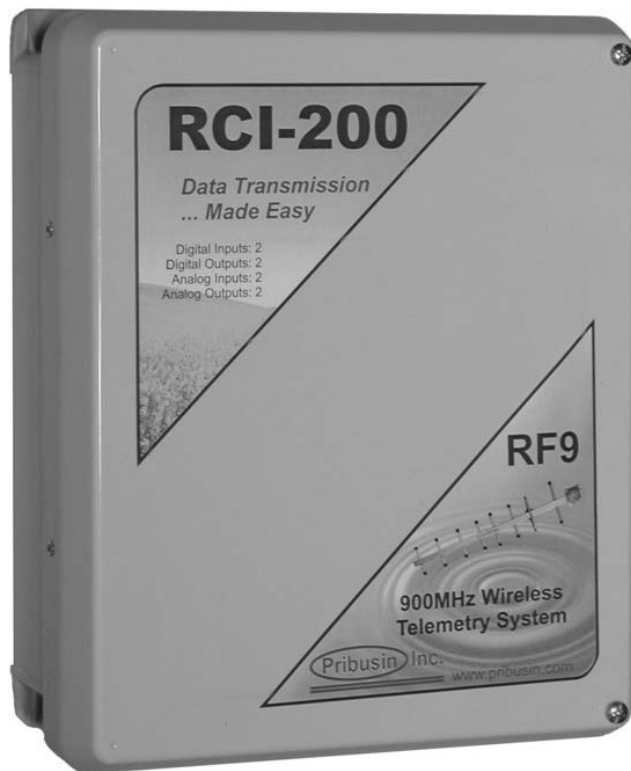
Pribusin Inc.  
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Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### **CANADA:**

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Concord, Ontario, L4K 1R9  
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Fx: (905) 660-4068

## Remote Control Signal Interface With 900MHz Radio Frequency Link



### Standard Features:

Bi-directional Communication using License-free 900MHz Radio Band

Spread-Spectrum Radio Technology Provides Reliable Communication

Re-Transmission & Error Correction Algorithms ensure Accurate Data Transmission

2 Dry Contact and 2 Analog Inputs

2 'C' Relay Contacts and 2 Analog Outputs

Point-to-Point or Host-to-Multipoint Topologies

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection



### Function:

The RCI-200-RF9 is a bi-directional data communication system that exchanges the status of 2 dry contact inputs and 2 analog inputs between a master and one or more remote units. A basic system consists of one master station and one remote station each with 2 dry contact and 2 analog inputs and 2 'C' relay contact and analog outputs. All signals are bi-directional so that data may be read from the remote station and sent to it.

The license-free spread-spectrum radio technology allows small systems to be set up with very little effort and at low cost. The technology ensures high communication reliability even in RF-intensive environments.

Antennas, such as directional Yagi or Patch antennas, are sold separately.

### Options:

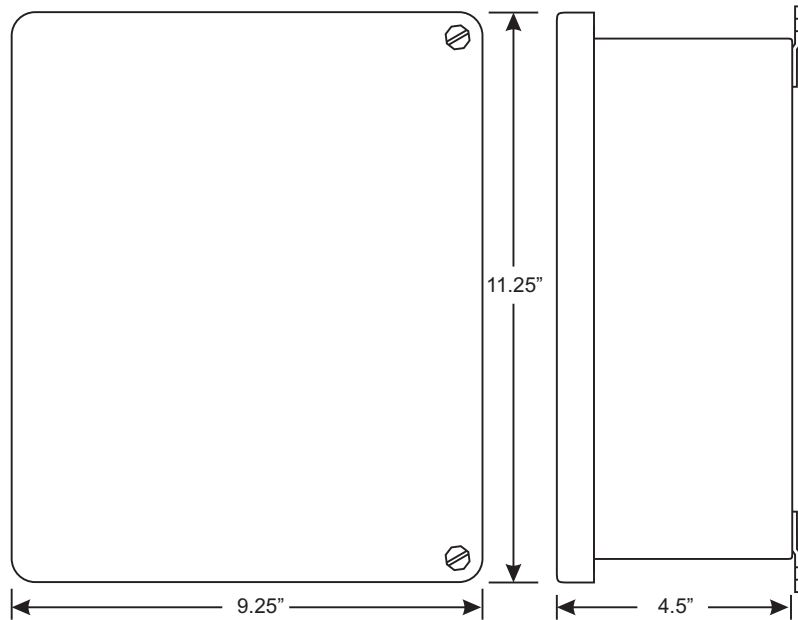
- A: 24VDC Power
- B: 240VAC Power
- N12: NEMA 12 Enclosure

### Specifications:

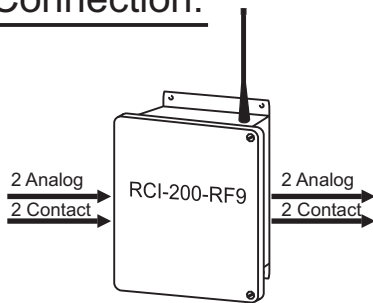
Media: 900MHz Spread-Spectrum Radio  
Range: up to 1500ft indoors with omnidirectional antenna  
up to 12 miles line-of-sight with directional antenna  
Protocol: MODBUS ASCII, 9600 BAUD  
RF Connector: N-Female (Bottom of Enclosure)  
Radio Power Output: 100mW, 1W (selectable)  
Operating Temperature: -4°F to +140°F (-20°C to +60°C)  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz, 24VDC Available  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-200-RF9

## Enclosures & Dimensions:

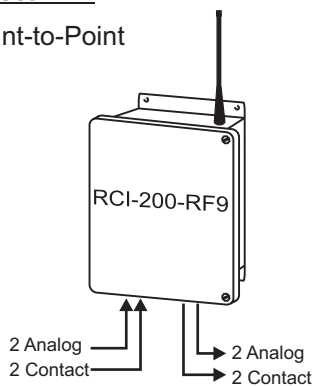


## Connection:



### System A

Point-to-Point



### Remote 1

2 Analog  
2 Contact

### Remote 2

2 Analog  
2 Contact

### Remote 3

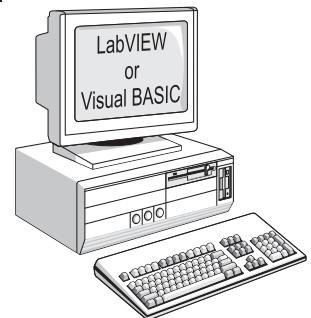
2 Analog  
2 Contact

### System B

Master to Multi-Remote

### Master

OR



Manufactured By:

**Pribusin Inc.**

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[info@pribusin.com](mailto:info@pribusin.com)

### USA:

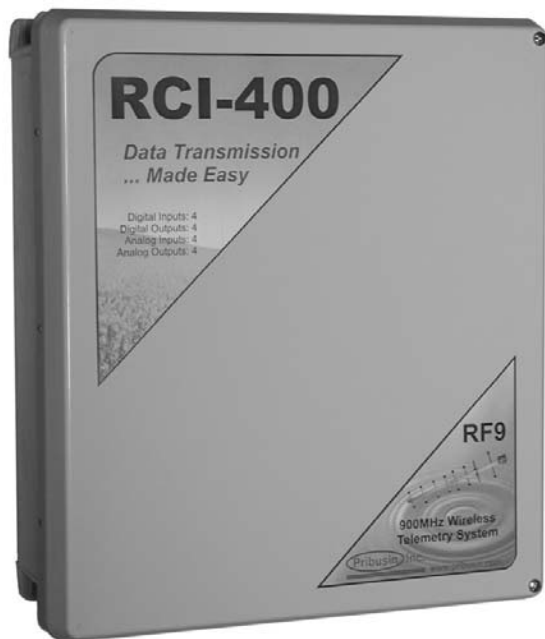
Pribusin Inc.  
743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

## Remote Control Signal Interface With 900MHz Radio Frequency Link



### Standard Features:

Bi-directional Communication using License-free 900MHz Radio Band

Spread-Spectrum Radio Technology Provides Reliable Communication

Re-Transmission & Error Correction Algorithms ensure Accurate Data Transmission

4 Dry Contact and 4 Analog Inputs

4 'C' Relay Contacts and 4 Analog Outputs

Point-to-Point or Host-to-Multipoint Topologies

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection



### Function:

The RCI-400-RF9 is a bi-directional data communication system that exchanges the status of 4 dry contact inputs and 4 analog inputs between a master and one or more remote units. A basic system consists of one master station and one remote station each with 4 dry contact and 4 analog inputs and 4 'C' relay contact and analog outputs. All signals are bi-directional so that data may be read from the remote station and sent to it.

The license-free spread-spectrum radio technology allows small systems to be set up with very little effort and at low cost. The technology ensures high communication reliability even in RF-intensive environments.

Antennas, such as directional Yagi or Patch antennas, are sold separately.

### Options:

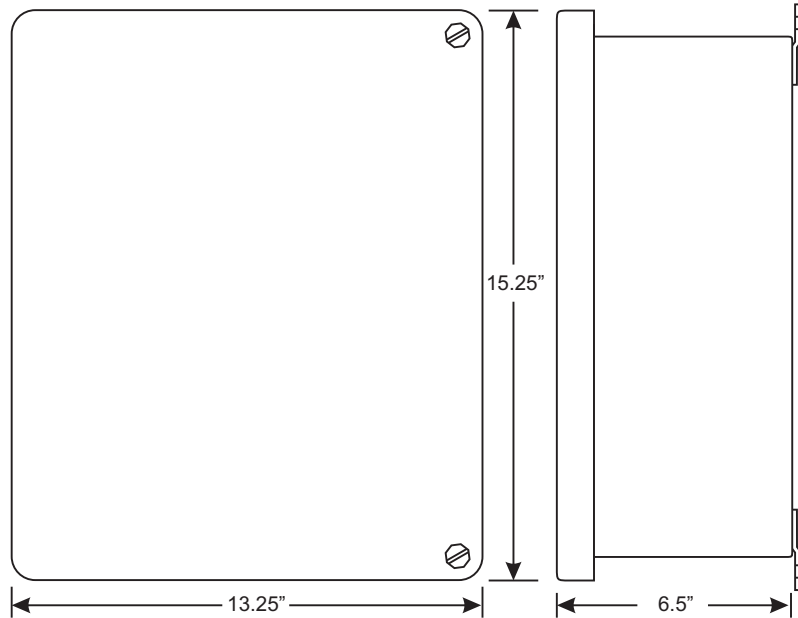
- A: 24VDC Power
- B: 240VAC Power
- N12: NEMA 12 Enclosure

### Specifications:

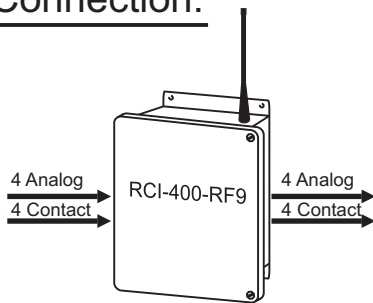
Media: 900MHz Spread-Spectrum Radio  
Range: up to 1500ft indoors with omnidirectional antenna  
up to 12 miles line-of-sight with directional antenna  
Protocol: MODBUS ASCII, 9600 BAUD  
RF Connector: N-Female (Bottom of Enclosure)  
Radio Power Output: 100mW, 1W (selectable)  
Operating Temperature: -4°F to +140°F (-20°C to +60°C)  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz, 24VDC Available  
Enclosure: NEMA4X (NEMA12 available as an option)  
Approvals: ETL 3118354:  
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-400-RF9

## Enclosures & Dimensions:

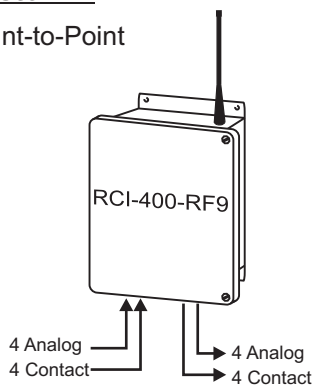


## Connection:

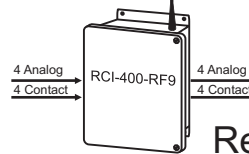


### **System A**

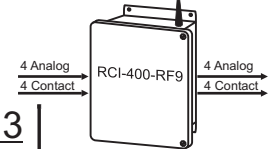
Point-to-Point



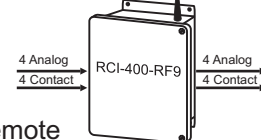
### **Remote 1**



### **Remote 2**



### **Remote 3**

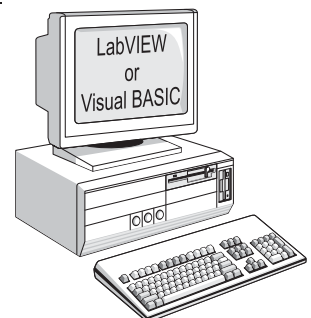


### **System B**

Master to Multi-Remote

### **Master**

**OR**



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

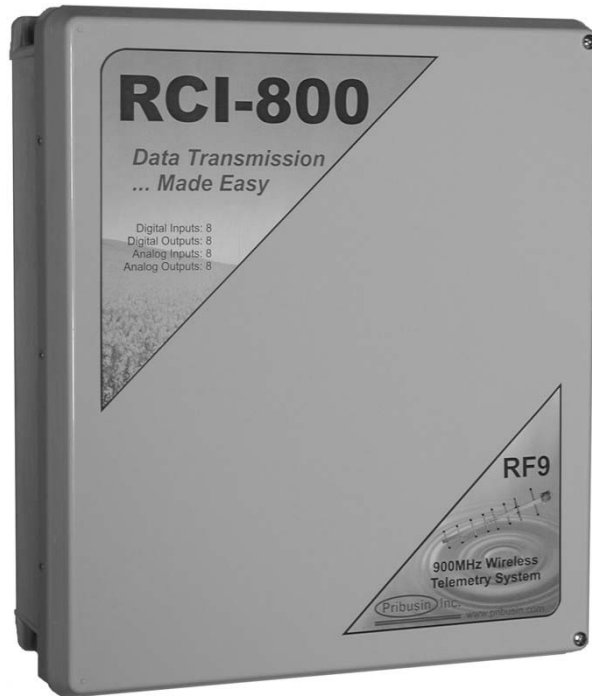
### **USA:**

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### **CANADA:**

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101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using License-free 900MHz Radio Band

Spread-Spectrum Radio Technology Provides Reliable Communication

Re-Transmission & Error Correction Algorithms ensure Accurate Data Transmission

8 Dry Contact and 8 Analog Inputs

8 'C' Relay Contacts and 8 Analog Outputs

Point-to-Point or Host-to-Multipoint Topologies

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection



### Function:

The RCI-800-RF9 is a bi-directional data communication system that exchanges the status of 8 dry contact inputs and 8 analog inputs between a master and one or more remote units. A basic system consists of one master station and one remote station each with 8 dry contact and 8 analog inputs and 8 'C' relay contact and analog outputs. All signals are bi-directional so that data may be read from the remote station and sent to it.

The license-free spread-spectrum radio technology allows small systems to be set up with very little effort and at low cost. The technology ensures high communication reliability even in RF-intensive environments.

Antennas, such as directional Yagi or Patch antennas, are sold separately.

### Options:

- A: 24VDC Power
- B: 240VAC Power
- N12: NEMA 12 Enclosure

### Specifications:

Media: 900MHz Spread-Spectrum Radio

Range: up to 1500ft indoors with omnidirectional antenna  
up to 12 miles line-of-sight with directional antenna

Protocol: MODBUS ASCII, 9600 BAUD

RF Connector: N-Female (Bottom of Enclosure)

Radio Power Output: 100mW, 1W (selectable)

Operating Temperature: -4°F to +140°F (-20°C to +60°C)

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

Power: 117 VAC, 60/50 Hz, 24VDC Available

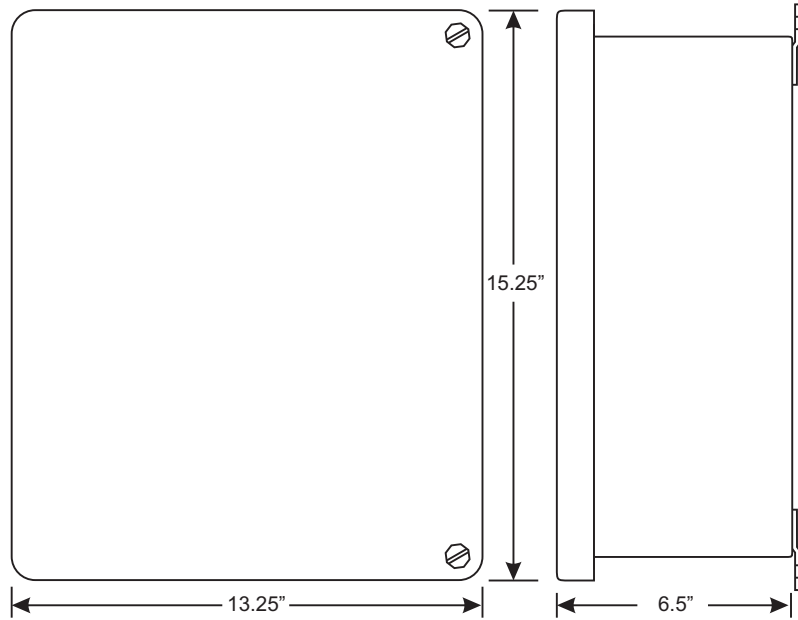
Enclosure: NEMA4X (NEMA12 available as an option)

Approvals: ETL 3118354:

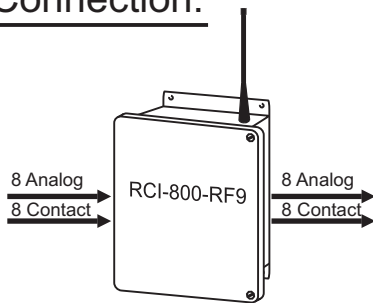
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-800-RF9

## Enclosures & Dimensions:

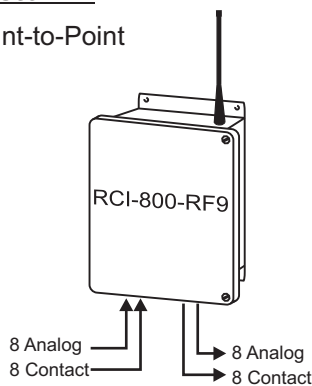


## Connection:

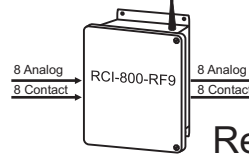


### System A

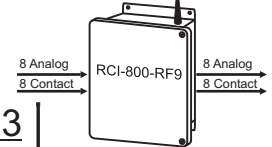
Point-to-Point



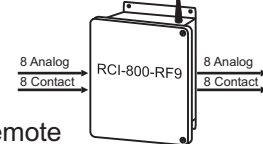
### Remote 1



### Remote 2



### Remote 3

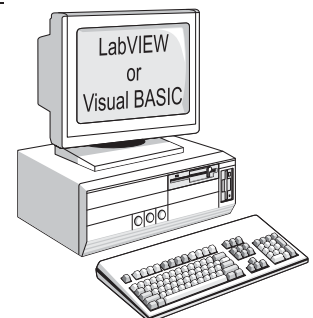


### System B

Master to Multi-Remote

### Master

OR



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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 Concord, Ontario, L4K 1R9  
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 Fx: (905) 660-4068





Manufacturers of Process  
Controls and Instrumentation

## Model: RCI-RPT-RF9

Repeater for Remote Control Signal Interface  
With 900MHz Radio Frequency Link



### Standard Features:

- Extends Distance of Effective Radio Transmission
- Provides Access to Non-Line-of-Sight Remotes
- Bi-directional Communication using License-free 900MHz Radio Band
- Spread-Spectrum Radio Technology Provides Reliable Communication
- Re-Transmission & Error Correction Algorithms ensure Accurate Data Transmission
- Point-to-Point or Host-to-Multipoint Topologies
- No Calibration Required
- Microprocessor Controlled for High Accuracy
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- High Noise Rejection

### Function:

The RCI-RPT-RF9 is a store-and-forward radio signal repeater that can be used to extend the distance between a host and its remote(s). The unit receives data from the host and re-transmits it to the remote(s) and vice-versa. Using a repeater can provide access to remote locations that are not in direct line-of-sight with the host.

