



*Manufacturers of Process
Controls and Instrumentation*

Instruction Manual

Model: *ITC-7X-STX*

Function: *Isolated Strain Gauge Signal Conditioner*

Input: X=1: 1 mV/V
 X=2: 2 mV/V
 X=3: 3mV/V
 X=7: _____

Output: X=2: 4-20mA
 X=5: 1-5 VDC
 X=6: 0-10 VDC
 X=7: _____

Power: 24 VDC, 80 mA

Serial #: _____
(If special or required)

For Technical Assistance And Questions Call
USA: (231) 788-2900 CANADA: (905) 660-5336

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: 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.

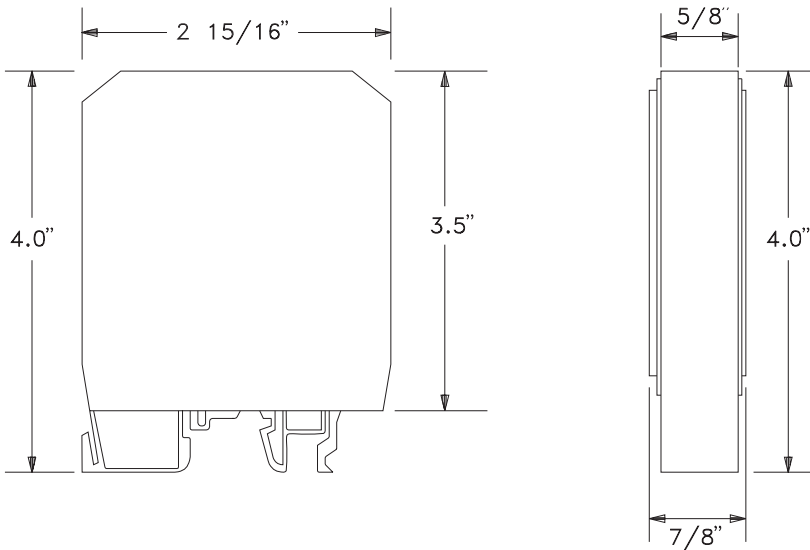
Any standard Strain Gauge that has a minimum resistance of 100 ohms may be used. Standard input ranges are readily available and custom ranges are available upon request.

Specifications:

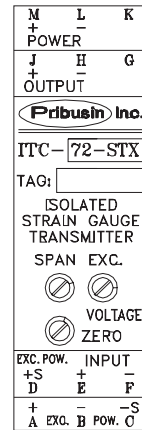
- Isolation: 1500 VAC Input to Output to Power (Test)
- Power: 24 VDC (19-29VDC) @ 80 mA
- Excitation Voltage: Adjustable 0-10 VDC
- Accuracy/Linearity: +/- 0.2% max., +/- 0.1% typ.
- Loop Resistance
- Change Effects: -0.03% per 100 Ohms change (4-20 mA only) calibrated at 250 ohms
- Common Mode Rej.: 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:

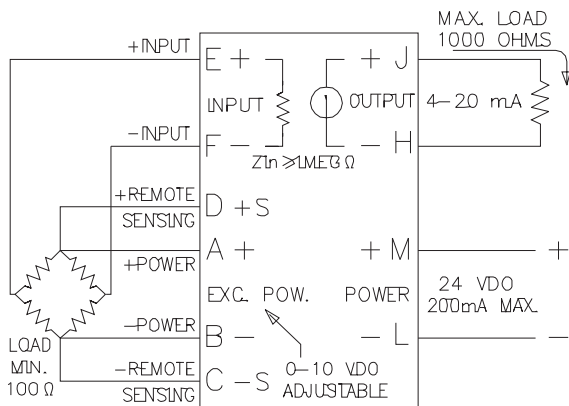


Calibration:



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

Manufactured By:

Pribusin Inc.

