FiXINST
Fast · Accurate · Managing

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

FixInst patented sensor materials and processes

HD screen data display & curves analysis

Handheld, easy to operate

F305x Series
Handheld Dewpoint Meter

DEWPOINT METER

Product Overview

The F305x handheld dew point meter is a handheld instrument that integrates dew point measurement, data analysis and recording. It is suitable for on-site inspection, working condition analysis and diagnosis, and can simultaneously measure temperature, pressure and humidity parameters

Integrating FIXINST-P polymer film capacitive sensor and FIXINST-A ultra-fast response Al_2O_3 sensor with updated moisture-sensitive materials and processes, enabling F305x to accurately measure a wide range of dew points from -110 ... +60 ˚Ctd

The dewpoint curve prediction algorithm quickly and accurately predicts the final stable dewpoint and time required, thus efficiently complete on-site inspections. Curve drawing and data recording functions, real-time drawing dewpoint, temperature, pressure and other data measurement curves, record on-site working condition data, and easily analyze gas state change trends

The measuring chamber is equipped with a drying system that protects and dries the sensor when the instrument is not measuring, ensuring a quick response to the next measurement

Product Advantages

Display & Analysis

Display various dewpoint parameters simultaneously and also the graph

Ultra-wide Range

-110 ... +60 ˚Ctd optional measuring range

Innovative Technology

FixInst patented sensor materials and processes

Handheld

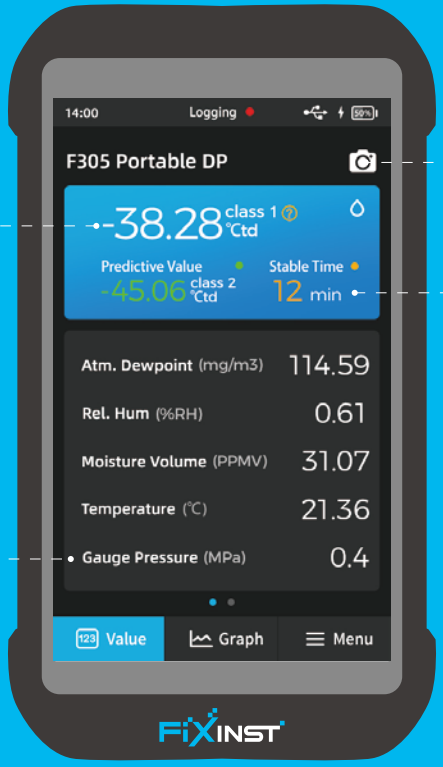
Handheld, easy to operate and taken anywhere

- Compatible with various sensor technologies: polymer thin film, aluminum oxide sensors that can be used in different measurement ranges
- MEMS based pressure sensor for monitoring dewpoint and online pressure simultaneously (Abs. pressure 0 ... 1.7 MPa.a)
- Accurate to ±2 ˚Ctd with up to 10+ dewpoint calibration and multi-point temperature compensation (Refer to “Technical Data”)
- Dewpoint steady-state prediction helps customers predict the trend in advance to save wating time
- Data logging and graphing
- Equipped with a dry measuring chamber to ensure ultra-fast respoonse and high accuracy
- Outstanding long-term stability
- 4.3” IPS wide viewing anlge LCD with capacitive touch, data clearly displayed and user-friendly HMI
- Handheld so easy to use, start measurement by connecting the PTFE tube to the measuring chamber, no site restriction, no operational technical difficulties

A Good Assistant for On-site Inspection

The replaceable desiccant that comes with the measuring chamber can protect and dry the sensor when the instrument is not measuring, ensuring quick response to the next measurement.

The measuring chamber can be directly connected to a PTFE tube to introduce gas for measurement. It is not restricted by space and on-site, measure and move, very suitable for on-site inspection.



01.

Dewpoint Value

High-precision dewpoint measurement, with purity class according to ISO 8573

02.

Screenshot

With this feature customer could retain the important data, to facilitate your later data and system analysis, etc

03.

