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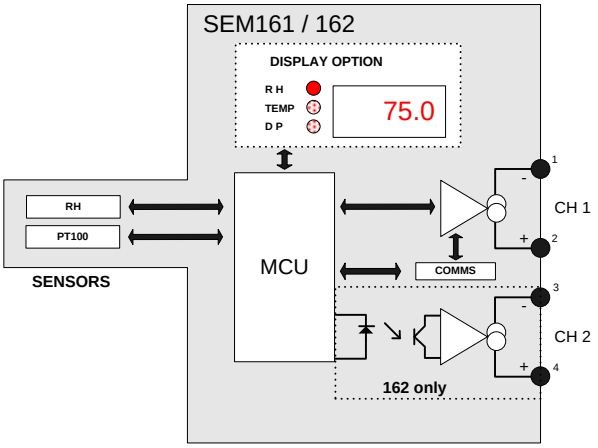
SEM161/162 RH/TEMPERATURE SENSOR USER GUIDE

SEM161 with single two wire 4 to 20mA output.
SEM162 with dual two wire 4 to 20mA outputs.
Optional display.



Important - Please read this document before any installing.

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 meters.

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	Sensor -22 to 212°F
	Electronics -30 to 185°F Humidity 10 to 95 % RH (Non condensing)

PRODUCT SPECIFICATION

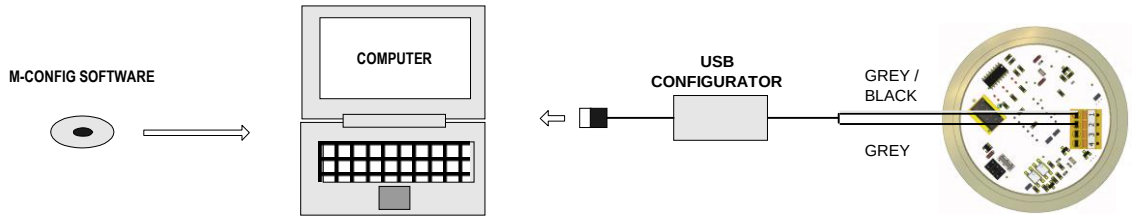
Please refer to the product data sheet for full specification,

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.

CONFIGURATION

To Configure device use the USB configurator tool available from your supplier. Connect the configurator to the PC USB port, connect Grey / Black wire to terminal 1 and Grey wire to terminal 2.



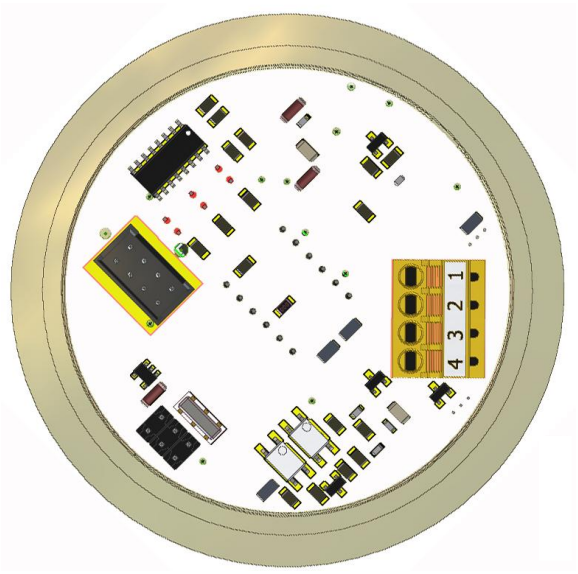
The following parameter can be configured by simply entering as prompted by the software package.

- **Tag No**
- **Install date**
- **Ch1 (Ch2 162) output type (RH, Ambient , Dew point , Temperature difference in either °C or °F**
- **Ch1 (Ch2 162) range**
- **Two point alignment of both temperature and humidity**
- **Read live data , set display type on models with display option.**

Factory default:

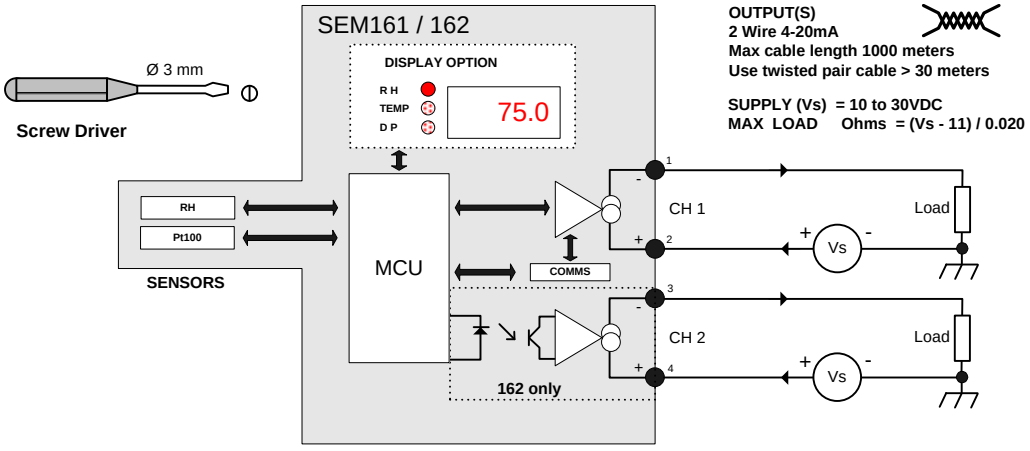
161		
CH1	**RH**	**0 to 100%**
Alignment		**off**
Display option	**RH**	
162		
CH1	**RH**	**0 to 100%**
CH2	**Tamb**	**-30 to 70°C**
Alignment		**off**
Display option	**RH**	

MECHANICAL INSTALLATION



ELECTRICAL INSTALLATION

TURN OFF SUPPLY BEFORE WORKING ON ANY ELECTRICAL CONNECTION



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) / 0.020

SENSOR

INSTALLATION

Humi-Chip measurement module incorporates an integrated temperature sensor.
The measured values are correct when the Humi-Chip 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.

Cleaning/replacing the dust filter

The dust filter should be cleaned from time to time depending on the working conditions. Cleaning should be done as follows:

1) Removing the filter from the probe as described below (Replacing Humi-Chip module note 1 to 3)
2) Then clean it by washing with water or by blowing with compressed air (the filter must be far from the Humi-Chip)

Replacing Humi-Chip

The sensor of the Humi-Chip module does not need any periodic calibration. The replacement sensor is delivered factory calibrated. Calibration is not required after replacement. If the replacement of the Humi-Chip module is necessary, proceed as follows observing full ESD precautions:

1) Switch off the power supply;
2) Verify that the Humi-Chip module is at a safe temperature;
3) Unscrew the protection filter;
4) Gently withdraw the module;
5) Insert the new module;
6) Re-install the protection filter.