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info@pribusin.com

USA:

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

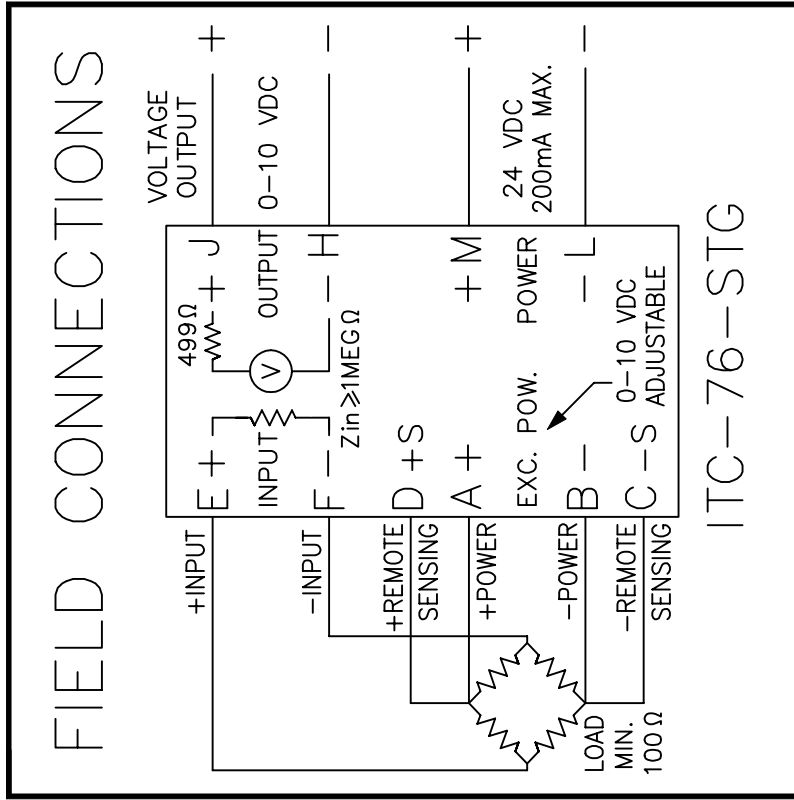


CANADA:

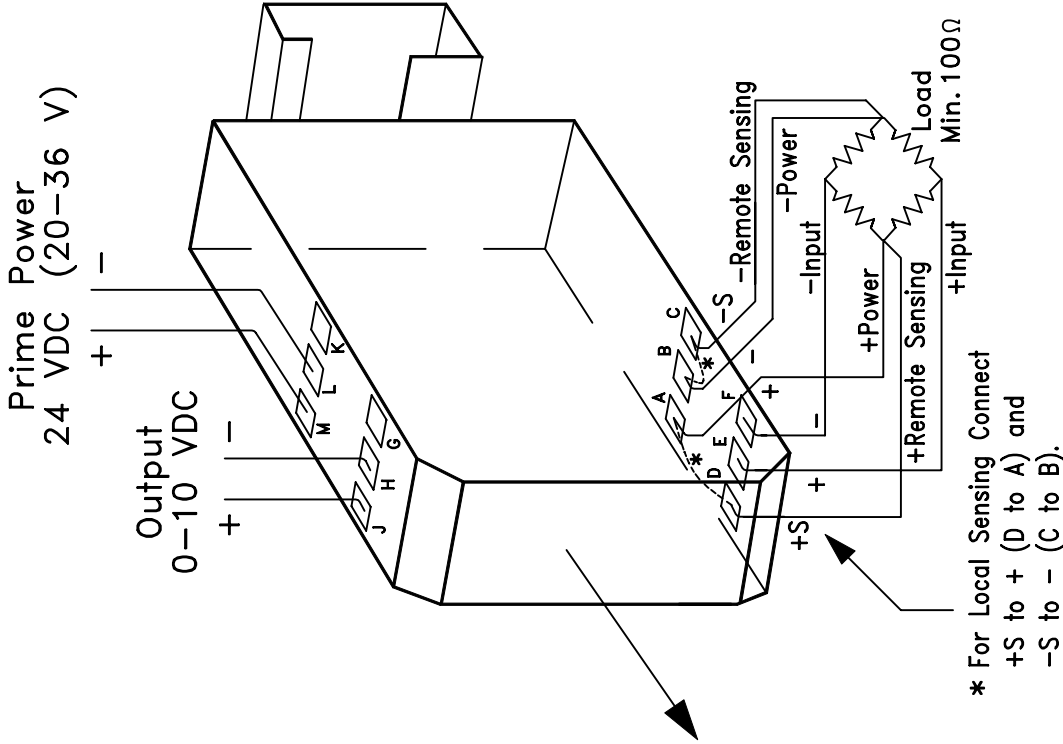
Pribusin Inc.
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Concord, Ontario, L4K 1R9
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Fx: (905) 660-4068