Customize Data Channel

This area indicates the value and allows you to customize the relevant channel according to the site situation

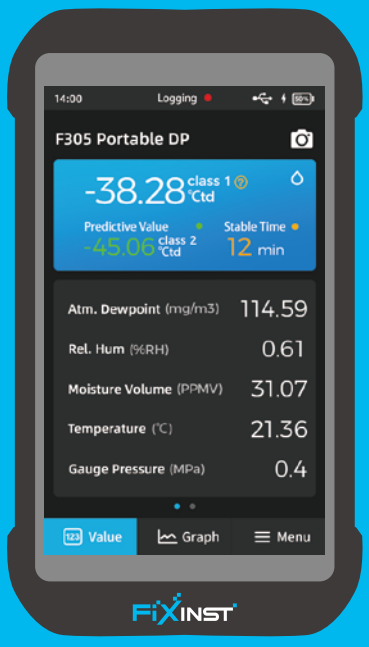
04.

Dewpoint Steady-state Prediction

This indicates the predicted final stable dewpoint and the time required to reach stability, helping field engineers predict the system dewpont in advance and save detection / inspection time

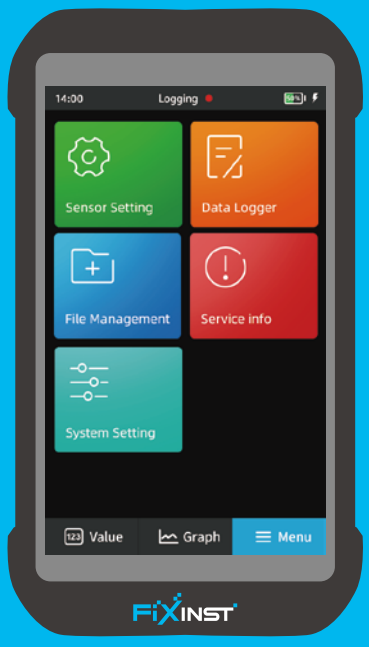
UI design

Equipped with a capacitive touch 4.3" IPS ultra-wide viewing angle LCD, providing clear data display on a large screen from all directions, with simple and intuitive human-machine interaction (HMI)

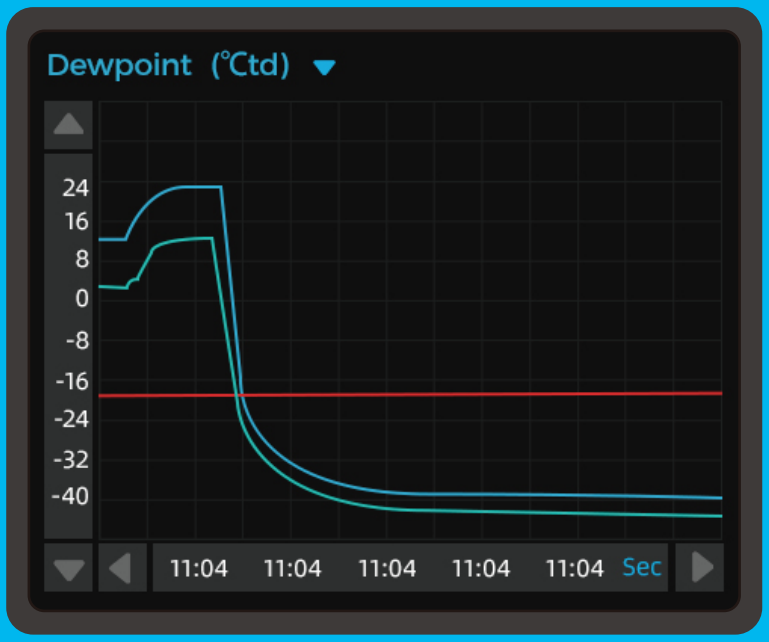


◎ Value

◎ Graph



◎ Setting



01.