Standard RCI-XXX-RF9 units are also capable of acting as a repeater thereby serving a dual function of remote unit and signal repeater (see diagram on back).

The license-free spread-spectrum radio technology allows small systems to be set up with very little effort and at low cost. The technology ensures high communication reliability even in RF-intensive environments.

All units are sold with a  $\frac{1}{4}$  wave omnidirectional whip antenna. Other antennas, such as directional Yagi or Patch antennas, are sold separately.

### Options:

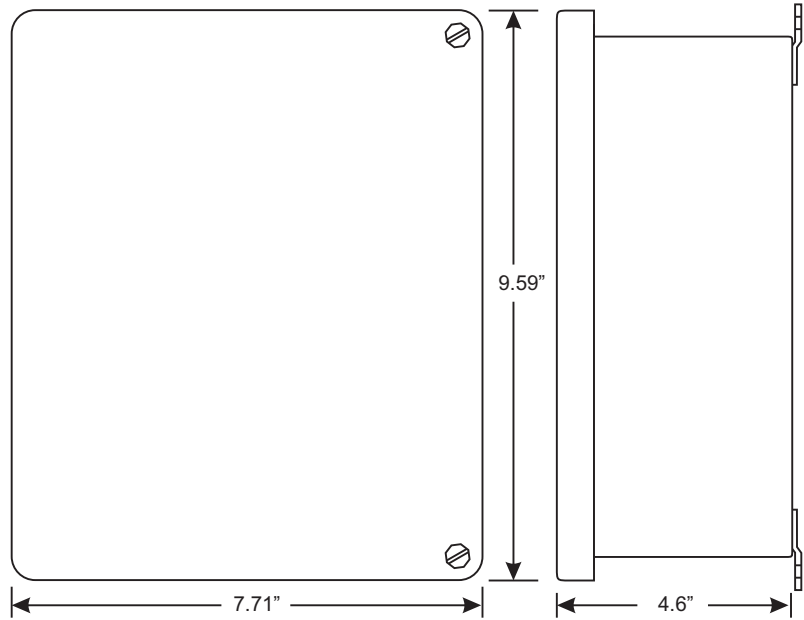
- A: 24VDC Power
- B: 240VAC Power
- N12: NEMA 12 Enclosure

### Specifications:

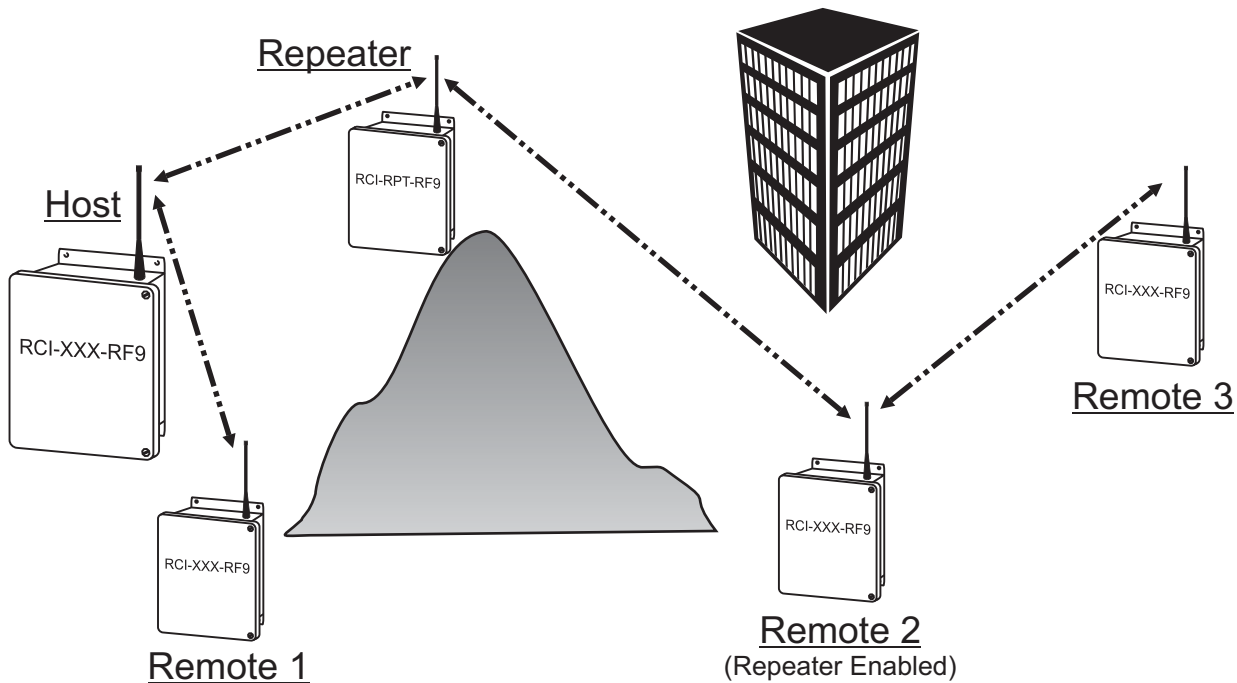
Media: 900MHz Spread-Spectrum Radio  
Range: up to 1500ft indoors with omnidirectional antenna  
up to 12 miles line-of-sight with directional antenna  
Protocol: MODBUS ASCII  
Speed: 9600 BAUD  
Radio Power Output: 100mW, 1000mW (selectable)  
Operating Temperature: -4°F to +140°F (-20°C to +60°C)  
Power: 117 VAC, 60/50 Hz, 24VDC Available  
Enclosure: NEMA4X (NEMA12 available as an option)

# RCI-RPT-RF9

## Enclosures & Dimensions:



## Connection:



## Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

Allows Serial Controller to Communicate Directly with RCI-XXX-RF9 series Remotes

Provides Access to up to 127 Remote RCI's

Bi-directional Communication using License-free 900MHz Radio Band

Spread-Spectrum Radio Technology Provides Reliable Communication

Re-Transmission & Error Correction Algorithms ensure Accurate Data Transmission

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 120 VAC or 24 VDC

High Noise Rejection

### Function:

The RCI-SER-RF9 is a serial-to-radio interface. It allows PC's or PLC's to communicate directly with one or more RCI-XXX-RF9's. The standard MODBUS ASCII protocol used in the RCI-XXX-RF9 series allows for easy integration with existing software packages on both PC's and PLC's.

The host controller connected to the RCI-SER-RF9 controls the communication by sending out queries to each remote unit. The remote unit then replies with an acknowledgment if the data was received correctly.

The license-free spread-spectrum radio technology allows small systems to be set up with very little effort and at low cost. The technology ensures high communication reliability even in RF-intensive environments.

All units are sold with a ¼ wave omnidirectional whip antenna. Other antennas, such as directional Yagi or Patch antennas, are sold separately.

### Options:

none available at this time

### Specifications:

Media: 900MHz Spread-Spectrum Radio

Range: up to 1500ft indoors with omnidirectional antenna

up to 12 miles line-of-sight with directional antenna

Protocol: MODBUS ASCII

Speed: 9600 BAUD

Radio Power Output: 100mW, 1000mW (selectable)

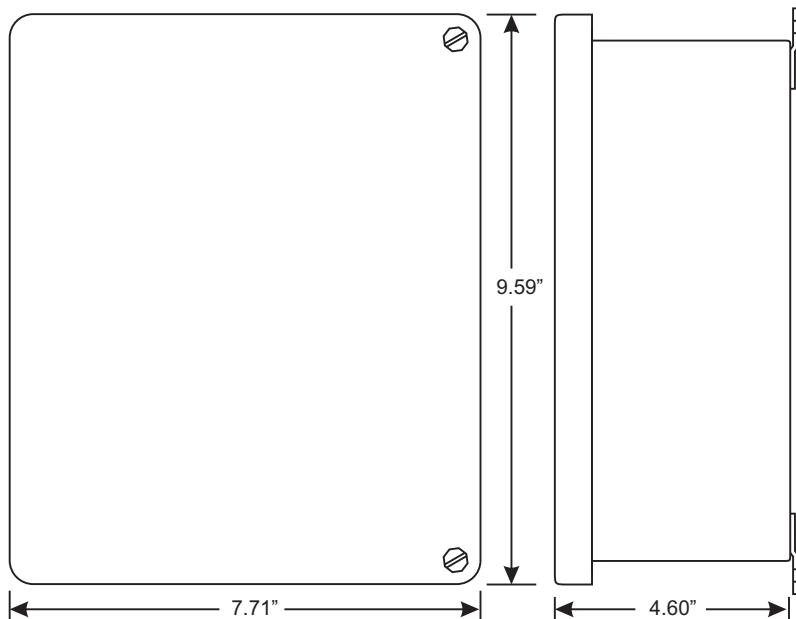
Operating Temperature: -4°F to +140°F (-20°C to +60°C)

Power: 120 VAC or 24 VDC

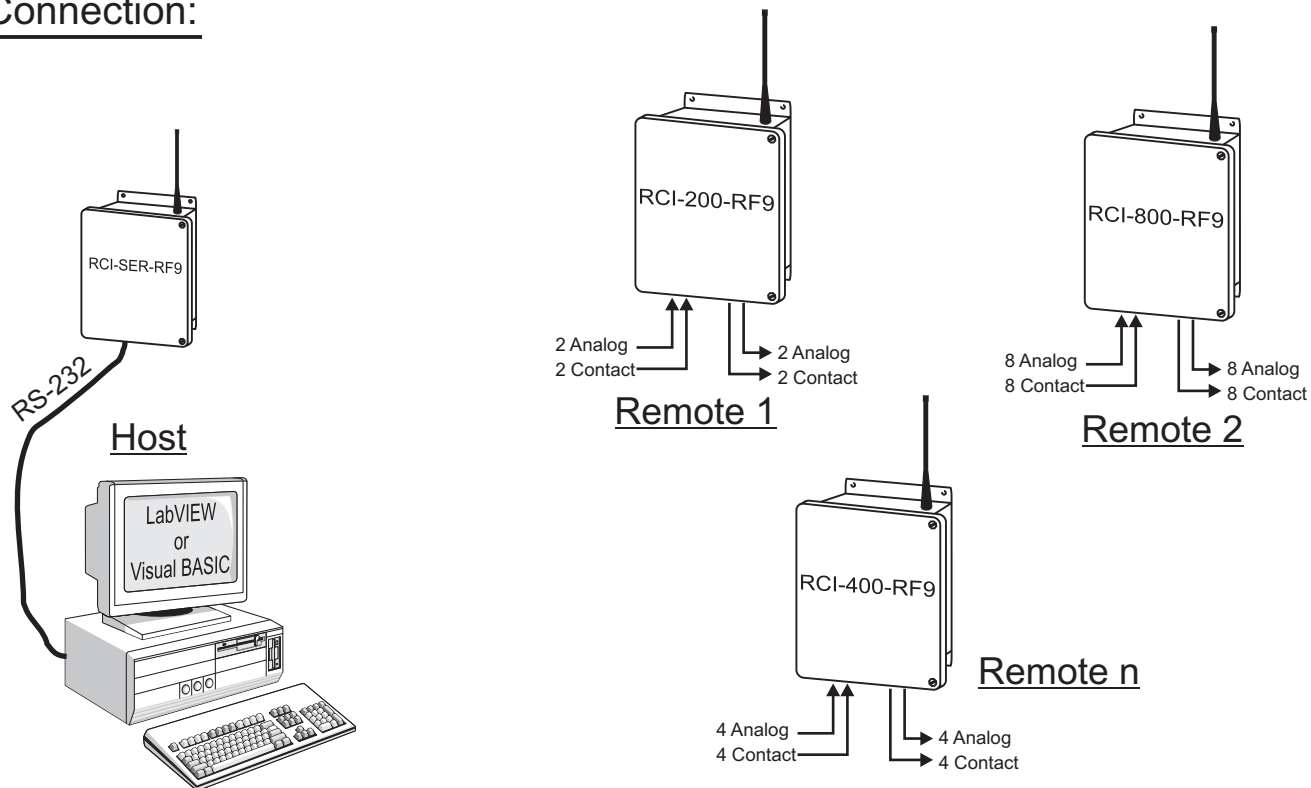
Enclosure: NEMA4X

# RCI-SER-RF9

## Enclosures & Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

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Ph: (905) 660-5336  
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# 900 MHz Antennas

For use with RCI-XXX-RF9 Series

## Omni-Directional (Enclosure Mount)



This antenna mounts on top of the RCI enclosure and is intended for short distances only.

Model: MEXP-806-TN  
Gain: 2.0 dBd

## Omni-Directional (External Mount)

This antenna has a uniform 360° pattern and is ideal for host units where greater distances are required. Mounting brackets allow easy installation on a 2.0" diameter pole.

Model: FG9023  
Gain: 3dBd

Model: FG9026  
Gain: 6dBd



FM2



MBSWM

## Directional Panel (External Mount)

These antennas are inconspicuous when mounted on a wall. Their high gain allows for increased distances between units.



MPAB8  
(Mounting Brackets)

Model: MP8906PTNF  
Gain: 8 dBd  
H.Beamwidth\*: 35°  
V. Beamwidth\*: 65°

Model: MP9159PTNF  
Gain: 11 dBd  
H.Beamwidth\*: 90°  
V. Beamwidth\*: 60°

(\* = Beamwidth at ½ power)

## Lightning Protector



Model: DSX



DSX-ME

## Coax Grounding Kit



Model: LMR400GND

A coax grounding kit is used in conjunction with lightning protectors to protect radio equipment from lightning strikes

## Directional YAGI (External Mount)



Model: MYG9153ED  
Gain: 6 dBd  
H.Beamwidth\*: 72°  
V.Beamwidth\*: 57°

Model: MYG9159ED  
Gain: 10 dBd  
H.Beamwidth\*: 52°  
V.Beamwidth\*: 43°

(\* = Beamwidth at ½ power)

YAGI antennas are highly directional for their small size. They have a high gain to increase distance between units and they are easy to mount on a pole.



MYK10  
(Mounting Bracket)

# 900 MHz Antennas

## Antennas

Model #	Description	Termination	Price
MEXP-806-TN	Omni-Directional, 2.0 dBd	N, Female	\$35.00
FG9023	Omni-Directional, 3.0 dBd	N, Female	\$135.00
FG9026	Omni-Directional, 6.0 dBd	N, Female	\$185.00
MP8906PTNF	Directional Panel, 8.0 dBd	N, Female	\$135.00
MP9159PTNF	Directional Panel, 11.0 dBd	N, Female	\$150.00
MYA9303	Directional YAGI, 6 dB (includes MYK1)	N, Female	\$85.00
MYA9309	Directional YAGI, 10 dB (includes MYK1)	N, Female	\$125.00
MYG9303ED	Directional YAGI, Enclosed Element, 6 dB (includes MYK10)	N, Female	\$185.00
MYG9309ED	Directional YAGI, Enclosed Element, 10 dB (includes MYK10)	N, Female	\$225.00

## Misc.

Model #	Description	Price
FM2	Mounting Clamp for FG9023 and FG9026, Pole Mount	\$40.00
MBSWM	Mounting Bracket for FG9023 and FG9026, Wall Mount, Set of 2	\$30.00
MPAB8	Mounting Bracket for MP8906PTNF and MP9159PTNF, Pole Mount	\$36.00
MYK10	Standard YAGI Mounting Kit	\$40.00
DSXL	Lightning Protector, In-Line Type, N-Female Termination on both ends	\$180.00
DSXL-ME	Lightning Protector, In-Line Type, N-Male (Protected Side) and N-Female (Surge Side)	\$180.00
LMR400GND	Coax Cable Grounding Kit - for LMR-400 cable	\$35.00
LMR400WPK	Weather Proofing Kit - for LMR-400 cable (good for 5-6 connections)	\$45.00

## Coaxial Cable

Model #	Description	Termination	Price
LMR195NMNM-XXX	Standard Coaxial Cable, 0.178 dB/ft loss, <b>max 10 ft.</b>	N-Male	\$30 + \$0.75/ft
LMR400NMNM-XXX	Low-Loss Coaxial Cable, Transmission Loss:0.066 dB/ft	N-Male	\$30 + \$1.00/ft

XXX = Length of cable in feet.

