DOC # DE733010102 Rev B

[76.2] 3.00

[41.1] 1.62

[91.9] 3.62

[46] 1.81

[118.8] 4.68

[22.2] 0.88

NAMEPLATE

[138.5] 5.45

DISPLAY CAN BE ROTATED 180°BOTH DIRECTIONS

[157.5] 6.20

CLEARANCE FOR 1/4" BOLT (4 PLCS)

[27.8] 1.09

[31.8] 1.25

3/4" NPT (FEMALE) ELECTRICAL CONNECTION (2 PLCS)

[72.6] 2.86

[62] 2.44

[134.6] 5.30

REMOTE TEMPERATURE SENSOR; 1/2" NPT (FEMALE) CONNECTION TO ENCLOSURE; MINERAL INSULATED CABLE WITH ⌀0.25"X 2.50" LG. BULB

SPECIFICATIONS:

MECHANICAL:
  WETTED MATERIALS: 316 STAINLESS STEEL
  ENCLOSURE: TYPE 360 ALUMINUM; EPOXY POWDER COATED
ELECTRICAL:
  ELECTRICAL CONNECTION:
    3 POSITION TERMINAL BLOCK, 22-14 AWG Max
    2 POSITION TERMINAL BLOCK, 22-14 AWG Max
  SWITCH SPECS (Switch and IAW):
    POWER INPUT: 2 WIRE Electronic Switch
      (Derives operating power from the switch output wires)
    SWITCH OUTPUT: 7.8 to 50 VDC @ 100mA,
    de-rate 1mA / °C above 25 °C. 2.7 mA MIN. LOAD REQUIRED.
    SWITCH CHARACTERISTICS:
      Open(off) State: 7.8-50 VDC @750 uA MAX
      Closed (on) State:4.7 VDC @100 mA

APPROVALS:

cULus LISTED
  CLASS I, DIVISION 1, GROUPS A, B, C & D;
  CLASS II, DIVISION 1, GROUPS E, F & G; CLASS III
  CLASS I, ZONE 0 AEx ia IIC T4
  CLASS I, ZONE 0 Ex ia IIC T4
  CLASS I, ZONE 1, AEx d IIC T5
  CLASS 1, ZONE 1, Ex d IIC T5
  CLASS I, ZONE 2, AEx nA IIC T4
  CLASS I, ZONE 2 Ex nA IIC T4
  Tamb: -40°C TO +85°C (-40°F TO 185°F)
  ENCLOSURE TYPE 4X; IP66

ATEX APPROVED
  II 1 G Ex ia IIC T4
  II 1 D Ex ia IIIC T135°C
  II 2 G Ex d IIC T5
  II 2 D Ex tD A21 IP66 T+90C
  II 3 G Ex nA IIC T4
  DEMKO 09 ATEX 0813748X
  Tamb = -40°C TO +85°C (-40°F TO 185°F)

IECEx APPROVED
  IECEx UL 08.0017
  Ex ia IIC T4
  Ex ia IIIC T135°C
  Ex d IIC T5
  Ex tD A21 IP66 T+90C
  Ex nA IIC T4
  Tamb. = -40°C TO +85°C (-40°F TO 185°F)

MODEL	TEMPERATURE RANGE	EXTENSION LENGTH	
		ft	[meter]
TR1	-40 TO 450°F/ -40 TO 232°C	6'	[1.8]
TRC	-40 TO 450°F/ -40 TO 232°C	UP TO 30' max. IN 1' INCREMENTS	[9.1] MAX
TH1	-40 TO 1000°F/ -40 TO 538°C	6'	[1.8]
THC	-40 TO 1000°F/ -40 TO 538°C	UP TO 30' max. IN 1' INCREMENTS	[9.1] MAX
TC1	-300 TO 200°F/ -184 TO 93°C	6'	[1.8]
TCC	-300 TO 200°F/ -184 TO 93°C	UP TO 30' max. IN 1' INCREMENTS	[9.1] MAX

ORIGINAL DATE	4-13-15		TITLE		
DRWN	SR				
CHKD	RJG				
APPD	S. MILLS				

1XSWLL REMOTE TEMP. SWITCH

UNITED ELECTRIC CONTROLS COMPANY
WATERTOWN * MASSACHUSETTS

C	E6100	"TB3" WAS "TB2" ON WIRING LABEL, WIRING SCHEMES VIEWS, PG. 2 OF 2.	6-20-17	SR	RAM
B	E5527	DRILLED HOLES IN CASTING NOW CORED	6-15-15	RJG	RAM
A	E5458	FIRST ISSUE.	4-13-15	SR	SJM
REV.	ECN#	DESCRIPTION	DATE	DRWN	APPD

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ON FRACTIONS ±1/64

2 PLACE DEC	3 PLACE DEC	ANGLES
±0.010	±0.005	±1/2°

USED ON:

