

HLX06 Series

HLX061 Series

Small Size Humidity / Temperature Transmitter for OEM Applications

The analogue humidity output provides according to model type, a current signal with 4-20mA or a voltage signal with 0-1V. A passive temperature output signal is available for both versions.

The voltage version can be ordered also with an active output.

Wide temperature and supply voltage ranges, excellent long term stability and the optional sensor coating allow the use in many applications.



HLX06 / HLX061

Typical Applications

- stables
- green houses
- humidifiers and dehumidifiers
- monitoring of storage rooms

Features

- very small dimensions
- excellent price/performance ratio
- very good long term stability
- easy installation
- optional sensor coating

Technical Data

Measuring values

Relative humidity

Sensor
Working range¹⁾
Analogue output 0...100% RH
Accuracy at 20°C (68°F), 12V DC

Temperature dependence [% RH/°C]

HLX06-x1 (voltage output)

HC101
0...100% RH
0-1 V $-0.2 \text{ mA} < I_L < 0.2 \text{ mA}$
 $\pm 3\% \text{ RH (10...90\% RH)}$
 $\pm 5\% \text{ RH (<10\% RH and >90\% RH)}$
model F/FT: $-0.00035 \times \text{RH} \times (T-20^\circ\text{C})$
model FP: typ. $(-0.003 \times \text{RH} + 0.01) \times (T-20^\circ\text{C})$

HLX061-x6 (current output)

HC105
0...100% RH
4...20mA (two wire) $R_L < 500\text{Ohm}$
 $\pm 3\% \text{ RH (10...90\% RH)}$
 $\pm 5\% \text{ RH (<10\% RH and >90\% RH)}$
model F/FP: typ. ± 0.03

Temperature active

Sensor
Analogue output $-40...60^\circ\text{C} (-40...140^\circ\text{F})$
Accuracy at 12V DC, 20°C (68°F)

Pt1000 (class A, DIN EN 60751)
0-1 V $-0.2 \text{ mA} < I_L < 0.2 \text{ mA}$
 $\pm 0.3^\circ\text{C} (\pm 0.5^\circ\text{F})$

Temperature passive

Output
Type of T-Sensor

resistive, 2 wire
refer to ordering guide

resistive, 4 wire
refer to ordering guide

General


Supply voltage
Current consumption
Electrical connection
Housing

Sensor protection
Electromagnetic compatibility

4.5V DC - 30V DC
typ. 1.5 mA
cable with 0.5m (1.6ft) or 3m (9.8ft)
polycarbonate / IP65 in vertical mounting
(filter cap upside)

membrane filter, metal grid filter
EN61326-1
EN61326-2-3

9V DC - 28V DC

cable with 0.5m (1.6ft) or 3m (9.8ft)
polycarbonate
IP65
membrane filter, metal grid filter
EN61326-1
EN61326-2-3


Temperature ranges

working temperature: $-40...60^\circ\text{C} (-40...140^\circ\text{F})$
storage temperature: $-40...65^\circ\text{C} (-40...149^\circ\text{F})$

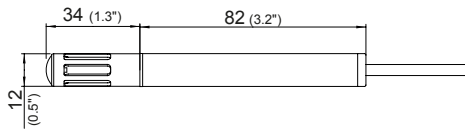
working temperature: $-40...60^\circ\text{C} (-40...140^\circ\text{F})$
storage temperature: $-40...70^\circ\text{C} (-40...158^\circ\text{F})$

1) Refer to the working range of the humidity sensor

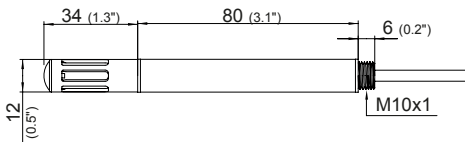
Dimensions (mm)

HLX06-x1 (voltage output)

Type A:

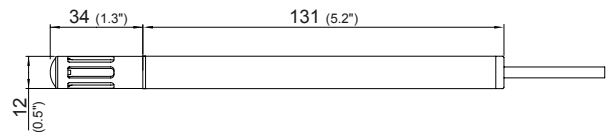


Type C:



HLX061-x6 (current output)

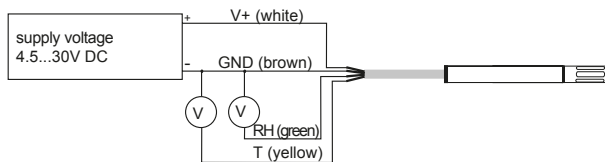
Type A:



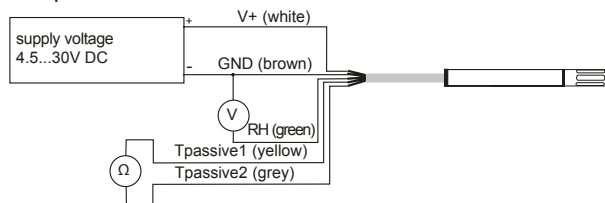
Connection Diagram

HLX06-x1 (voltage output):

with active T-output:

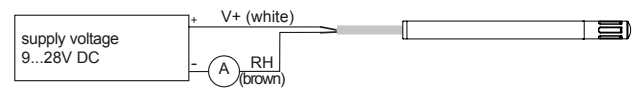


with passive T-sensor:

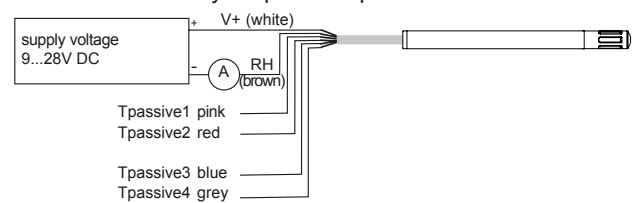


HLX061-x6 (current output):

with active humidity output:



with active humidity output and passive T-sensor:



Ordering Guide

HLX06 (Voltage Output):

MODEL	OUTPUT	T-SENSOR (passive only)	TYPE	FILTER	COATING	CABLE LENGTH
humidity + temperature (FT)	0 - 1V (1)	Pt 100 DIN A (A)	with housing (A)	membrane filter (1)	without coating (no code)	0.5m (1.6ft) (co code)
humidity (F)		Pt 1000 DIN A (C)	with thread (C)	metal grid filter (6)	with coating (HC01)	3m (9.8ft) (K300)
humidity+temperature passive (FP)		NTC 10K at 25°C (E)				10m (K1000)

HLX06-

HLX061 (Current Output):

MODEL	OUTPUT	T-SENSOR (passive only)	FILTER	COATING	CABLE LENGTH
humidity (F)	4 - 20mA (6)	Pt 100 DIN A (A)	membrane filter (1)	without coating (no code)	0.5m (1.6ft) (co code)
humidity+temperature passive (FP)		Pt 1000 DIN A (C)	metal grid filter (6)	with coating (HC01)	3m (9.8ft) (K300)
		NTC 10K at 25°C (E)			10m (K1000)

HLX061-

Order Example

HLX061-FP6A6HC01K300

model: humidity+temperature passive
output: 4 - 20mA
T-sensor: Pt 100 DIN A

filter: metal grid filter
coating: with coating
cable length: 3m

Accessories

For more information please refer to data sheet "Accessories"