



*Manufacturers of Process
Controls and Instrumentation*

Instruction Manual

Model: ***IUC-7X-RXA-N (NEMA 4X)***

Function: ***Telephone Line Transmission System***

Input: Leased Phone Line (600 Ohm)
(from IUC-X9-TXA)

Output: ***One Analog Signal***

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> X=1: 1-5mA | <input type="checkbox"/> X=4: 10-50mA |
| <input type="checkbox"/> X=2: 4-20mA | <input type="checkbox"/> X=5: 1-5 VDC |
| <input type="checkbox"/> X=3: 0-1 mA | <input type="checkbox"/> X=6: 0-10 VDC |
| <input type="checkbox"/> X=7: _____ | |

Power: 117 VAC, 50/60 Hz
 24 VDC, 160 mA

Serial #: _____
(If special or required)

For Technical Assistance And Questions Call
USA: (734) 677-0459 CANADA: (905) 660-5336

Restocking Policy

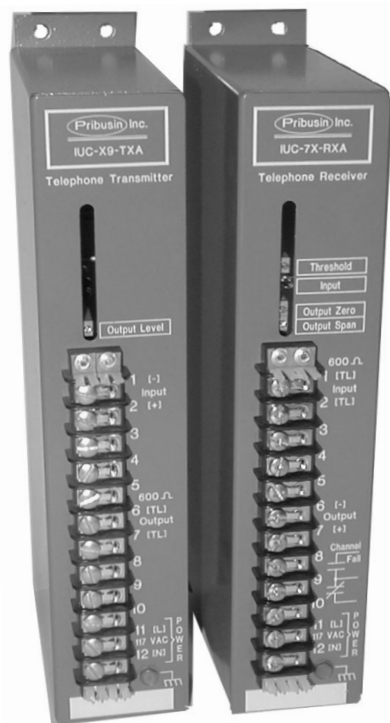
All product returned to Pribusin Inc. in prime condition (not damaged, scratched or defaced in any way) within seven (7) months from the original date of shipment is subject to a 50% restocking charge. All product must be accompanied by a Return Authorization number (RA number) which must be obtained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



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.

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

Specifications:

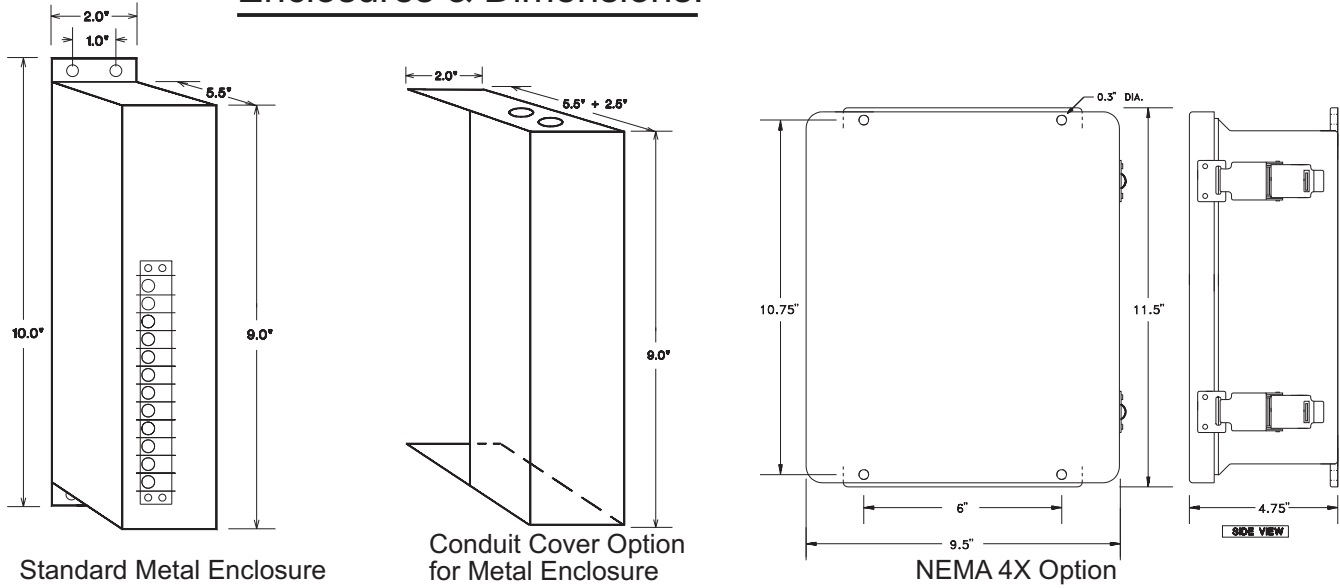
Isolation: Input to Output to Power 1500 VAC (Test)
Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.
Operating Temperature: -40 Deg.C. to + 50 Deg.C.
Temperature Effects: +/- 0.5% max., +/-0.2% typ.
(for 40 Deg. change)

