

## SEM160i USER GUIDE

SEM160iD/H/01 single two wire (4 to 20) mA output, duct mount 120 mm probe + Direct Thermistor  
 SEM160iD/HP/01 dual two wire (4 to 20) mA output, duct mount 120 mm probe  
 SEM160iD/H/02 single two wire (4 to 20) mA output, duct mount 250 mm probe + Direct Thermistor  
 SEM160iD/HP/02 dual two wire (4 to 20) mA output, duct mount 250 mm probe  
 SEM160iW/H/01 single two wire (4 to 20) mA output, wall mount + Direct Thermistor  
 SEM160iW/HP/01 dual two wire (4 to 20) mA output, wall mount



**Important - Please read this document before any 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

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 OPERATING CONDITIONS (To exceed may cause damage to the unit):-

Supply Voltage	± 30VDC (Protected for over voltage and reverse connection)
Current with over voltage	± 200mA
Ambient Temperature	Sensor -31 to 221°F Electronics -31 to 185°F and Humidity 10 to 95% RH (Non condensing)

### PRODUCT SPECIFICATION

Please refer to the product data sheet for full specification, available to download at [www.statinst.com](http://www.statinst.com).

### RECEIVE 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.

### CLEANING

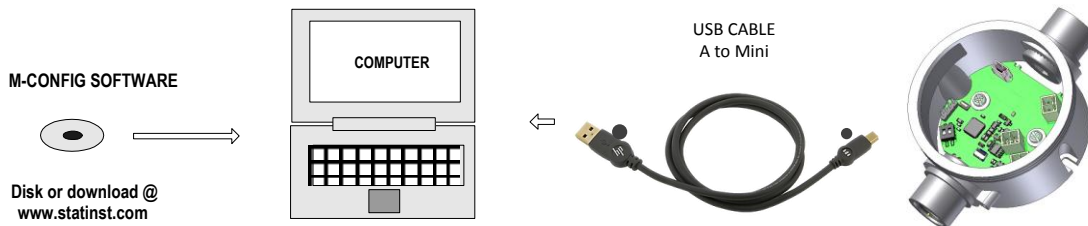
Only clean using damp cloth with water or a mild soap solution.

### CONFIGURATION



To configure the device use a USB A to mini B lead. Connect the lead to the PC USB port, and the other end to the instrument.

Note: CH1 output and USB port of the device share the same ground, therefore care must be taken to ensure isolation between PC and output circuit. This is best achieved by using a portable laptop or notebook PC.



The following parameter can be configured by simply entering as prompted by the software package.

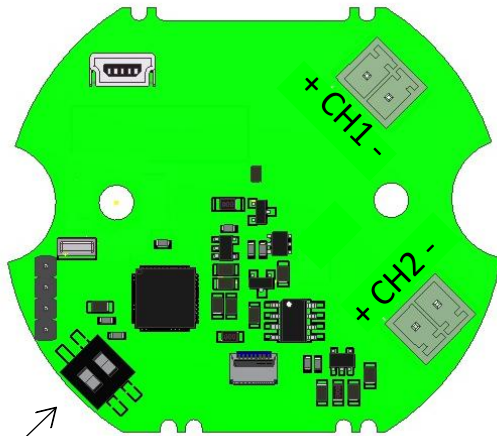
- Tag No
- CH1 (CH2) output type (RH, Ambient, Dew point, Delta T °C)
- CH1 (CH2) range
- Offset of both temperature and humidity
- Read live data, Error signal.
- Error signal
- Sensor pre-set value

#### Factory default settings:

<b>SEM160i/H</b>		
CH1	RH	0 to 100%
<b>SEM160i/HP</b>		
CH1	RH	0 to 100%
CH2	Tamb	0 TO 50°C

