



Ultra-fast
response time



Outstanding
Long-term Stability



Fixinst-A Patented Al_2O_3
Sensor Technology



F108x Series Dewpoint Meter

FIXINST-A New-generation Al_2O_3
Standard Dewpoint Transmitter



DEWPOINT METER

Product Overview

When the dewpoint of the measuring medium is below $-40\text{ }^{\circ}\text{Ctd}$, the aluminum oxide sensor is the most accurate, responsive and long-term stable in comparison with other types of sensors. Meanwhile, it has excellent anti-pollution ability

Revolutionary auto-calibration circuit design automatically compensates for circuit drift caused by temperature, contamination, and aging, providing long-term stability and high accuracy measurements

Innovative temperature compensation algorithm and multi-point temperature compensation calibration, greatly improving the sensor's temperature drift and ensuring high-precision dew point measurement over a wide temperature range

Product Advantages



Innovative Sensor Tech

Low dewpoint, high humidity resistance, long-term stability



Excellent anti-pollution ability

Anti-Condensation, Anti-Particle Contamination



Ultra-wide Range

$-100 \dots +20\text{ }^{\circ}\text{Ctd}$



Self-calibration circuit

Provides measurement accuracy and stability

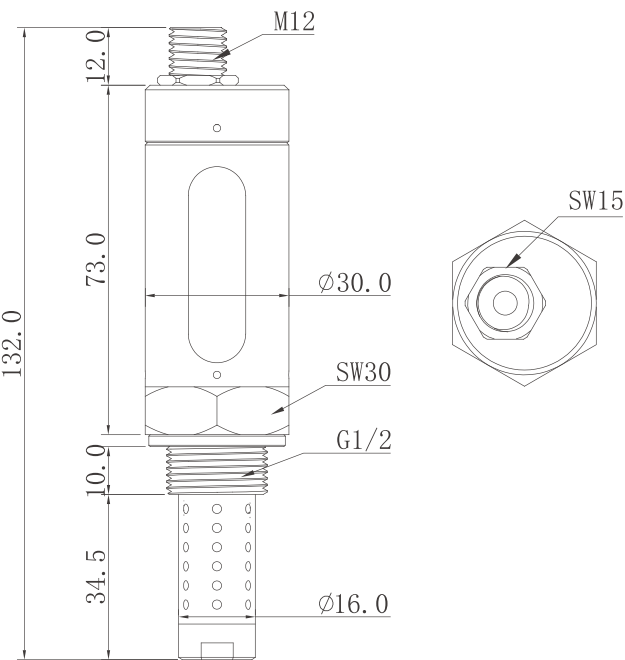





Fast Response Time

Dewpoint can be down to $-70\text{ }^{\circ}\text{Ctd}$ or lower within 30 min

- FixInst new generation ultra-fast response aluminum oxide sensor technology
- Application in dewpoint $< -60\text{ }^{\circ}\text{Ctd}$: Cold dryers, suction dryers, industrial gases
- 10+ points of dew point calibration and multi-point temperature compensation provide accurate measurements up to $\pm 2\text{ }^{\circ}\text{Ctd}$ (Refer to "Technical Data")
- Ultra-fast response time and outstanding long-term stability
- Anti-condensation, resistant to particulate contamination, oil vapor and most chemicals
- Excellent immunity to interference
- IP65 protection class, providing good protection even in harsh environments
- Provides comprehensive sensor setup, data transfer, software upgrades, and maintenance via Modbus RTU (RS485) interface and powerful service APP
- Calibration is valid for two years, reducing maintenance

Product Dimensions



Sensor Model	FixInst-P	FIXINST-A	FIXINST-Q
Sensor Type	Polymer Capacitive Sensors	Aluminum Oxide Sensors	QCM Sensor
Sensor View			
Application in > -60 °Ctd : Refrigerant Dryer, Desiccant Dryer, Industrial Gas	✓		
Application in -80 ... -60 °Ctd : Desiccant Dryer, Nitrogen Generators, Industrial Gas		✓	
Application in -120 ... -80 °Ctd : High-purity industrial gas		○	✓
Containing contaminated particles	✓	✓	

* Sensor FIXINST-A FIXINST-Q have obtained relevant patents
 ○ Model F139C-Puri, F305B

Product Applications

Dewpoint meters are widely used in dry purification, chemical, petrochemical, power engineering, and food & medicine etc.



