



The TX104 Series is a comprehensive range of high quality, low cost, 4-20mA transmitters for mounting in standard DIN terminal heads including Labfacility KNE, B and N type heads.

The transmitters convert Pt100 or type J,K and T thermocouple inputs into a 4-20mA signal in a 2 wire loop; such loops are generally immune to noise and allow signal transmission over long distances via ordinary, low cost copper wire.

The TX104 transmitters are available in standard factory calibrated ranges; they can be re-ranged by the user as required via links and the fitted "span" and "zero" potentiometers.

- ◆ Proven, reliable design
- ◆ Two wire 4-20mA
- ◆ Low cost
- ◆ Terminal head mounting
- ◆ Thermocouple input J,K and T
- ◆ Pt100 input
- ◆ User re-scaleable
- ◆ Special ranges to order
- ◆ EMC compliant
- ◆ Supply 10 to 30V dc

Associated products also available:

- Intrinsically safe transmitters
- DIN rail mounting transmitters
- Loop powered indicators
- Configurable digital indicators
- Transmitter simulators / calibrators



The TX104 Series transmitters have been tested for, and comply with the European Electromagnetic compatibility directives and safety requirements.



Certificate No. 4746

SPECIFICATIONS

Output	4-20mA loop powered, Max. 30mA
Loop supply	10 to 30V dc reverse connection protected
Loop resistance	700Ω @ 24V
Loop volts sensitivity	10μA/volt
Temperature stability	ZERO drift 0.02%/°C SPAN 0.005%/°C
Ambient temperature	0 to 70°C operating
Ambient RH	0 to 95% RH non-condensing
EMC Compatibility	EN 55011: EMC Emissions IEC 801-2: Electrostatic discharge IEC 801-3: EMC Immunity IEC 801-4: Fast burst transients (@ 24V supply 250 Ohm load)

TX104P Pt100 input

	IEC751, 100 Ohm at 0°C, 2 or 3 wire
Accuracy	±0.2°C plus + 0.2% rdg
Offset adjustment	range dependent
Range adjustment	25°C to 500°C

TX104 K,T or J Thermocouple input

	IEC584
Accuracy	±0.1%fs plus cold junction errors
Offset adjustment	±100°C, solder link & potentiometer
Span adjustment	100 to 1000°C
Impedance	>1M Ohm
Burn out	Up-scale standard. Downscale by link adjustment
Cold junction	Automatic 0 to 70°C Accuracy 0.2°C @ 20°C, tracking +0.05°C / °C
Rescaleable	Type K between 0 and 1000°C Type J between 0 and 400°C Type T between 0 and 400°C

Note: Thermocouple must have insulated measuring junction

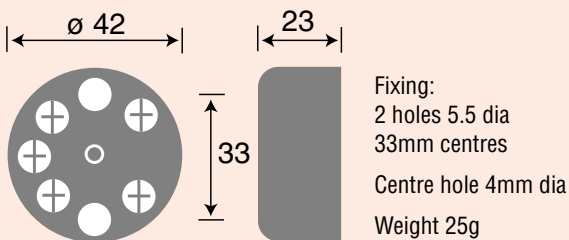
STANDARD RANGES

RANGE °C	Pt100 / Thermocouples			
	Pt100 TX104P	TX104K	TX104T	TX104J
-30 to +35	*			
-25 to +75	*			
0 to +50	*			
0 to +100	*	*	*	*
0 to +200	*	*	*	*
0 to +400	*	*	*	*
0 to +600		*		
0 to +800		*		
0 to +1000		*		

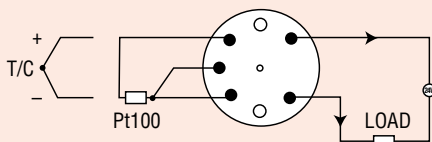
* Available from stock

Other ranges can be configured by the use of links; full details are supplied with each transmitter.

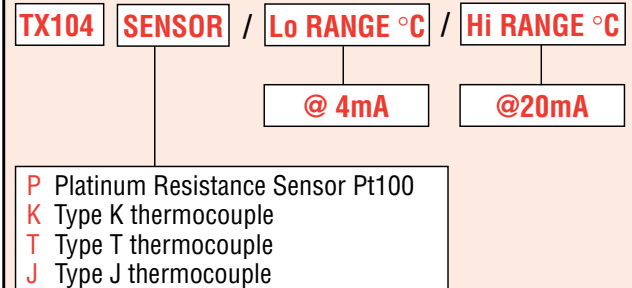
MECHANICAL DETAILS



TX104 CONNECTIONS



ORDER CODE



e.g. TX104P / 0 / 100
Pt100 transmitter, range 0 to 100°C

Specifications and availability may be subject to change