Distributed By:



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### CANADA:

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 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using an RS232/485 Serial Bus Link

1 Dry Contact and 1 Analog Input

1 'C' Relay Contact and 1 Analog Output

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

### Function:

The RCI-100-SER is a bi-directional remote communication system that exchanges the status of 1 dry contact input and 1 analog input between a master and remote unit or a PC. A basic system consists of A) one master station and one remote station each with 1 dry contact and 1 analog input and 1 'C' relay contact and analog output **OR** B) several remote stations and one PC.

In system A), the master unit can interrogate one remote.

In system B), a PC interrogate call several remote units.

LabVIEW drivers are provided for user software development on PC's.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: RS-232 or RS-485

BAUD Rate: 2400 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

Power: 117 VAC, 60/50 Hz

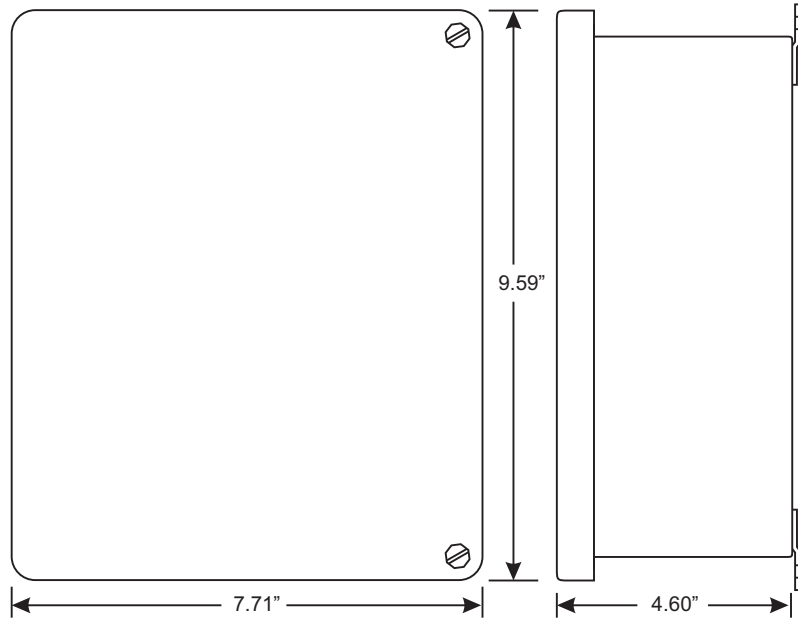
(24VDC Available)

Enclosure: NEMA4X (NEMA12 available as an option)

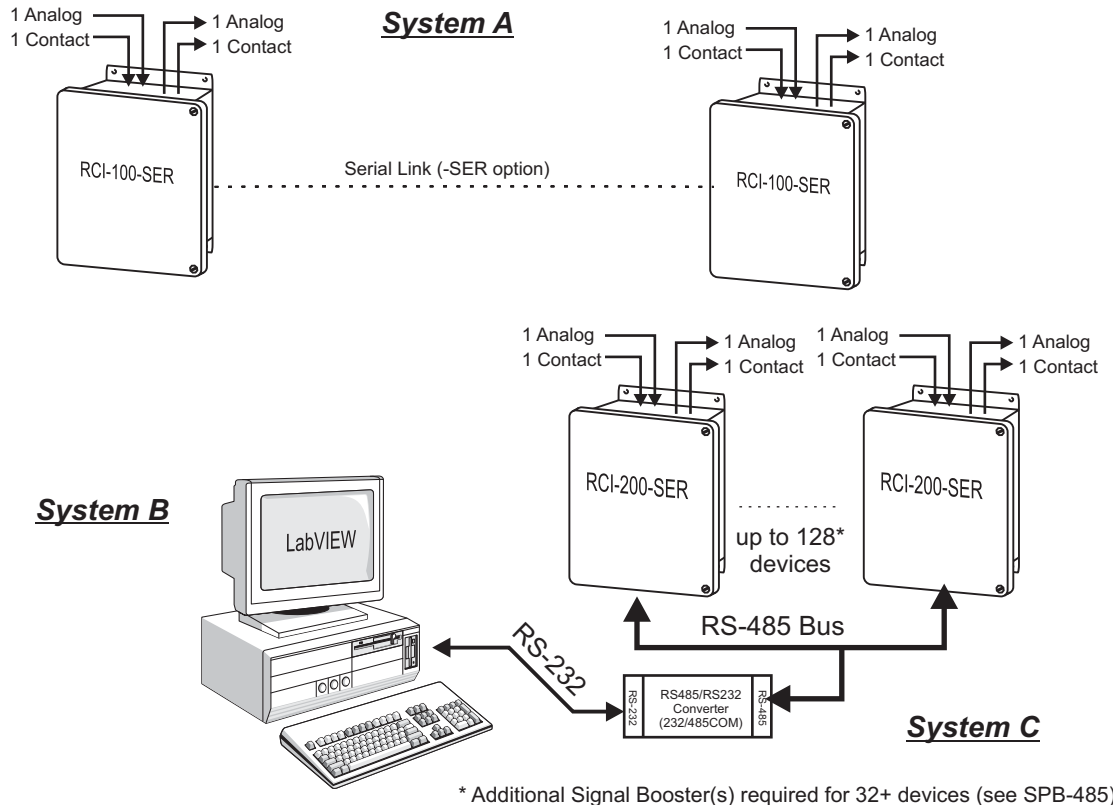


# RCI-100-SER

## Enclosures & Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using a RS232/485 Serial Bus Link

2 Dry Contact and 2 Analog Inputs

2 'C' Relay Contacts and 2 Analog Outputs

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

### Function:

The RCI-200-SER is a bi-directional remote communication system that exchanges the status of 2 dry contact inputs and 2 analog inputs between a master and remote unit or a PC. A basic system consists of A) one master station and one remote station each with 2 dry contact and 2 analog inputs and 2 'C' relay contact and analog outputs **OR** B) several remote stations and one PC.

In system A), the master unit can interrogate a remote.

In system B), a PC can interrogate several remote units.

LabVIEW & drivers are provided for user software development on Pc's.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: RS232/485

BAUD Rate: 2400 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

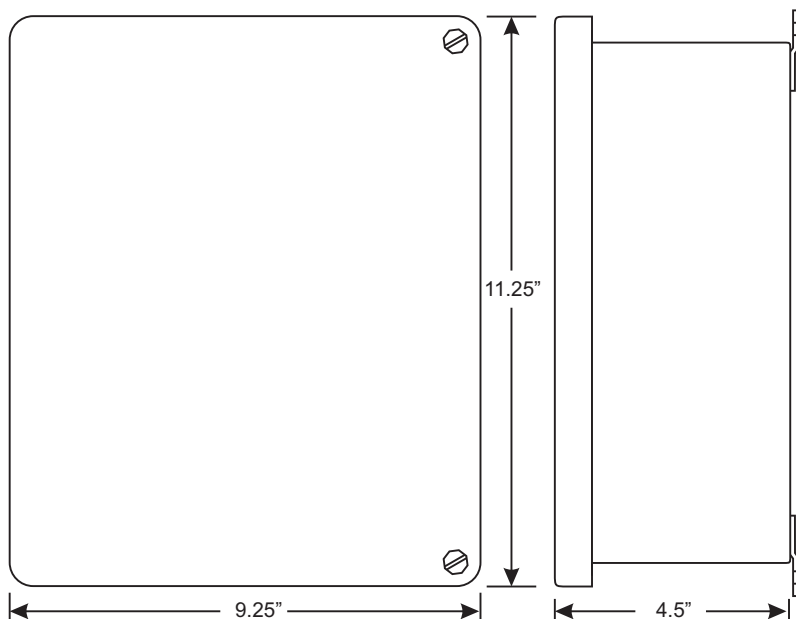
Power: 117 VAC, 60/50 Hz

(24VDC Available)

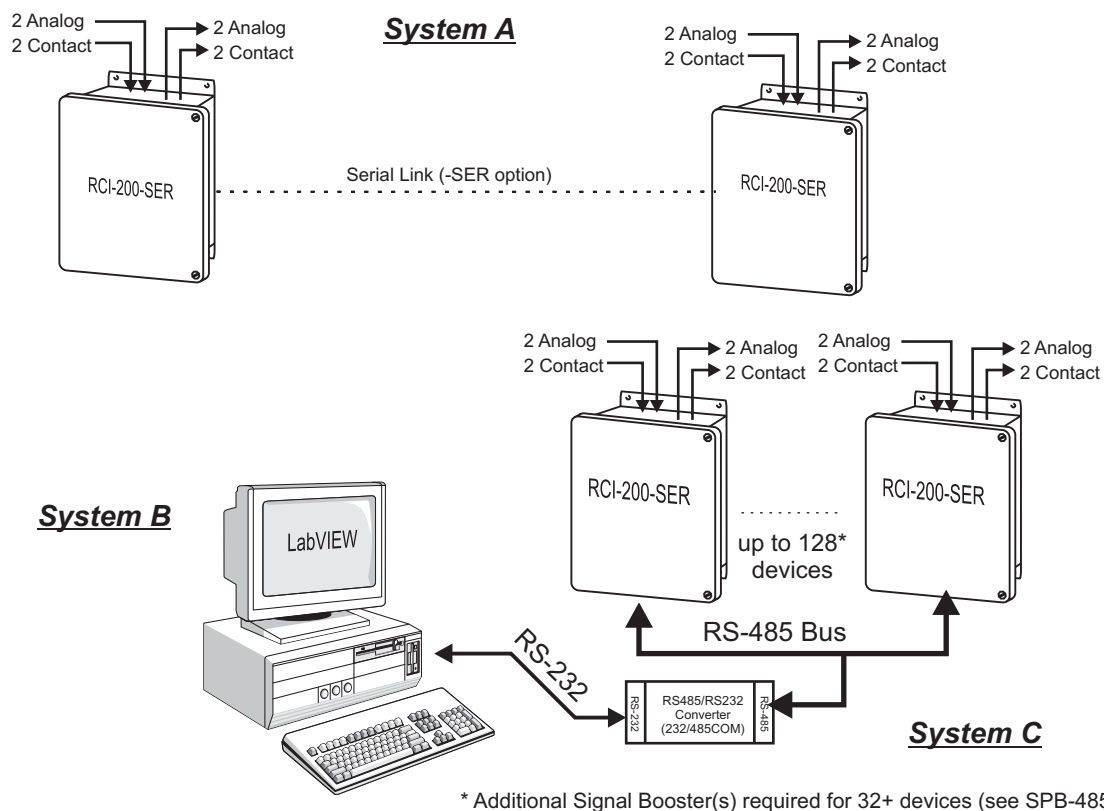
Enclosure: NEMA4X (NEMA12 available as an option)

# RCI-200-SER

## Enclosures & Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using a RS232/485 Serial Bus Link

4 Dry Contact and 4 Analog Inputs

4 'C' Relay Contacts and 4 Analog Outputs

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

### Function:

The RCI-400-SER is a bi-directional remote communication system that exchanges the status of 4 dry contact inputs and 4 analog inputs between a master and remote unit or a PC. A basic system consists of A) one master station and one remote station each with 4 dry contact and 4 analog inputs and 4 'C' relay contact and analog outputs **OR** B) several remote stations and one PC.

In system A), the master unit can interrogate a remote.

In system B), a PC interrogate call several remote units.

LabVIEW drivers are provided for user software development on Pc's.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: RS232/485

BAUD Rate: 2400 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

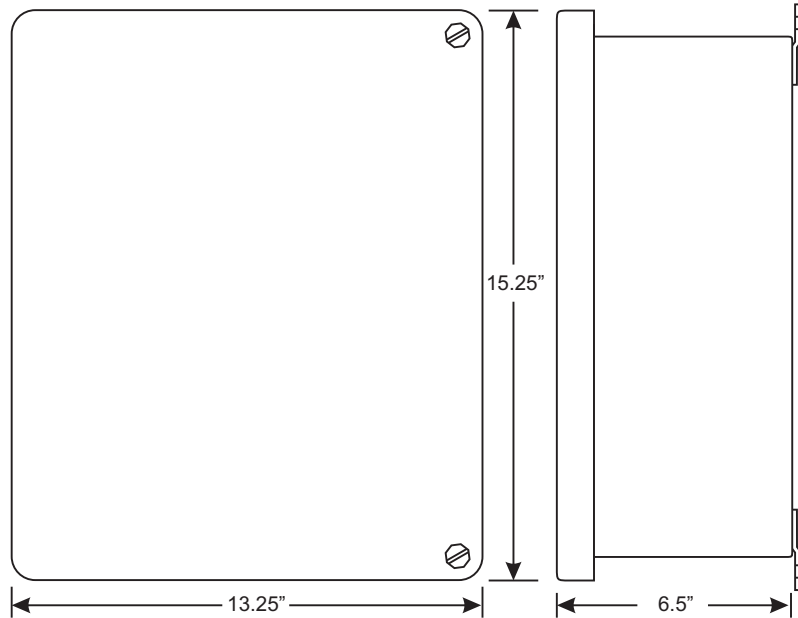
Power: 117 VAC, 60/50 Hz

(24VDC Available)

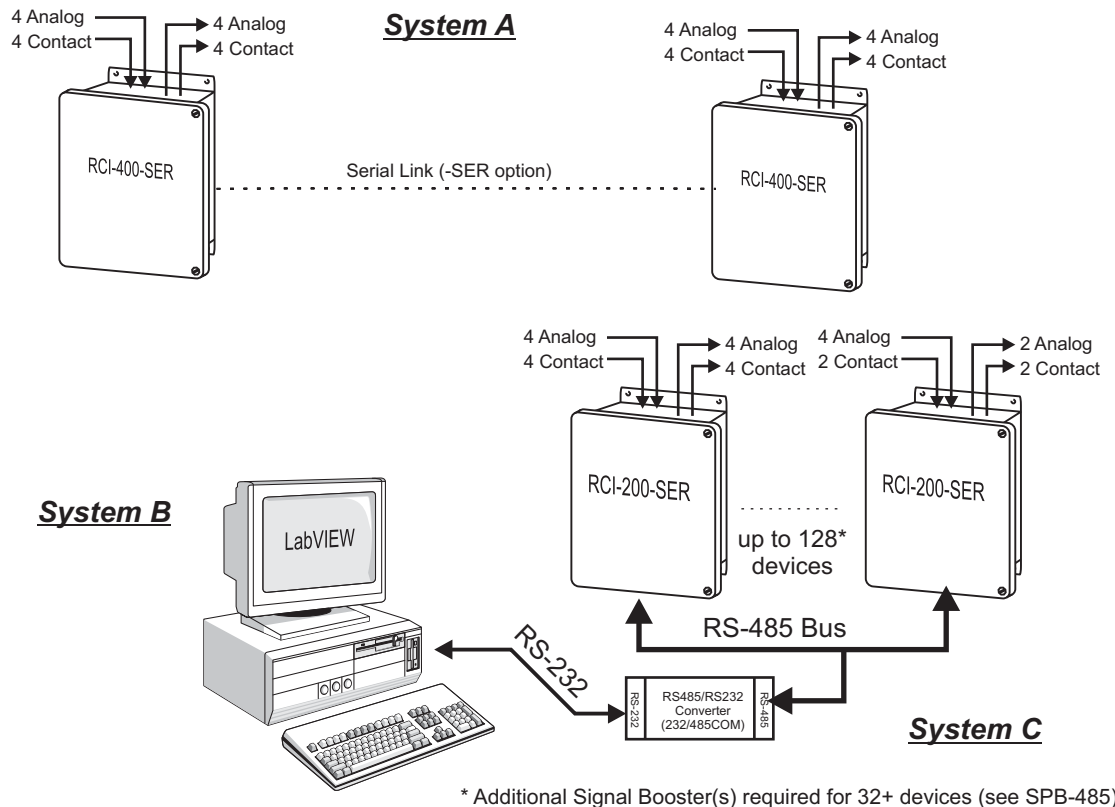
Enclosure: NEMA4X (NEMA12 available as an option)

# RCI-400-SER

## Enclosures & Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

Pribusin Inc.  
 743 Marquette Ave.  
 Muskegon, MI 49442  
 Ph: (231) 788-2900  
 Fx: (231) 788-2929



### CANADA:

Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using a RS232/485 Serial Bus Link

8 Dry Contact and 8 Analog Inputs

8 'C' Relay Contacts and 8 Analog Outputs

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

High Noise Rejection

### Function:

The RCI-800-SER is a bi-directional remote communication system that exchanges the status of 8 dry contact inputs and 8 analog inputs between a master and remote unit or a PC. A basic system consists of A) one master station and one remote station each with 8 dry contact and 8 analog inputs and 8 'C' relay contact and analog outputs **OR** B) several remote stations and one PC.

In system A), the master unit to interrogate one remote .

In system B), a PC can interrogate several remote units.

LabVIEW drivers are provided for user software development on Pc's.