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)

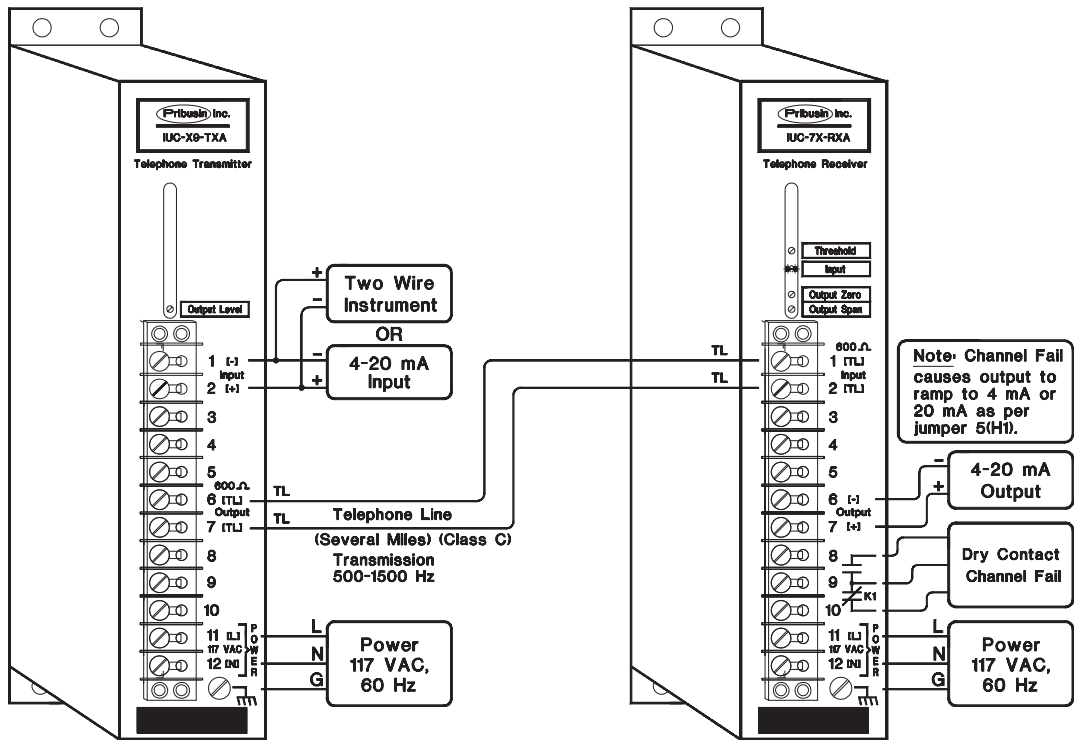
IUC-X9-TXA & IUC-7X-RXA

Enclosures & Dimensions:



Connection:

Shown here for 4-20mA Input and Output



Manufactured By:



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

0.3" DIA. (QTY 4)

0.3" DIA.

11.5"

10.75"

4.75"

6"

9.5"

