

EE20 Series

Humidity and Temperature Transmitters for Climate Control

EE20 transmitter series are designed for accurate humidity and temperature measurement for applications such as HVAC, building automation, swimming halls, green houses, stables and incubators. They are available as wall or duct mounting versions, with current or voltage outputs.

The new handy snap in - mounting flange combined with the quick connector enables easy and fast replacement of the transmitter.

Together with the E+E radiation shield EE20 is the ideal solution for outdoor measurements such as meteorological stations. The right choice of the filter cap enables employment in harsh environmental conditions.



Typical Applications

- green houses
- storage rooms
- swimming halls
- meteorology

Features

- measuring range 0 ... 100 % RH
- accuracy ± 2 % RH
- wettable
- excellent long term stability
- interchangeable

Technical Data

Measuring values

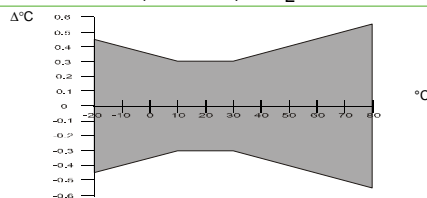
Relative Humidity

Sensor	HC1000		
Output appropriate 0...100 %RH	0-1V	-0.5 mA < I _L < 0.5 mA	
	0-5 / 0-10 V	-1.0 mA < I _L < 1.0 mA	
	4-20 mA (two wire)	R _L < 500 Ohm	
Working range ¹⁾	0...100 %RH		
Accuracy at 20 degC	± 2 %RH (0 ... 90 %)	± 3 %RH (90 ... 100 %)	
Hysteresis 10 % - 80 % - 10 %	< 2 %RH		
Temperature dependence at 60 %RH			
Voltage output	< 0.03 %RH / degC		
Current output	typical -0.06 %RH / degC		

Temperature

Sensor	Pt1000 (tolerances class A, DIN EN 60751)		
Output appropriate -20...80 degC	0-1V	-0.5 mA < I _L < 0.5 mA	
	0-5 / 0-10 V	-1.0 mA < I _L < 1.0 mA	
	4-20 mA (two wire)	R _L < 500 Ohm	

Accuracy (typ.)



Temperature dependence electronic	< 0.03 degC / degC		
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General

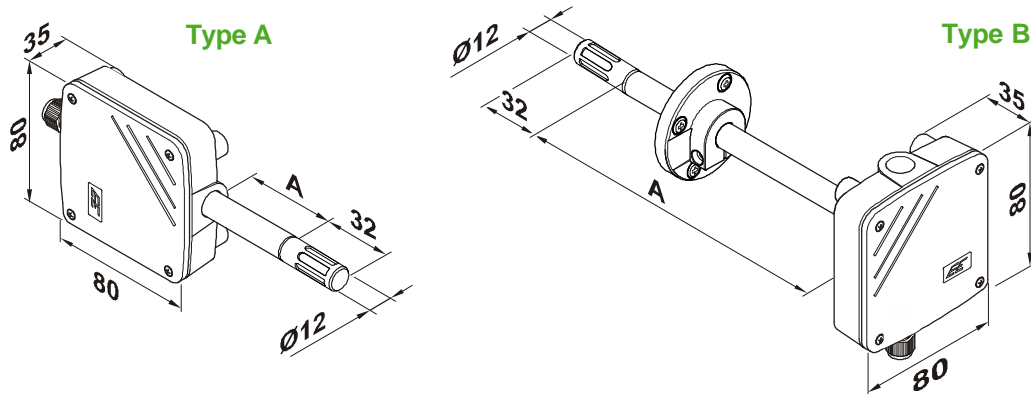
Supply voltage			
for 0 - 1 V	10 - 35 VDC	9 - 29 VAC	
for 0 - 5 V	12 - 35 VDC	15 - 29 VAC	
for 0 - 10 V	15 - 35 VDC	15 - 29 VAC	
for 4 - 20 mA	20 - 35 VDC for R _L < 500 Ohm; 11 - 35 VDC for R _L < 50 Ohm		
Current consumption	for DC supply	typ. 8 mA	
	for AC supply	typ. 15 mA _{eff}	
Electrical connection	screw terminals max. 1.5 mm ²		

Housing / protection class	Polycarbonat / IP65
Cable gland	PG7 or connection plug (with the snap in - flange)
Sensor protection	membrane filter, sintered bronze filter, sintered stainless steel filter, metal grid filter
Electromagnetic compatibility	EN 50081-1 EN 55104
Temperature range	working range probe: -20 ... +80 degC working range electronic: -20 ... +60 degC storage range: -25 ... +60 degC



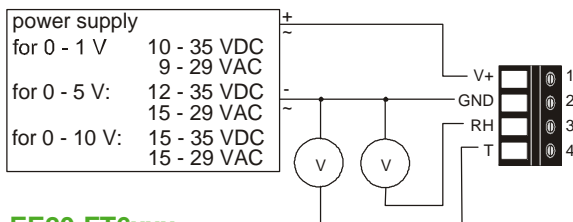
1) Refer to the working range of the humidity sensor HC1000!

Housing dimensions (mm)

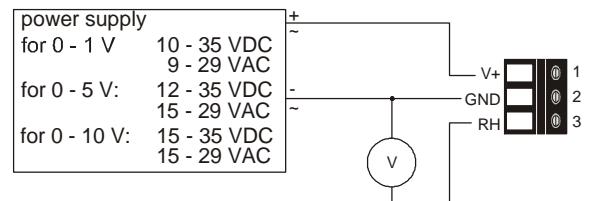


Connection Diagram

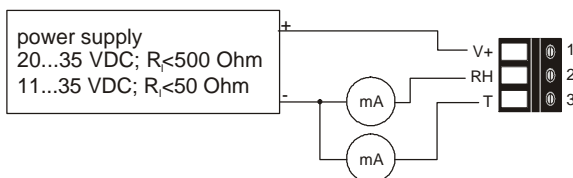
EE20-FT3xxx



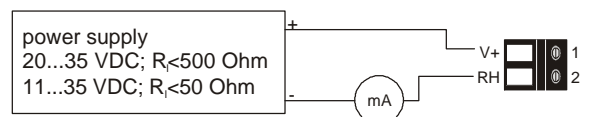
EE20-F3xxx



EE20-FT6xxx



EE20-F6xxx



Ordering Guide

MODEL	OUTPUT	HOUSING TYPE	PROBE LENGTH (according to "A")	FILTER
humidity + temperature (FT)	0 - 1 V (1)	wall mounting (A)	50 mm (2)	membrane filter (1)
humidity (F)	0 - 5 V (2)	duct mounting (B)	200 mm (5)	sintered bronze filter (2)
	0 - 10 V (3)	snap in wall mounting (M)	others (x)	sintered stainless steel filter (3)
	4 - 20 mA (6)	snap in duct mounting (N)		metal grid (6)
EE20-				

Order Example

EE20-FT1A21

model: humidity/temperature transmitter
output: 0 - 1 V
housing: wall mounting
probe length: 50 mm
filter: membrane filter