



*Manufacturers of Process  
Controls and Instrumentation*

# ***Instruction Manual***

Model: *UA-XD-IND*

Function: *INDICATING DUAL ALARM TRIP*

- Input:
- X=1: 1-5 mA
  - X=2: 4-20 mA
  - X=3: 0-1 mA
  - X=4: 10-50 mA
  - X=5: 1-5 VDC
  - X=6: 0-10 VDC
  - X=7: \_\_\_\_\_

Output:  Form "C" Dry Contacts

- Power:
- 117 VAC, 60 Hz, 6 VA
  - 24 VDC, 160 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.**



### 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:

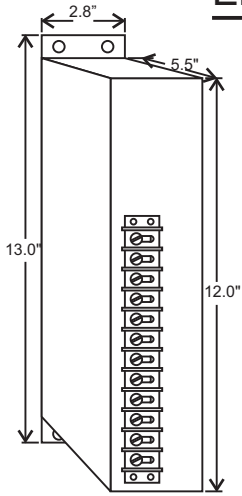
Each relay contact has two potentiometers that are used to adjust the setpoint and deadband settings. The setpoint and deadband can be set anywhere from 0-100% of the input range. The delay is adjustable from 0-5 min. A rotary switch allows setpoint, deadband, delay and full scale values to be shown on the display during adjustments.

### Specifications:

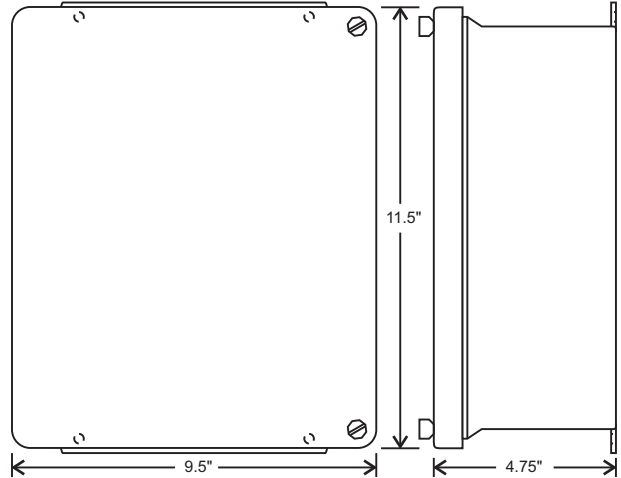
- Accuracy/Linearity: +/- 0.3% max., +/- 0.1% typ.
- Operating Temperature: -40 Deg.C. to +50 Deg.C.
- Temperature Effects: +/-0.5% max., +/-0.2% typ.  
(for 40 Deg.C. change)
- Contact Rating: 10A 1/8Hp @ 125VAC  
6A 1/8Hp @ 277VAC

