

Digitron

HLX375 Series

Compact Dew Point Temperature Transmitter for OEM Applications

The exact monitoring of dew point temperature in compressed air systems, dryers for plastic and other industrial processes is becoming increasingly more important.

The HLX375 is designed for measurement of low dew points in OEM applications down to -60°C .

The core of the transmitter is the monolithic measurement cell type HMC01 developed by thin-film technology.

An autocalibration procedure which is integrated in the device and years of experience in low humidity adjustment make an accuracy of $<2^{\circ}\text{C Td}$ ($\pm 3.6^{\circ}\text{F Td}$) possible.

The transmitter has one analogue output for dew point, frost point or ppm volume concentration.



HLX375

Technical Data

Measuring Quantities

Dew point (Td)

Dew point sensor

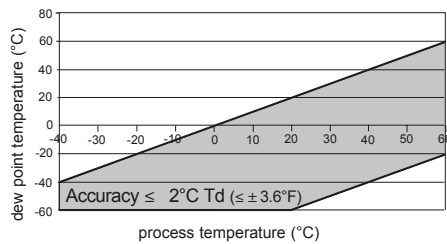
Measuring range

Accuracy

Traceable to intern. standards, administrated by NIST, PTB, BEV...

HMC01

$-60...60^{\circ}\text{C Td}$ ($-76...140^{\circ}\text{F Td}$)



Response time t_{90}

80 sec. -20°C Td -40°C Td (-4°F Td -40°F Td)

10 sec. -40°C Td -20°C Td (-40°F Td -4°F Td)

Volume concentration

Measuring range

20...200 000ppm

Accuracy at 20°C (68°F) and 1013mbar

5ppm + 20% of reading

Outputs

Selectable and scaleable

0 - 10V

$-1\text{mA} < I_L < 1\text{mA}$

analogue output for Td, Tf, Wv

4 - 20mA

$R_L < 500\ \Omega$

General

Supply voltage

21...28V DC

Current consumption at 24V DC

voltage output: typ. 40mA / during autocalibration: 100mA

current output: typ. 80mA / during autocalibration: 140mA

Pressure range

0...20bar (0...290psi)

System requirements for software

WINDOWS 2000 or later; serial interface

Serial interface for configuration

RS232C

Housing / protection class

Al Si 9 Cu 3 / IP65

Electrical connection

M12 connector

Sensor protection

stainless steel sintered filter

Working temperature range

probe: $-40...70^{\circ}\text{C}$ ($-40...158^{\circ}\text{F}$)

electronic: $-40...60^{\circ}\text{C}$ ($-40...140^{\circ}\text{F}$)

Storage temperature range

$-40...60^{\circ}\text{C}$ ($-40...140^{\circ}\text{F}$)

Electromagnetic compatibility according to

EN 61326-1

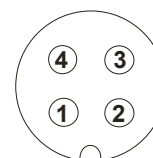
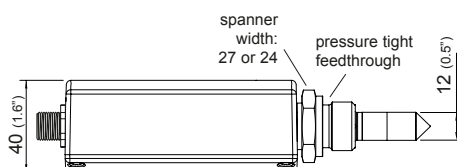
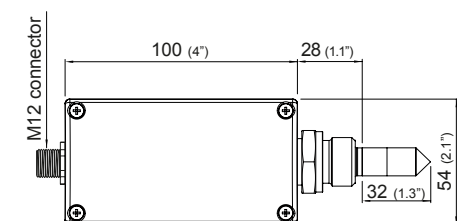
EN61326-2-3

ICES-003 ClassB

Industrial Environment

FCC Part15 ClassB





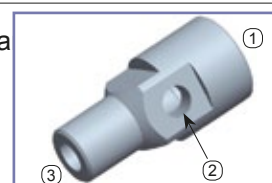
Male connector

- 1...V+
- 2...output 1
- 3...GND

Basic Sampling Cell

The basic sampling cell offers the possibility to integrate the HLX375 into an existing or self-constructed sampling system.

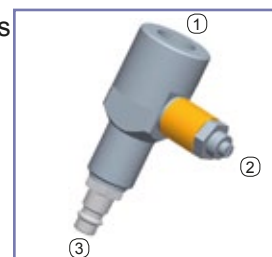
1 = G 1/2" ISO / 2 = G 1/4" / 3 = G 1/4"



Sampling Cell with Quick Connector up to 10 bar (145psi)

The sampling cell is specially developed for use in compressed air lines and has a quick-connector suitable for standard compressed air connections. It allows for the cell to be fitted and removed without interrupting the process. The flow of gas can be adjusted using a bleed screw.

1 = G 1/2" ISO / 2 = Bleed screw / 3 = Quick connector



Ordering Guide

				HLX375-	
Hardware Configuration					
Model	transmitter			T	
Pressure range	up to 20bar (290psi)			E	
Pressure tight feedthrough	G1/2" male thread			HA03	
	1/2" NPT thread			HA07	
	5/8"-18 UNF			HA08	
Software Configuration					
Physical parameters of the output	dew point temperature	Td	[°C/°F]	output	C
	frost point temperature	Tf	[°C/°F]		D
	volume concentration	Wv	[ppm]		P
Type of output signal	0-10V				3
	4-20mA				6
Measured value units	metric / SI				
	non metric / US				E01
Scaling of Td/Tf-output	-40...60 (Td/Tf02)	-60...20 (Td/Tf65)	Other Td/Tf-scaling refer to data sheet "T-Scalings"		Select according to order guide (Tdx or Tfx)
	-10...50 (Td/Tf03)				
ppm range Wv	0...100ppm (X01)				select according to Ordering Guide
	0...500ppm (X02)				
	0...1000ppm (X03)	other measuring range: _____			

Accessories

- sampling cell with quick connector (HA050102)
- basic sampling cell (HA050103)
- configuration software + interface cable (HA010604)
- stainless steel sintered filter (HA010103)
- display (D08)

Order Example

HLX375-TEHA07/C3-Td03

Model: transmitter
 Pressure range: up to 20bar (290psi)
 Pressure tight feedthrough: 1/2" NPT thread
 Output: Td

Output signal: 0-10V
 Measured value unit: metric
 Scaling of output: -10...50°C