

XH10P

Relative Humidity probe with 4±20mA or 0±10V Output (30 to 85%)

XH20P

Relative Humidity probe with 4±20mA or 0±10V Output (5 to 90%)

1. GENERAL WARNINGS.**1.1 ⚠ THE FOLLOWING SPECIFICATIONS MUST BE READ BEFORE PROCEEDING FURTHER IN THE USE OF THE MANUAL.**

- This manual is part of the product and shall be kept near the probe for easy and quick reference.
- Check the application limits before proceeding.
- Dixell Srl reserves the right to change the composition of its products, even without notice, ensuring the same and unchanged functionality.

1.2 SAFETY PRECAUTIONS

- The probe shall be installed by qualified personnel. In any case when the box is opened or when the probe is going to be connected to the instrument, standard protection measures, to avoid electrostatic discharge, must be taken.
- Check the supply voltage is correct before connecting the probe.
- Warning: disconnect all electrical connections before any kind of maintenance.
- Make sure that the wires for probes and power wires are separated and far enough from each other.
- In case of failure or faulty operation send the probe back to the retailer with a detailed description of the fault.

2. GENERAL DESCRIPTION

The XH10P and XH20P humidity probes are designed for all those applications where it is required to measure and control the humidity. Such applications are, for example, refrigeration, drying processes, air conditioning, and others.

According to the model, the probe is equipped with a current or a voltage signal output (4±20mA or 0±10V). The application range for relative humidity measurement is 5+90% for XH20P model and 30+85% for XH10P model.

The material of the filter of the probe can be brass or steel. The stainless-steel filter is available for special applications, offering the same technical and measurement performances as the version with brass filter.

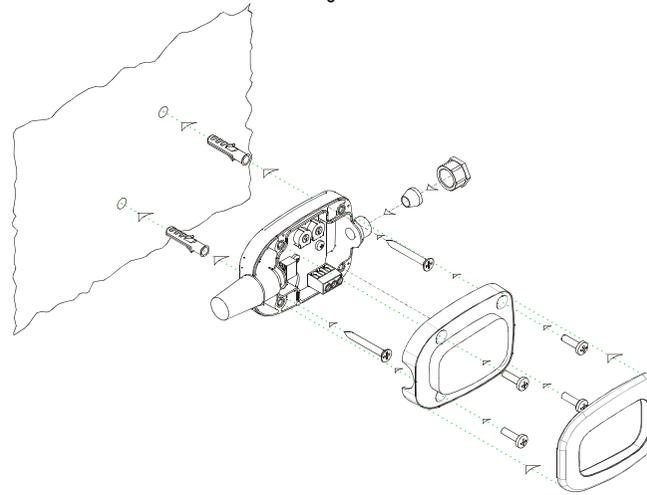
3. INSTALLATION GUIDE**IMPORTANT NOTES:**

- Internal components can be damaged by electrostatic discharge
- To avoid having problem with condensing, place the probe with filter in a horizontal position or turn down.

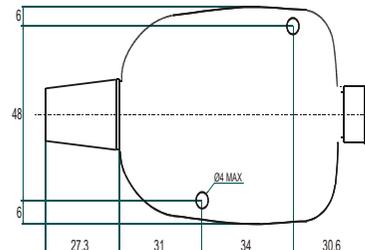
1. Remove the fixing screws on the lid and connect the cable to the terminals, following the model instructions as shown on the label or in the par. 6.
2. Install the probe close to where you want to measure the humidity.

3. Reassembly the top cover as shown in fig. 1, paying attention the isolation gasket is in good condition and well positioned in its groove. This will guarantee a waterproof housing.
4. Disconnect the power supply from the instrument to which the humidity probe is to be connected and then complete the wiring connection.

Fig. 1

**4. DIMENSIONS**

The dimensions of the humidity probe are the following:

**5. MAINTENANCE AND CLEANING**

The probe does not require maintenance. However, if installed dusty places, the protective filter could become filled with dust, and therefore it would alter the humidity read.

In this case it is necessary to clean or change the filter as follows:

1. Disconnect the instrument from the power supply.
2. Keep the body of the probe on which the filter is screwed, blocked with your hand. Now unscrew the filter by turning it anticlockwise, making sure the sensor is not extracted or damaged.

- IMPORTANT NOTE:** Once the protective filter has been removed, DO NOT touch the sensor, as it is sensitive to electrostatic charge.
3. Change or clean the protective filter (e.g. with compressed air from the inside towards the outside).
 4. Screw it on again carefully.
 5. Reconnect the instrument to the power supply.

6. CONNECTIONS

MODEL	TERMINALS		
	1	2	3
4-20mA	(+) 9-18Vdc (+) 19-28Vdc	(-) 9-18Vdc	(-) 19-28Vdc
0-10Vdc	12-24Vac (+) 15-35Vdc	12-24Vac (-) 15-35Vdc	Signal Output

7. TECHNICAL DATA

Power supply	According to the model: Output 4-20mA: [9 to 18Vdc] or [19 to 28Vdc] Output 0-10Vdc: [15 to 35Vdc] or [12 to 24Vac]
Power consumption	20mA max
Wirings	2 or 3 wires, non-polarized
Cable section	2,5mm ² max
Output	4-20mA or 0-10Vdc
Operating temperature	From 0 to 70°C, noncondensing
Storage temperature	From -30 to 85°C, noncondensing
XH10P humidity measurement	Relative humidity from 30 to 85 %, noncondensing Humidity sensor accuracy: - ±4% between 30 and 50 % - ±5% between 50 and 80 % - ±6% between 80 and 85 %
XH20P humidity measurement	Relative humidity from 5 to 90 %, noncondensing Humidity sensor accuracy: - ±4% between 5 and 50 % - ±5% between 50 and 80 % - ±6% between 80 and 90 %
Sensor response time	less than 60 sec
Filter material	Standard: brass Special: stainless steel