# UA-XD-IND

## Enclosures & Dimensions:

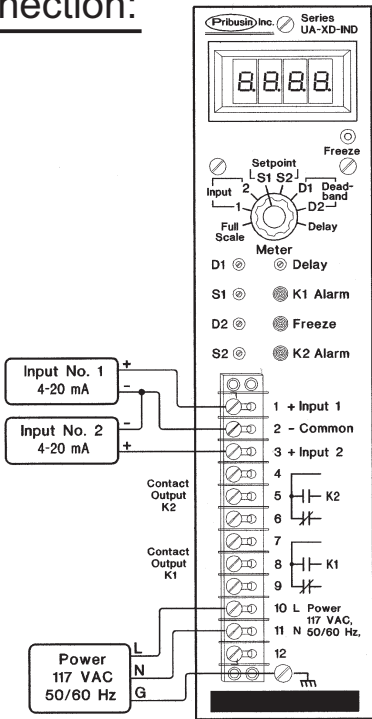


Standard Metal Enclosure



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  
info@pribusin.com

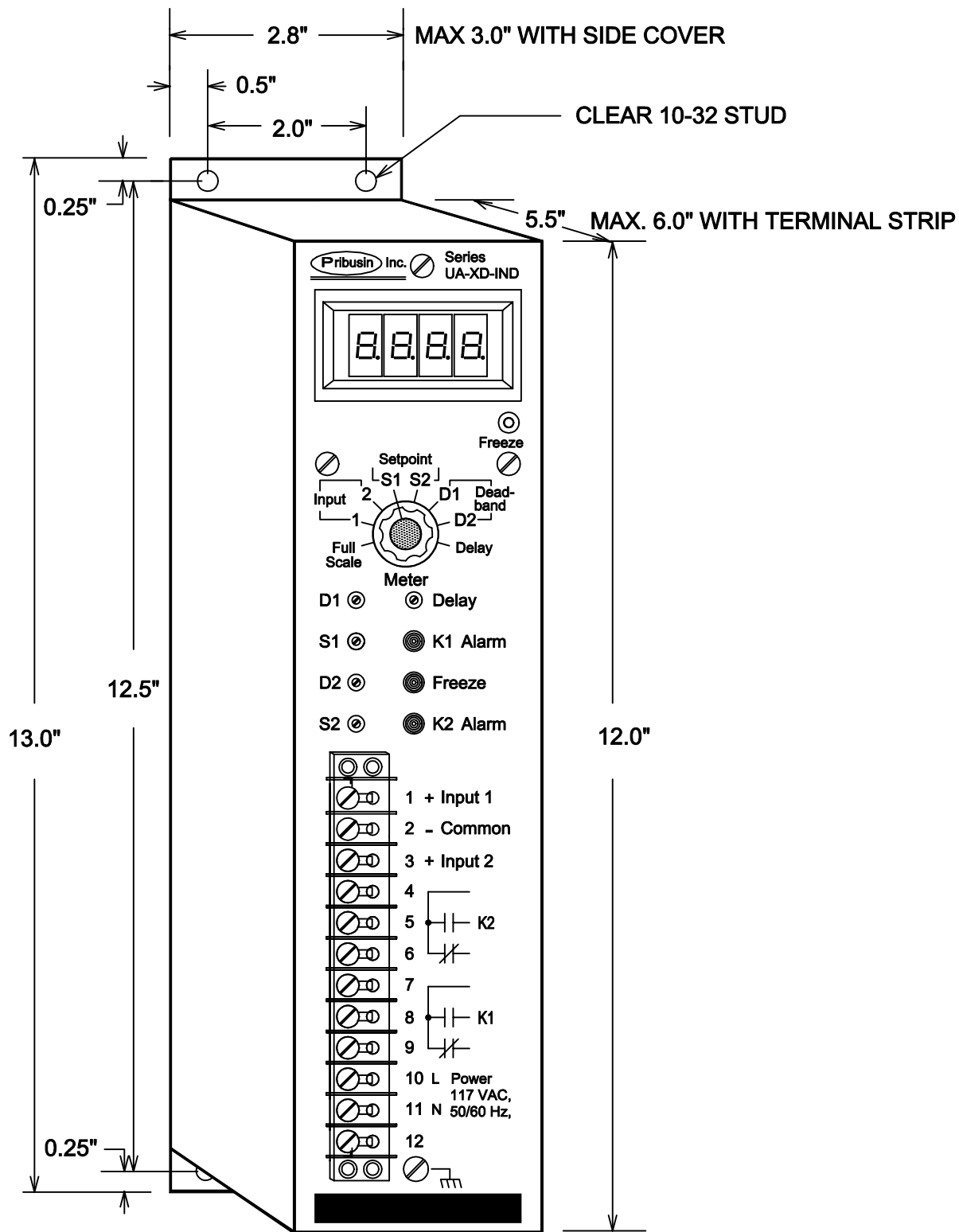
### USA:

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

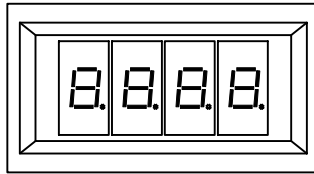


### CANADA:

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



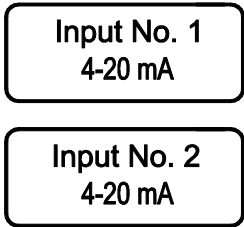
<b>Pribusin Inc. ©</b>		
CHKD:	DATE: Sept. 30/96	DRN: KS
Model: UA-XD-IND Indicating Alarm Trip Enclosure Drawing		
DWG. NO. :	105693	REV. A



For Setup/Calibration  
See Dwg. 105694-3.

For Two Wire Hookup  
See Dwg. 105694-2.

