

EE375

Compact Dew Point Temperature Transmitter for OEM Applications

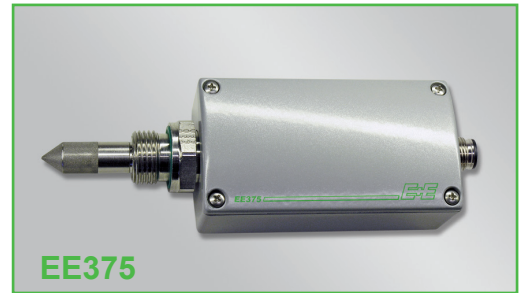
The exact monitoring of dew point temperature in compressed air systems, dryers for plastic and other industrial processes is becoming increasingly more important.

The EE375 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 E+E Elektronik in thin-film technology.

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

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



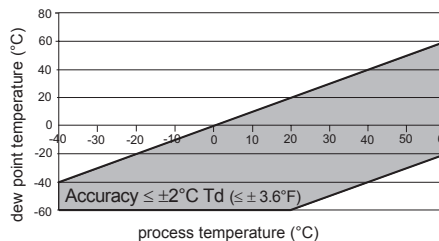
EE375

Technical Data

Measuring Quantities

Dew point (Td)

Dew point sensor	HMC01
Measuring range	-60...60°C Td (-76...140°F Td)
Accuracy	
Traceable to intern. standards, administrated by NIST, PTB, BEV...	



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

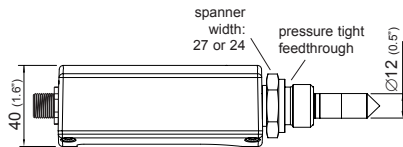
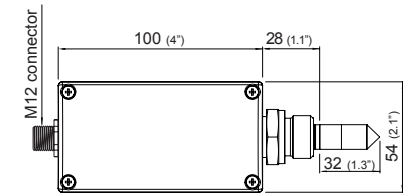
Selectable and scaleable	0 - 10V	-1mA <math>< I_L </math> 1mA
analogue output for Td, Tf, Wv	4 - 20mA	$R_L < 500 \text{ Ohm}$

General

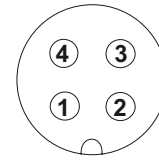
Supply voltage	21...28V DC		
Current consumption at 24V DC	voltage output: typ. 40mA / during autocalibration: 100mA current output: typ. 80mA / during autocalibration: 140mA		
Pressure range	0...20bar (0...290psi)		
System requirements for software	WINDOWS 2000 or later; serial interface		
Serial interface 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°C (-40...158°F)	
	electronic:	-40...60°C (-40...140°F)	
Storage temperature range	-40...60°C (-40...140°F)		
Electromagnetic compatibility according to	EN 61326-1	EN61326-2-3	ICES-003 ClassB
	Industrial Environment		FCC Part15 ClassB



Dimensions in mm



Connection Diagram



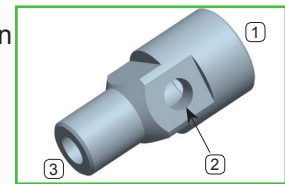
Male connector

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

Basic Sampling Cell

The basic sampling cell offers the possibility to integrate the EE375 into an existing or self-constructed sampling system.

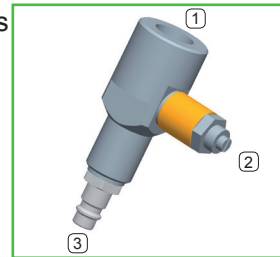
1 = G 1/2" ISO / 2 = G 1/4" / 3 = G 1/4"



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

Hardware Configuration				EE375-	
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			E01	
	non metric / US				
Scaling Td/Tf-output (in °C or °F)	-40...60 (Td/Tf02)	-60...20 (Td/Tf03)	(Td/Tf65)	Other Td/Tf-scaling refer to data sheet „T-Scalings“	
ppm range Wv	0...100ppm (X01)			Select according to other guide(Tdxx or Tfxx) It. Bestellinformation auswählen	
	0...500ppm (X02)				
	0...1000ppm (X03) other measuring range:				

Accessories

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

Order Example

EE375-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