

- LOW COST
- USER RE-RANGEABLE
- Pt100 INPUT
- T/C INPUT K T OR J
- TWO WIRE 4-20 mA OUTPUT



LOW COST TEMPERATURE TRANSMITTER SEM104 Series

DESCRIPTION

The SEM104 series are low cost 4-20mA temperature sensor transmitters housed in a head mount DIN standard connector block.

The SEM 104P for Pt100 and SEM 104TC for Thermocouple inputs are field rangeable if necessary by links on the printed circuit board and the use of on board SPAN and ZERO potentiometers.

A wide selection of compatible probe assemblies are available with various immersion lengths and process connections.

GENERAL SPECIFICATIONS @ 20°C

Output	4-20mA loop powered, Max. 30mA
Loop Supply	10 to 30V DC reverse connection protected
Loop volts sensitivity	10µA/volt
Temp. Stability	ZERO drift typ. 0.02%/°C FRO SPAN typ. 0.005%/°C FRO
Ambient Temp.*	0 to 70°C operating(*at 24V supply 250 load)
Ambient RH	0 to 95% RH non condensing
EMC Compatibility	EN 50081-1 EN 50082-1 EN 50082-2 (SEM104P only)

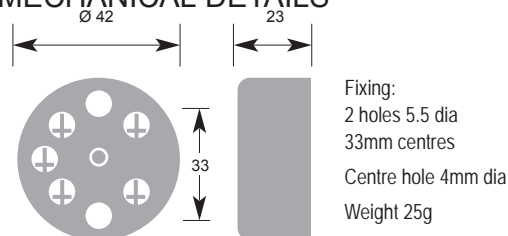
SEM104P PLATINUM RESISTANCE SENSOR

Pt100 INPUT	BS EN 60751, BS1904, DIN43760
Accuracy	±0.2°C plus ±0.2% rdg
Response	100mS to reach 70% of final value
Offset adjustment	range dependant
Span adjustment	25°C to 500°C
Loop Resistance	700R @ 24V

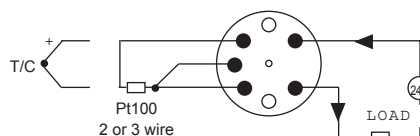
SEM104K, T OR J THERMOCOUPLE SENSOR (ISOLATED JUNCTION)

Output	4-20 mA (directly proportional to mV input)
Accuracy	±0.1%FS plus cold junction errors non-linearised
Response	2mS to reach 70% of final value
Offset adjustment	±100°C, solder link & potentiometer
Span adjustment	100 to 1000°C
Impedance	>1M ohm
Loop resistance	(V Supply - 10)/0.021 ohms
Burn Out	Up scale standard. Downscale by link
Cold Junction	Automatic 0 to 70 C Accuracy 0.2 C @ 20 C, tracking +0.05 C/ C

MECHANICAL DETAILS



SEM104 CONNECTIONS

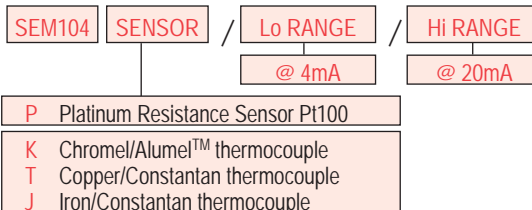


STANDARD RANGES °C

Range °C	SEM104 P	SEM104 K	SEM104 T	SEM104 J
-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		•		

Other ranges can be configured by the use of links on the SEM pcb, full details are supplied with each transmitter.

ORDER CODE



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