

Digitron

HLX16 Series

Humidity / Temperature Transmitter for HVAC Applications

HLX16 transmitters are the ideal solution for accurate measurement of relative humidity and temperature at a reasonable price in HVAC applications. The appropriate filter cap enables employment in heavily polluted environment.

The new developed humidity sensors HC101 guarantee excellent long term stability and resistance against chemical pollutants. Their excellent reproducibility allows a simple low-cost-one-point calibration for very good accuracy over the entire working range.

HLX16 transmitters are available as wall or duct mounted, with current or voltage output signals.



Typical Applications

building-automation
storage rooms
climate and ventilation control

Features

excellent price/performance ratio
wetable
long term stable
traceable calibration

Technical Data

Measuring values

Relative Humidity

Sensor	HC101	
Output appropriate 0...100% RH	0-10 V	$-1 \text{ mA} < I_L < 1 \text{ mA}$
	4-20 mA (two wire)	$R_L < 500 \text{ Ohm}$
Working range ¹⁾	10...95% RH	
Accuracy at 20°C (68°F)	±3% RH	
Temperature dependence at 45% RH	Traceable to intern. standards, administrated by NIST, PTB, BEV... typ. -0.05% RH / °C (-0.03% RH / °F)	

Temperature

Sensor	Pt1000 (class A, DIN EN 60751)	
Output appropriate 0...50°C (32...122°F)	0-10 V	$-1 \text{ mA} < I_L < 1 \text{ mA}$
	4-20 mA (two wire)	$R_L < 500 \text{ Ohm}$
Accuracy at 20°C (68°F) ²⁾	±0.3°C (±0.5°F)	

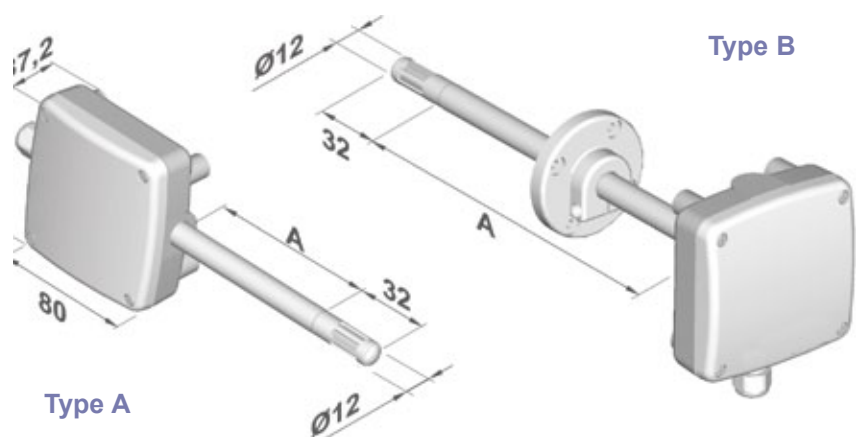
General

Supply voltage	15 - 35V DC or 24V AC ±20%	
for 0 - 10 V	10V + $R_L \times 20 \text{ mA} < U_v < 35 \text{ V DC}$	
for 4 - 20 mA		
Current consumption	for DC supply	typ. 8 mA
	for AC supply	typ. 20 mA _{eff}
Electrical connection	screw terminals max. 1.5 mm ² (AWG 16)	
Housing / protection class	Polycarbonat / IP65; Nema 4	
Cable gland	M16 x 1.5	cable Ø 4.5 - 10 mm (0.18 - 0.39")
Sensor protection	membrane filter, metal grid filter, stainless steel sintered filter	
Electromagnetic compatibility	EN61326-1 EN61326-2-3	
Temperature range	working temperature:	-5...50°C (23...122°F)
	storage temperature:	-25...60°C (-13...140°F)

1) Please refer to working range of HC101

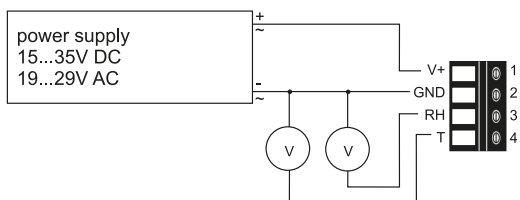
2) Please note: temperature accuracy HLX16-x6xx2x: ±0.5°C (±0.9°F)



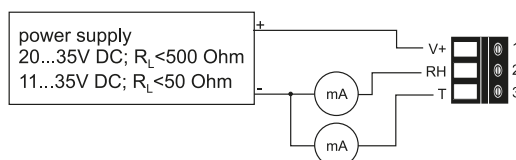


Connection Diagram

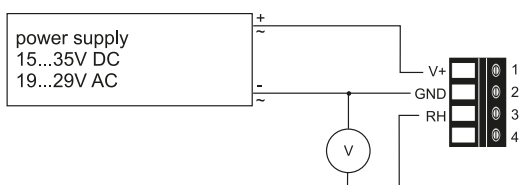
HLX16-FT3xxx



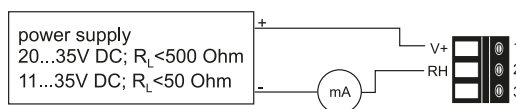
HLX16-FT6xxx



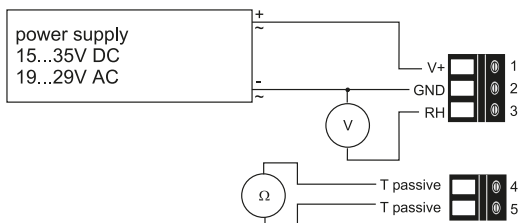
HLX16-F3xxx



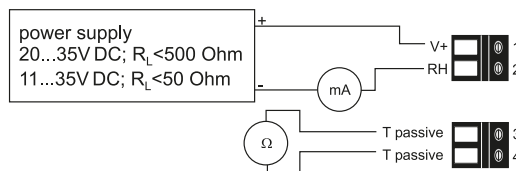
HLX16-F6xxx



HLX16-FP3xxx



HLX16-FP6xxx



Ordering Guide

MODEL	OUTPUT	T-Sensor (only model FP)	HOUSING	PROBE LENGTH (according to "A")	FILTER
humidity + temperature (FT)	0-10V (3)	Pt 100 DIN A (A)	wall mounting (A)	50 mm (1.9") (2)	membrane filter (1)
humidity (F)	4-20 mA (6)	Pt 1000 DIN A (C)	duct mounting (B)	200 mm (7.9") (5)	sintered stainless steel filter (3)
humidity + temperature passive (FP)		NTC 10k (E) others on request			metal grid (6)
HLX16-					

Order Example

HLX16-F3A21

model: humidity transmitter
 output: 0-10V
 housing: wall mounting
 probe length: 50 mm (1.9")
 filter: membrane filter