SIDE VIEW

FRONT VIEW

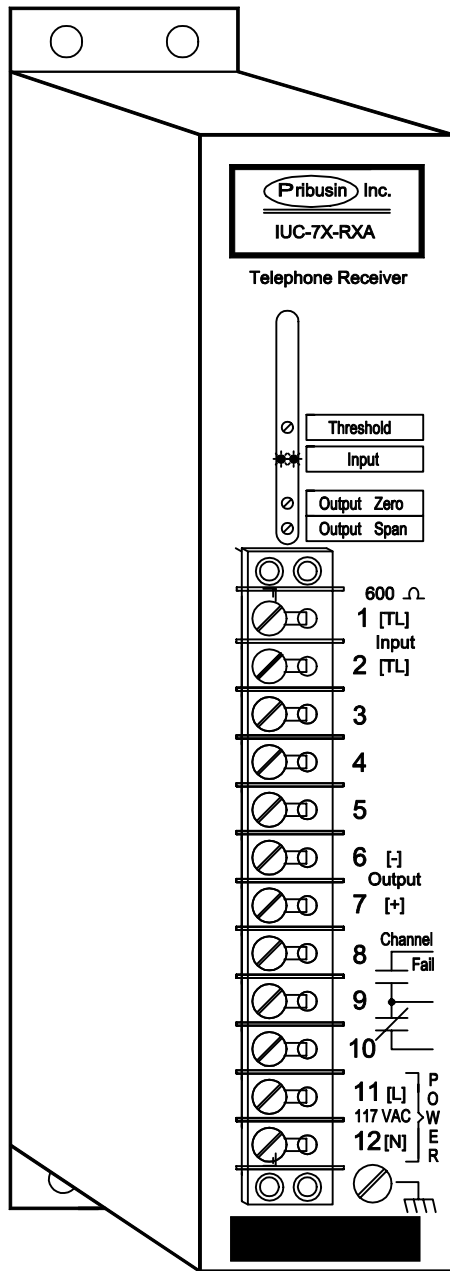
FIBERGLASS ENCLOSURE
WITH STAINLESS STEEL HINGE
AND SCREW COVER

Pribusin Inc. ©

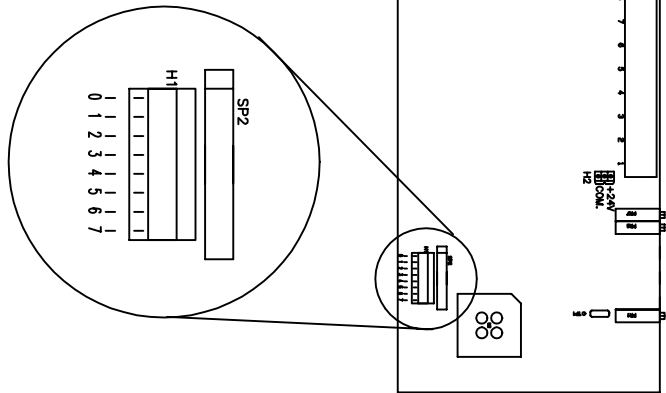
CHKD: DATE: AUG. 09/95 DRN: KS

NEMA 4X FIBERGLASS ENCLOSURE
INSIDE SIZE: 10" x 8" x 4"

DWG. NO.: 104499-3 REV. B



Detail A



Output Calibration :

1. Put in Jumper 6(H1). See Detail A.
2. Adjust OUTPUT ZERO until output signal is 4 mA.
3. Move Jumper to 7(H1).
4. Adjust OUTPUT SPAN until output signal is 20 mA.
5. Repeat procedure starting at 1. until output signal is correct.
6. Remove Jumper from H1.

Threshold Calibration :

(Threshold is factory set -25 dB, and normally NO adjustment is required.)

With normal input level present,

1. Turn THRESHOLD clockwise until only one LED is ON.
2. Turn THRESHOLD counter clockwise until both LEDs are lit at equal intensity.

Note :