Notes:

1. For Details of Terminal Block Enclosure/Din Rail See Dwg. 104385.



M	L	K
+	-	
POWER		
J	H	G
+	-	
OUTPUT		
Pribusin Inc.		
ITC-76-STG		
TAG: _____		
ISOLATED STRAIN GAUGE TRANSMITTER		
SPAN EXC.		
VOLTAGE ZERO		
EXC. POW.	INPUT	-S
+S	+	F
D	E	
+	-	
A	EXC. B	POW. C



* For Local Sensing Connect
+S to + (D to A) and
-S to - (C to B).

	Exc. Power (Exc. Voltage)	Strain Gauge mV/V	Strain Gauge mV Output
Typical	10 V	1 mV/V	10 mV
Actual			

Pribusin Inc. ©			
CHKD:	DATE: JAN. 24/95	DRN: KS	
Model: ITC-76-STG			
Isolated Terminal Strain Gauge Transmitter Connection Diagram			
DWG. NO.:	105241		REV. A

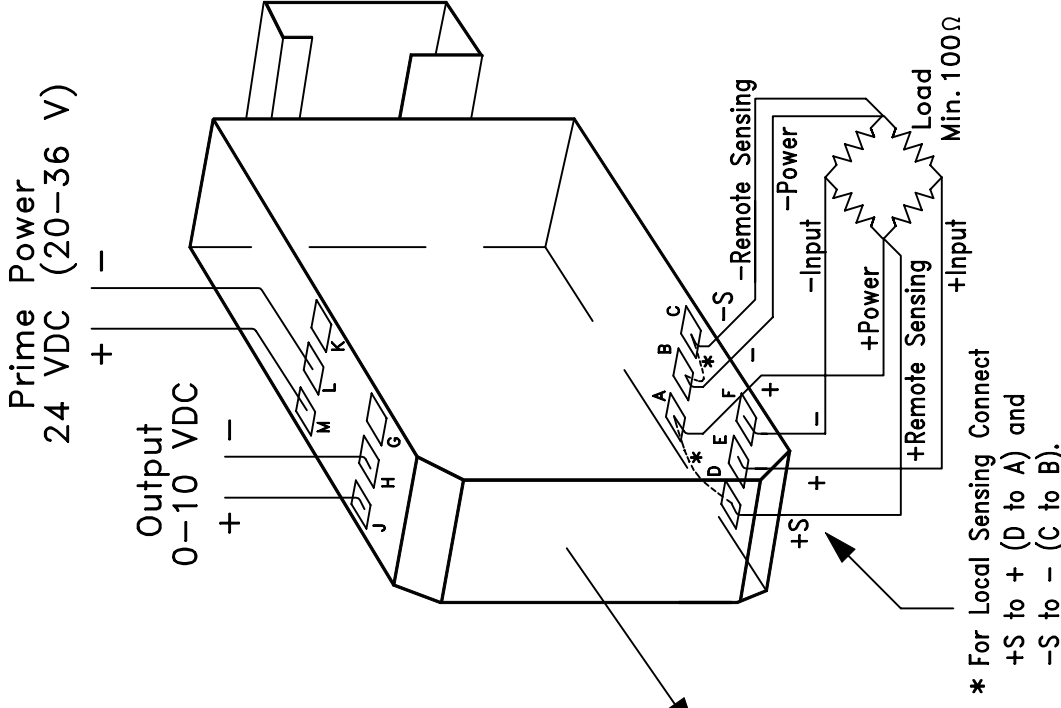
Notes:

1. For Details of Terminal Block Enclosure/Din Rail See Dwg. 104385.

Calibration Procedure:

1. Apply power to ITC-76-STG without Strain Gauge connected. Terminals A & D and B & C should have shorting jumpers in place. (See Connection Diagram)
2. Adjust excitation voltage (0-10 Volts at terminals A & B) to the value required for the Strain Gauge. Factory set to the rating label value.
3. Apply mV signal equal to the full scale output of Strain Gauge;
example: 1 mV per Volt with excitation voltage of 10 V = 10 mV full scale
Apply 10 mV at input (terminals E & F), and adjust Span for 10 VDC output (terminals J & H).
4. Apply 0 mV at input, and adjust Zero for 0 VDC output.
5. Repeat steps 3 & 4 until calibration is accurate.