DWG NO | Page 1 of 2

A-14015

SCALE 1:2.5

DO NOT SCALE THIS DRAWING

RECOMMENDED WIRING SCHEMES

SW AND IAW PLC INPUTS CIRCUIT SINKING SWITCH

4-PIN SENSOR RIBBON CABLE

24 VDC

PLC
PWR
$D_{IN}2$
$D_{IN}1$
COM

COMMON

TB3
+ −
IAW
TB1
+
CHASSIS GND
−
SW

DO NOT connect directly to a power supply. Refer to Installation Manual for detailed instructions.
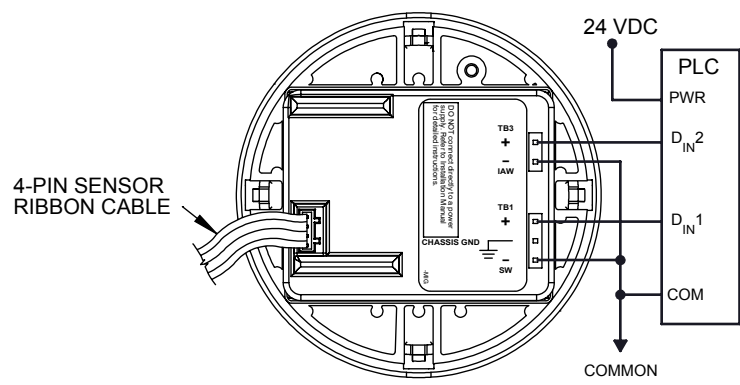
SW AND IAW PLC INPUTS CIRCUIT SOURCING SWITCH

4-PIN SENSOR RIBBON CABLE

24 VDC

PLC
PWR
$D_{IN}2$
$D_{IN}1$
COM

COMMON

TB3
+ −
IAW
TB1
+
CHASSIS GND
−
SW

DO NOT connect directly to a power supply. Refer to Installation Manual for detailed instructions.
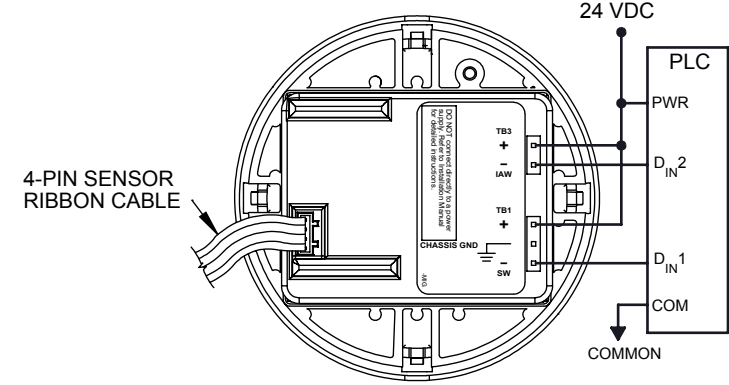
SWITCH INPUT SINKING INTERPOSING RELAY WITH IAW CIRCUIT

4-PIN SENSOR RIBBON CABLE

24 VDC

PLC
PWR
$D_{IN}2$
COM

RELAY

COMMON

TB3
+ −
IAW
TB1
+
CHASSIS GND
−
SW

DO NOT connect directly to a power supply. Refer to Installation Manual for detailed instructions.
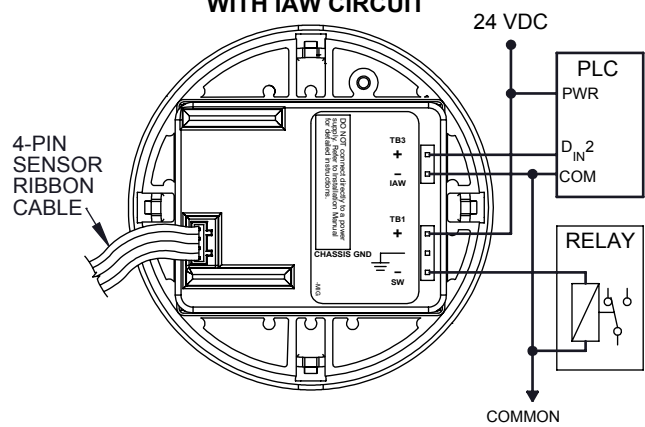
INTERPOSING RELAY CIRCUIT

4-PIN SENSOR RIBBON CABLE

24 VDC

RELAY

COMMON

TB3
+ −
IAW
TB1
+
CHASSIS GND
−
SW

DO NOT connect directly to a power supply. Refer to Installation Manual for detailed instructions.
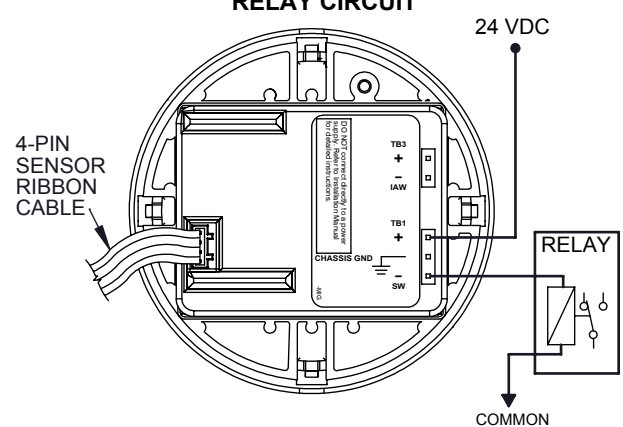
RECOMMENDED BENCH TEST CIRCUIT

4-PIN SENSOR RIBBON CABLE

24 VDC
LED
1.8K

TB3
+ −
IAW
TB1
+
CHASSIS GND
−
SW

DO NOT connect directly to a power supply. Refer to Installation Manual for detailed instructions.