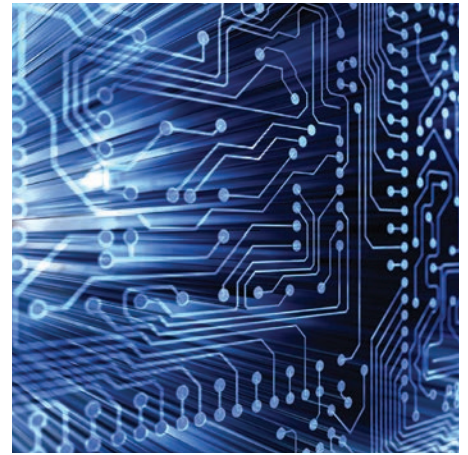


Moisture Transmitter ZHM100

Pressure dew point meter
for Compressed Air and Gases

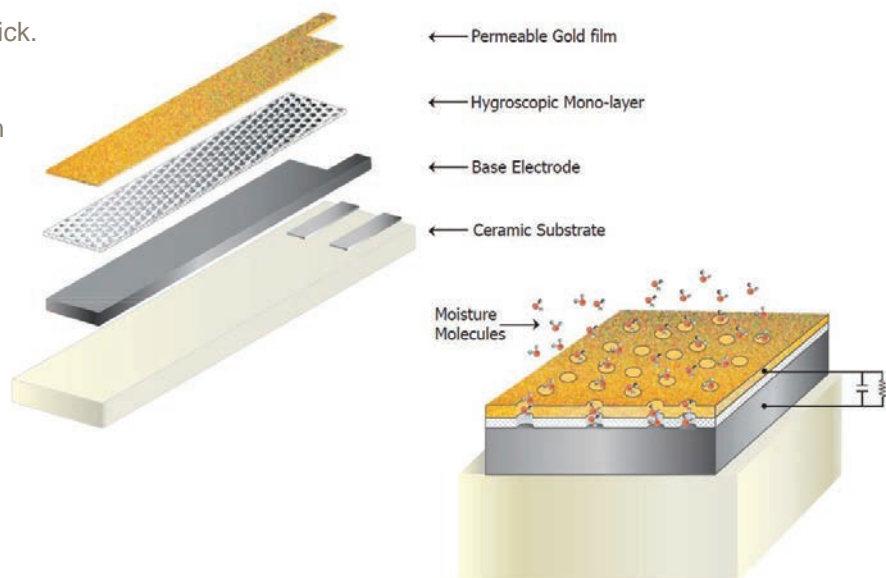


Sensor Technology

ZHM100 dew-point transmitters use the Advanced Ceramic Moisture Sensor. The operation of this sensor depends on the dielectric property of water molecules absorbing onto an active porous insulating layer sandwiched between two layers of conductive material deposited on a ceramic substrate.

Water has a very high dielectric compared to the dielectric of the active layer and the background of the carrier gas so it can be detected easily.

The active layer is very thin – less than $0.1 \mu\text{m}$ and the porous top conductor that allows water molecules to penetrate into the active layer is less than $0.1 \mu\text{m}$ thick. This allows the sensor to respond very rapidly to changes in the moisture surrounding it both when moisture decreases (drying) and increases in the sensor environment.



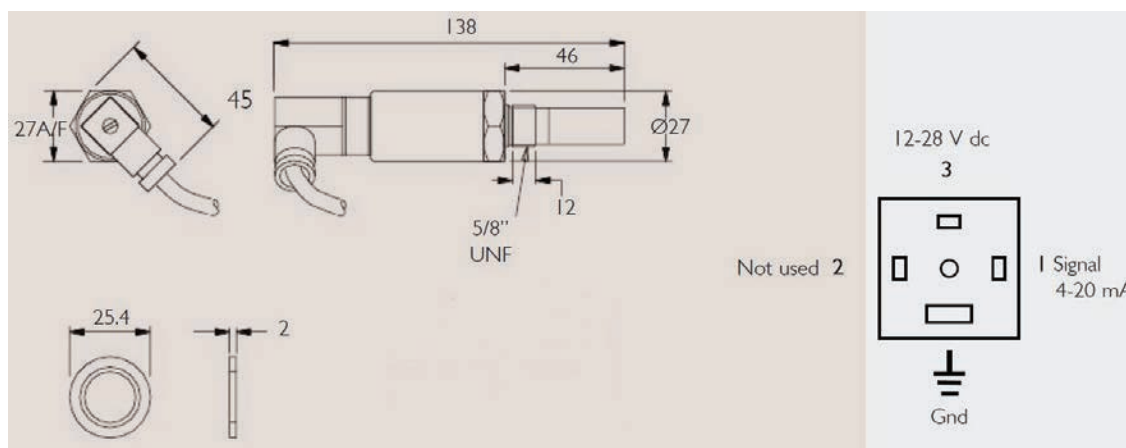
ZHM100

Measurement without compromises

Parameters	Data
Sensor PDP	ZHM100, ceramic, traceable 13 point calibration
PDP range	$-100^{\circ}\text{C}_{\text{dp}}$ do $+20^{\circ}\text{C}_{\text{dp}}$, 0 - 3000 ppm _v
Flow rate	1- 5 Nlt./min
Pressure range	450 barg, max.
Operating temperature	-40°C to $+60^{\circ}\text{C}$
Accuracy	$\pm 1^{\circ}\text{C}$ from $-59^{\circ}\text{C}_{\text{dp}}$ to $+20^{\circ}\text{C}_{\text{dp}}$; $\pm 2^{\circ}\text{C}$ from $-100^{\circ}\text{C}_{\text{dp}}$ to $-60^{\circ}\text{C}_{\text{dp}}$
Resolution	0.1°C from $-79^{\circ}\text{C}_{\text{dp}}$ do $+20^{\circ}\text{C}_{\text{dp}}$; ± 1 digit; 1°C from $-100^{\circ}\text{C}_{\text{dp}}$ to $-80^{\circ}\text{C}_{\text{dp}}$; ± 1 /digit
Voltage	12-28 VDC
Current	20 mA, max.
Supply Voltage influence	$\pm 0,005\%$ RH/V
Temperature coeficient	Temperature compensated across operating temperature range
Protection	IP66 (NEMA 4)
Response time	5 mins to T95 (dry - wet)
Cable connection	Hirschmann GDS series (DIN 4350-C)
Contacts	PIN1: 4-2mA, PIN3: power, PIN2: free
Weight	150 g
Sensor's calibration	by exchange
Housing material	AISI 316L
Dimensions	L= 132mm x pr. 27mm
Sensor filter	HDPE guard $<10\mu\text{m}$, optional: sintered guard $80\mu\text{m}$

ZHM100 is a dew-point transmitter with a 5/8" process connection. It is designed for ease of use, incorporating all of the features needed to make installation and operation into your air or gas management system as simple as possible.

ZHM100 Advanced Ceramic Moisture Sensor technology based transmitter is calibrated to international standards and is delivered with a traceable calibration certificate.



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BULZHM100-01-EN



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