SEM203W USER GUIDE

PUSH BUTTON SLIDE WIRE INPUT
TWO WIRE (4 to 20) mA OUTPUT

Important - Please read this document before installing.
Every effort has been taken to ensure the accuracy of this document, however we do not accept responsibility for damage, injury, loss or expense resulting from errors and omissions, and we reserve the right of amendment without notice.

IMPORTANT - CE & SAFETY REQUIREMENTS

Product must be mounted inside a suitable enclosure providing environmental protection to IP65 or greater.
To maintain CE EMC requirements, input wires must be less than 3 metres.
The product contains no serviceable parts, or internal adjustments. No attempt must be made to repair this product. Faulty units must be returned to supplier for repair.
This product must be installed by a qualified person. All electrical wiring must be carried out in accordance with the appropriate regulations for the place of installation.
Before attempting any electrical connection work, please ensure all supplies are switched off.

ABSOLUTE MAXIMUM CONDITIONS (To exceed may cause damage to the unit).	
Supply Voltage	± 30 V dc (Protected for over-voltage and reverse connection)
Current with over-voltage	± 100 mA
Input Voltage	± 3 V between any terminals
Ambient	Temperature (-40 to 85) °C, Humidity (10 to 95) % RH (Non-condensing)

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1~DESCRIPTION.

The device is an in-head transmitter that accepts a slide wire input and converts slide wire position to a standard industrial (4 to 20) mA transmission signal over a user-programmed range.
The transmitter input range is configured using a single push button aided by a LED indicator. This option provides a simple means of manually setting the transmitter with the slide wire connected by setting the position to min travel (4mA) output, pressing button for > 2 seconds until LED flashes. Set position to max travel (20mA), then press button to complete configuration.

2~RECEIVING AND UNPACKING.

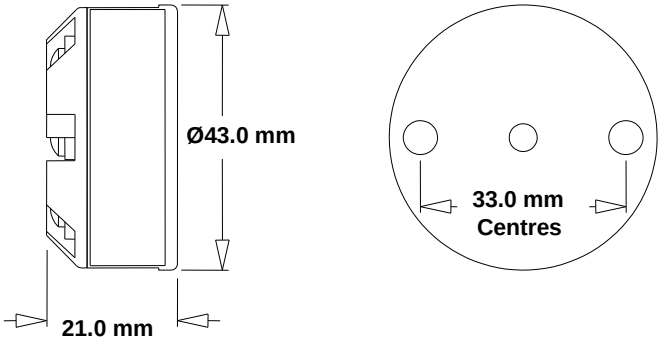
Please inspect the packaging and instrument thoroughly for any signs of transit damage. If the instrument has been damaged, please notify your supplier immediately.

3~SPECIFICATION.

Refer to data sheet for full specification.

Configuration	
Factory default	(0 to 100) % slide wire tavel, upscale burnout.

4~INSTALLATION AND WIRING.



Mounting holes: two holes 5.5 mm diameter, 33 mm centres.
Centre hole sensor wire entry 4 mm.

4.1~MECHANICAL.

The unit is mounted using two 5.5 mm holes, on standard 33 mm fixing centres and will fit a DIN standard termination head. The unit must be installed with adequate protection from moisture and corrosive atmospheres.
Care must be taken to ensure the unit is located to ensure the ambient temperature does not exceed the specified operating temperature.

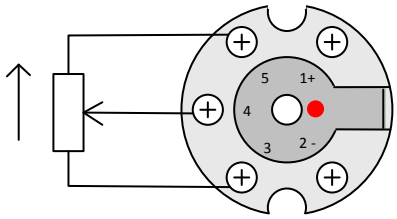
4.2~ELECTRICAL.

Electrical connections to the transmitter are made to the screw terminal provided on the top face. The transmitter is protected against reverse connection and over-voltage. If no sensor (input) connection is made the transmitter will go into either up or down scale output current, depending on configuration setting.

For accuracy it is important that the device is ranged against the slide wire sensor it is to be used with and not used in the factory default condition.

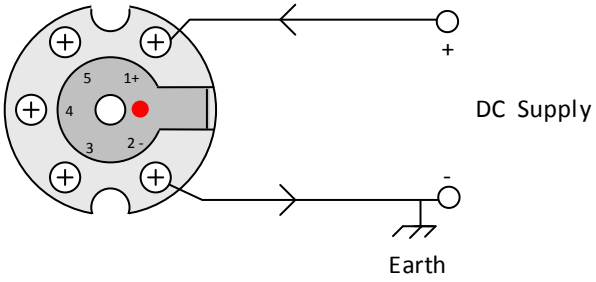
Sensor connections.

Sensor connections are as follows: to maintain BS EN61326 compliance, sensor wires must be less than 3 metres. All sensor connections must be isolated from ground.
Slide wire end to end to be between (0 to 1) K ohm minimum and (0 to 100) K ohm maximum.



(4 to 20) mA Loop connections.

Ensure all other aspects of the installation comply with the requirements of this document. To maintain CE compliance, the (4 to 20) mA current loop must be tied to a local earth at one point; this is normally at the power supply. The (4 to 20) mA loop is connected as follows:



5~USER CONFIGURATION.

IMPORTANT
READ COMPLETE SECTION BEFORE ATTEMPTING CONFIGURATION.

Configuration
Configuration (Please note the (4 to 20) mA scale can be set at any points within the slide wire travel). The 4 mA point can be configured at positions clockwise or anticlockwise to the 20 mA point. The minimum span is 5%. Connect circuit as shown, either using the application slide wire or resistance boxes to simulate slide wire. Turn supply on and allow 10 seconds
Set input to the desired position (value) for 4 mA output. Press and hold the button unit the red LED flashes. The 4 mA point is now configured.
Set input to the desired position (value) for 20 mA output. Allow 10 seconds. Press the button, the red LED will flash for a period then go off. The 20 mA point is now configured.
Note: Allow 1 minute warm up time to full accuracy
Note: Default configuration is factory set to (0 to 100) % of Slidewire movement. After user-configuration, check input sensor movement against (4 to 20) mA output signal. The device can be re-ranged as necessary.

If problems occur during configuration the device can be returned to factory default in the following way:

Factory reset
With no power to the unit press and hold the button .
Power the unit , wait for 2 seconds.
Release the button.
The LED will light then go out to indicate the device has returned to default condition. Configuration can now be carried out.



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