

DATA SHEET

THE 110

Flush-mount humidity and temperature transmitter



Ranges from -20 ~ +80 °C
0 ~ 100%RH



Alternating display of
humidity and temperature

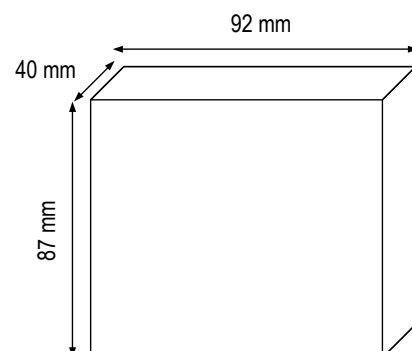
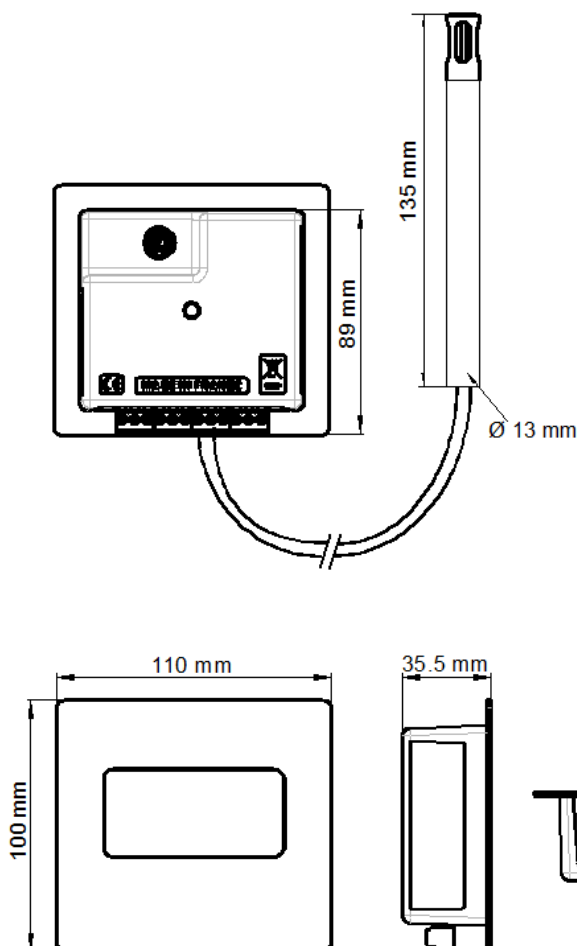
- Output 4~20 mA, power supply 16 ~ 30 Vdc (2 wires)
- Front face made of 316L brushed stainless steel, IP65 protection
- Remote type probe, cable length of 10 m
- Design to use in cleanroom application and flush-mount installation
- Terminal block for wiring of power supply and signal output and probe wires

Features of the housing

Front face	Brushed stainless steel 316L
Back housing	PA 6.6
Protection	IP 65 in front face
Display	LCD 10 digits, Size: 50 x 17 mm Protection screen made of PMMA
Height of the digits	Value :10 mm, Unit: 5mm
Cable of remote probe	10 m length
Weight	615 g (with cable and probe)

Mounting

To install a transmitter on a wall, make a cutting of 92 x 87 mm in the wall and 40 mm depth.
Insert the transmitter on the wall then fix it with a silicone joint.



Technical features (Temperature)

Measuring ranges	-20 ~ +80 °C
Measurement units	°C / °F
Accuracy *	±0.4% of reading ± 0.3 °C
Resolution	0.1 °C
Response time	1/e (63%) 15 s
Type of fluid	Air and neutral gases

Technical features (Humidity)

Measuring ranges	5 ~ 95 %RH
Measurement units	%RH
Accuracy *	±2.0 %RH (if +15 °C ≤ T ≤ +25 °C)
Resolution	0.1 %RH
Response time	1/e (63%) 4 s
Type of fluid	Air and neutral gases

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

Technical specifications

Output / Power supply	Passive output : 4-20 mA (16 ~ 30 Vdc), 2 wires Maximum load: 500 Ω (4 ~ 20 mA)
Consumption	Max. 22 mA (4~20 mA)
European directives	2014/30/EU EMC; 2014/35/EU Low Voltage; 2011/65/EU RoHS II; 2012/19/EU WEEE
Electrical connection	Screw terminal block for cables from 0.05 to 1.5 mm²
Communication PC	USB-mini DIN cable
Environment	Air and neutral gases
Operating temperature	0 ~ +50 °C, non-condensing, 0 ~ 2000 m
Storage temperature	-10 ~ +70 °C
Probe operating temperature	-20 ~ +80 °C



Please contact our sales department for other non-standard probe length.

