YUA
Fast · Accurate · Managing

-110 … +60 °Ctd Ultra-wide Range Optional

Outstanding Long-term Stability

FixInst patented sensor materials and processes



F302x Series
Dewpoint Monitor

Dewpoint & Pressure Multi-parameter Wall-mounted Monitor

DEWPOINT METER

Product Overview

The F302x series dewpoint meter can integrate a variety of the most advanced humidity sensors: polymer film capacitive sensors, ultra-fast response aluminum oxide sensors with innovative moisture sensitive materials and processes, and dual resonance QCM sensors with sensitivity at ultra-low dewpoint. These sensors provide F191x with the ability to accurately measure a wide range of dewpoints from -110 to +60 °Ctd

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



Integrated Display

Display various dewpoint parameters simultaneously



Ultra-wide Range

-110 ... +60 °Ctd
Optional measuring range



Alarm Output

Relay alarm output and alarm information display

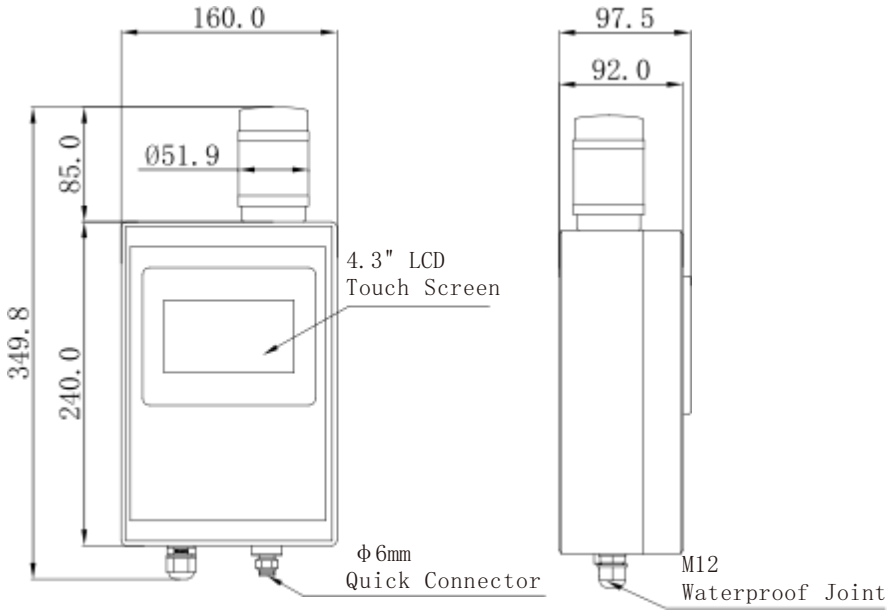


Innovative Technology

FixInst patented sensor materials and processes

- Compatible with various sensor technologies: polymer thin film, aluminum oxide, QCM crystal type sensors that can be used in different measurement ranges
- MEMS based pressure sensor for simultaneous monitoring of dewpoint and pressure
- 10+ points of dew point calibration and multi-point temperature compensation provide accurate measurements up to ±2 °Ctd (Refer to “Technical Data”)
- Ultra-fast response time
- Outstanding long-term stability
- Anti-Condensation, resistant to particulate contamination, oil vapor and most chemicals
- High resistance to electrical disturbance
- 4.3" Touch LCD screen, easy to operate, what you see is what you get
- Dual-color alarm light and buzzer alarm
- Easy to install and view data, start measuring by connecting the gas via a 6 mm quick coupling

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

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



Gas monitoring of drying equipment

* Refrigeration Dryer Desiccant dryer Membrane dryer



Vessel and pipeline gas monitoring



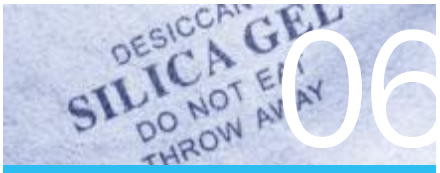
Medical and surgical gas monitoring



Moisture monitoring of industrial gases



Monitoring of dry and clean environments



Dryness test for food and drug additives

Technical Data

Measurement Range

Dewpoint	
F302Ax	-60 … +60 °Ctd
F302Bx	-80 … +20 °Ctd
F302Cx	-110 … +20 °Ctd
Temperature	-40 … +100 °C
Pressure	0 … 1.7 MPa(a) (Option)

Dispiay

Display	4.3" Touch LCD screen

Power

Power	220 VAC 10 W

Accuracy

Dewpoint (Air or Nitrogen)	
+60… -20 °Ctd	±2 °Ctd
-20 … -60 °Ctd	±3 °Ctd
Temperature (Customized)	
0 … +50 °C	± 0.3 °C (Standard)
-40 … 0 °C & +50 … +100 °C	± 0.5 °C (Standard)
Pressure Accuracy @23 °C	± 0.3 %FS
Pressure Drift With Temperature	± 0.001 MPa/10 °C

Output

Alarm Output	Dual-color alarm light and buzzer alarm
Connector	2 x PG Plug

Operating Environment

Operating Temperature	-30 … +70 °C
Storage Temperature	-40 … +80 °C
Relative Humidity	0 … 95 %RH
Sample Gas Flow Rate	> 1 L/min
Pressure	0 … 1.7MPa(a)

Response Time

Dewpoint: 63% [90%], Reference:	20 °C, 1bar(a), 4L/min
-50→+20 °Ctd	20 sec [40 sec]
+20→-50 °Ctd	1 min [3 min]
Pressure	< 1 sec

Other

Process Connection	6 mm Stainless steel quick connector
Sensor Filter	Stainless steel sinter filter (Filtration class 30~45 um)
EMC	Compliant with IEC 61326-1

Order Information

Model	Description
F302A	Dewpoint monitor -60 ... +60 °Ctd, 4.3" Touch LCD screen, Wall-mounted
F302A-P	Dewpoint monitor -60 ... +60 °Ctd, 4.3" Touch LCD screen, Wall-mounted, Integrated pressure sensor, Simultaneous output of pressure dewpoint and atm. dewpoint
F302A-A	Dewpoint monitor -60 … +60 °Ctd, 4.3" Touch LCD screen, Wall-mounted, With dual-color alarm light and buzzer alarm
F302A-P-A	Dewpoint monitor -60 … +60 °Ctd, 4.3" Touch LCD screen, Wall-mounted, With dual-color alarm light and buzzer alarm, Simultaneous output of pressure dewpoint and atm. dewpoint
F302B	Dewpoint monitor -80 ... +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted
F302B-P	Dewpoint monitor -80 ... +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted, Integrated pressure sensor, Simultaneous output of pressure dewpoint and atm. dewpoint
F302B-A	Dewpoint monitor -80 … +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted, With dual-color alarm light and buzzer alarm
F302B-P-A	Dewpoint monitor -80 … +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted, With dual-color alarm light and buzzer alarm, Simultaneous output of pressure dewpoint and atm. dewpoint
F302C	Dewpoint monitor -110 ... +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted
F302C-P	Dewpoint monitor -110 ... +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted, Integrated pressure sensor, Simultaneous output of pressure dewpoint and atm. dewpoint
F302C-A	Dewpoint monitor -110 … +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted, With dual-color alarm light and buzzer alarm
F302C-P-A	Dewpoint monitor -110 … +20 °Ctd, 4.3" Touch LCD screen, Wall-mounted, With dual-color alarm light and buzzer alarm, Simultaneous output of pressure dewpoint and atm. dewpoint
M3501 0003	Protection case for F302 series, PP material

* Optional Modbus RTU (RS485) hub, DIN rail type