

2-WIRE TEMPERATURE TRANSMITTER

TX1HM

INPUT : Pt100 MOUNTING : IN-HEAD



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

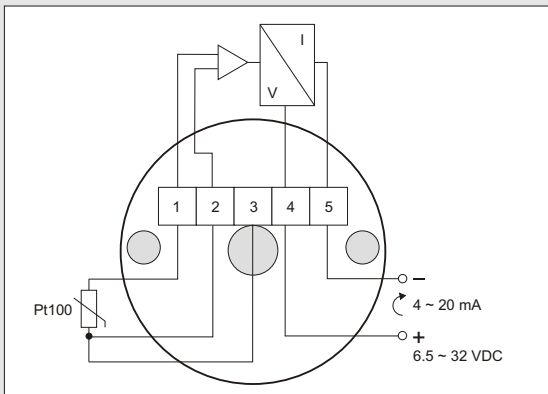
GENERAL

TX1HM is a head 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.

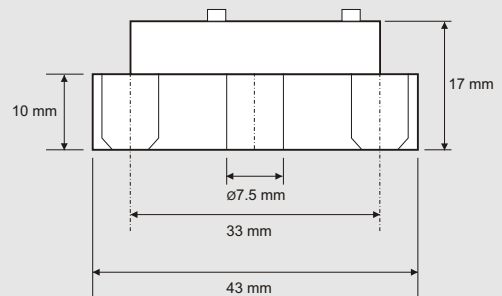
TX1HM with Pt100 input is adjustable for 8 overlapping ranges in C or F and gives a temperature linear output. All selections are made by solder jumpers. 'Fine' ZERO/SPAN potentiometers are provided for calibration.

The flat design gives easy access to terminals & adjustments. The large central hole lets the lead wires or an insert tube pass easily.

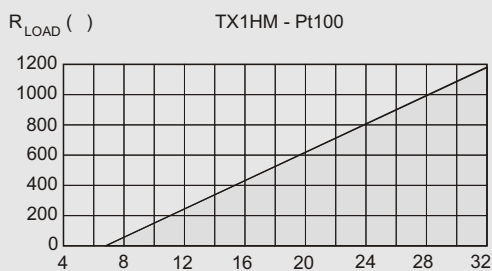
CONNECTION DIAGRAM



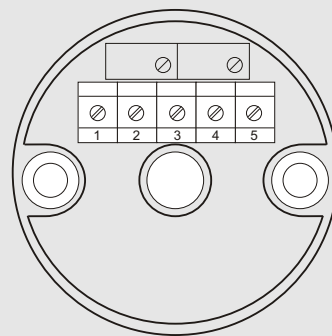
ENCLOSURE



OUTPUT LOAD



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



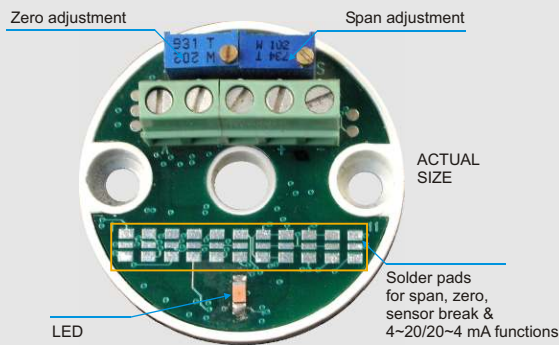
2-WIRE TEMPERATURE TRANSMITTER

TX1HM

INPUT : Pt100 MOUNTING : IN-HEAD

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

INPUT		ACCURACY	
Input type	Pt100 ($\alpha = 0.00385$), 3-wire connection	Linearity & calibration	0.1% of span
Sensor current	0.3 mA	Temperature effect on accuracy	0.5% of span / 25 °C
Other input types	Pt50, Pt200, Pt500, Pt1000 on request	Supply voltage effect	0.6% of span / 50 F° 0.002% of span / V
MONITORING		POWER SUPPLY	
Sensor break detection, selectable	Upscale ~ 25 mA, Downscale ~ 3 mA	Supply voltage	6.5 to 32 VDC
ON LED	Provided	ENCLOSURE	
ADJUSTMENTS		Material	Zinc alloy
Zero selection	-100 to +70 °C (-148 to +158 °F) in 4 overlapping ranges (see table below)	Mounting	DIN B-head or larger
Zero, fine adjustment	10%	Connection, single/stranded wires	2.5 mm ² , AWG 14
Span selection	25 to 600 °C (45 to 1080 F°), 8 overlapping ranges (see table below)	Weight	70 grams
Span, fine adjustment	10%	Protection	IP 20
OUTPUT		TEMPERATURE, HUMIDITY	
Current, selectable	4~20 mA, 20~4 mA	Ambient, storage	-20 to +85 °C (-5 to +185 °F)
Linearity	Temperature linear	Ambient, operation	-20 to +55 °C (-5 to +160 °F)
Current limit	~25 mA	Relative humidity	0 ~ 95%
Permissible load	800 @ 24 VDC, 22 mA		



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

2100	A	B	C	D	E
	A Input type	B Unit	C Output type	D Span *	E Zero *
	1 Pt100	1 °C	1 4~20 mA	Enter value corresponding to 20 mA	Enter value corresponding to 4 mA
	2 Pt50	2 °F	2 20~4 mA		
	3 Pt200				
	4 Pt500				
	5 Pt1000				

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.

radix
AN ISO 9001:2000 COMPANY

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PUNJAB C : 0-9316460869
0-9312600076