Probe protection tip

<i>Part number</i> <i>Specifications</i>	EPP2	EPI 25	EPI 100	EPFI	EPFT	EPH2O2
Tip Material	ABS ⁽¹⁾	St.steel ⁽²⁾	St.steel ⁽²⁾	St.steel ⁽²⁾	PTFE ⁽³⁾	MnO2 ⁽⁴⁾
Filter Material	St.steel	St.steel	St.steel	St.steel	PTFE	PTFE
Filter type	Meshed	Meshed	Meshed	Sintered	Sintered	Sintered
Maximum particle	25 µm	25 µm	100 µm	10 µm	50 µm	50 µm
Maximum air velocity	25 m/s	25 m/s	20 m/s	30 m/s	25 m/s	25 m/s
Maximum temperature	80 °C	180 °C	180 °C	180 °C	180 °C	180 °C
Length	30 mm	30 mm	30 mm	30 mm	30 mm	33 mm
Application						
HVAC air-conditioning system	√	√				
Cold storage room			√		√	
Industry	√	√	√	√	√	
Pharma plants / Microelectronics	√	√	√	√	√	√
Dryer				√	√	
Curing				√		
Swimming pool			√			

Pharmaceutical (VHP Sterilization):

Optional **EPH2O2** protection tip can be used in Vaporized Hydrogen Peroxide for stable and accurate humidity and temperature measurement.



External aggression:

Tips protect against the following external aggressions:

- **Water droplets** : EPFT
- **Shaving** : EPI25 and EPFI
- **Dust** : EPFI
- **Chemical product and grease** : EPFT
- **H2O2** : EPH2O2

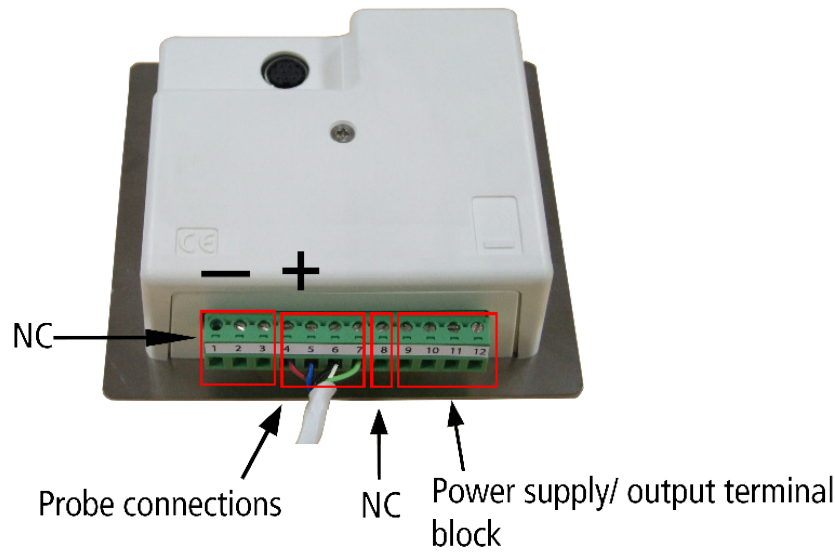
⁽¹⁾ **ABS** : with acrylonitrile butadiene styrene