### Connection:

Units are connected via a class 'C' line (Dial-up or leased). Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: RS232/485

BAUD Rate: 2400 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

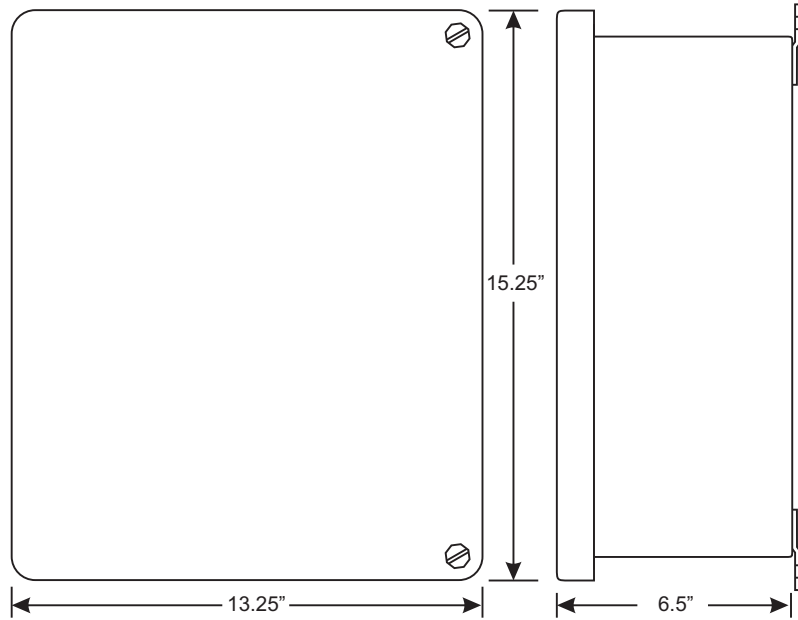
Power: 117 VAC, 60/50 Hz

(24VDC Available)

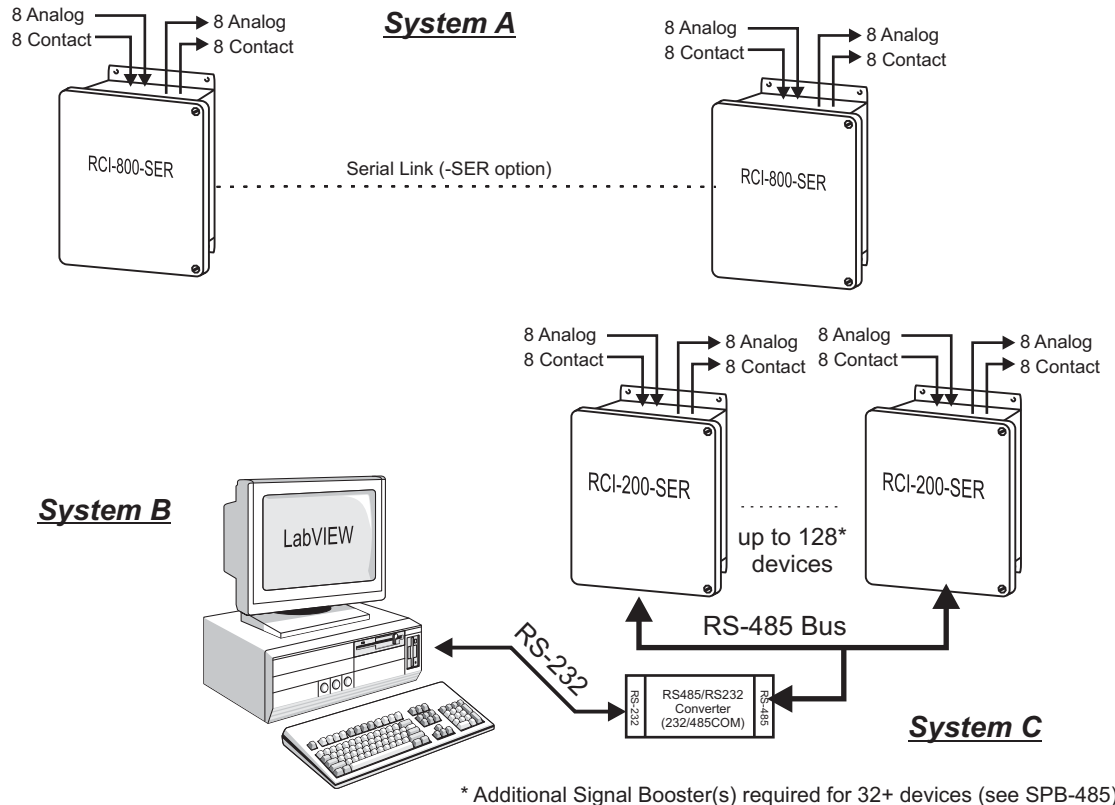
Enclosure: NEMA4X (NEMA12 available as an option)

# RCI-800-SER

## Enclosures & Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

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### CANADA:

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 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068





### Standard Features:

Bi-directional Communication using GSM Cellular Network

Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval

Point-to-Point or Host-to-Multi-Point Operation

1 Dry Contact and 1 Analog Input

1 'C' Relay Contact and 1 Analog Output

Configurable to Initiate and/or Answer A Call

Easy Network Activation with SIM cards

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

Built-in Overvoltage Protection on Telephone Line

High Noise Rejection

### Function:

The RCI-100-GSM is a bi-directional cellular communication system that exchanges the status of 1 dry contact input and 1 analog input between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: GSM Cellular Network

BAUD Rate: 9600 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

Power: 117 VAC, 60/50 Hz

(24VDC Available)

Enclosure: NEMA4X (NEMA12 available as an option)

Approvals: ETL 3118354:

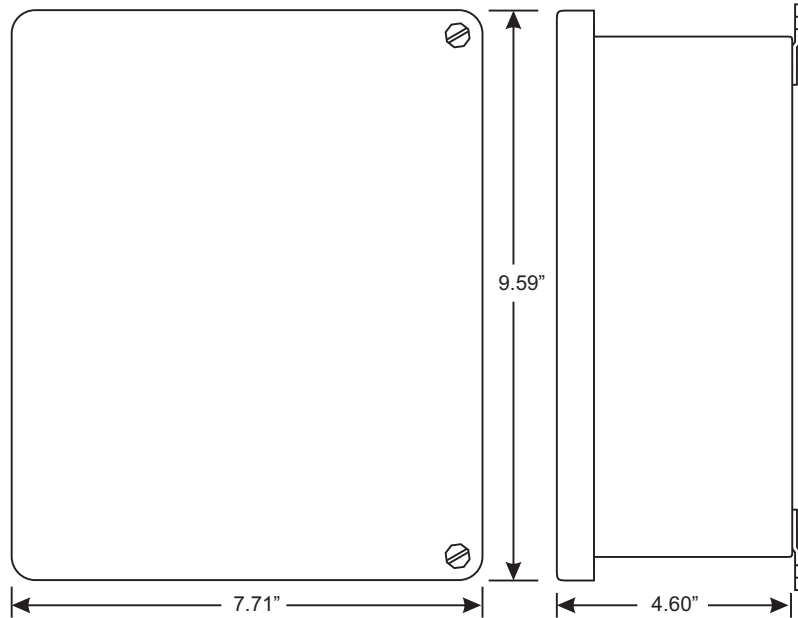
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-100-GSM

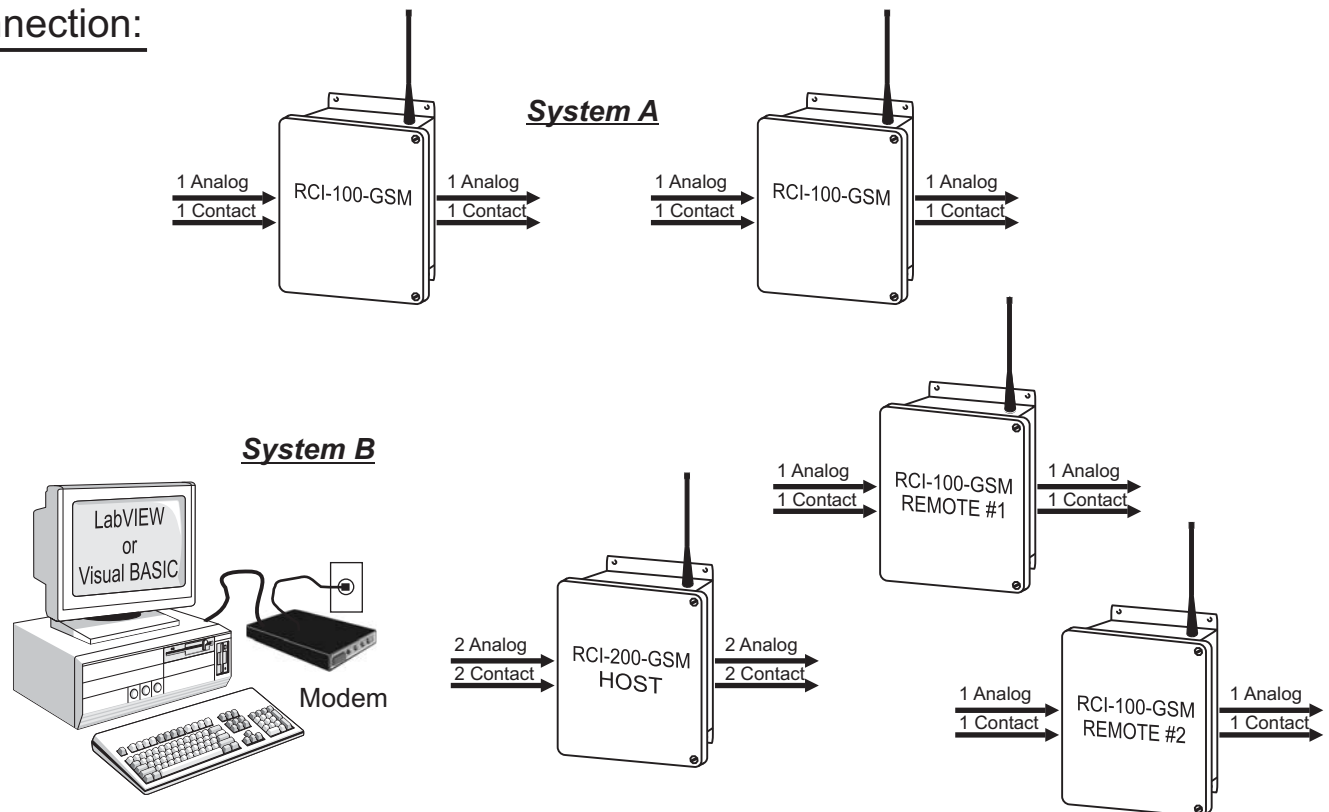
## Enclosures & Dimensions:

**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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### CANADA:

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101 Freshway Dr. Unit 57  
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Ph: (905) 660-5336  
Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using GSM Cellular Network

Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval

Point-to-Point or Host-to-Multi-Point Operation

2 Dry Contact and 2 Analog Input

2 'C' Relay Contact and 2 Analog Output

Configurable to Initiate and/or Answer A Call

Easy Network Activation with SIM cards

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

Built-in Overvoltage Protection on Telephone Line

High Noise Rejection

### Function:

The RCI-200-GSM is a bi-directional cellular communication system that exchanges the status of 2 dry contact input and 2 analog input between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: GSM Cellular Network

BAUD Rate: 9600 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

Power: 117 VAC, 60/50 Hz

(24VDC Available)

Enclosure: NEMA4X (NEMA12 available as an option)

Approvals: ETL 3118354:

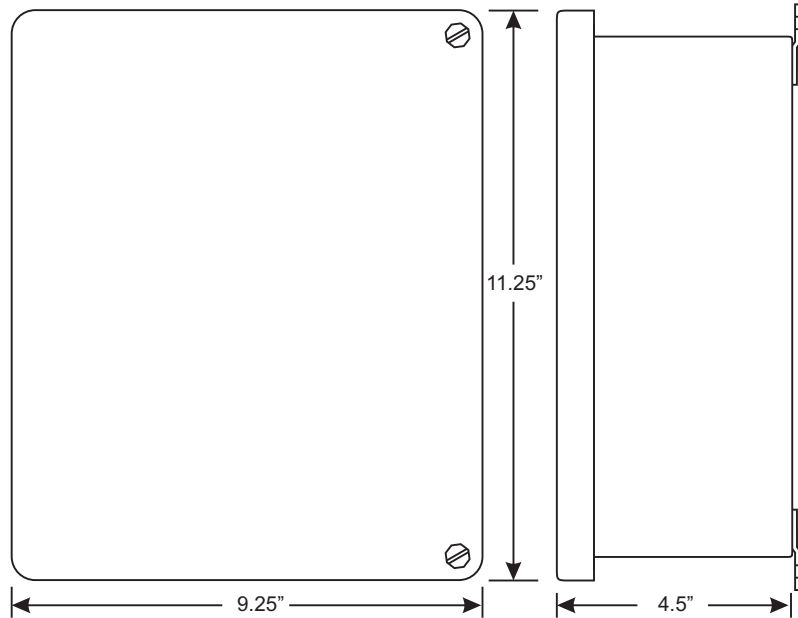
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-200-GSM

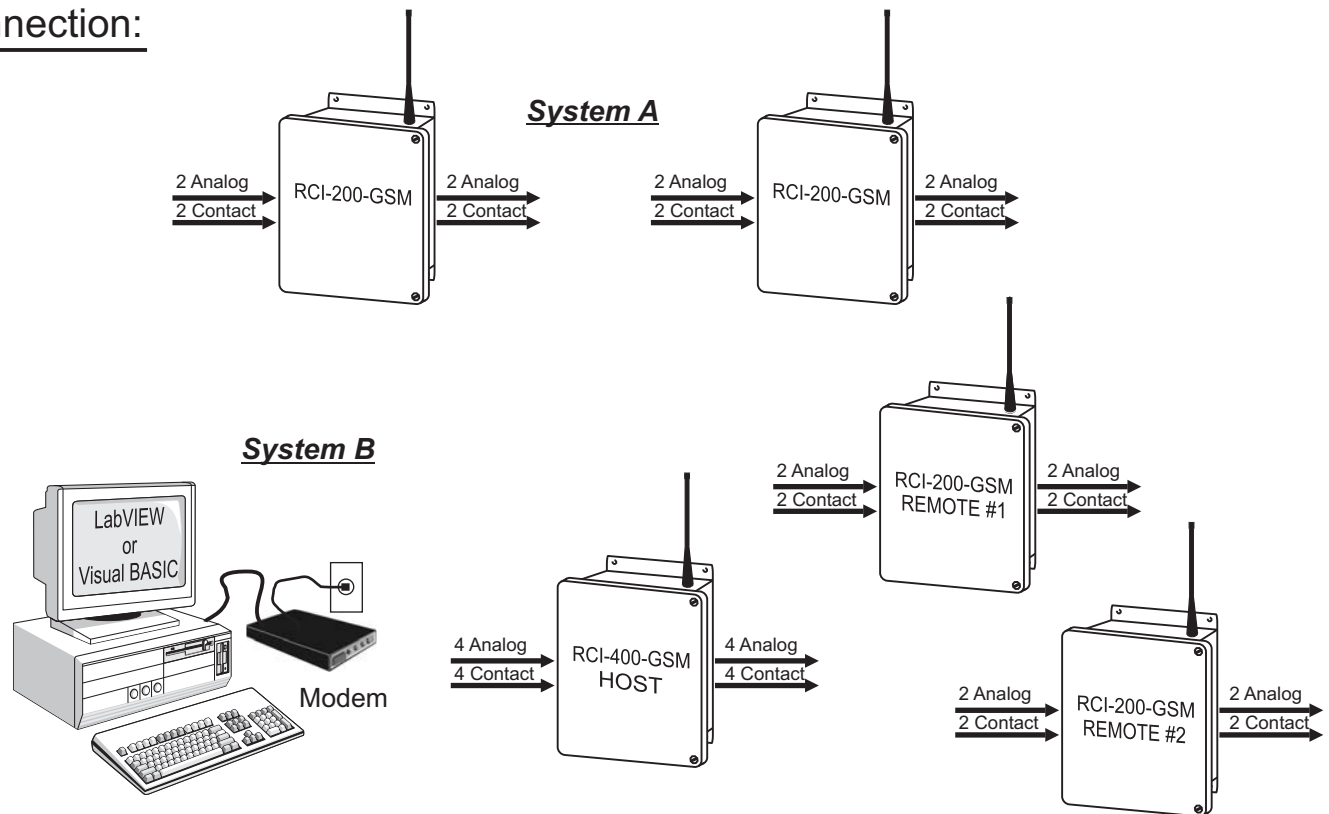
## Enclosures & Dimensions:

**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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Fx: (905) 660-4068



Manufacturers of Process  
Controls and Instrumentation

# Model: RCI-400-GSM

## Cellular Remote Control Signal Interface



### Standard Features:

Bi-directional Communication using GSM Cellular Network

Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval

Point-to-Point or Host-to-Multi-Point Operation

4 Dry Contact and 4 Analog Input

4 'C' Relay Contact and 4 Analog Output

Configurable to Initiate and/or Answer A Call

Easy Network Activation with SIM cards

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

Built-in Overvoltage Protection on Telephone Line

High Noise Rejection

### Function:

The RCI-400-GSM is a bi-directional cellular communication system that exchanges the status of 4 dry contact input and 4 analog input between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: GSM Cellular Network

BAUD Rate: 9600 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

Power: 117 VAC, 60/50 Hz

(24VDC Available)

Enclosure: NEMA4X (NEMA12 available as an option)

Approvals: ETL 3118354:

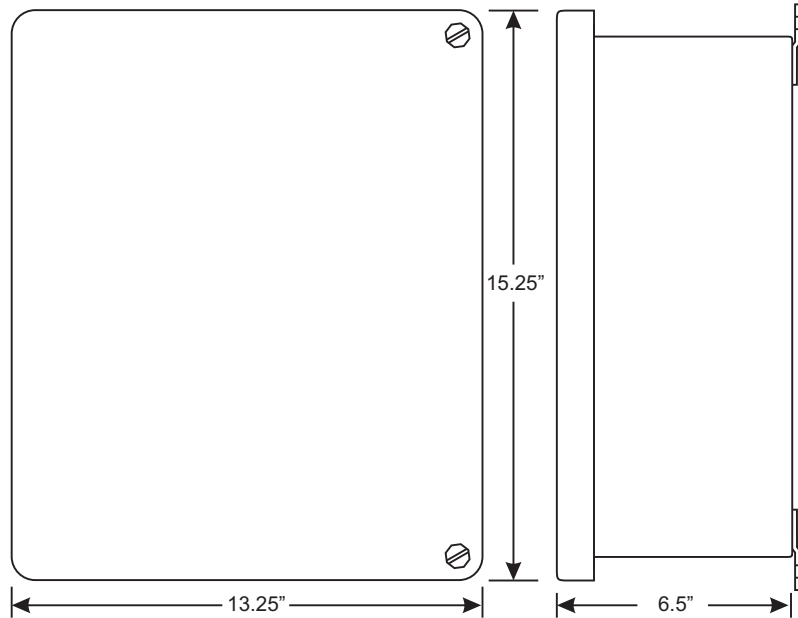
UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

