

INPUT : Pt100



Solder jumpers for

Span

Zero

Upscale / Downscale

4~20 mA / 20~4 mA

Multirange : 8 SPAN ranges, 25 to 600 C° / 45 to 1080 F°
4 ZERO ranges, -100 to +70 C / -148 to +158 F

Accurate : 0.1% temperature linear 4~20 mA output

6.5 V loop drop allows 800 load @ 24 V DC

Upscale / downscale selectable sensor break detection

4~20 mA or 20~4 mA selection

ON LED shows state

Pt50, Pt200, Pt500, Pt1000 on request

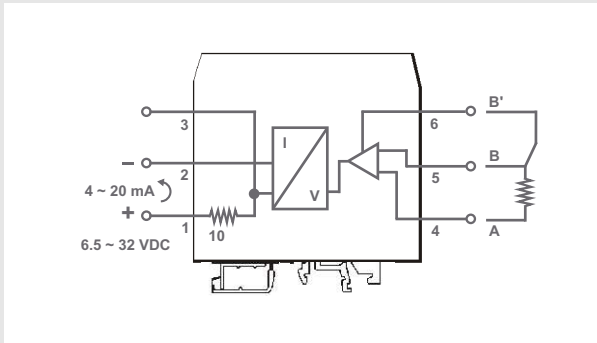
GENERAL

TX1DR is a DIN rail mounted high performance, "all-in-one" 2-wire temperature transmitter. Its high reliability industrial design offers some rare functions, e.g. 4~20 mA or 20~4 mA selection.

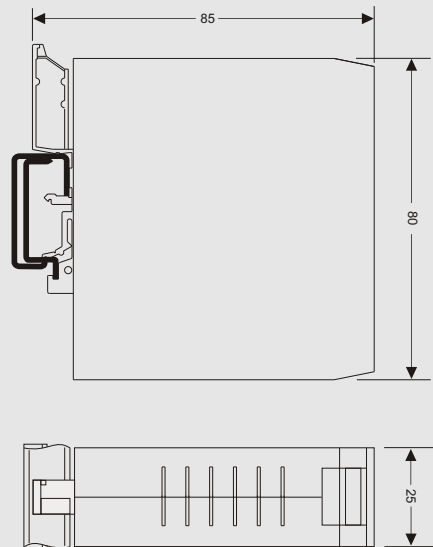
TX1DR with Pt100 input is adjustable for 8 overlapping ranges in C or F and gives a temperature linear output. All selections are made by solder jumpers. 'Fine' ZERO/SPAN potentiometers are provided for calibration.

The product design gives easy access to terminals & adjustments.

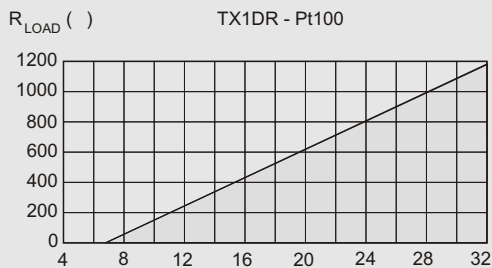
CONNECTION DIAGRAM



ENCLOSURE



OUTPUT LOAD



$$R_{LOAD} = (U - 6.5) / 0.022 \quad \text{Supply voltage } U \text{ (VDC)}$$

2-WIRE TEMPERATURE TRANSMITTER TX1DR

INPUT : Pt100

SPECIFICATIONS All specifications at ambient of 25 °C, unless specified otherwise

INPUT

Input type Pt100 ($\alpha = 0.00385$), 3-wire connection
 Sensor current 0.3 mA
 Other input types Pt50, Pt200, Pt500, Pt1000 on request

MONITORING

Sensor break detection, selectable
 ON LED Upscale ~ 25 mA, Downscale ~ 3 mA
 Provided

ADJUSTMENTS

Zero selection -100 to +70 °C (-148 to +158 °F) in 4 overlapping ranges (see table below)
 Zero, fine adjustment 10%
 Span selection 25 to 600 °C (45 to 1080 °F), 8 overlapping ranges (see table below)
 Span, fine adjustment 10%

OUTPUT

Current, selectable 4~20 mA, 20~4 mA
 Linearity Temperature linear
 Current limit ~25 mA
 Permissible load 800 Ω @ 24 VDC, 22 mA

ACCURACY

Linearity & calibration 0.1% of span
 Temperature effect on accuracy 0.5% of span / 25 °C
 0.6% of span / 50 °F
 Supply voltage / load effect 0.002% of span / V

POWER SUPPLY

Supply voltage 6.5 to 32 VDC

ENCLOSURE

Material ABS plastic
 Dimensions 80(H) x 25(W) x 85(D) mm
 Mounting Snap on for 35 mm DIN rail to DIN 46277
 Connection, single/stranded wires 2.5 mm², AWG 14
 Weight 70 grams
 Protection IP 20

TEMPERATURE, HUMIDITY

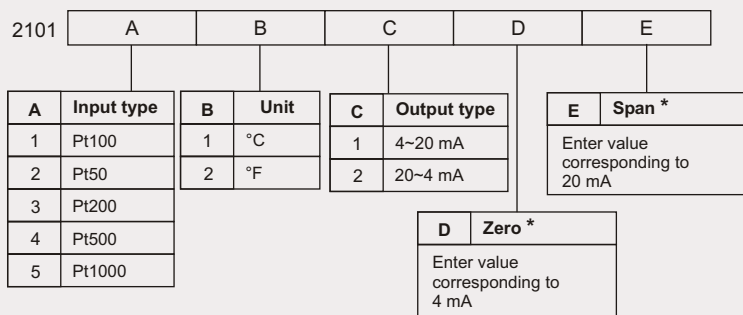
Ambient, storage -20 to +85 °C (-5 to +185 °F)
 Ambient, operation -20 to +55 °C (-5 to +160 °F)
 Relative humidity 0 ~ 95%

ZERO, SPAN

Zero selection		Span selection	
C	F	°C	°F
-102 to -65	-150 to -85	25	45
-68 to -21	-90 to -5	50	90
-28 to +29	-18 to +84	100	180
-6 to +73	+21 to +163	200	360
		300	540
		400	720
		500	900
		600	1080

The above zero & span selections are done using solder jumpers. The calibration for a given range is then done using the '4' & '20' mA potentiometers on the instrument front.

ORDERING INFORMATION



Examples

- Input Pt100, Range : 50 to 400 °C, Output : 4~20 mA
 A = 1, B = 1, C = 1, D = 50, E = 400
- Input Pt1000, Range : -50 to 200 °C, Output : 20~4 mA
 A = 5, B = 1, C = 2, D = -50, E = 200

* When a range (zero & span) is specified in the order, the calibration will be done for this range before despatch.
 The user can change the range using suitable calibration equipment.



AN ISO 9001:2000 COMPANY

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