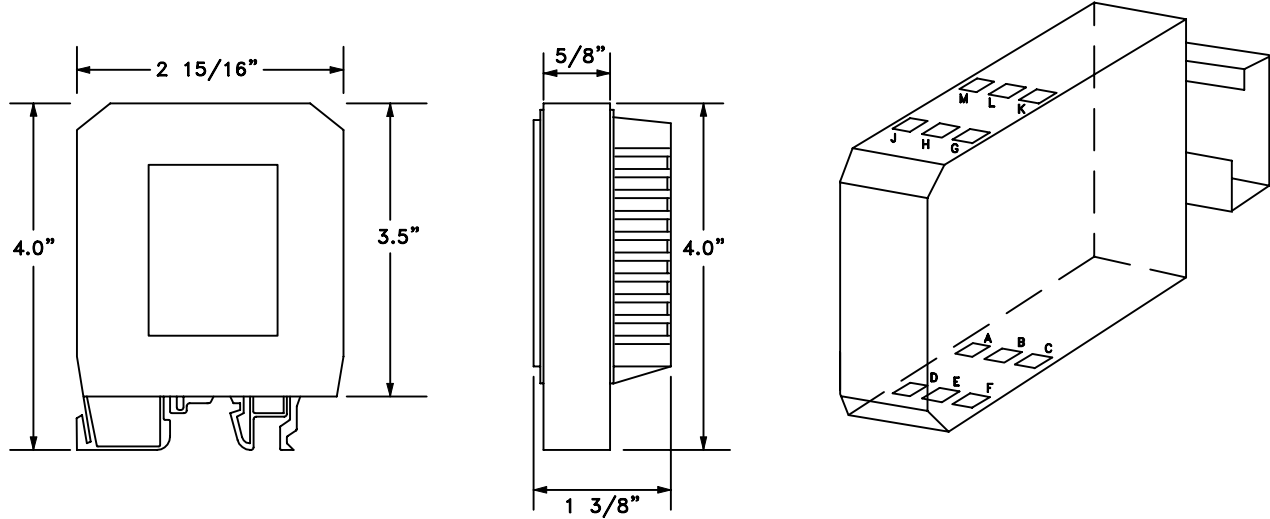
M	L	K
+	-	
POWER		
J	H	G
+	-	
OUTPUT		
Pribusin Inc.		
ITC-76-STG		
TAG: <input type="text"/>		
ISOLATED STRAIN GAUGE TRANSMITTER		
SPAN EXC.		
VOLTAGE ZERO		
EXC. POW. INPUT		
+S	+	-
D	E	F
+	-	-S
A	B	POW. C



	Exc. Power (Exc. Voltage)	Strain Gauge mV/V	Strain Gauge mV Output
Typical	10 V	1 mV/V	10 mV
Actual			

Pribusin Inc. ©	
CHKD :	DATE : JAN. 24/95
	DRN: KS
Model: ITC-76-STG Isolated Terminal Strain Gauge Transmitter Calibration Procedure	
DWG. NO. :	105242
	REV. A

Enclosure Detail :



Din Rail Detail :

	<p>A</p> <p>Rail Standard EN 50 035 Dimensions: 32 x 15 x 1.5 mm</p>
	<p>B</p> <p>Rail Standard DIN EN 50 022 Dimensions: 35 x 15 x 2.3 mm</p>
	<p>C</p> <p>Rail Standard DIN EN 50 022 Dimensions: 35 x 7.5 x 1 mm</p>
	<p>D</p> <p>Rail Standard DIN EN 50 022 Dimensions: 35 x 15 x 1.5 mm</p>

<p>Pribusin Inc. ©</p>		
CHKD:	DATE: APR. 26/93	DRN: KS
<p>(Wide Cover) Terminal Block Enclosure/ Din Rail Detail</p>		
DWG. NO. :	104385	REV. B