# RCI-400-GSM

## Enclosures & Dimensions:

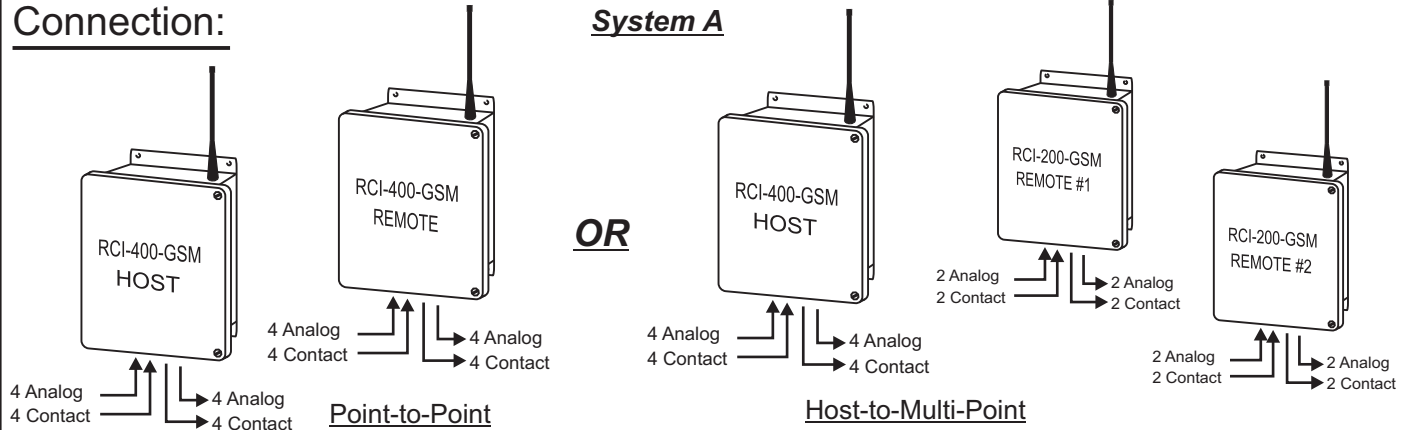
**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display

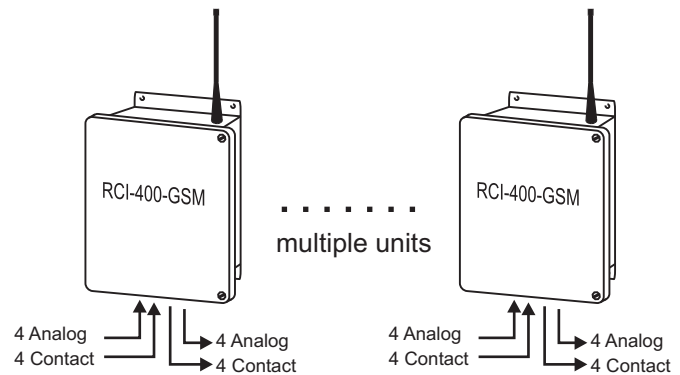
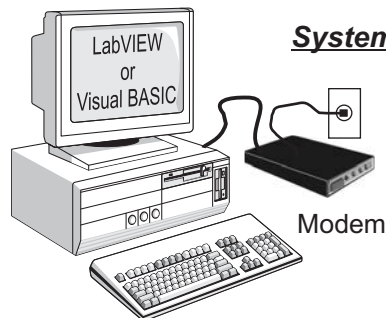


## Connection:

### System A



### System B



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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 Fx: (231) 788-2929



#### CANADA:

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 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

Bi-directional Communication using GSM Cellular Network

Dial-Out Programmable for: Status/Setpoint Change, Incremental Signal Change and Timed Interval

Point-to-Point or Host-to-Multi-Point Operation

8 Dry Contact and 8 Analog Input

8 'C' Relay Contact and 8 Analog Output

Configurable to Initiate and/or Answer A Call

Easy Network Activation with SIM cards

No Calibration Required

Microprocessor Controlled for High Accuracy

Power: 117 VAC 50/60 Hz (Optional 24 VDC)

Built-in Overvoltage Protection on Telephone Line

High Noise Rejection

### Function:

The RCI-800-GSM is a bi-directional cellular communication system that exchanges the status of 8 dry contact input and 8 analog input between a host and remote unit or a PC equipped with a modem. A basic system consists of A) one host station and one or more remote station(s) **OR** B) several remote stations and one PC with a modem.

In system A), the host unit can be set to interrogate the remote unit(s) periodically or when required. Remote units may also be configured to call the host when required. One host may operate several remote units.

In system B), a PC can call several remote units or alternately, remote units may call the PC when required

LabVIEW & Visual BASIC drivers are provided for user software development on PC's.

### Connection:

Units are connected via a standard dial-up voice grade line. Regular J11 Phone Jacks make for easy installation. When connecting units on a PBX system make sure it can accept analog modem transmissions. Serial systems connect via standard modem cable.

### Specifications:

Transmission Medium: GSM Cellular Network

BAUD Rate: 9600 BAUD typ., 9600, 14.4K available

Operating Temperature: -20 Deg.C. to +50 Deg.C.

Relay Contacts: 10A 1/8Hp @ 125VAC

6A 1/8Hp @ 277VAC

Power: 117 VAC, 60/50 Hz

(24VDC Available)

Enclosure: NEMA4X (NEMA12 available as an option)

Approvals: ETL 3118354:

UL 60950-1-2007; CSA-C22.2 No. 60950-1-07

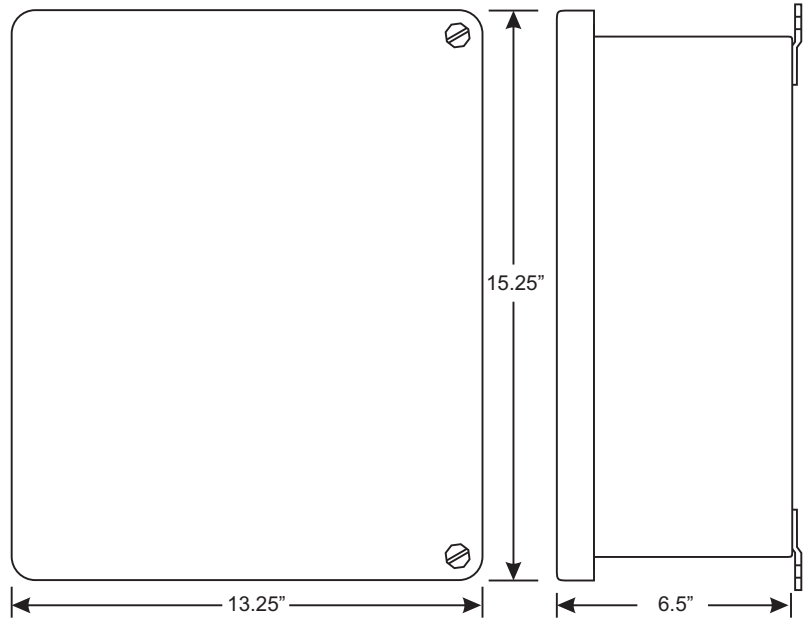


# RCI-800-GSM

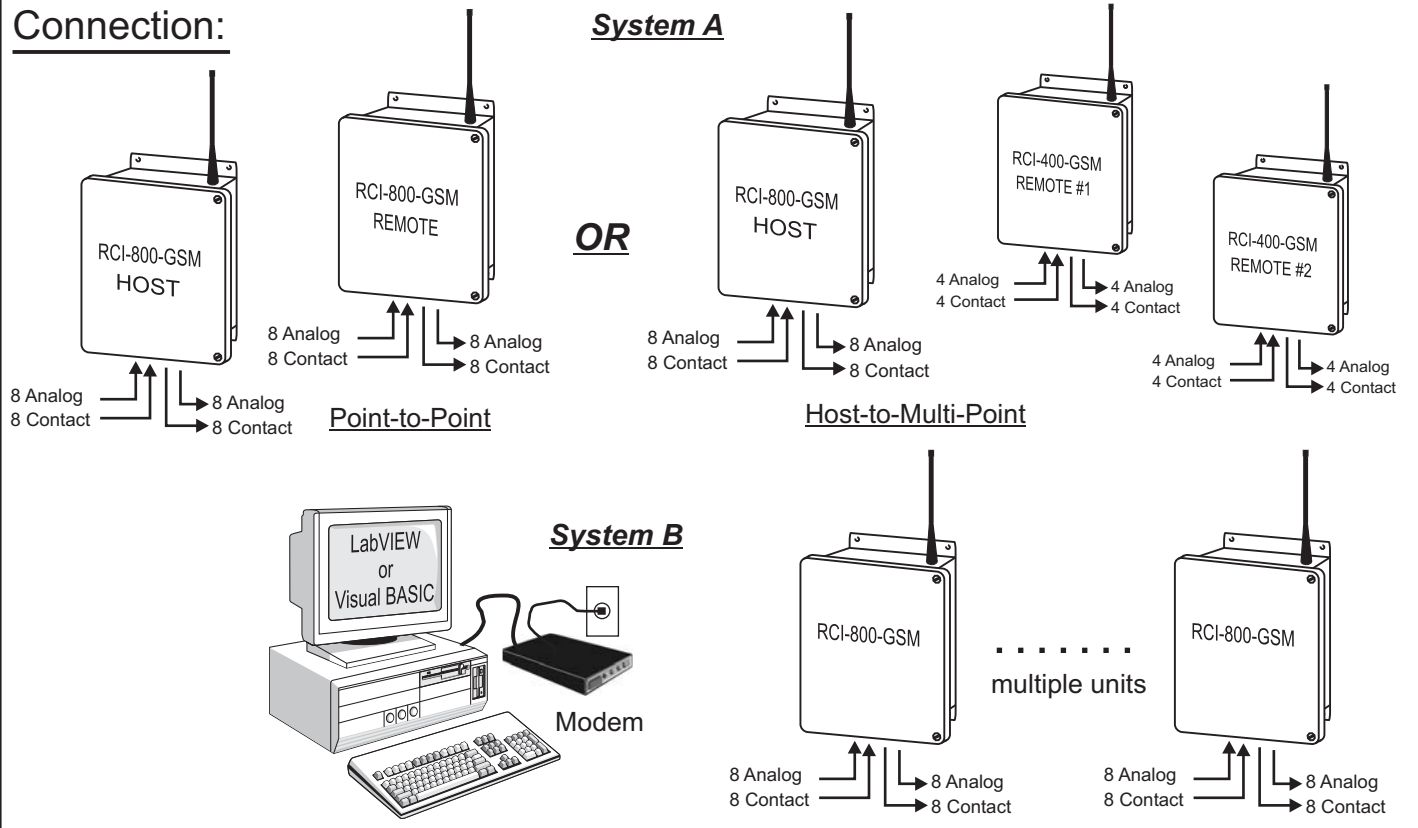
## Enclosures & Dimensions:

**Options:** (Add letters to end of Model Number)

D - 8-Digit Scanning Display



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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 743 Marquette Ave.  
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 Ph: (231) 788-2900  
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### CANADA:

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 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068



### Standard Features:

- Controls up to 4 Pumps
- Sequential or Alternating Mode of Operation
- Industry Standard Input & Output
- 4 Digit LED Input Level Display (Scalable)
- 4 'C' Relay Contacts for Pump Control
- 1 Analog Re-transmit Output
- Auxiliary Alarm Level with Contact & Horn
- Pump On & Off Delays
- Fully Programmable via Keypad
- No Calibration Required
- Microprocessor Controlled for High Accuracy
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- High Noise Rejection
- CSA and NRTL Approved (LR51078)

### Function:

The PCS-400 is a universal pump controller that can control up to 4 pumps. It has a single analog input that can be connected to a field transmitter either as a 2-wire or 3-wire input. The 4 digit LED display is scalable to any range from 0000-9999 (plus decimal point).

Pumps can be configured to operate on a rising input signal (e.g. to drain a well) or on a falling input signal (e.g. to fill a tank). Each pump has its own programmable start and stop level as well as a start and stop delay.

The PCS-400 can operate pumps in a sequential mode where pump no.1 is always the first pump to start or in an alternating mode where the start pump is different for every cycle.

An auxiliary alarm level with its own contact output and horn is also available. A signal re-transmit output provides a process signal for further use.

### Specifications:

Accuracy: +/- 0.1% typ., +/-0.2% max.  
Operating Temperature: -4°F to +140°F (-20°C to +60°C)  
Relay Contacts: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC  
Power: 117 VAC, 60/50 Hz, 24VDC Available  
Enclosure: NEMA4X

### Model Designation:

PCS-400-XX

Input

Output

2: 4-20 mA (Zin=250 Ohm)  
5: 1-5 VDC (Zin=1Meg Ohm)  
6: 0-10 VDC (Zin=1Meg Ohm)  
7: Special Input

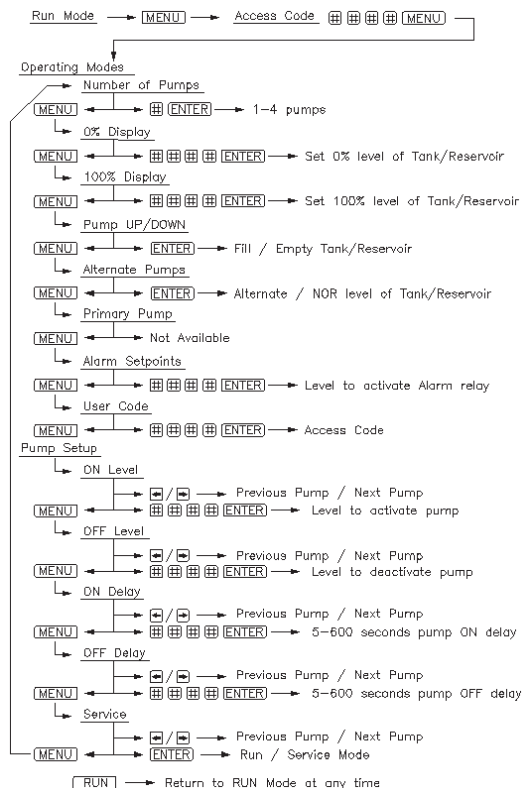
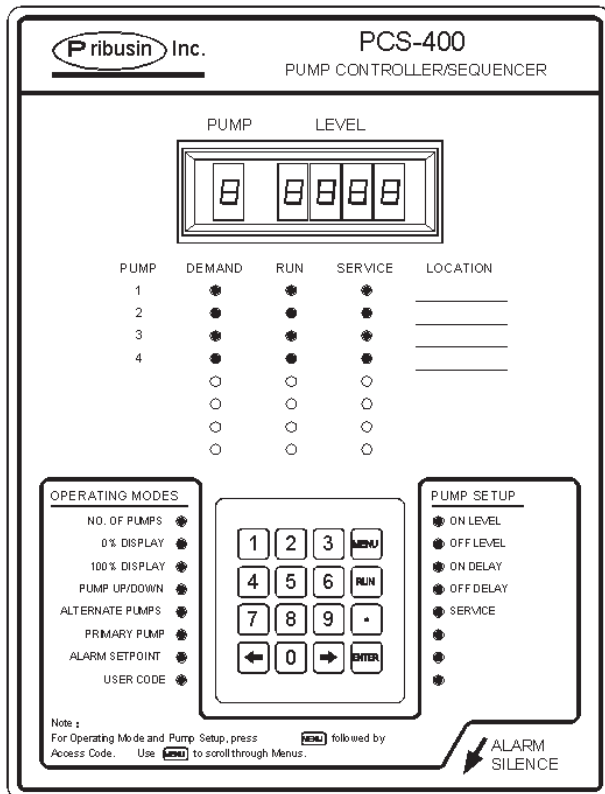
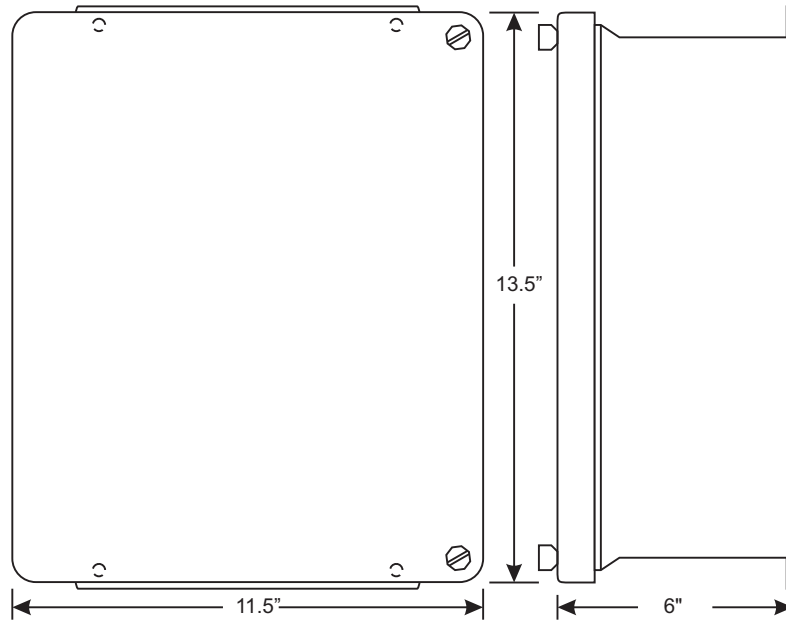
2: 4-20 mA (750 Ohm Drive)  
5: 1-5 VDC (Zout=250 Ohm)  
6: 0-10 VDC (Zout=500 Ohm)  
7: Special Output

### Options:

- A: 24VDC Power  
- B: 240VAC Power

# PCS-400

## Enclosures & Dimensions:



Manufactured By:

**Pribusin Inc.**  
[www.pribusin.com](http://www.pribusin.com)  
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 Fx: (905) 660-4068

**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

**Model: SPB-485**

**RS-485 Signal Repeater/Power Booster**



### Standard features:

- Repeat and Boost RS-485 Signals up to 5000ft.
- Reduce Communications Errors due to Echos on Long RS-485 Busses
- Add More Field Transmitters
- Provide additional Power for Field-Transmitters
- Small Size

### Function:

The SPB-485 is a signal repeater and power booster for RS-485 serial links. Its plastic enclosure makes it ideal for mounting in remote, unsupervised locations.