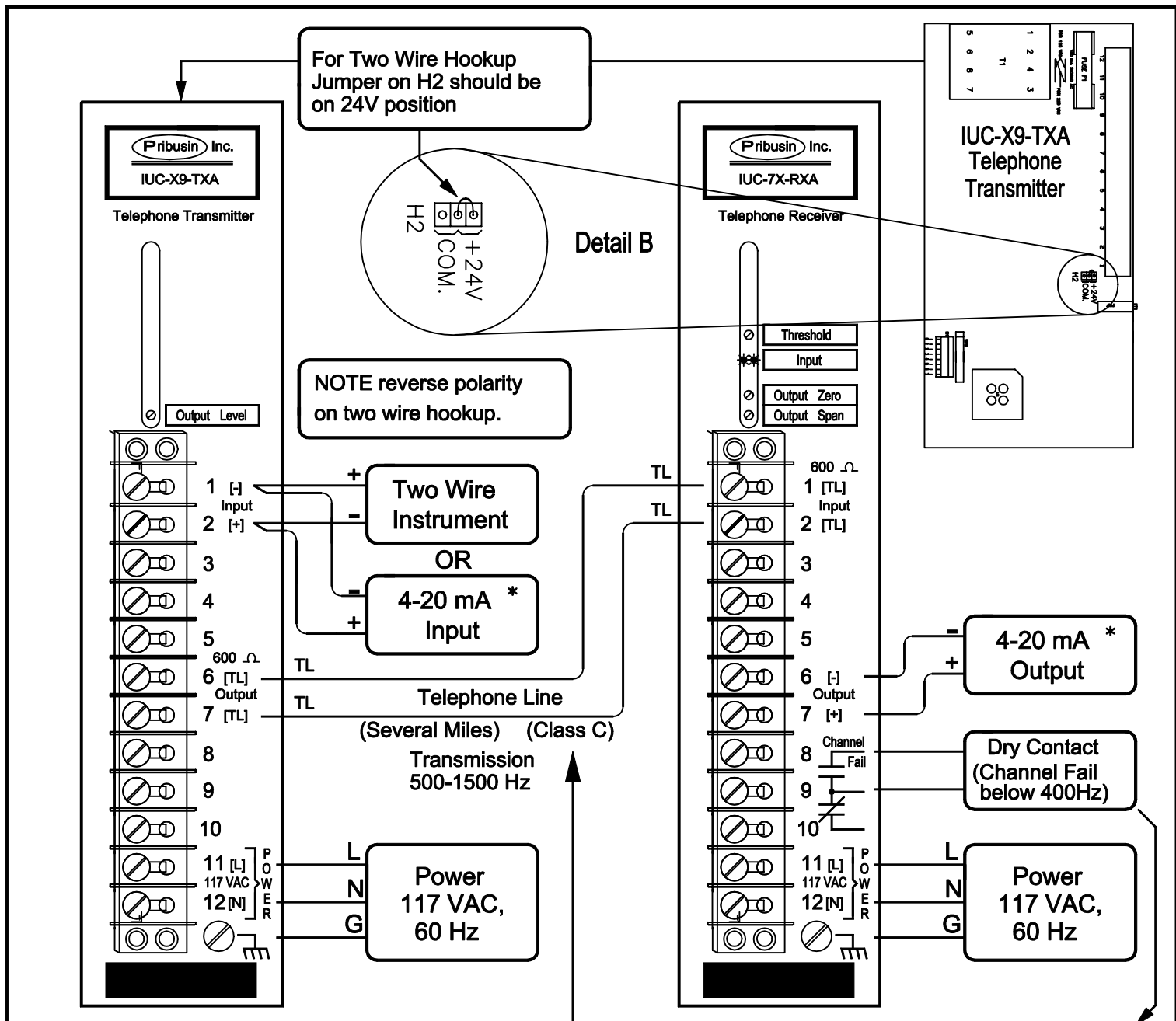
Channel Fail Relay is normally energized and de-energizes when the channel fails below 400 Hz. (8 sec. Delay)

On Channel Fail :

Jumper 5(H1) IN : Ramp up to 20 mA

Jumper 5(H1) OUT: Ramp down to 4 mA

Pribusin Inc. ©		
CHKD:	DATE: AUG. 11/94	DRN: KS
Model: IUC-7X-RXA Telephone Receiver (500-1500 Hz) Calibration Procedure		
DWG. NO. :	104181	REV. C



Class C signal and control channel transmission characteristics

Type of Service:	Signal and control circuits by voice frequency tones/voice circuit alternate use of channel
Maximum information rate:	600 bauds
Mode of operation:	2 point or multipoint Half or full duplex (2 point only full duplex)
Method of termination:	2 wire or 4 wire
Impedance—source & load:	600 ohms, balanced & resistive
Impedance of channel:	Nominal 600 ohms
Maximum signal power:	-8 dbm composite tones (0 TLP)
Maximum voice level:	-8 Vu. (0 TLP) <i>Note: 0 TLP is zero level transmission reference point, generally sending station.</i>
Loss 1000 Hz:	20 db maximum (L)
Frequency Response 350-2750 Hz:	-3 to +6 db referred to (L)
Outside this band:	Not specified—no DC transmission
Circuit background noise:	30 db signal-to-noise ratio minimum

Note :

Channel Fail Relay is normally energized and de-energizes when the channel fails below 400 Hz. (8 sec. Delay)

* Connections shown here for 4-20 mA Input and Output

Pribusin Inc. ©		
CHKD:	DATE: AUG. 11/94	DRN: KS
Models: IUC-X9-TXA & IUC-7X-RXA Telephone Line Transmission System (One Analog Signal over Class C Phone Line, 500-1500 Hz)		
DWG. NO. :	104183	REV. B