



-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 $-110 \dots +60 \text{ }^\circ\text{Ctd}$

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

$-110 \dots +60 \text{ }^\circ\text{Ctd}$ 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 $0 \dots 1.7 \text{ MPa.a}$)
- Accurate to $\pm 2 \text{ }^\circ\text{Ctd}$ 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 waiting time
- Data logging and graphing
- Equipped with a dry measuring chamber to ensure ultra-fast response and high accuracy
- Outstanding long-term stability
- 4.3" IPS wide viewing angle 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.

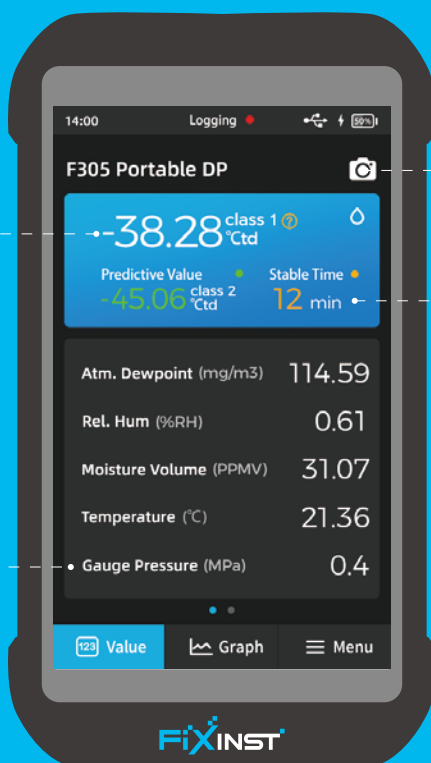
Dewpoint Value

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

03.

Customize Data Channel

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



02.

Screenshot

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

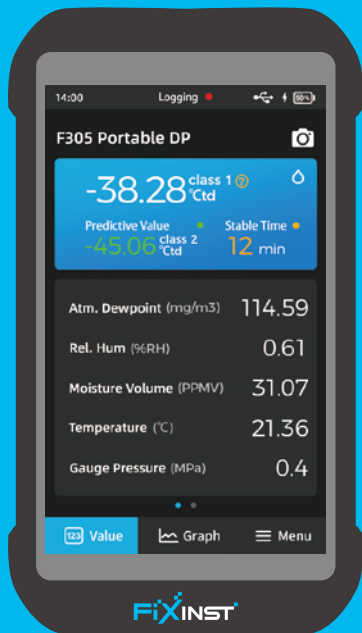
04.

Dewpoint Steady-state Prediction

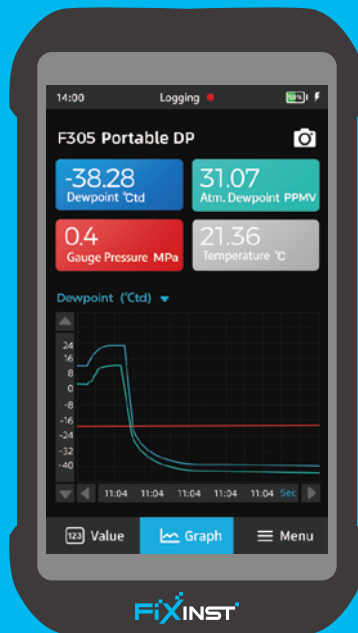
This indicates the predicted final stable dewpoint and the time required to reach stability, helping field engineers predict the system dewpoint in advance and save detection / inspection time

UI design

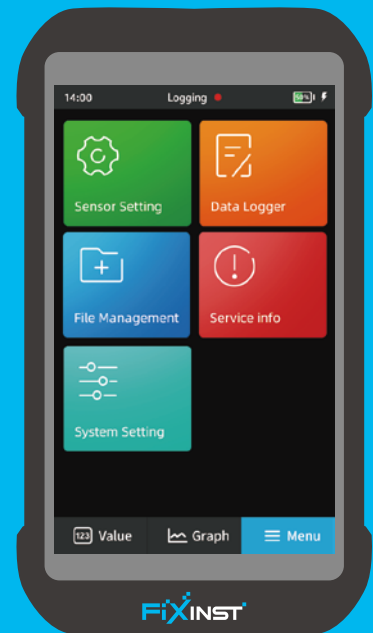
Equipped with a capacitive touch 4.3" IPS ultra-wide viewing angle LCD, providing clear data display on a large screen from all directions, with simple and intuitive human-machine interaction (HMI)