RS-485 busses are limited to approx. 5000ft. in length. The SPB-485 can be used to extend that distance by 5000ft. for every unit installed. Long serial links can sometimes cause transmission echos that result in communications losses. An adjustable echo filter allows these unwanted echos to be filtered out.

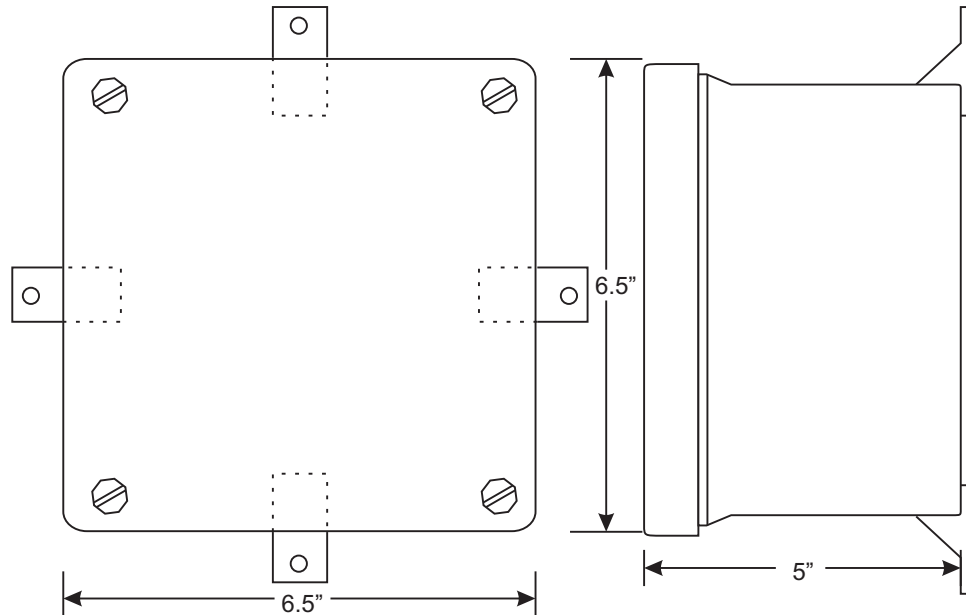
The SPB-485 can also be used to provide additional power to field transmitters down the line. This helps to compensate for  $I^2R$  losses. By adding additional power through an SPB-485 the wire size of the RS-485 bus can be kept small.

### Specifications:

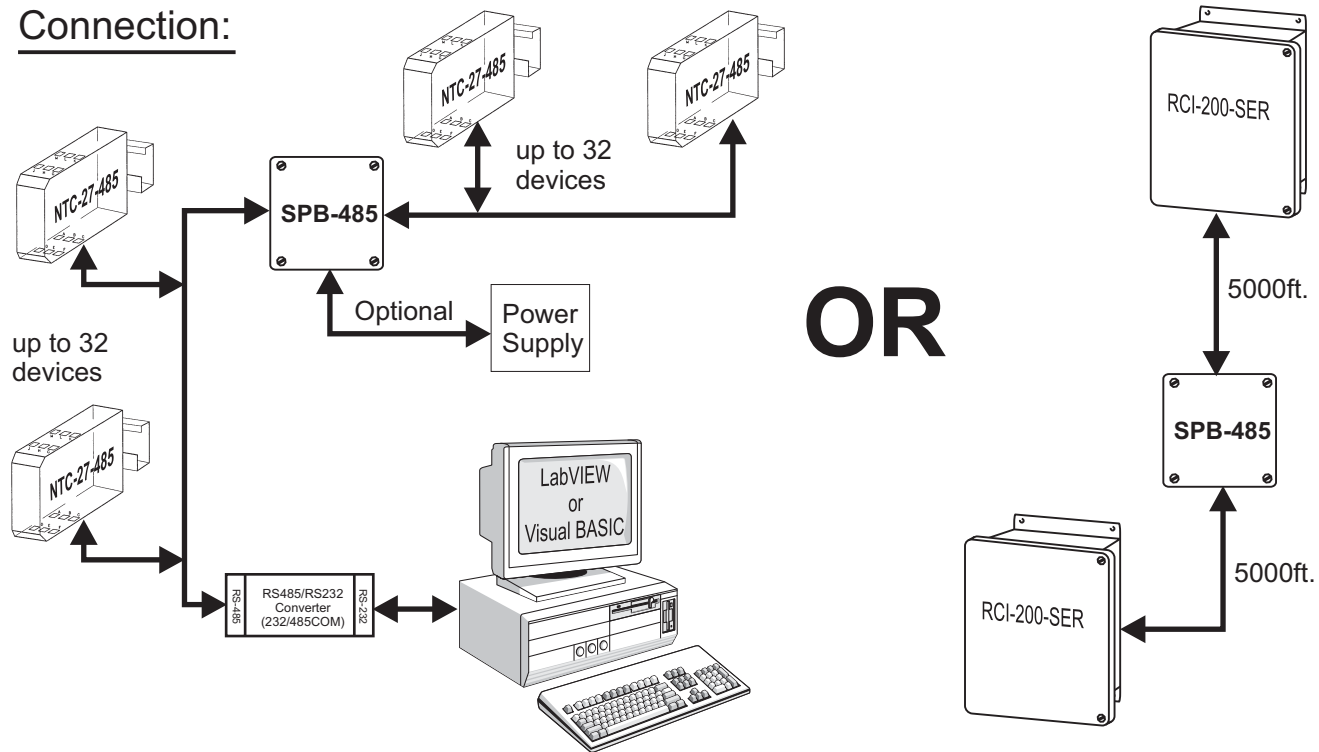
- Input: RS-485
- Output: RS-485
- Fanout: 32 RS-485 Field Transmitters
- Operating Power: 24VDC (RS-485 bus or external)
- Enclosure: PVC Plastic
- Operating Temperature: -20 Deg. C. to + 40 Deg. C.

# SPB-485

## Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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 Fx: (231) 788-2929



### CANADA:

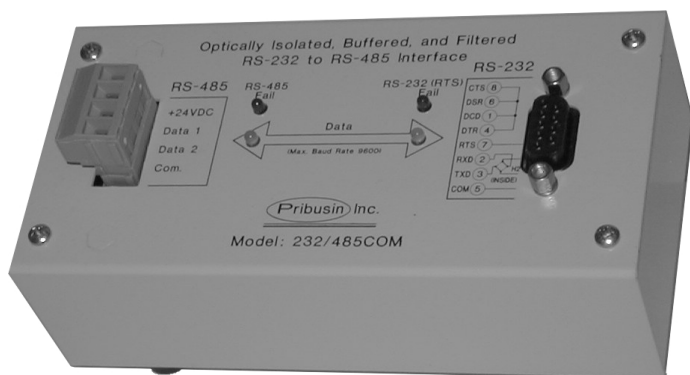
Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
 Ph: (905) 660-5336  
 Fx: (905) 660-4068

**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

## Model: 232/485COM

RS-232 to RS-485 Isolated Converter/Buffer



### Standard Features:

- Small Sized Desktop Package
- Optically Isolates RS-485 bus from RS-232 bus
- No Additional Power Supply Required
- Transmission Speeds up to 9600 BAUD
- No Calibration or Setup Required
- Microprocessor Controlled for High Accuracy
- Adjustable Echo Filtering for Long RS-485 busses
- High Noise Rejection
- CSA and NRTL Approved (LR51078)

### Function:

The 232/485COM Isolated Converter/Buffer converts RS-485 multi-drop signals to PC standard RS-232 signals. These can then be fed into a PC's existing COM ports.

The 232/485COM provides electrical isolation between an incoming RS-485 bus from the field and the host PC's RS-232 port. This helps to prevent power spikes or surges from entering the PC's delicate internal bus structures. Such power surges or spikes could lock-up the PC or may even cause internal damage.

In addition, the 232/485COM can provide echo filtering in the case of a long RS-485 bus in the field. In some cases a long RS-485 bus that has several impedance mismatches can create echos that could scramble the messages sent to and from the host PC. By buffering data and delaying it slightly before sending it on the 232/485COM can help reduce problems associated with echos.

### Connection:

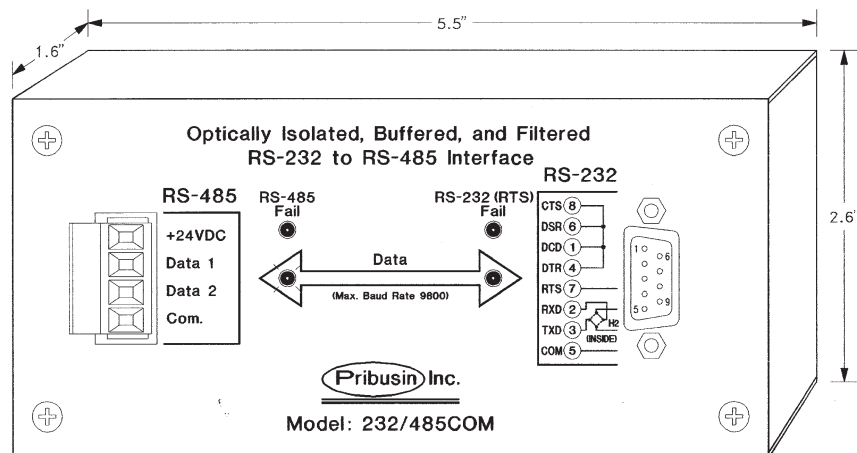
The 232/485COM uses a standard 9-pin miniature Dsub connector to connect to the RS-232 port of the host PC. The RS-485 connects with Pribusin's standard 4-pin plug-in connector.

### Specifications:

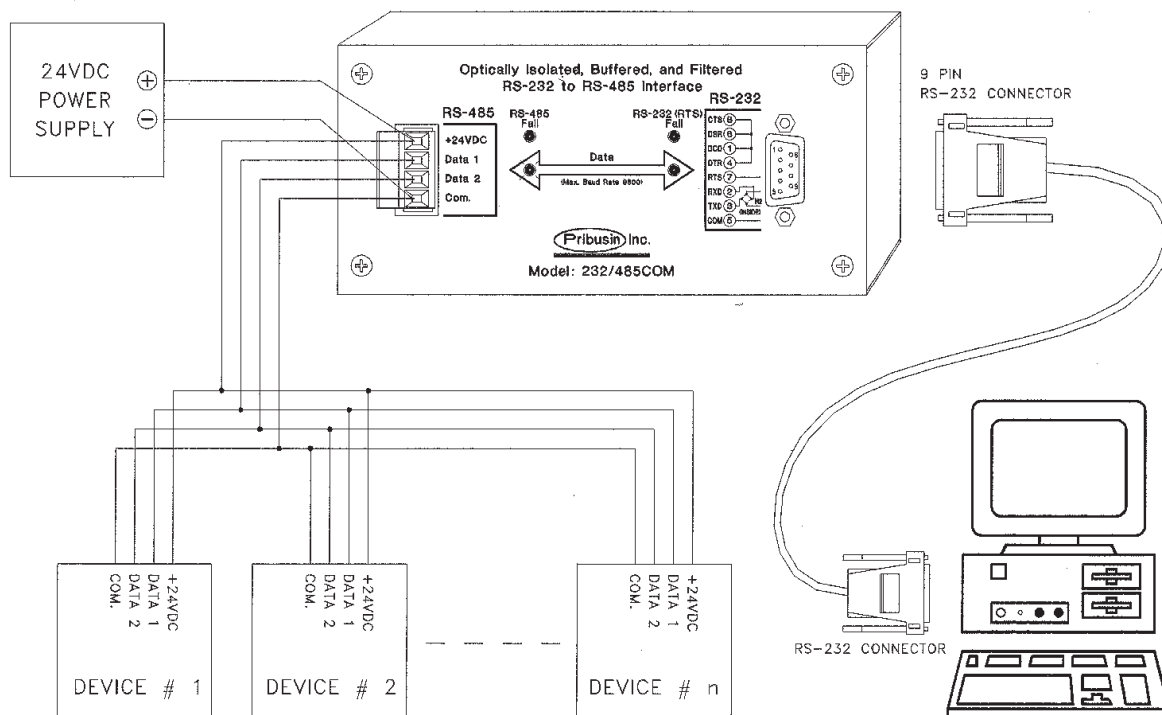
- Conversion: RS-232 / RS-485 (bi-directional)
- Transmission Speed: UP to 9600 BAUD
- Isolation: Optical, 1500VAC test
- Operating Temperature: -40 Deg.C. to +50 Deg.C.
- Power: 24VDC, 100mA (RS-485 side)  
10VDC, 20mA (RS-232 side)
- Enclosure: Metal Desktop Enclosure w/ Rubber Feet

# 232/485COM

## Enclosures & Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

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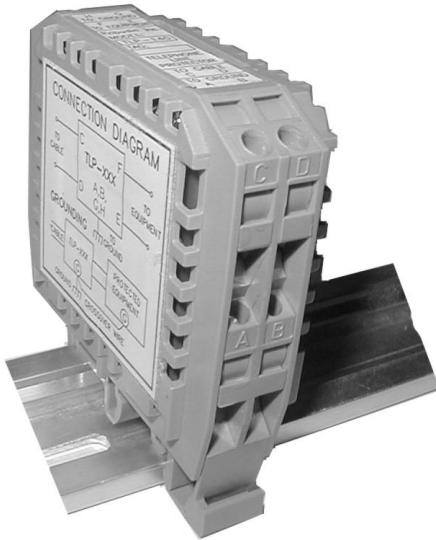


**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: TLP-XXX**

**Telephone Line Surge Protector**



### Standard features:

Protects Telephone Line Equipment  
Reduces Risk of Damage from Power Surges  
Increases Protection when used after a Lightning Arrestor  
Small Size  
No Power Required

**NOT A SUBSTITUTE FOR A LIGHTNING  
ARRESTOR !!!**

### Function:

The TLP-XXX provides additional protection for telephone line connected equipment by reducing the risk of power surges from entering the equipment. It accomplishes this by clipping input voltages above a certain level. It is an ideal addition to Lightning protectors/arrestors since it takes out power surges that a lightning arrestor may pass on to the telephone equipment.

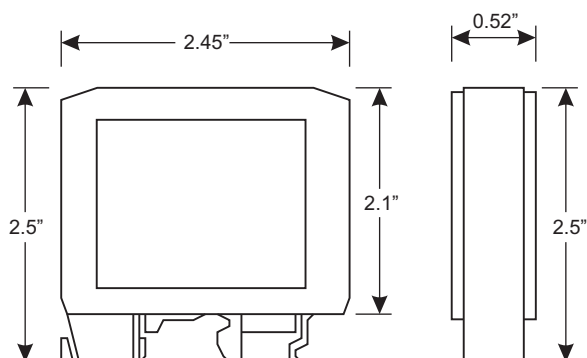
Various input voltage clipping levels are available to suit most applications (see back for details).

### Specifications:

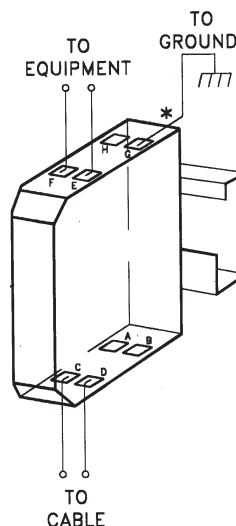
Input: Telephone Line  
Output: Telephone Line  
Operating Power: None  
Enclosure: PVC Plastic  
Operating Temperature: -40 Deg. C. to + 40 Deg. C.

# TLP-XXX

## Dimensions:

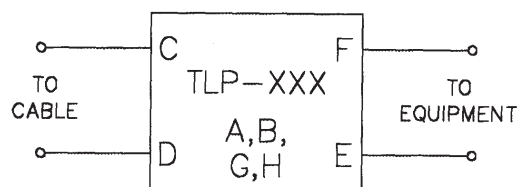


## Connection:

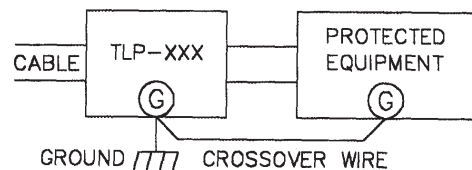


## Connection:

### CONNECTION DIAGRAM



GROUNDING TO GROUND



## Model Designation:

TLP-XXX

Input Clipping Voltage

140: 140 Volts  
200: 200 volts  
300: 300 Volts

Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

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743 Marquette Ave.  
Muskegon, MI 49442  
Ph: (231) 788-2900  
Fx: (231) 788-2929



### CANADA:

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101 Freshway Dr. Unit 57  
Concord, Ontario, L4K 1R9  
Ph: (905) 660-5336  
Fx: (905) 660-4068

**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

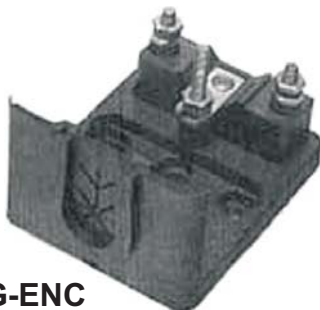
# Model: TLA-LIG

## Telephone Line Lightning Arrester



**TLA-LIG-ENC**

US\$35  
CDN\$45



**TLA-LIG-PMT**

US\$15  
CDN\$22



### Standard features:

Protects Telephone Line Equipment  
Reduces Risk of Damage from Lightning Damage  
Small Size  
No Power Required

**GOOD GROUNDING MUST BE PROVIDED OR  
THE LIGHTNING ARRESTER CANNOT PROTECT  
THE EQUIPMENT ADEQUATELY !!!**

### Specifications:

Input: Telephone Line  
Output: Telephone Line  
Operating Power: None  
Enclosure: PVC Plastic (optional)  
Operating Temperature: -40 Deg. C. to + 40 Deg. C.

### Function:

The TLA-LIG provides protection for telephone line connected equipment by reducing the risk of lightning surges from entering the equipment. It accomplishes this by clipping input voltages above a certain level. It is an ideal addition to a standard surge protector since it takes out high voltage surges that a surge protector may not be able to handle.