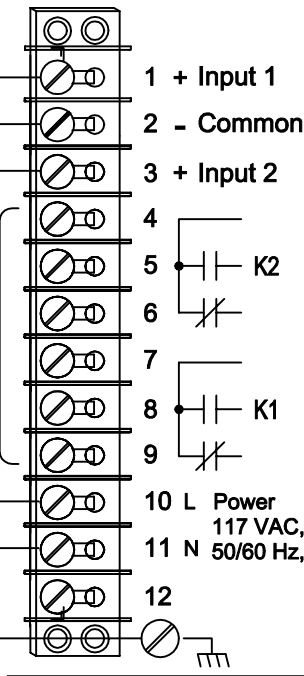
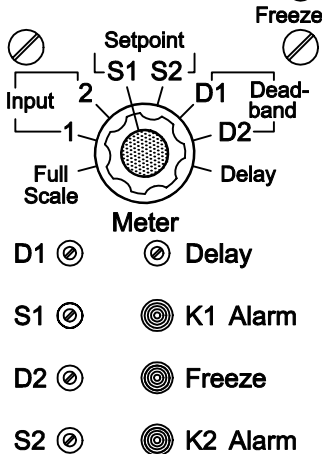
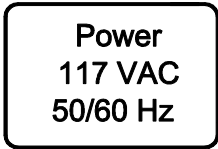
See Detail B for  
H2 Jumper position.



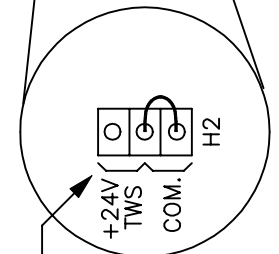
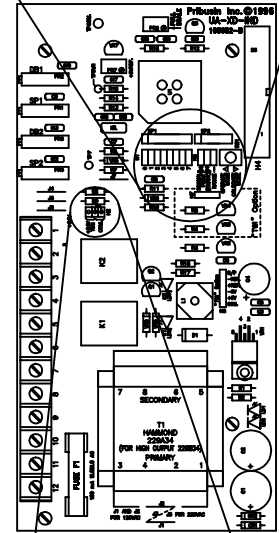
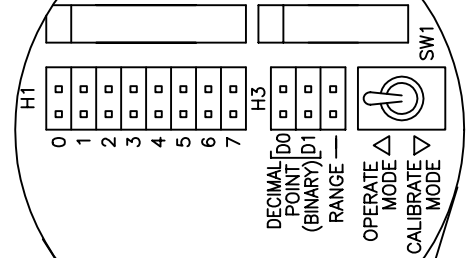
See Detail A for  
Jumper Location

Jumper	Out	In
H1-0	Dual Input	Single Input
H1-1	K1 High Trip	K1 Low Trip
H1-2	K2 High Trip	K2 Low Trip
H1-3	K1 Norm. Eng.	K1 Norm. De-Eng.
H1-4	K2 Norm Eng.	K2 Norm. De-Eng
H1-5	No TWI Aux.	TWI Aux.
H1-6	ON Delay Only	OFF and ON Delay
H1-7	4-20 mA Input	0-20 mA Input

<b>Contact Rating :</b> 10A 1/8HP 125VAC 6A 1/8HP 277VAC
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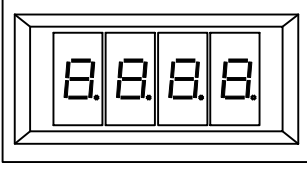
## Detail A



## Detail B

For Normal Hookup  
Jumper on H2 should be  
on COM. position.

Normal Hookup



For Setup/Calibration  
See Dwg. 105694-3.

For Normal Connection  
See Dwg. 105694-1.

