



Fast Response Time



Long-term Stability



FIXINST-A Patented
alumina sensor
technology



F118x Series

Dewpoint Meter

FixInst-A New-generation Al_2O_3
Compact Dewpoint Meter



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 measuring drift caused by temperature, contamination, and aging, providing long-term stability and high accuracy measurements

Innovative temperature compensation algorithm and multi-point temperature-compensated calibration, greatly reduces temperature-dependent dewpoint drift and ensuring high-precision dewpoint measurement over a wide temperature range

Product Advantages



Innovative Sensor Tech

Low dewpoint,
high humidity resistance,
long-term stability



Excellent Pollution Resistance

Anti-condensation
Anti-particle contamination



Ultra-wide Range

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



Auto-calibration Circuit

Provides accurate and
stable measurements

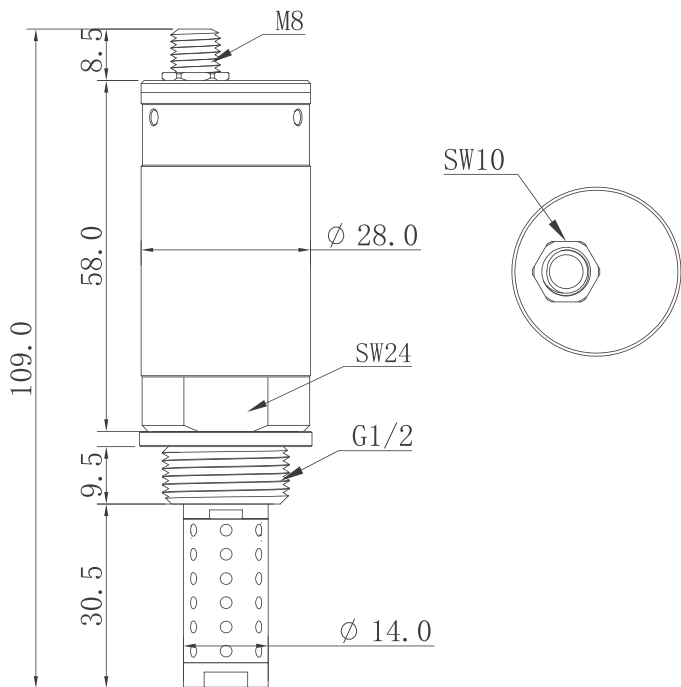





Fast Response Time

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 $< -60\text{ }^{\circ}\text{Ctd}$:
Refrigerant dryers, desiccant dryers, industrial gases
- Accurate to $\pm 2\text{ }^{\circ}\text{Ctd}$ with up to 9 dew point calibration and multi-point temperature compensation (Refer to "Technical Data")
- Ultra-fast response time and outstanding long-term stability
- Anti-condensation, resistant to particulate contamination, oil vapor and most chemicals
- High resistance to electrical disturbance
- 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
- Best price/performance ratio among most types of dewpoint meters in the same measuring range

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

Measuring Range		Output	
Dewpoint		Analog Output (Customized)	4 ... 20 mA (3-wire)
F118A	-80 ... +20 °Ctd	Analog Resolution	0.002 mA
F118B	-110 ... +20 °Ctd	Analog Drift	0.01 % of span/°C
Temperature		Digital Output	Max. 500 ohm
	-40 ... +100 °C	Digital Output	Modbus RTU (RS485)
		Connector	5pin M8, Female
Accuracy		Operating Environment	
Dewpoint (Air or Nitrogen)		Environment 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)		
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) 5/8" - 18 UNF thread (Customized)
-50 → +20 °Ctd	20 sec [40 sec]	Protection Code	
+20 → -50 °Ctd	1 min [3 min]	Housing Material	IP65
		Sensor Filter	SUS304 Stainless steel mesh filter (Filtration class 70 um)
		EMC	Compliant with IEC 61326-1
Power			
Measuring State	10 ... 30VDC Max 1W @ 24VDC		

Order Information

Model	Digital Output	Analog Output	Sensor Filter	Cable / Connector	Analog Output Unit	Pressure	Description
F118A							-80 ... +20 °Ctd, Al ₂ O ₃ sensor, Compact stainless steel housing, G1/2" thread, Standard materials
F118A-U1							-80 ... +20 °Ctd, Al ₂ O ₃ sensor, Compact stainless steel housing, 3/4" -16 UNF thread, Standard materials
F118A-U2							-80 ... +20 °Ctd, Al ₂ O ₃ sensor, Compact stainless steel housing, 5/8" -18 UNF thread, Standard materials
F118B							-110 ... +20 °Ctd, Al ₂ O ₃ sensor, Compact stainless steel housing, G1/2" thread, Standard materials
F118B-U1							-110 ... +20 °Ctd, Al ₂ O ₃ sensor, Compact stainless steel housing, 3/4" -16 UNF thread, Standard materials
F118B-U2							-110 ... +20 °Ctd, Al ₂ O ₃ sensor, Compact stainless steel housing, 5/8" -18 UNF thread, Standard materials
	1						Modbus RTU (RS485)
		1					4 ... 20 mA
			S0301 0006				Stainless steel mesh filter (Filtration class 70 µm, Default)
				M2701 0008			M8 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

* 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