

- > SUITABLE FOR VARIABLE RESISTANCE SENSORS (1 TO 100) K Ω

- > UNIQUE PUSH BUTTON CONFIGURATION

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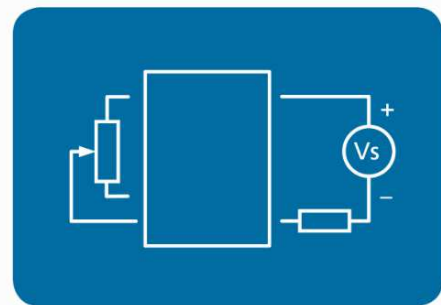
- > < 50 ms RESPONSE TIME

- > 2 WIRE (4 to 20) mA LOOP POWERED

> INTRODUCTION

The SEM203W is an in-head transmitter that accepts slide wire sensors and converts sensor input over a configured range to a standard industrial (4 to 20) mA transmission signal.

A simple push button operation allows the user to select the desired transmitter range manually, by setting the slide wire position and pressing button to store at both the (4 and 20) mA points.



> FEATURE HIGHLIGHTS

PUSH BUTTON CONFIGURATION

A single push button and LED indicator allows the user configure transmitter range against a manually set input condition. A red LED is included to help guide the user. The LED also operates as a sensor error indicator.

STABILITY

The SEM203W in head transmitter incorporates the latest digital technology to ensure accurate, low drift performance.

FAST RESPONSE

The SEM203W takes less than 50 ms to reach 70% of its final output value for a change of the input signal.

ELECTRICAL INPUT		SPECIFICATIONS @20 °C
Range + Options	Range/ Description	Accuracy/ Stability
Slide wire	Minimum (0 to 1) kΩ Maximum (0 to 100) kΩ	± 0.25% of full scale
Minimum recommended span	5% of full scale travel	
Thermal drift	Zero at 20 °C	± 0.01 % / °C
Excitation current	200 uA	maximum with 1 kΩ slide wire
Measuring resolution	100 kΩ	>9 Bits (>512 counts)

OUTPUT		SPECIFICATIONS @20 °C
Type/ Function	Range/ Description	Accuracy/ Stability/ Notes
Two wire current	(4 to 20) mA	(mA output / 1000) or 10 uA (Whichever is the greater)
Thermal drift	Zero at 20 °C	2 uA / °C
Maximum output current	20.5 mA	
Minimum output current	< 3.9 mA	
Loop voltage effect	0.2 uA / V	
Maximum output load	[(V supply - 10)/21] KΩ	Example: 666 Ω @ 24 VDC
Loop supply	(10 to 30) V DC	SELV

PUSH BUTTON USER INTERFACE		
Type/ Function	Range/ Description	Notes
Sensor configuration	Input range for retransmission	At 4.0 mA and 20.0 mA
Any part of the full input range (greater than minimum span) can be used for retransmission		

GENERAL	
Function	Description
Update time	<50 ms
Response time	<50 ms
Start-up time	4 s
Warm up time	60 s to full accuracy

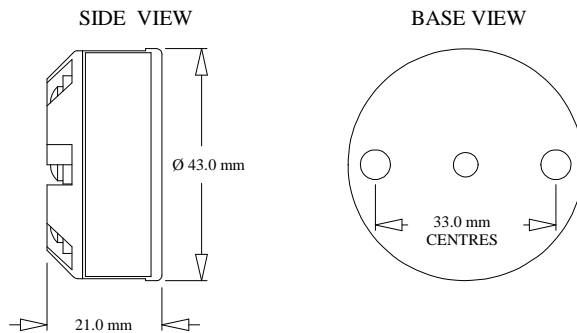
ENVIRONMENTAL	
Function	Description
Ambient temperature	Operating/ Storage (-40 to 85) °C Full accuracy only between (-30 to 75)°C
Ambient Humidity	Operating/Storage (10 to 90) %RH non-condensing
Protection/ housing	>= IP65 recommended
Configuration ambient	20 °C to maintain specification

MECHANICAL	
Function	Description
Dimensions	43 mm diameter; 21 mm height
Fixing centres	2 x 5 mm holes on 33 mm centres
Centre hole	4.5 mm hole for wiring aid
Weight	31 g (encapsulated)

APPROVALS	
EMC	BS EN 61326: Note - Sensor input wires to be less than 3 m to comply
Ingress protection	BS EN 60529
RoHS	Directive 2011/65/EU
EAC	Please refer to www.status.co.uk
DNV	Please refer to www.status.co.uk

ORDER CODE	SEM203W
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MECHANICAL



Fixing holes 2 x Ø5.5 mm, Centre hole Ø4.5 mm

ACCESSORIES	
Head options	Please refer to www.status.co.uk

To maintain full accuracy annual calibration is required contact support@status.co.uk for details
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