2-WIRE TEMPERATURE TRANSMITTER — TRX10

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 Ω 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

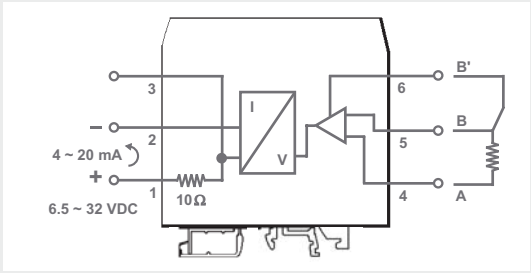
GENERAL

TRX10 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.

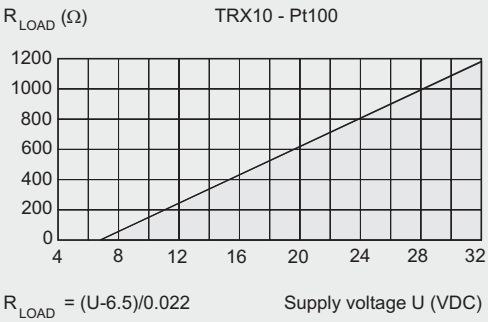
TRX10 with Pt100 input is adjustable for 8 overlapping ranges in °C or °F and gives a temperature linear output. All selections are made by solder jumpers. ‘Fine’ ZERO/SPAN potentiometers are provided for calibration.

The product design gives easy access to terminals & adjustments.

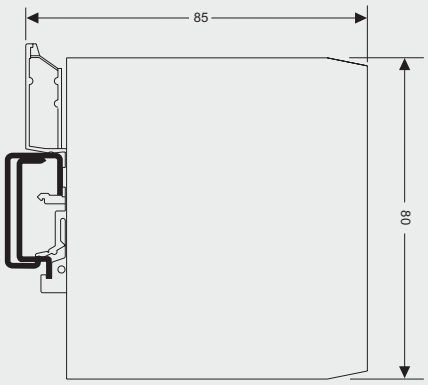
CONNECTION DIAGRAM

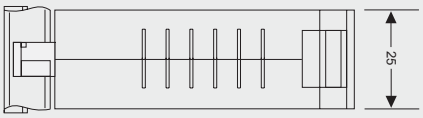


OUTPUT LOAD



ENCLOSURE





2-WIRE TEMPERATURE TRANSMITTER — TRX10

INPUT : Pt100

SPECIFICATIONS

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

INPUT	
Input type	Pt100 (α = 0.00385), 3-wire connection
Sensor current	0.3 mA
Other input types	Pt50, Pt200, Pt500, Pt1000 on request
MONITORING	
Sensor break detection, selectable	Upscale ~ 25 mA, Downscale ~ 3 mA
ON LED	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 mm^2, 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.

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