2-WIRE ISOLATED TEMPERATURE TRANSMITTER — TRX20

Input : Pt100, Mounting : DIN Rail

- Solder jumpers for
  - Span
  - Zero
  - Upscale / Downscale
- Multirange : 8 SPAN ranges, 25 to 600 C° / 45 to 1080 F°
  4 ZERO ranges, -100 to +70°C / -148 to +158°F
- 0.1% temperature linear 4~20 mA output
- Upscale / downscale selectable sensor break detection
- ON LED shows state
- Pt50, Pt200, Pt500, Pt1000 also available

GENERAL

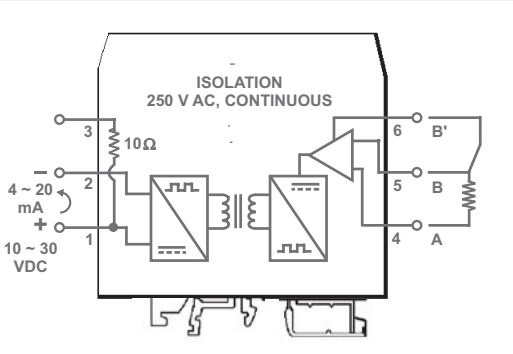
TRX20 is a DIN rail mounted high performance, 2-wire isolated temperature transmitter. It provides isolation between the input and the 4~20 mA output current.

TRX20 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.

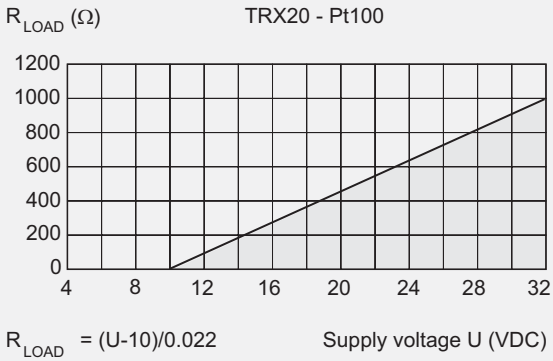
CONNECTION DIAGRAM

Fig 1



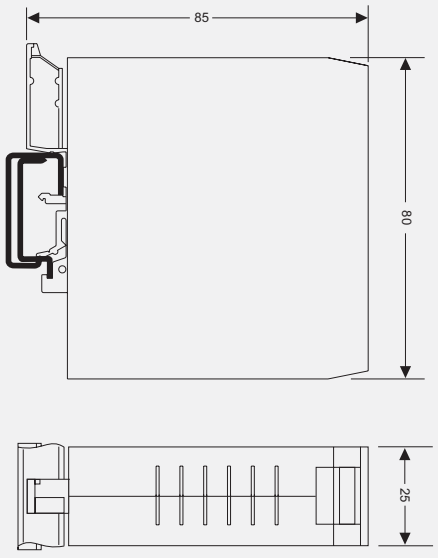
OUTPUT LOAD

Fig 2



ENCLOSURE

Fig 3



2-WIRE ISOLATED TEMPERATURE TRANSMITTER — TRX20

Input : Pt100, Mounting : DIN Rail

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

MONITORING

Sensor break detection, selectable	Upscale ~ 25 mA, Downscale ~ 3.5 mA
On LED	Provided

ADJUSTMENTS

Zero selection	-100 to +70°C (-148 to +158°F) in 4 overlapping ranges (see Table 1)
Span selection	25 to 600 C° (45 to 1080 F°), 8 overlapping ranges (see Table 2)

OUTPUTS

Current output	4~20 mA
Linearity	Temperature linear
Current limit	~25 mA
Permissible load	600 Ω @ 24 VDC, 22 mA (see Fig 2)

ISOLATION

Mutual isolation between input & output	a) 1500 V AC RMS, 50 hz/1 minute b) 250 V AC RMS, 50 hz, continuous

ACCURACY

Linearity & calibration	± 0.1% of span
Temperature effect on accuracy	± 0.02% of span / C° or 0.05°C/°C whichever is greater
Supply voltage / load effect	± 0.002% of span / V

POWER SUPPLY

Supply voltage	10 to 30 VDC

ENCLOSURE

Din rail mount	See Fig 3
Material	ABS plastic
Dimensions (in mm)	80(H) x 25(W) x 85(D)
Mounting	Snap on for 35 mm DIN rail to DIN 46277
Connection, single / stranded wires	≤ 2.5 mm^2, AWG 14
Weight	<200 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%

TABLE 1

Zero selection

°C	°F
-102 to -65	-150 to -85
-68 to -21	-90 to -5
-28 to +29	-18 to +84
-6 to +73	+21 to +163

TABLE 2

Span selection

°C	°F
25	45
50	90
100	180
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 'ZERO' & 'SPAN' mA potentiometers on the instrument front.

www.beeinstruments.com

BEE INSTRUMENTS
(Madhu Group)

1st Floor, Krishna Bldg., Shamrao Vithal Lane,
off. Lamington Rd., Mumbai - 400007, India
Mobile : + 91 98217 27104
Tel : +91 22 23800783 / 23864484 / 23876707
Fax : +91 22 2387 6729
email : sales@beeinstruments.com
website : www.beeinstruments.com