

2-WIRE PROGRAMMABLE, ISOLATED TEMPERATURE TRANSMITTER — TX3DR

Universal Input, 4 Digit LED display



- True 2-wire operation
- Universal input :
TC : B, E, J, K, N, R, S, T
RTD : Pt50, Pt100, Pt200
4~20 mA, linear/square root, 0~50 mV
- 0.1% linearisation accuracy
- Software calibration - no trimpots
- Upscale/downscale selection
- 11.5~32 V DC loop supply
- 4~20 mA or 20~4 mA selection
- 4-digit LED display enhances utility
- DIN Rail and FLP versions

TX3DR is a microcontroller based user programmable high performance, "all-in-one" 2-wire temperature transmitter. Its high reliability industrial design offers some rare functions.

TX3DR has an integral 4-digit LED display, which enhances utility greatly and also allows a large amount of programming.

TABLE 1 Tambient = 25°C

SENSOR / INPUT	RANGE LIMITS (°C / EU)		RANGE IN WHICH ACCURACY IS SPECIFIED		TYPICAL ACCURACY AT 30 °C (°C / EU)	WORST CASE ACCURACY (°C / EU)
	LOW SCALE	HIGH SCALE	LOW SCALE	HIGH SCALE		
Pt - 6% Rh / Pt - 30% RH (B)	400	1820	400	1820	± 5	± 6
Chromel / Constantan (E)	-270	1000	0	1000	± 2	± 3
Iron / Constantan (J)	-210	760	0	760	± 2	± 3
Chromel / Alumel (K)	-270	1372	-50	1200	± 2	± 3
Nicrosil / Nisil (N)	-270	1300	-50	1200	± 2	± 3
Pt / Pt - 13% Rh (R)	0	1760	0	1760	± 4	± 6
Pt / Pt - 10% Rh (S)	0	1760	0	1760	± 4	± 6
Copper / Constantan (T)	-270	400	-200	400	± 2	± 4
Pt100, 3-wire	-220	850	-200	400	± 0.2	± 0.5
Linear voltage (0~50 mV)	-1999	9999	-1999	9999	± 0.1%	± 0.25%
Linear current (4~20 mA, 0~20 mA)	-1999	9999	-1999	9999	± 0.1%	± 0.25%
Non-linear current (square rooted) - 4~20 mA	-1999	9999	-1999	9999	± 0.2%	± 0.5%

Note : Non-std inputs, such as 0 ~ 10 V DC, 0 ~ 100 V DC, etc. available on request

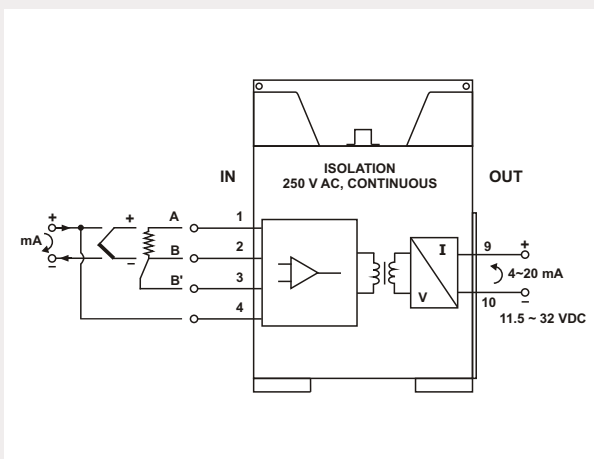
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SPECIFICATIONS All specifications at ambient of 25 °C, unless specified otherwise

INPUT		Temperature, Humidity	
Input type	Thermocouple RTD	Ambient, storage	-22 ~ +85 °C
	B, E, J, K, N, R, S, T Pt50, Pt100, Pt200	Ambient, operation	0 ~ 60 °C
	4~20 mA, linear/square root	Relative humidity	0 ~ 95%
	0~50 mV		
Range	See Table 1	Enclosure - DIN Rail	
Display		Material	ABS plastic
DIN Rail	4 digit, 0.3" (7.6 mm), red LED	Dimensions	75(H) x 45(W) x 109.5(D) mm
Flameproof	4 digit, 0.56" (14.2 mm), red LED	Mounting	Snap on for 35 mm DIN rail to DIN 46277
			2.5 mm ² , AWG 14
Monitoring		Connection, single/stranded wires	
Sensor break detection		Weight	< 200 grams
Upscale current	20~22 mA	Protection	IP 20
Downscale current	3.9 mA	Enclosure - Flameproof	
Output		Material	Aluminium alloy
Current, selectable	4~20 mA, 20~4 mA	Dimensions	100(H) x 100(W) x 152(D) mm
Permissible load	600 @ 24 V DC, 20 mA	Mounting	2" pipe
Current limit	20~22 mA	Certification	Flameproof for gas groups I, IIA & IIB by CMRI Dhanbad Enclosure certified for gas group IIC also available Through externally accessible membrane keypad (I, IIA & IIB only)
Accuracy		Programming	
Linearity & calibration	See Table 1	Protection	
Cold junction compensation	1 °C	Programmable Parameters	
Temperature effect on accuracy	0.5% of span / 25 °C	Unit	C, F, EU
Supply voltage effect	0.002% of span / V	Autoranging	On, Off
Supply ripple effect, 50/60 hz, 5 Vp - p	0.005% of span	Low scale	-1999 to 9999
		High scale	-1999 to 9999
		Preset current (Sensor break)	20 to 22 mA
		Decimal point	0.001, 0.01, 0.1 or 1
		Output type	4~20, 20~4 mA
		Digital filter	A, B, C, D, E, F
Power supply			
Supply voltage	11.5 to 32 VDC loop supply		
Isolation			
Between input & loop supply	1000 V AC RMS / 1 minute 250 V AC RMS, continuous		
Calibration			
Zero & span	Through front panel keys & display		

CONNECTION DIAGRAM



ORDERING INFORMATION

2137	A
A	Mounting
0	Din Rail
1	FLP - Pipemount, I, IIA & IIB
2	FLP - Pipemount, IIC

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AN ISO 9001:2000 COMPANY

SALES INQUIRIES

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