The TLA-LIG Is available either with an enclosure for external mounting or with a mounting pedestal for in-cabinet mounting.

### Model Designation:

TLA-LIG-ENC - Lightning Arrester with Enclosure  
TLA-LIG-PMT - Lightning Arrester with Mounting Pedestal

Manufactured By:

Subject to change without notice

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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Rev.A Subject to change without notice

**Pribusin Inc.**

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**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

**Model: TWD-3.5**

**Two Wire LCD Display**



### Standard Features:

3 1/2 Large Digits  
Standard Plastic Enclosure  
Industry Standard 4-20 mA Input  
Display Range Field Adjustable  
Field Adjustable Decimal Point  
Fully Loop Powered  
CSA and NRTL Approved

### Function:

The TWD-3.5 is a 3 1/2 digit LCD display that has a maximum range of 0000-1999. The zero and span point are fully field adjustable. The decimal point can be selected after any digit or left off completely. Using these two adjustments, almost all engineering units can be displayed easily on the display

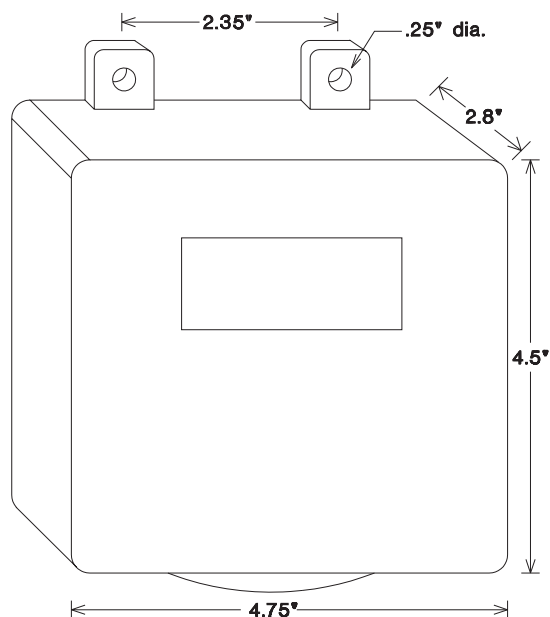
The TWD-3.5 requires only 2.5 volts from the loop and presents a maximum load impedance of 125 ohms @ 20 mA.

### Specifications:

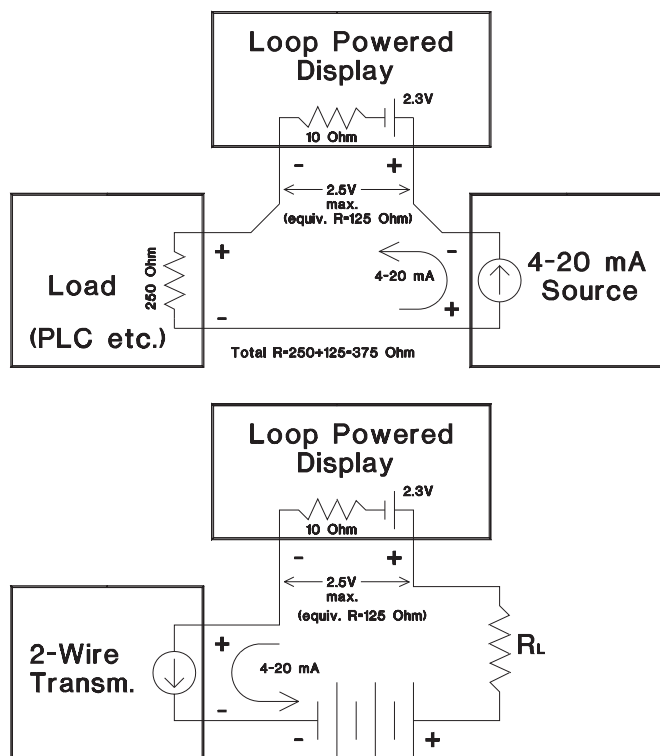
Range: 0000-1999 (Field Adjustable)  
Input: 4-20 mA  
Decimal Point: Field Selectable  
(1.999, 19.999, 199.9, 1999)  
Power: Loop Powered  
Operating Temperature: -10 Deg. C. to +45 Deg. C.

# TWD-3.5

## Dimensions:



## Connection:



Manufactured By:

**Pribusin Inc.**

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[info@pribusin.com](mailto:info@pribusin.com)

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**Pribusin Inc.**

Manufacturers of Process  
Controls and Instrumentation

**Model: PWD-3.5-X**

**Powered LCD Display**



### Standard Features:

3 1/2 Large Digits  
Standard Plastic Enclosure  
Industry Standard Inputs  
Display Range Field Adjustable  
Field Adjustable Decimal Point  
Powered from 117 VAC  
24VDC Available to Power Field Transmitter  
CSA and NRTL Approved

### Function:

The PWD-3.5-X is a 3 1/2 digit LCD display that has a maximum range of 0000-1999. The zero and span point are fully field adjustable. The decimal point can be selected after any digit or left off completely. Using these two adjustments, almost all engineering units can be displayed easily on the display

The PWD-3.5-X is powered from standard line voltage and can provide up to 200mA at 24VDC to power field transmitters.

### Specifications:

Range: 0000-1999 (Field Adjustable)  
Input: Specified by 'X' (see below)  
Decimal Point: Field Selectable  
(1.999, 19.999, 199.9, 1999)  
Power: 117 VAC, 6 VA  
Operating Temperature: -10 Deg. C. to + 45 Deg. C.

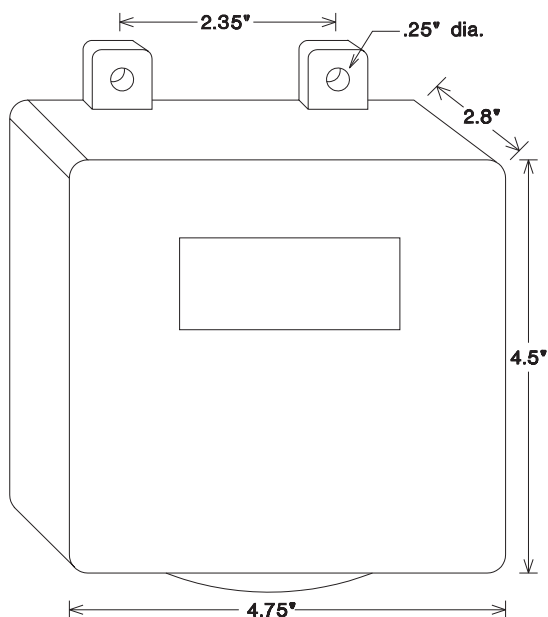
### Input Selection:

X=1: 1 to 5 mA (Zin=1K Ohm)  
X=2: 4 to 20 mA (Zin=250 Ohm)  
X=3: 0 to 1 mA (Zin=5K Ohm)  
X=4: 10 to 50 mA (Zin=100 Ohm)  
X=5: 1 to 5 VDC (Zin=1Meg Ohm)  
X=6: 0 to 10 VDC (Zin=1Meg Ohm)  
X=7: Special Input

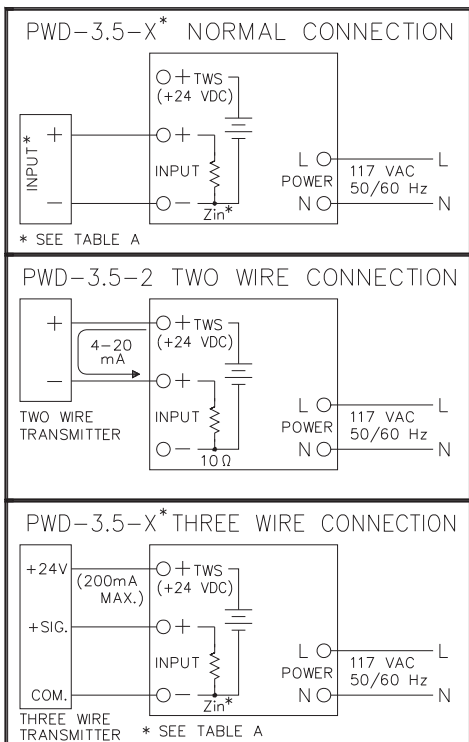


# PWD-3.5-X

## Dimensions:



## Connection:



Manufactured By:

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### CANADA:

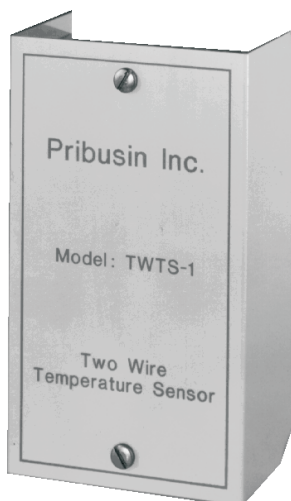
Pribusin Inc.  
 101 Freshway Dr. Unit 57  
 Concord, Ontario, L4K 1R9  
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**Pribusin Inc.**

*Manufacturers of Process  
Controls and Instrumentation*

**Model: TWTS-X**

**Two Wire Temperature Transmitter**



### Standard Features:

Easily mounts on Single Outlet Box  
Standard Metal Enclosure  
Industry Standard 4-20 mA Output  
Built-in Sensor  
Fully Loop Powered

### Function:

The TWTS-X is an ambient air temperature transmitter that easily mounts on any standard electrical outlet box. The enclosure is made of 20 gage steel and is painted beige. The enclosure has vents at the top and bottom to allow the sensor to measure the surrounding air.

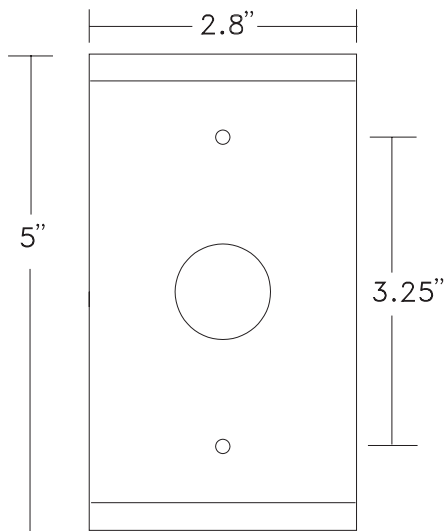
The TWTS-X provides a 4-20 mA loop-powered control signal for a 0-100% temperature presence.

### Specifications:

Range: 0-200 Deg.C max.  
Output: 4-20 mA  
Power: Loop Powered  
Accuracy: +/- 1 Deg.C or +/- 2 Deg.F

# TWTS-X

## Dimensions:



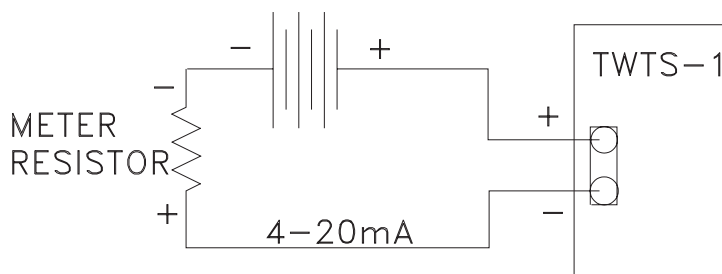
## Temperature Ranges:

TWTS-X

Input

- 1: 0 to +100 Deg.C
- 2: -50 to +100 Deg.C
- 3: 0 to +50 Deg.C
- 4: -10 to +50 Deg.C
- 5: 0 to +150 Deg.F
- 6: -40 to +120 Deg.F
- 7: Special

## Connection:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

### USA:

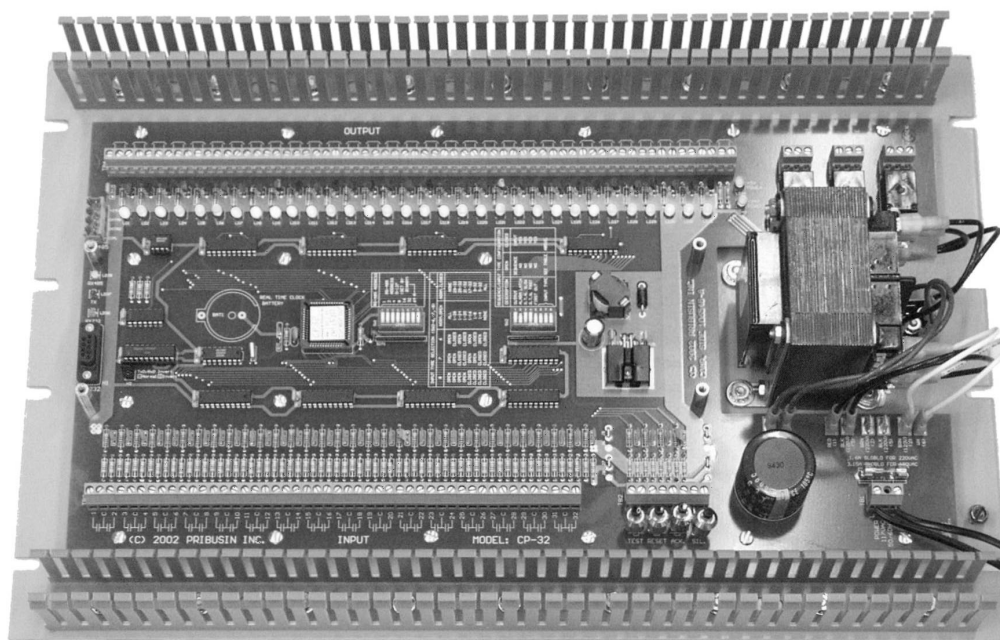
Pribusin Inc.  
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## 32 Point High-Density Annunciator



### Function:

The CP-32 is a 32 point remote logic annunciator that offers features and flexibility that allows it to be used in most annunciation applications. The one-piece 19" rack mount construction contains all the I/O terminations, electronics, LED point displays and power supply. DIP switches allow the user to select different flashing sequences and customize the operation of the CP-32. The different flash sequences include: a) straight indication, b) flash on alarm, c) flash & latch on alarm, d) return to normal slow flash and e) first out alarm fast flash.

The CP-32 is microprocessor controlled for high reliability and versatility. Each alarm point has an LED indication as well as a drive capability of 200mA @ 24VDC making this annunciator compatible with most related products on the market today.

Three special function relay outputs are provided for additional functionality: Audible, Ringback and Reflash.

- The Audible relay is de-energized anytime an alarm is detected. The relay is reset (energized) by a contact closure on the Silence input.
- The Ringback (return-to-normal) audible relay is de-

energized anytime a point goes from an alarm condition back to normal. The relay is reset (energized) by a contact closure on the Silence input.

- The Reflash relay is de-energized when the first alarm condition is detected. Subsequent additional alarms cause the relay to pulse. This function allows the user to tie all points in a remote area to a common annunciator point in a control room or in a larger system.

Four contact inputs are used for user input: Silence, Acknowledge, Reset and Test.

- The Silence input is used to reset the Audible and Ringback relays
- The Acknowledge input is used to Acknowledge new incoming alarms. The flashing alarms will go solid-on after an Acknowledge contact closure
- The Reset input is used to turn off any outgoing alarms whether flashing or latched
- The Test input is used to turn on all 32 outputs and is intended as a lamp test feature to verify proper operation of all annunciation points. Special function relays are not affected by the Test input.

# CP-32

## Specifications:

**Inputs:** 32 Dry Contact Inputs, Normally Open or Normally Closed (Selectable)

**Outputs:** One LED per Point, 24VDC @ 200mA Output for External Indication

**Power:** 120/220VAC, 50/60Hz

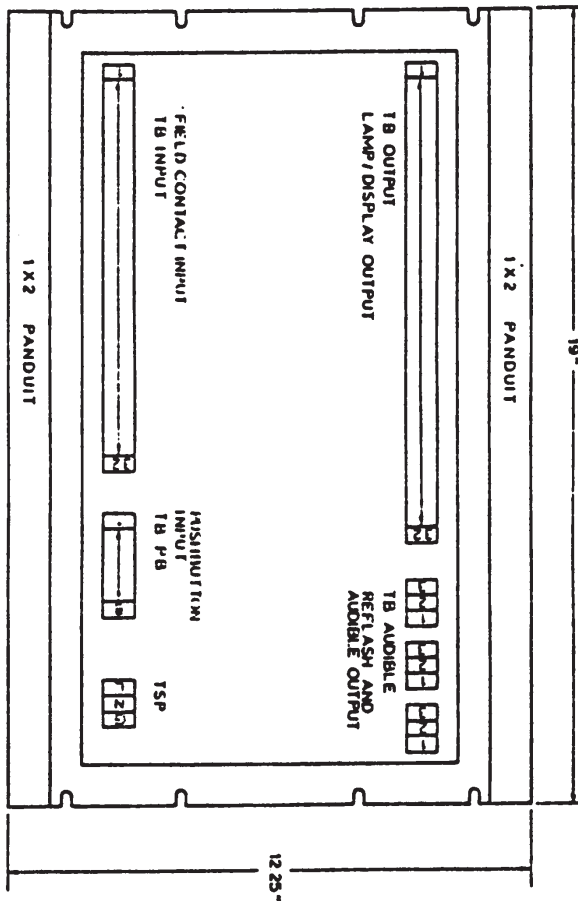
**Control Inputs:** 1. Acknowledge  
2. Reset  
3. Test  
4. Silence

**Audible Relay:** Normally Energized, De-energized on Alarm, Reset by Silence Input  
One Form 'C' Contact

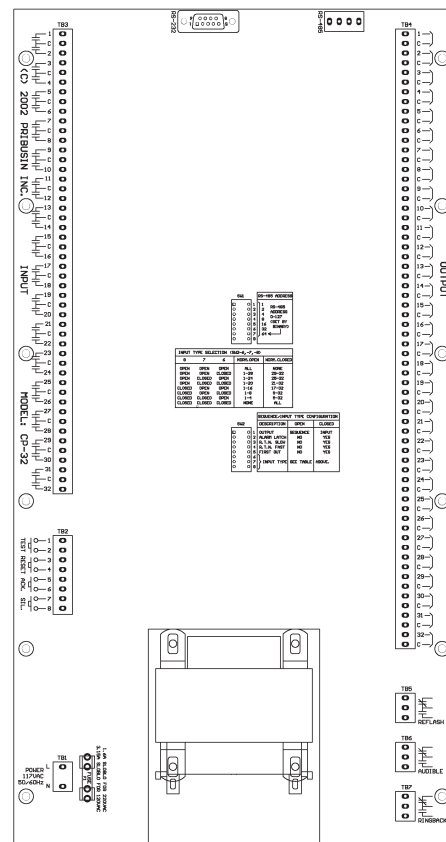
**Ringback Relay:** Normally Energized, De-energized on Alarm back to Normal, Reset by Silence Input  
One Form 'C' Contact