⁽²⁾ **Stainless steel** : 316 L

⁽³⁾ **PTFE** : white Teflon ®

⁽⁴⁾ **MnO2** : manganese dioxide

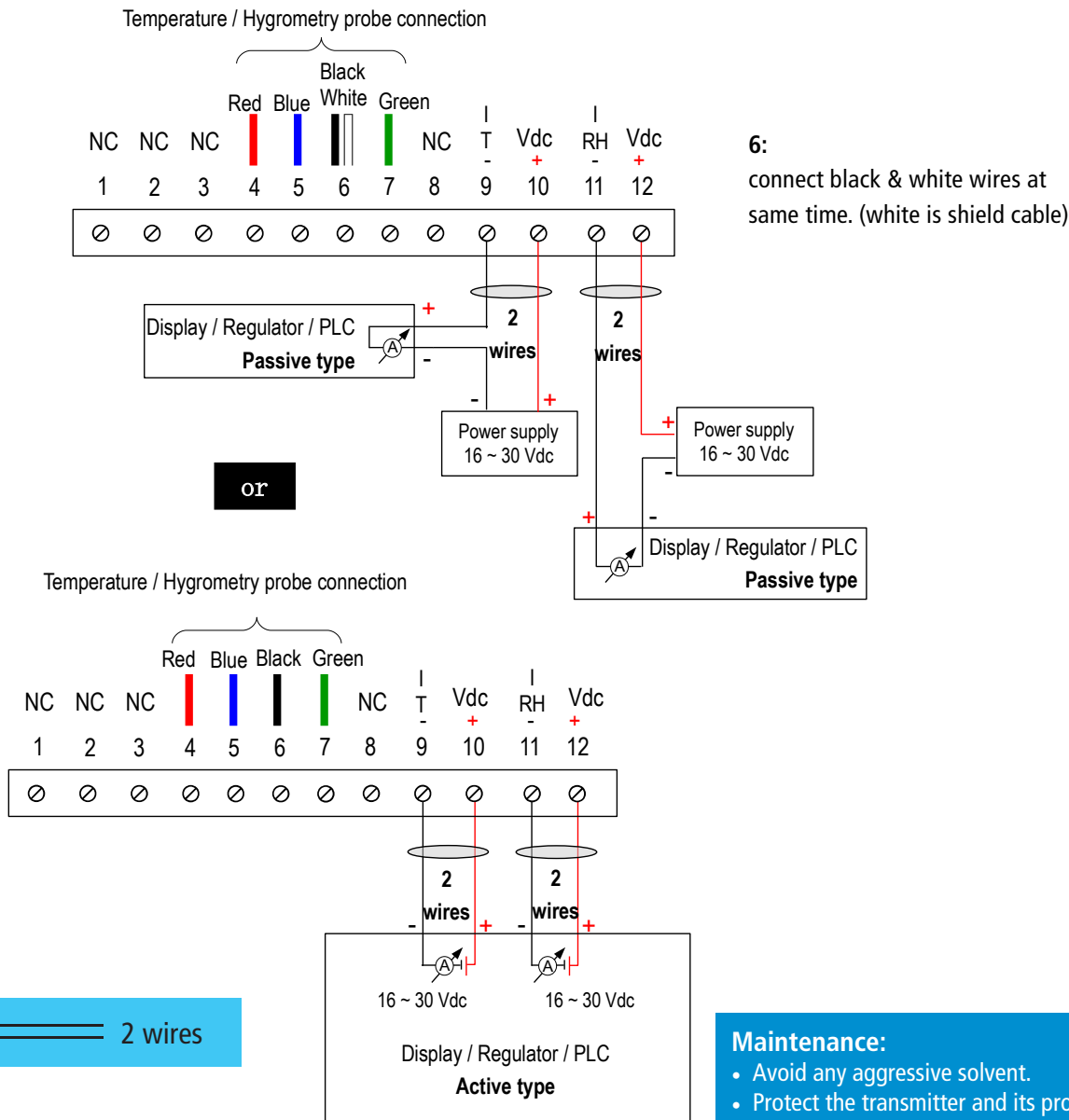
Connections



Electrical connections - as per NFC 15-100 standard



this connection must be made by a qualified technician. To make the connection, the transmitter must not be energized.



Maintenance:

- Avoid any aggressive solvent.
- Protect the transmitter and its probes from any cleaning product containing formalin, that may be used for cleaning rooms or ducts.

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Accessories

Ref.	Description
BFP-13	Temperature / hygrometry probe fixed installing kit