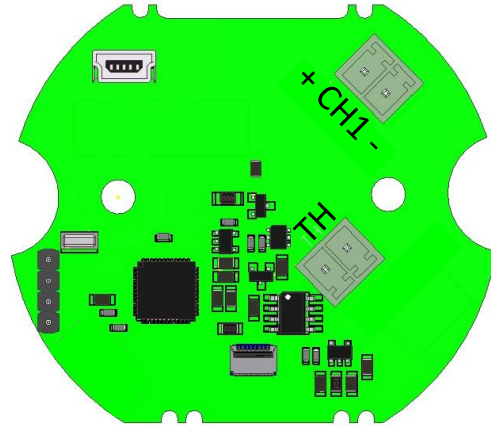
## MECHANICAL INSTALLATION

SEM160i – 2 Channel Version



Switch to select configuration for CH2

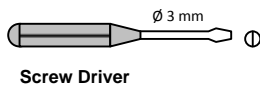
SEM160i – 1 Channel Version



## ELECTRICAL INSTALLATION



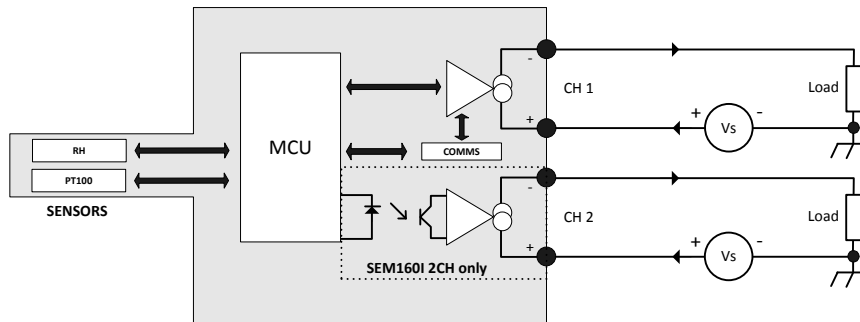
TURN OFF SUPPLY BEFORE WORKING ON ANY ELECTRICAL CONNECTION



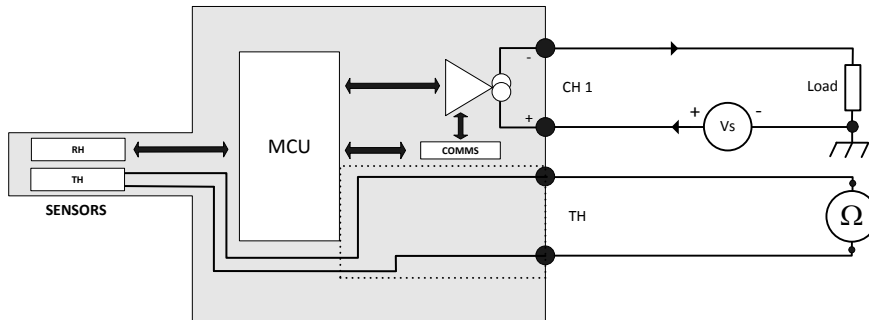
### SEM160i

OUTPUT(S)  
2 Wire 4-20mA  
Max cable length 1000 meters  
Use twisted pair cable > 30 meters

SUPPLY (Vs) = 10 to 30VDC  
MAX LOAD Ohms = (Vs - 11) / 0.021



Note: 160i/HP/ Dual Channel Version - Both channels must be powered to operate correctly.



Note: 160i/H/ Single Channel Version - Second channel is a 10K NTC thermistor to allow direct reading of ambient temperature.

## SENSOR

### INSTALLATION

The RH measurement module incorporates an integrated temperature sensor. The measured values are correct when the Humidity and Temperature are both in equilibrium with the surrounding ambient conditions.

For optimum performance, the following recommendations must be observed:

- 1) Install the sensor in the most representative location of the ambient to be controlled;
- 2) Avoid direct exposure to sun and atmospheric agents;
- 3) Avoid installing the sensor next to heaters, coolers, steam vents and humidifiers;
- 4) Avoid turbulences which can generate unstable pressures.