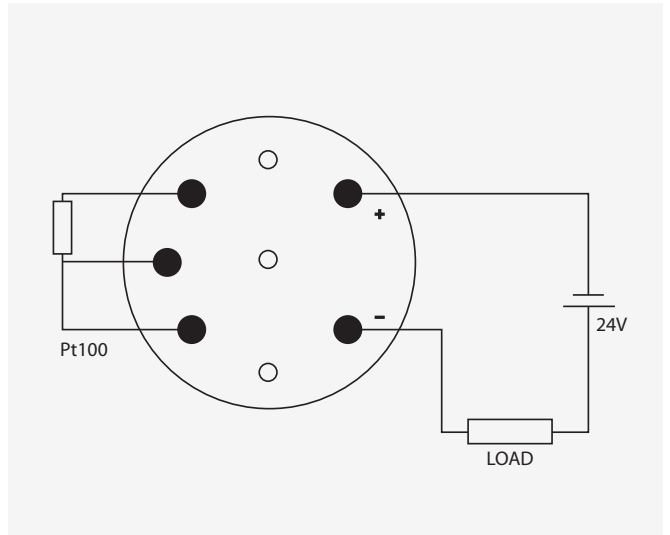


# SEM203P

## Temperature Transmitter

Temperature Transmitters



The SEM203P is a head mount transmitter suitable for RTD input. The transmitter is loop powered and converts the input signal into a 4 to 20mA output. Simple push button operation allows the user to select the desired range and burnout direction and perform a user trim at both 4 and 20 mA points.

### Connections:

Linear Resistance Input:			
Type	Min. Value	Max. Value	Min. Span
Pt100	-195°C	+845°C	25°C

# SEM203P

## Temperature Transmitter

### Environmental Conditions

<b>Specifications range</b>	-40°C to +85°C
<b>Calibration temperature</b>	+20°C
<b>Ambient Storage Temperature</b>	(-50 to 100) °C
<b>Ambient Humidity Range</b>	(10 to 90) % RH noncondensing

### Mechanical Specifications

<b>Dimensions</b>	Ø43.0 mm x 21.3 mm
<b>Weight approx</b>	40 g

### Common Specifications

<b>Update time</b>	500 ms
<b>Response Time</b>	1 second
<b>Start up time 4 seconds</b>	( I out < 4 mA during start up)
<b>Warm-up time</b>	1 minute to full accuracy
<b>Power Supply</b>	(10 to 30) Volts dc

### Input Specifications - RTD (PT100)

<b>Sensor Type</b>	PT100 100R @ 0°C 2 or 3 Wire
<b>Sensor Range</b>	(-195 to +845) °C (18 to 390) Ω
<b>Sensor Connection</b>	Screw terminal
<b>Minimum span</b>	25 °C
<b>Linearisation</b>	BS EN 60751(IEC 751) standard / JISC 1604
<b>Measurement Accuracy</b>	0.2 °C ± 0.05% of Reading
<b>Thermal Drift</b>	±0.02 °C / °C
<b>Excitation current</b>	<200 uA
<b>Lead Resistance effect</b>	0.002 °C / Ohm
<b>Maximum lead Resistance</b>	20 Ohms per leg

### Output Specifications

<b>Output Type</b>	2 wire (4 to 20) mA current loop
<b>Output range</b>	(4.0 to 20.0) mA
<b>Output Connection</b>	Screw Terminal
<b>Maximum output</b>	21.5mA (in high burnout condition)
<b>Minimum output</b>	<3.9 mA (in low burnout condition)
<b>Accuracy</b>	(mA output /2000) or 5 uA (Whichever is the greater)
<b>Loop Voltage effect</b>	0.2 uA / V
<b>Thermal drift</b>	±2 uA / °C
<b>Maximum output load</b>	[(Vsupply-10)/21]K Ohms (Example: 700 Ohms @ 24V)

### Approvals

<b>EMC</b>	EN 61326
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