

Description

Combination sensor for measuring temperature and humidity in ventilation ducts..

The sensor measures the temperature of the air in the duct by a NTC sensor and humidity by a humidity sensor. The sensor must be turned in such a way that the humidity sensor faces downwards (and the NTC sensor consequently faces upwards) – thereby ensuring that condensate, if any, does not rest on the humidity sensor but runs out of the sensor.

Humidity sensor has 0-10VDC output signal, which is converted to %RH (%RH = $V_{out} \times 10$) - 5,6V corresponds to 56%RH.

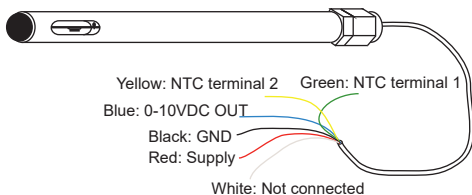
Temperature sensor is 22K NTC. Resistor value is used for equipment with 22K NTC sensor input.

Warning

 Do not touch the sensors in the sensor hole as it might damage them.

 The product does not withstand condensate / water..

Connection

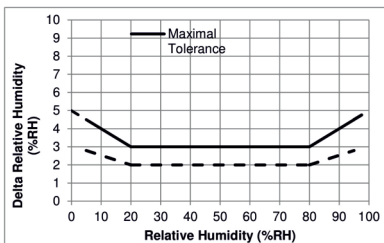


Green: NTC terminal 1
Yellow: NTC terminal 2
Blue: 0 - 10VDC out (%RH)
Black: DC GND or AC
Red: DC + supply or AC
White: Not connected

Technical Specifications

Supply: 15-30V 20mA or 24V AC $\pm 15\%$ 40mA
External mains fuse: max 300mA
Enclosure, in duct: IP 42 (for the external part on duct)
Enclosure, free: IP 10
Dimensions: $\varnothing 18 \times 220$ mm
Cable length: 2 m (on product)
Operating temperature: 0-50 °C non condensing air
Output, temperature: Terminals from 22K NTC sensor
Accuracy temperature: $\pm 2\%$
Output, humidity: 0-10V DC 10mA
Accuracy humidity sensor: See graph

Humidity sensor precision



QR-code for download of this instruction.



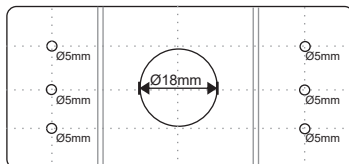
Mounting:

The sensor is mounted on the duct with a bracket (to be ordered separately). The sensor is fixed by tightening the gland on the bracket.

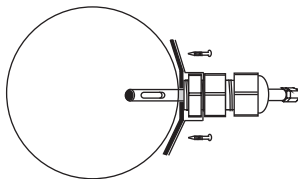
The sensor pipe is now secured in position.

The sensor must be placed to ensure that the airflow passes through the sensor hole, and the humidity sensor should be facing down if at all possible (as illustrated on the drawing). This position ensures that condensate if any will run off automatically.

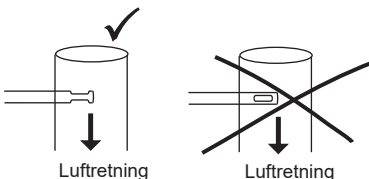
Accessory: Mounting bracket (item no. 49329)



Mounting with bracket:



Placement in duct:



Date:: 28/08-2026
Written by: HLN/DF
Document No.: 950-205220 Duct Sensor Temp / Humidity / ES 991
Rev.: 2.0
Manufacturer: LS Control A/S, Industrivej 12, DK-4160 Herlufmagle