**Reflash Relay:** Normally Energized, De-energized on Alarm, Pulses on New Alarms  
One Form 'C' Contact

## Dimensions:



## Connections:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
[info@pribusin.com](mailto:info@pribusin.com)

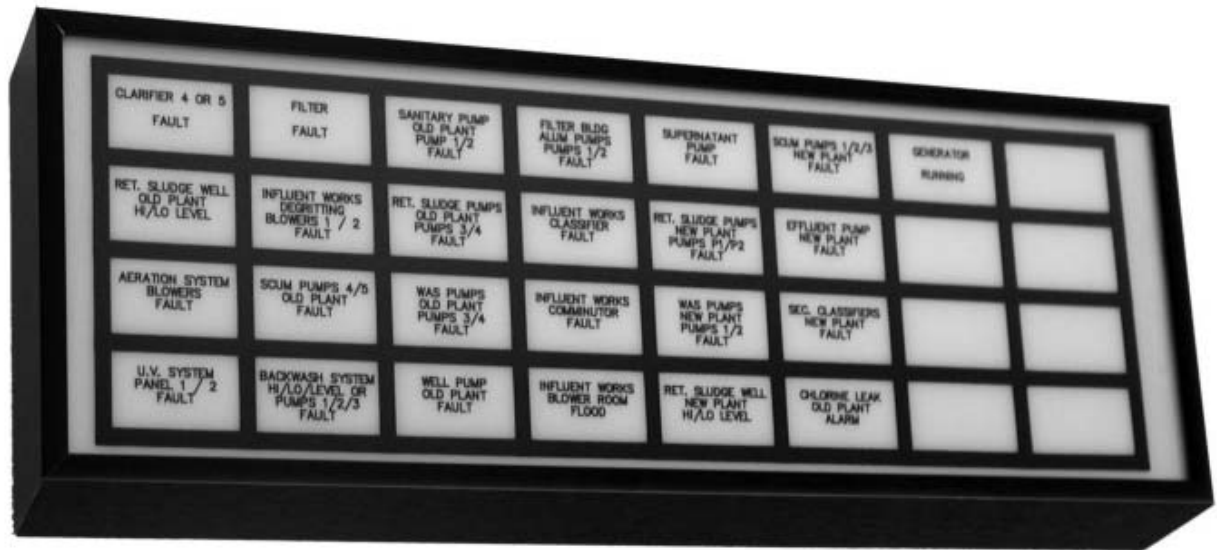
### USA:

Pribusin Inc.  
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Ph: (231) 788-2900  
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### CANADA:

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101 Freshway Dr. Unit 57  
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Ph: (905) 660-5336  
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## Function:

The Model DS4-32 is a thirty-two point, high density solid-state annunciator display designed by Pribusin Inc to be used in applications where an ultra dense, reliable and legible display is required. This display uses the latest state of the art technology in LED "light bars", giving the display such features as very low power consumption, (20 mA per point), low heat dissipation and very high reliability.

The DS4-32 features a clear front display, for applications where all the legends have to be visible in the normal state as well as the alarm state. For applications where the display needs to have a totally blank face when no alarm is present, the suffix "N" is added to the model number, (DS4-32-N) and the display will have a black front with a positive legend sheet. The alarm state will still be shown in red. The intention is for the operator to focus only on the points that go into the alarm state.

The standard display has a clear faceplate with a legend sheet behind it. The legend sheet is produced by Pribusin Inc to the end user's specifications, or the end

user can make his/her own legend sheet. (A layout grid sheet is available.) One interesting feature is that the legend may consist of any type of character or graphic symbol. The DS4-32 has thirty-two display elements, which are arranged in four rows by eight columns. Each display element has an image area of 1.54" by 0.74". The DS4-32 is compatible with any annunciator or lamp driver circuit that has a 24 VDC common. The DS4-32 is completely compatible with the Pribusin Inc. Model CP-32 remote logic annunciator.

# DS4-32

## Specifications:

### Overall Dimensions:

16.0" Wide X 5.5" High X 1.5" Deep

### With Flush Mount Bezel Dimensions:

17.5" Wide X 7.0" High X 1.5" Deep

### Image Area Per Point:

1.54" Wide (center .04" is not usable) X  
0.74" High

### Legend Character Sizing:

.08" High, max. 22 ch/line, max. 6 lines

.10" High, max. 16 ch/line, max. 4 lines

.125" High, max. 16ch/line, max. 4 lines

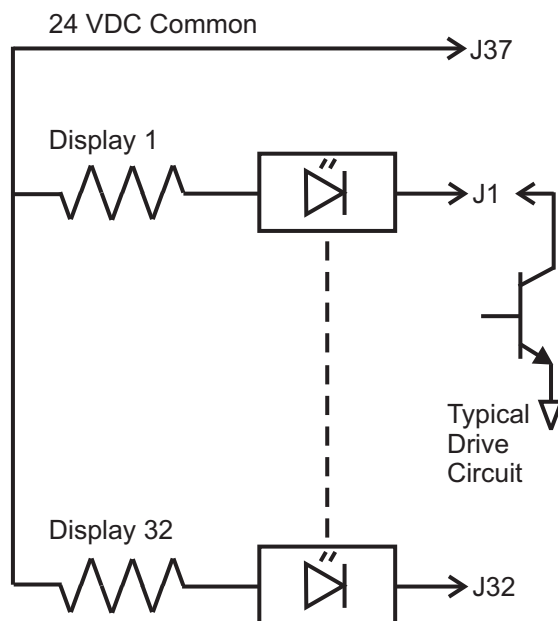
### Current Drain:

80 mA at 24 VDC

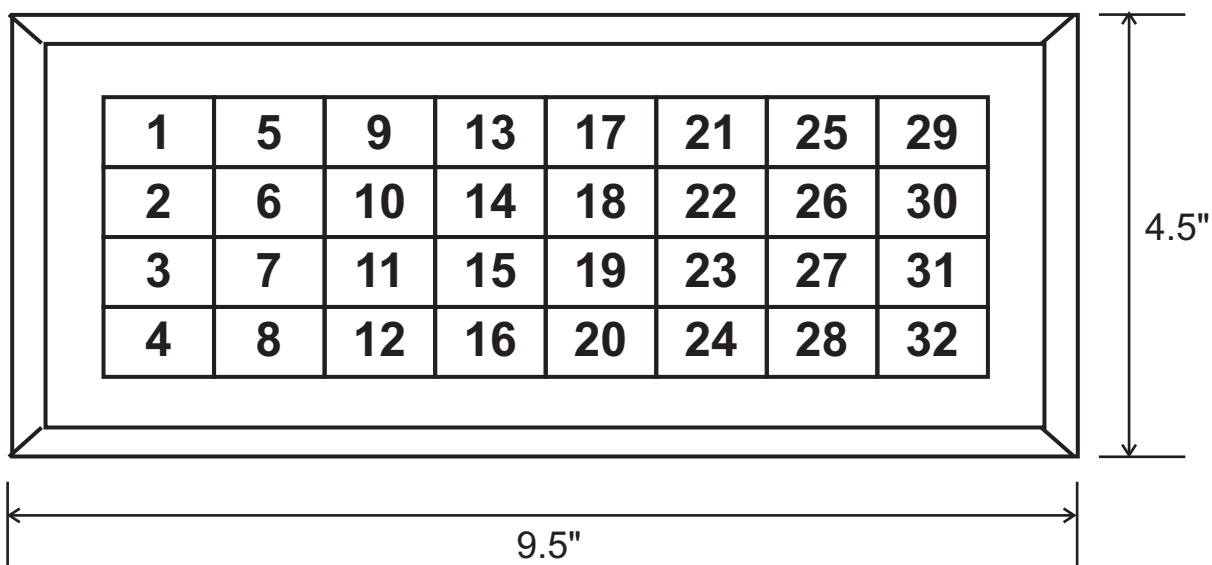
### Termination:

Amp. 37 pin connector standard

## Field Connections:



## Dimensions:



Manufactured By:

**Pribusin Inc.**

[www.pribusin.com](http://www.pribusin.com)  
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### Standard Features:

- Standard Dry Contact Inputs
- First Alarm Lock-out
- Audible Alarm with Silence Button
- No Calibration or Setup Required
- Microprocessor Controlled for High Accuracy
- Power: 117 VAC 50/60 Hz (Optional 24 VDC)
- High Noise Rejection
- CSA and NRTL Approved

### Function:

The ANC-8 is an 8 point annunciator with audible alarm & silence button. Up to 8 dry contact inputs may be connected to the ANC-8. The first alarm to come in will be locked out to identify chain of events. This is indicated by a rapidly flashing LED for the point of first alarm.

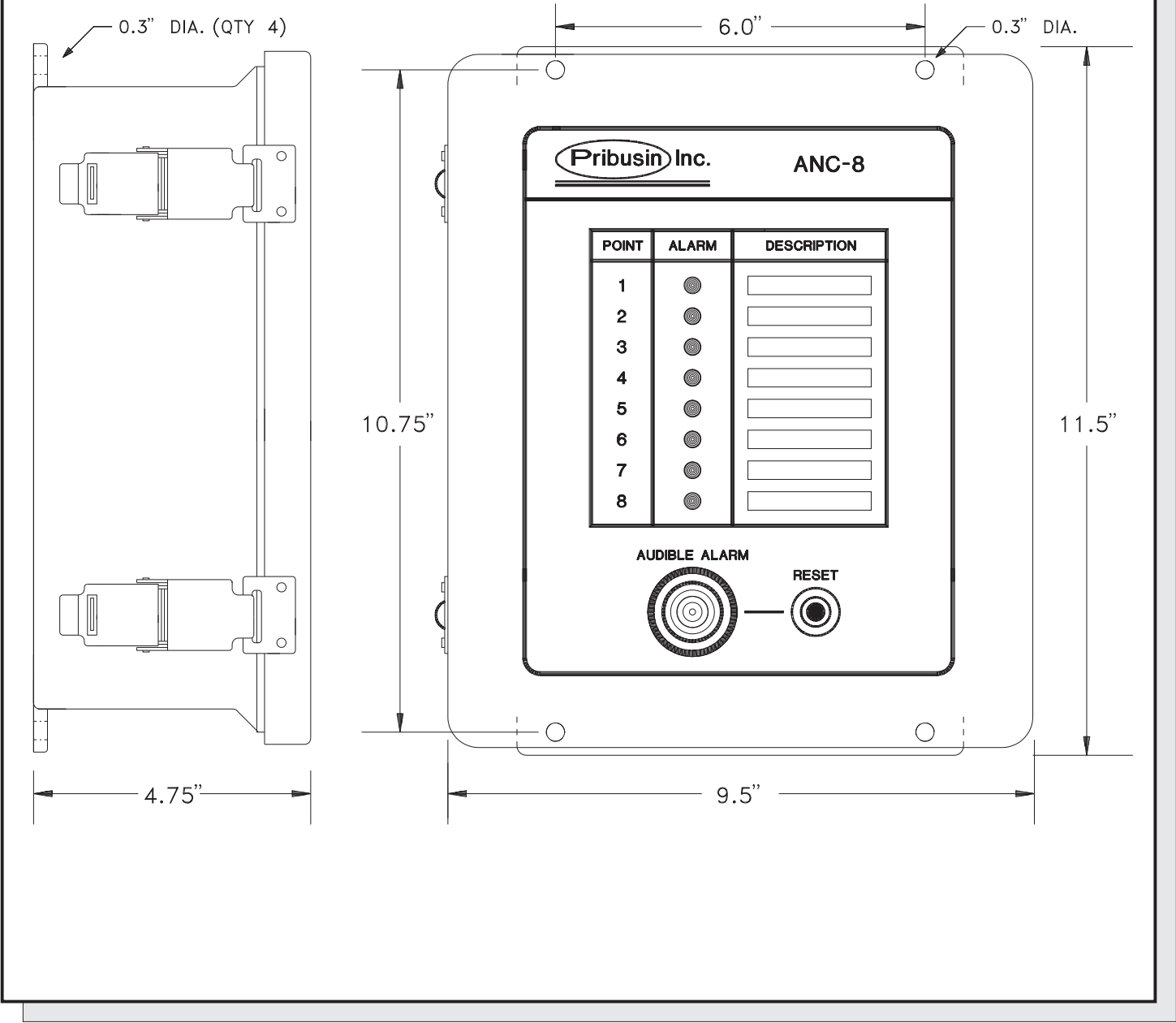
### Specifications:

- Input: 8 Dry contacts
- Indication: One LED per point
- Alarm Lock-out: First alarm flashes LED rapidly
- Operating Temperature: -40 Deg.C. to +50 Deg.C.
- Power: 117 VAC, 60/50 Hz  
(24VDC Available)



# ANC-8

## Enclosures & Dimensions:



Manufactured By:



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### Standard Features:

- Complete Solar Power Solution
- High-Efficiency Solar Panels
- Side-of-Pole Mounting Structure for Solar Panels
- Solar Power Regulator and Battery Charger
- Aluminum or Fiberglass Battery Enclosure (Fiberglass is NEMA4X)
- Maintenance-Free Batteries
- 5-Day Autonomy

### Function:

The SPS-XXX is a custom engineered Solar Power system that can provide 24V DC power in remote locations. It can be used as an autonomous power source in applications where there is no conventional AC line power available or as a standby power source for areas that experience frequent power interruptions.

The SPS-XXX is custom configured for each application depending on the power load required and the geographical location it will operate in. Geographic location plays an important role in determining the size of the solar panels and batteries due to the varying amounts of sun exposure.

A built-in charge controller continually keeps the batteries at their optimal charged-up state. Maintenance-free sealed lead-acid batteries provide years of trouble free operation.

The entire system comes complete with all required hardware and is easily installed by electricians.

### Specifications:

#### Solar Panels:

- Multicrystalline Silicon Solar Cells

#### Charge Controller:

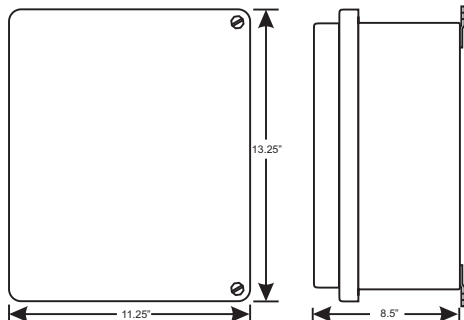
- Encapsulated for protection
- 100% solid state charge control
- Reverse leakage protection - blocking diode
- Lightning protection
- Input noise suppression
- Low power consumption

#### Batteries:

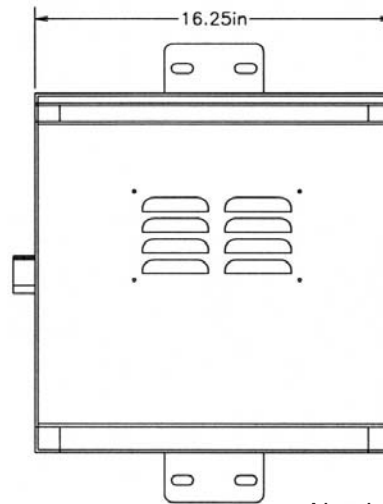
- Maintenance-free
- Sealed Lead Acid Type (Gel Cell)

# SPS-XXX

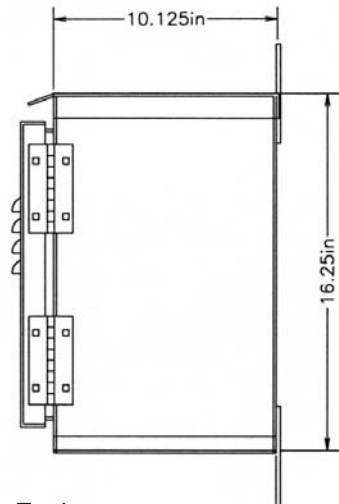
## Enclosures & Dimensions:



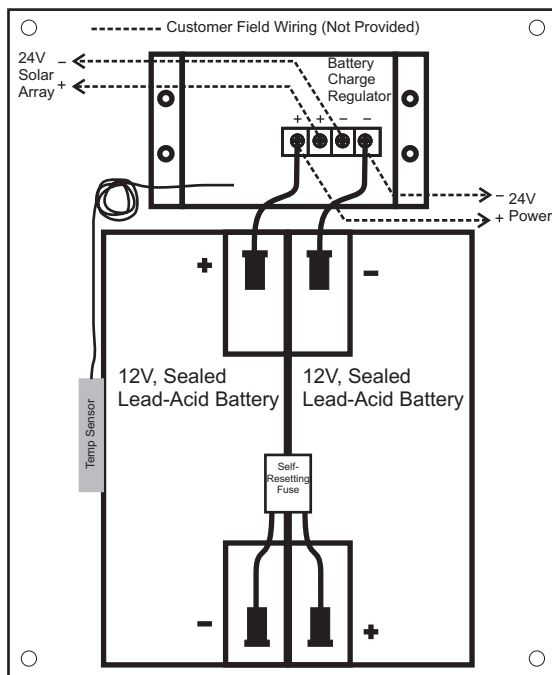
Fiberglass Enclosure  
(-FG Option)



Aluminum Enclosure  
(-AL Option)



## Connection:



## Options:

### Base Model:

- SPS-050: 50 Watt System
- SPS-075: 75 Watt System
- SPS-100: 100 Watt System

### Enclosure:

- AL: Aluminum
- FG: Fiberglass (NEMA4X, vented)

Manufactured By:

**Pribusin Inc.**

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