01

Gas monitoring of drying equipment

* Refrigeration Dryer Desiccant dryer
Membrane dryer




02

Vessel and pipeline gas monitoring



03

Medical and surgical gas monitoring



04

Moisture monitoring of industrial gases



05

Monitoring of dry and clean environments



06

Dryness test for food and drug additives

Technical Data

Measurement Range		Output	
Dewpoint		Analog Output (Customized)	4 ... 20 mA (3-wire)
F108A	-80 ... +20 °Ctd	Analog Resolution	0.002 mA
F108B	-110 ... +20 °Ctd	Analog Drift	0.01 % of span/°C
Temperature	-40 ... +100 °C	Digital Output	Max. 500 ohm
		Digital Output	Modbus RTU (RS485)
		Connector	5pin M8, Female
Accuracy		Operating Environment	
Dewpoint (Air or Nitrogen)		Operating Temperature	-30 ... +70 °C
+20... -60 °Ctd	±2 °Ctd	Storage Temperature	-40 ... +80 °C
-60 ... -100 °Ctd	±3 °Ctd	Relative Humidity	0 ... 95 %RH
Temperature (Customizable)		Sample Gas Flow Rate	> 1 L/min
0 ... +50 °C	± 0.3 °C (Standard)	Pressure	0 ... 5 MPa(a)
-40 ... 0 °C & +50 ... +100 °C	± 0.5 °C (Standard)		0 ... 35 MPa(a) (Option)
Response Time		Other	
Dewpoint: 63% [90%], Reference: 20 °C, 1bar(a), 4L/min		Process Connection	ISO G1/2" thread (Standard) 3/4" - 16 UNF thread (Customized)
-50 → +20 °Ctd	20 sec [40 sec]	Protection Code	5/8" - 18 UNF thread (Customized)
+20 → -50 °Ctd	1 min [3 min]	Housing Material	IP65
		Sensor Filter	SUS304 Stainless steel mesh filter (Filtration class 70 um)
Power		EMC	Compliant with IEC 61326-1
Measuring State	10 ... 30VDC Max 1.5W @ 24VDC		

Order Information

Model	Digital Output	Analog Output	Sensor Filter	Cable / Connector	Analog Output Unit	Pressure	Withstand Pressure	Description
F108A								-80 ... +20 °Ctd, Al ₂ O ₃ sensor, Standard stainless steel housing, G1/2" thread
F108A-U1								-80 ... +20 °Ctd, Al ₂ O ₃ sensor, Standard stainless steel housing, 3/4" -16 UNF thread
F108A-U2								-80 ... +20 °Ctd, Al ₂ O ₃ sensor, Standard stainless steel housing, 5/8" -18 UNF thread
F108B								-110 ... +20 °Ctd, Al ₂ O ₃ sensor, Standard stainless steel housing, G1/2" thread
F108B-U1								-110 ... +20 °Ctd, Al ₂ O ₃ sensor, Standard stainless steel housing, 3/4" -16 UNF thread
F108B-U2								-110 ... +20 °Ctd, Al ₂ O ₃ sensor, Standard stainless steel housing, 5/8" -18 UNF thread
	1							Modbus RTU (RS485)
		1						4 ... 20 mA
			S0301 0005					Stainless steel mesh filter (Filtration class 70 um, Default)
				M2701 0004				M12 female straight connectors, IP67, With 2m cable (Default)
					V0101 0001			Default output unit
					V0101 0002			Output unit (Customized)
						V0103 0001		Default 0 bar(g)
						V0103 0002		Customized
							V0103 0003	Maximum operating pressure: 0 ... 35 MPa(a)
							V0103 0004	Maximum operating pressure: 0 ... 5 MPa(a)

* Wi-SUN wireless is available as an option. Please consult sales staff for details

* For other accessories please refer to FixInst Product Catalog or consult sales