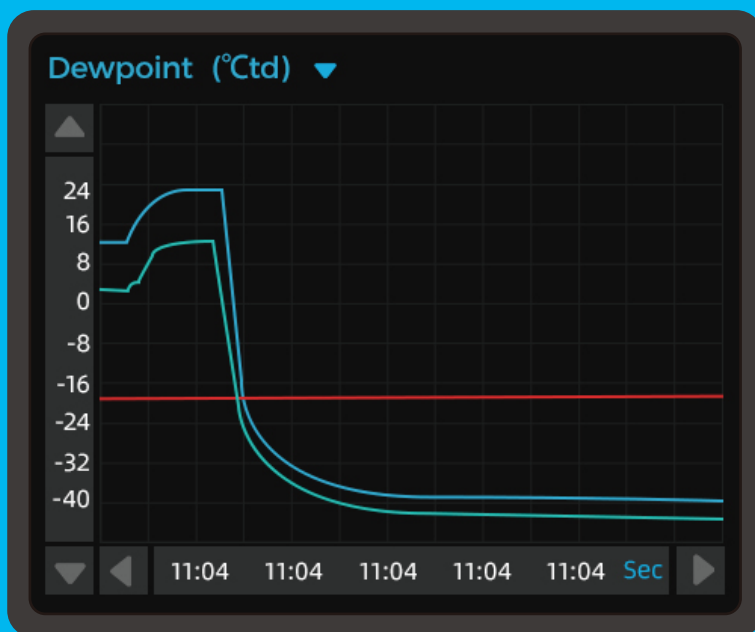
◎ Value



◎ Graph



◎ Setting



01.

Large-screen curve display for easy data comparison and analysis

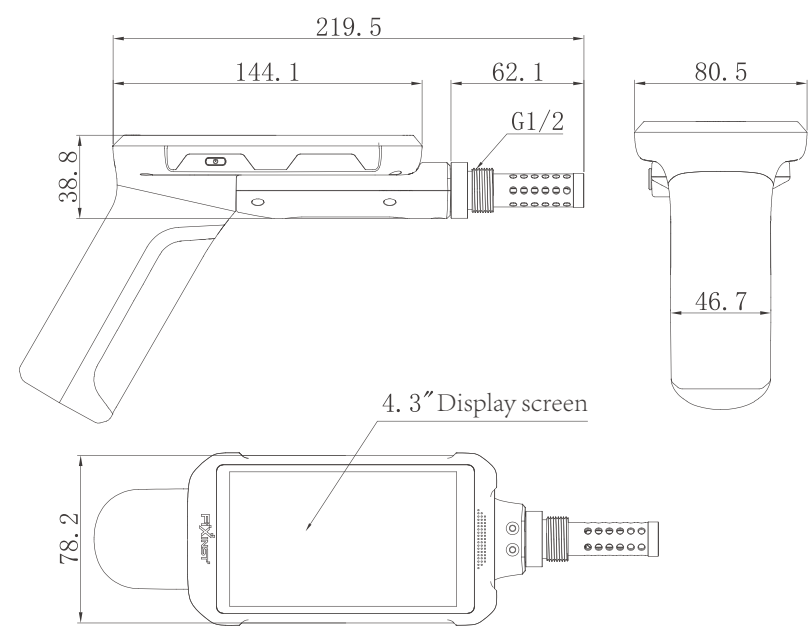
02.

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
 O 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		Power	
Dewpoint		Battery charging	PD fast charger, 20 VDC 1 A
F305A	-60 ... +60 °Ctd	Charging interface	Type-C interface
F305B	-110 ... +60 °Ctd	Charging time	2.5 h
Temperature	-40 ... +100 °C	Battery life	16 h
Pressure	0 ... 1.7 MPa(a)		(at 20 °C operating temperature)
Accuracy		Operating Environment	
Dewpoint (Air or Nitrogen)		Medium temperature	-30 ... +70 °C
+20 ... -60 °Ctd	±2 °Ctd	Operating temperature	0 ... +50 °C
-60 ... -100 °Ctd	±3 °Ctd	Storage temperature	-10 ... +60 °C
Temperature (Customized)		Relative humidity	0 ... 95 %RH
0 ... +50 °C	±0.3 °C (Standard)	Sample gas flow rate	≥ 2 L/min
-40 ... 0 °C & +50 ... +100 °C	±0.5 °C (Standard)	Pressure	0 ... 1.7 MPa(a)
Pressure		Output	
Accuracy @23°C	±0.3 %FS	File export	Type-C interface
Pressure Drift with Temperature	±0.001 MPa/10 °C		
Response Time		Other	
Dewpoint: 63% [90%], Reference: 20 °C, 1bar(a), 4L/min		Display	4.3" IPS LCD with capacitive touch
-50 → +20 °Ctd	20 sec [40 sec]	Data log	1.5 G storage, 200,000,000 values
+20 → -50 °Ctd	1 min [3 min]	Process connection	Dewpoint sensor: ISO G 1/2" thread
Pressure	< 1 sec		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
	S1701 0026								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 Ø6 mm fast connector
				M0104 0001					PTFE tubes, Ø6mm (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