

# Installation Instructions for the TBLZ-1-31-1 and TBLZ-1-31-2 Humidity sensor GOLD

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## 1. General

The humidity sensor is used in ventilation systems in which the aim is to measure and/or regulate the air humidity.

### Description

The humidity sensor contains a humidity sensing element, which also measures the temperature.

The humidity sensor is supplied with a 7 m long cable for bus communication and is connected with a modular connector.

The communication cable is used for supplying power and signal transfer.

The sensor is mounted on a ventilation duct by means of the duct connection flange supplied.

### Function

Humidity and temperature values are transmitted via Modbus communication to the control circuit card of the air handling unit.

The humidity sensors are coded for supply air and extract air respectively.

The TBLZ-1-31-1 is designed for installation in the supply air and is used for the dehumidification or humidification function.

The TBLZ-1-31-2 is designed for installation in the extract air and is used for the dew-point compensation function with cooling beams, the dehumidification or humidification function.



## 2. Installation

Mount the humidity sensor in the supply or extract air duct.

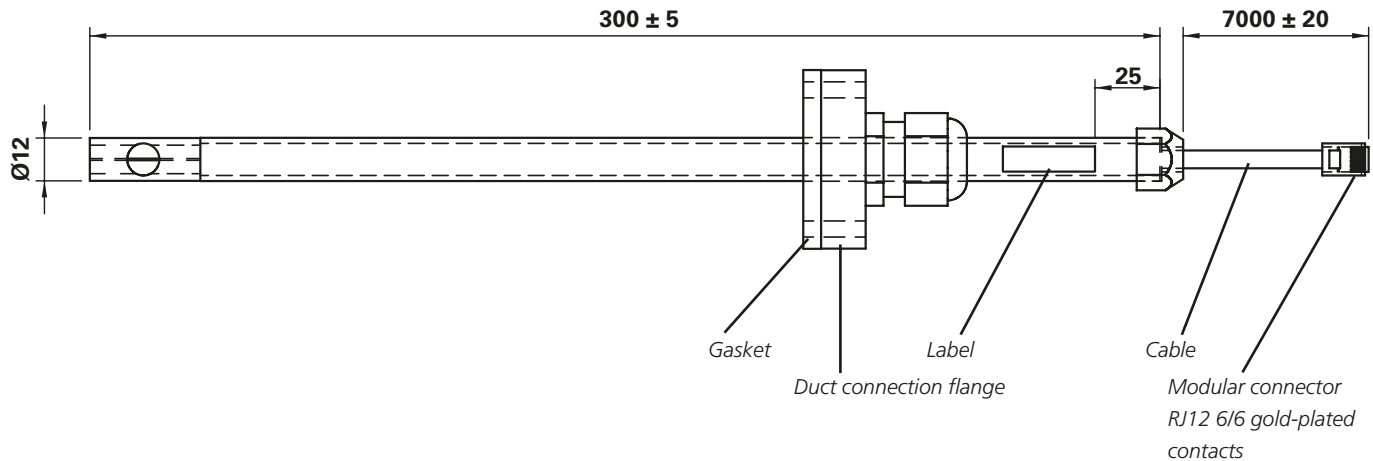
The position in which the humidity sensor is mounted will not affect its performance but it is inappropriate to mount it standing with its connection pointing downwards because this may lead to moisture collecting inside the sensor.

It is important that the sensor be mounted with its sensing element (in the tip of the sensor) positioned in the centre of the duct.

### 3. Technical Data

Connection contact	RJ 12 6/6
Supply voltage	24 V DC
(Via modular connector)	
Measurement range, humidity	0-100 % RH
Measurement range, temp.	-40 – 123°C
Measurement accuracy, humidity	<2 % RH, 10 - 90 % RH <5 % RH, 0 - 10 % RH and 90 -100 % RH
Measurement accuracy, temp	<0.5°C, 15 – 40°C
Resolution, humidity	0.03 %
Resolution, temp.	0.01 °C
Non-linearity, humidity	< 1%
Hysteresis, humidity	± 1 %
Long term stability, humidity	<0.5% / year
Degree of protection:	
in duct	IP32 to EN 60529
outside duct	IP54 to EN 60529

### Dimensions



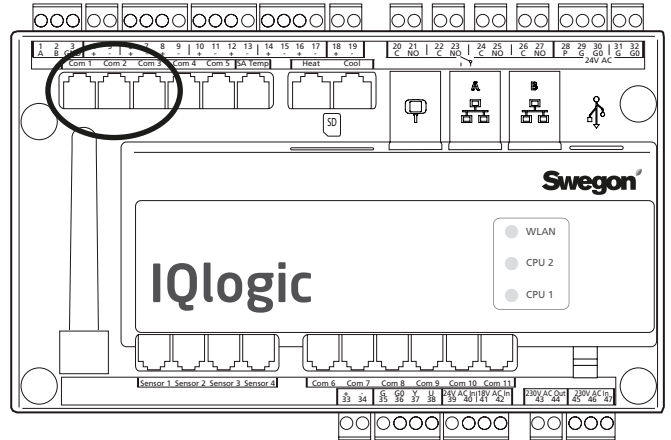
**4. Electrical Connections**

Run the electrical cable of the humidity sensor through the junction hood of the air handling unit to the control circuit card.

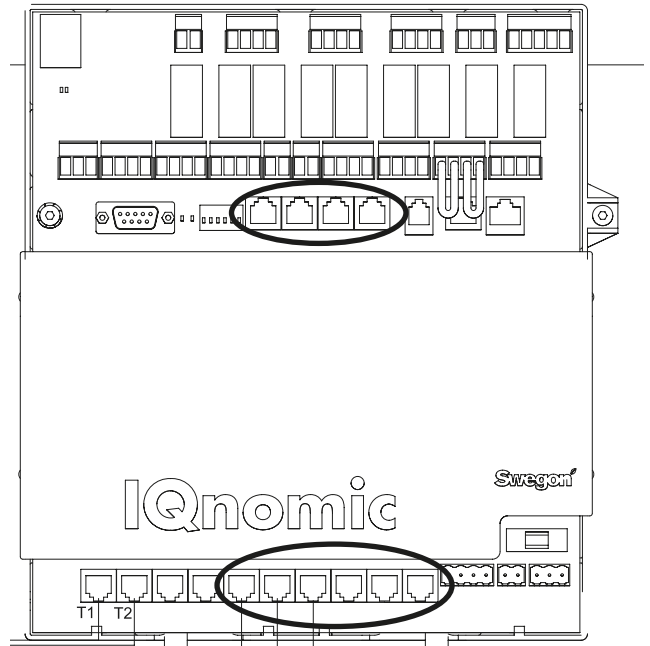
The humidity sensor should be connected to the internal communication bus.

The optional connections are circled in the figures to the right.

**GOLD RX/PX/CX/SD, version E**



**GOLD RX/PX/CX/SD, version D**



**GOLD LP**

