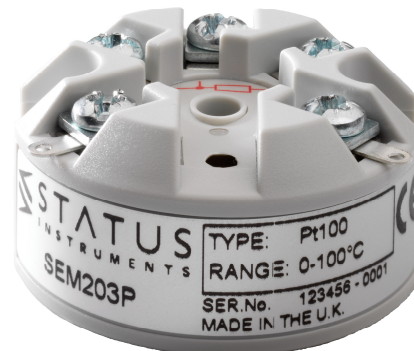


TEMPERATURE TRANSMITTERS

TX203P

- PUSH BUTTON SENSOR MATCHING
- UNIQUE PUSH BUTTON CONFIGURATION WITHOUT PC
- CONFIGURABLE IN SECONDS
- HIGH STABILITY
- PROGRAMMABLE BURNOUT
- LOW COST
- 10 YEAR WARRANTY



INTRODUCTION

The TX203P is a low cost “smart” in head transmitter that accepts PT100 temperature sensors and converts sensor output over a configured range to a standard industrial (4 to 20) mA transmission signal.

A simple push button operation allows the user to not only select the desire range and burnout direction but also perform user trim at both (4 and 20) mA points.

The TX203P in head transmitter incorporates the latest digital technology to ensure accurate drift free performance. If required the desired range can be specified at the time of order, removing the need for user configuration. If the range is not specified then the transmitter will be shipped with the default range of (0 to 100) °C set.

PUSH BUTTON CONFIGURATION

A single push button and LED indicator allows the user to navigate a three menus, allowing configuration of the transmitter. The menus are as follow:-

Menu 1	Configure range.
Menu 2	Configure burnout direction.
Menu 3	Trim output current @ either 4 mA or 20 mA.

SPECIFICATIONS @ 20 °C

INPUT

Sensor Type	PT100 100R @ 0°C 2 or 3 Wire
Sensor Range	(-200 to +850) °C (18 to 390) Ω
Sensor Connection	Screw terminal
Minimum span (*1)	25 °C
Linearisation	BS EN 60751(IEC 751) standard / JISC 1604
Measurement Accuracy (*2)	0.1 °C +/-0.05% of Reading
Thermal Drift	25ppm/ °C
Excitation current	<200 uA
Lead Resistance effect	0.002 °C / Ohm
Maximum lead Resistance	20 ohms per leg

OUTPUT

Output Type	2 wire 4 to 20 mA current loop
Output range	(4.0 to 20.0) mA
Output Connection	Screw Terminal
Maximum output	21.5mA (in high burnout condition)
Minimum output	3.8 mA (in low burnout condition)
Accuracy	(mA output /2000) or 5uA (Which ever is the greater)
Loop Voltage effect	0.2 uA / V
Thermal drift	1 uA / °C
Maximum output load	[(Vsupply-10)/20]K Ohms (Example: 700 ohms @ 24V)

GENERAL SPECIFICATION

Update time	500 mS
Response Time	1 second
Start up time	4 Seconds (I out < 4 mA during start up)
Warm-up time	1 minutes to full accuracy
Power Supply	10 to 30 Volts dc

ENVIRONMENTAL

Ambient operating range (-40 to +85) °C
Ambient storage temperature (-50 to +90) °C
Ambient humidity range 10 to 90% RH non condensing

PHYSICAL

Dimensions 43mm diameter; 21mm height
Weight 31g (encapsulated)

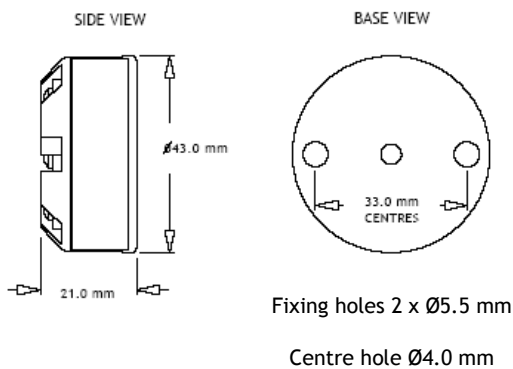
APPROVALS

EMC - BS EN 61326 :1998 - Electrical equipment for measurement control and laboratory use.
ANNEX A Immunity test requirements for equipment intended for use in industrial locations
ANNEX F Test configurations, operational conditions and performance criteria for transducers with integrated or remote signal conditioning.
IEC 61000-4-2 Electrostatic discharge
IEC 61000-4-3 EM Field
IEC 61000-4-4 Transient Burst (output)
IEC 61000-4-5 Surge (output)

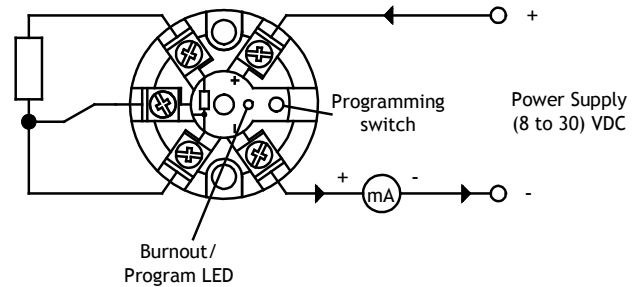
Note - Sensor input wires to be less than 3 metres to comply.

Note *1 Any span may be selected, full accuracy is only guaranteed for spans greater than the minimum recommended
Note *2 Basic measurement accuracy includes the effects of calibration, linearisation and repeatability

MECHANICAL



WIRING CONNECTIONS



ORDER CODE

SERIES

SEM203P

Pt100
Pt500
Pt1000

P
P-500
P-1000

CONFIG203*1

*NOTES:

1) For special configuration, please contact the sales office.

Upscale burnout is standard, for downscale please contact the sales office