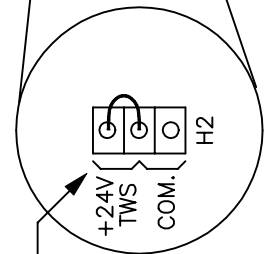
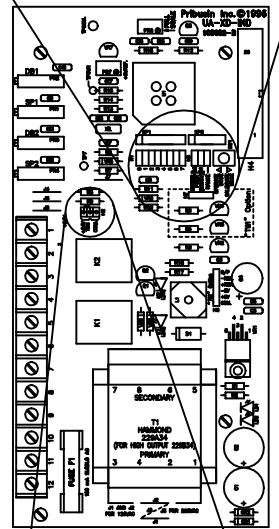
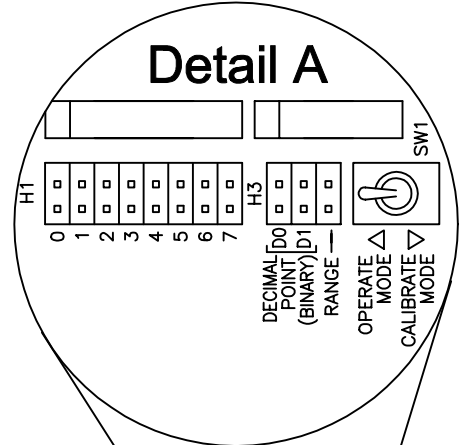
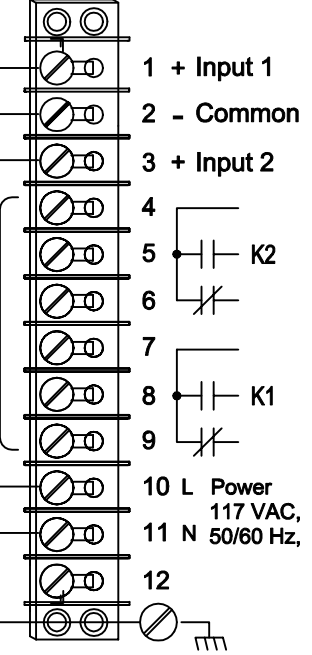
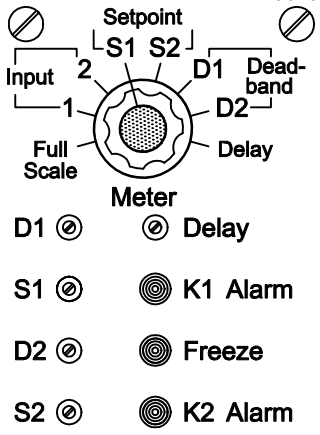
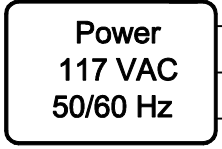
NOTE Reverse Polarity  
on Two Wire Hookup.  
See Detail B.



See Detail A for  
Jumper Location

Jumper	Out	In
H1-0	Dual Input	Single Input
H1-1	K1 High Trip	K1 Low Trip
H1-2	K2 High Trip	K2 Low Trip
H1-3	K1 Norm. Eng.	K1 Norm. De-Eng.
H1-4	K2 Norm Eng.	K2 Norm. De-Eng
H1-5	No TWI Aux.	TWI Aux.
H1-6	ON Delay Only	OFF and ON Delay
H1-7	4-20 mA Input	0-20 mA Input

<b>Contact Rating :</b> 10A 1/8HP 125VAC 6A 1/8HP 277VAC
--



For Two Wire Hookup  
Jumper on H2 should be  
on 24V position

Two Wire Hookup

<b>Pribusin Inc. ©</b>		
CHKD:	DATE: Sept. 30/96	DRN: KS
Model: UA-XD-IND Indicating Alarm Trip Connection / Calibration		
DWG. NO. : 105694-2	Sht 2 of 3	REV. A

**Operating Modes :** See Detail A.

Jumper	Out *(Default)	In
H1-0	Dual Input	Single Input
H1-1	K1 High Trip	K1 Low Trip
H1-2	K2 High Trip	K2 Low Trip
H1-3	K1 Norm. Eng.	K1 Norm. De-Eng.
H1-4	K2 Norm Eng.	K2 Norm. De-Eng
H1-5	No TWI Aux.	TWI Aux.
H1-6	ON Delay Only	OFF and ON Delay
H1-7	4-20 mA Input	0-20 mA Input

**Display Modes :** See Detail A.

Jumpers(H3) : D0	D1	Display
Out	Out	0000
*(Default) In	Out	000.0
Out	In	00.00
In	In	0.000

**Full Scale :** See Details A and C.

Full Scale can be adjusted by means of RANGE(H3) jumper and Full Scale pot..

Jumper(H3) : RANGE	Max. Full Scale
*(Default) Out	0-2000
In	0-9990

Turn the rotary switch to Full Scale, and adjust Full Scale potentiometer so the indicator displays the desired value.

**Setpoints :** See Detail C.

Setpoints S1 and S2 are adjustable from 0 to 100% of full scale.

Turn the rotary switch to S1, and adjust S1 potentiometer so the indicator displays the desired value.

Set setpoint S2 in a similar manner.

**Deadbands :** See Detail C.

Deadbands D1 and D2 are adjustable from 0 to 100% of full scale.

Turn the rotary switch to D1, and adjust D1 potentiometer so the indicator displays the desired value.

Set deadband D2 in a similar manner.

**Delay :** See Detail C.

Delay is adjustable from 0 to 5 minutes. This delay is common for relays K1 and K2.

Turn the rotary switch to Delay, and adjust Delay potentiometer so the indicator displays the desired value.