Large-screen curve display for easy data comparison and analysis

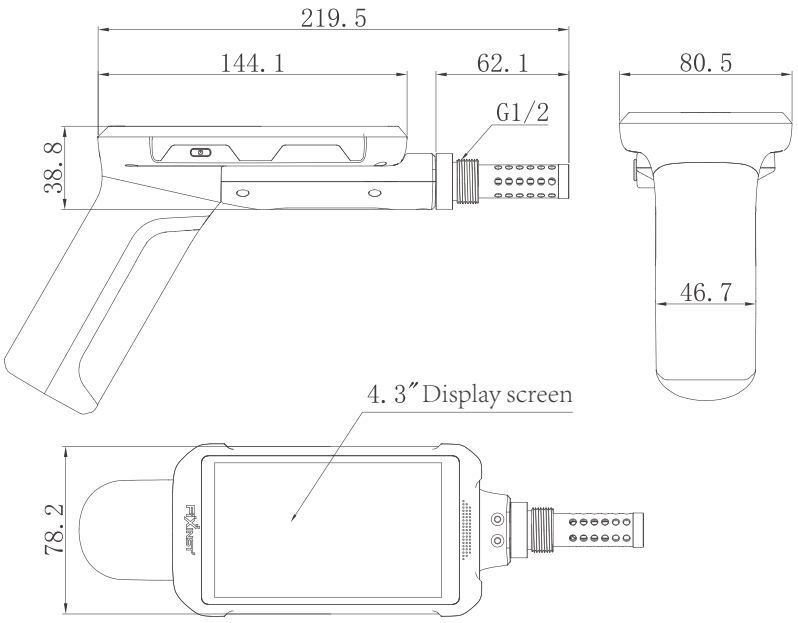
02.

Dynamic curve and trend / freely switch the data channel

03.

Flexible selection of time period and 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.

Gas monitoring of drying equipment

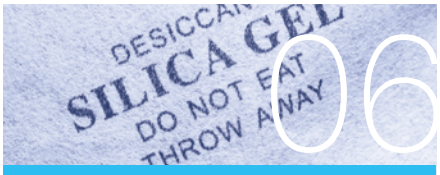
* Refrigeration Dryer Desiccant dryer Membrane dryer

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

Measuring Range

Dewpoint	
F305A	-60 … +60 ˚Ctd
F305B	-110 … +60 ˚Ctd
Temperature	-40 … +100 ˚C
Pressure	0 … 1.7 MPa(a)

Power

Battery charging	PD fast charger, 20 VDC 1 A
Charging interface	Type-C interface
Charging time	2.5 h
Battery life	16 h (at 20 ˚C operating temperature)

Accuracy

Dewpoint (Air or Nitrogen)	
+20 … -60 ˚Ctd	±2 ˚Ctd
-60 … -100 ˚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

Operating Environment

Medium temperature	-30 … +70 ˚C
Operating temperature	0 … +50 ˚C
Storage temperature	-10 … +60 ˚C
Relative humidity	0 … 95 %RH
Sample gas flow rate	≥ 2 L/min
Pressure	0 … 1.7 MPa(a)

Output

File export	Type-C interface

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

Display	4.3" IPS LCD with capacitive touch
Data log	1.5 G storage, 200,000,000 values
Process connection	Dewpoint sensor: ISO G 1/2" thread Measuring chamber: 6 mm hose with fast connector

Order Information

Model	Charger	Mobile USB Flash	Fast Connector	PTFE Tubes	Suitcase	Measuring Chamber	Connection Kit	Wireless Comm.	Discription
F305A									Handled dewpoint meter, -60 … +60 ˚Ctd, 4.3" Touch LCD screen, with Data logging function
F305B									Handled dewpoint meter, -110 … +60 ˚Ctd, 4.3" Touch LCD screen, with Data logging function
	E1701 0032								PD Fast Charger-CN, with 1m Type-C Cable
	E1701 0044								PD Fast Charger-US, with 1m Type-C Cable
	S1701 0026A								PD Fast Charger-UK, with 1m Type-C Cable
	S1701 0026B								PD Fast Charger-EU, with 1m Type-C Cable
	S1701 0026C								PD Fast Charger-AU, with 1m Type-C Cable
		E1701 0035							OTG USB flash drive, Type-A & Type-C dual ports, 32G memory
			S0303 0002						Self-locking fast connector to Φ6 mm fast connector
				M0104 0001					PTFE tubes, Φ6mm (Std. 2m)
					M3501 0008				Suitcase, Suitable for F305x handled dewpoint meter, PP material
						F0102A 0001			Stainless steel measuring chamber with storage and drying function, G1/2" sensor connection Outlet: Flow control valve with silencer (Adjustable with screwdriver)
						F0102A 0002			Stainless steel measuring chamber with storage and drying function, G1/2" sensor connection Outlet: Stainless steel fast connector for 6 mm tube
						F0102A 0003			Stainless steel measuring chamber with storage and drying function, G1/2" sensor connection Outlet: Flow control valve with silencer (Default)
							V0013 0001		None (Default)
							F0103 0003		FixInst on-line dewpoint meter connection kit, for F305x calibrate online dewpoint meter
								V0013 0001	None (Default)
								S1701 0010	IOT-4G Module