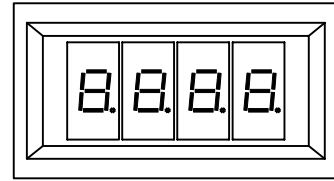
Note LEDs flash in delay mode.

**Freeze :** See detail C.

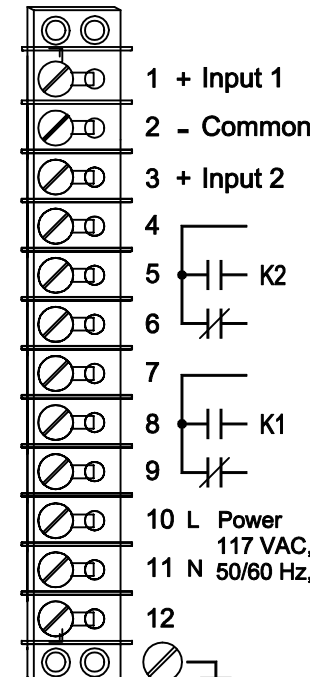
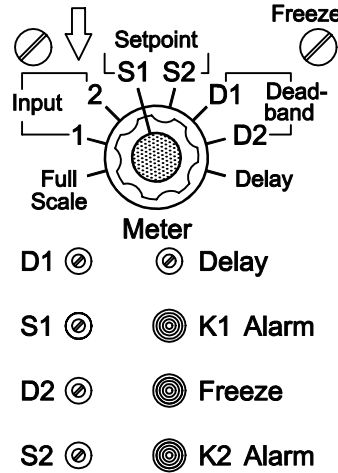
Pushing and holding the Freeze button down allows the unit to be setup or be calibrated without the relays operating.

If the optional Operate/Calibrate Mode select switch on the PCB is present, then it also can be used to freeze the relays during calibration. See Detail A.

Pribusin Inc. Series UA-XD-IND



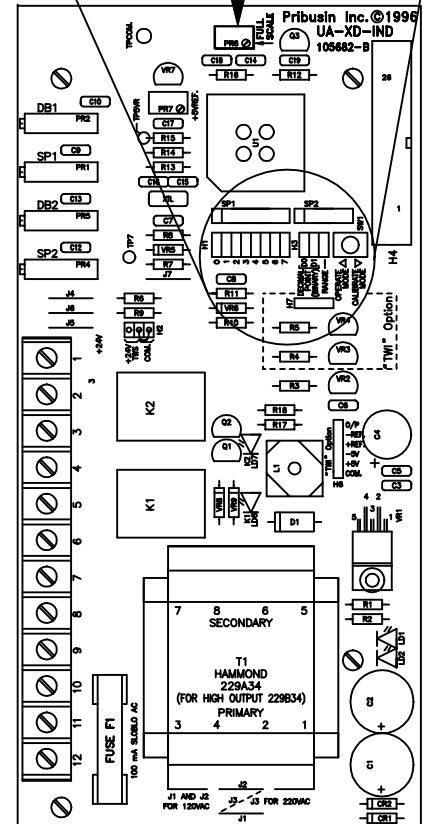
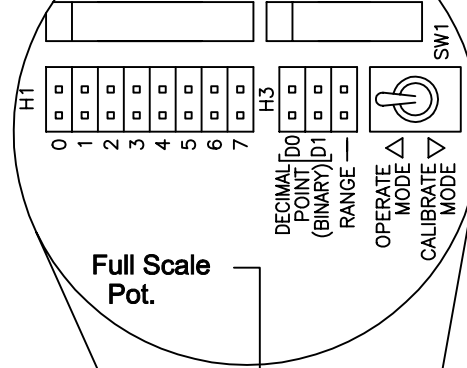
**Detail C**



\* **Factory Default Settings :** (unless otherwise specified)

- Full Scale : 100.0
- Setpoint S1 : 50.0
- Setpoint S2 : 50.0
- Deadband D1 : 0.0
- Deadband D2 : 0.0
- Delay : 0.0

**Detail A**



**Operate/Calibrate Mode :**

(Optional - may not be present)  
(Note there is a Freeze button on the front panel)  
See Detail A for switch location.  
In Operate Mode relays operate per input and setpoints.  
In Calibrate Mode relays freeze for calibration. (Freeze LED turns ON.)

Pribusin Inc. ©

CHKD: DATE: Sept. 30/96 DRN: KS

Model: UA-XD-IND  
Indicating Alarm Trip  
Connection / Calibration

DWG. NO. : 105694-3 Sht 3 of 3 REV. A