



# Low Dew Point Probe

## RELIABLE MEASUREMENT OF TRACE MOISTURE.

- Highly accurate dew point and temperature measurement
- Withstands pressures up to 100 bar
- HYGROMER® LDP-1 sensor element
- Excellent repeatability
- With the latest AirChip4000 measurement technology
- Compatible with HF5 / HF8 / PF4 transmitters and HP22 / HP23 handhelds



# TECHNICAL INFORMATION.

## AirChip4000 / HYGROMER® LDP-1

The low dew point probe comes with the latest AirChip4000 technology. Calculates a measurement from the average of 8,000 single points within a 2 second interval and, together with the HYGROMER® LDP-1 dew point sensor, delivers measurements of the highest quality.

## Field of Application

The low dew point probe can be used in compressed air systems, refrigeration driers and adsorption driers. ROTRONIC offers the probe with EX certificate for environments with ATEX requirements. Please refer to the ATEX data sheet for more detailed information.

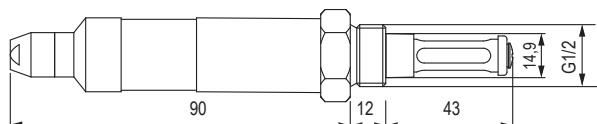
## Accessories

Suitable measurement chambers with a defined air flow rate and a quick connector for optimum dew point measurement are available in POM and stainless steel. The base unit can be used for customization.

Standard Meas. Chambers		Meas. Chambers Base Unit	
			
LDP-FCPB1	LDP-FCSB1	LDP-MCP	LDP-MCS

Measurement Chamber Specifications	
Air flow	1 liter/min. @ 8 bar (LDP-FC)
Measurement range	-40...85 °C / -50...100 °C (stainless steel)
Pressure resistance	16 bar / 100 bar (only LDP-MCS)
Dimensions	40 x 106 mm
Connections	G1/2" thread Compressed air fitting DN 7.2 (only LDP-FC) 2 x G 1/4" thread (only LDP-MC)
Housing material	Base unit: POM / Stainless steel 1.4301 Brass (fixed valve / quick connector)

## Dimensions



Would you like more information?

You can find a complete, up-to-date overview of our probes on the internet at [www.rotronic.com](http://www.rotronic.com).

General Specifications	
Device type	Digital dew point & temperature probe
Measurement range	-70...85 °C T <sub>d</sub> / -40...85 °C
Dew point accuracy @ 23 °C	±2 K T <sub>d</sub> (-50...20 °C T <sub>d</sub> ) ±3.5 K T <sub>d</sub> (-60...-50 °C T <sub>d</sub> )
Temperature accuracy @ 23 °C	±0.2 K
Power supply	3.3...5 VDC
IP protection	IP65
Current consumption	<1.5 mA
Compatible with	HF5, HF8, PF4, HP22, HP23 AC3001, HW4
Probe	
Filter / Filter carrier	Sintered stainless steel, 50 µm
Maintenance / Calibration	Annual calibration (recommended)
Dew point sensor	HYGROMER® LDP-1
Long-term stability dew point sensor	<1 °C T <sub>d</sub> /year
Response time dew point sensor T63: @ -50 °C T <sub>d</sub>	Typically <10 min, with filter(wet to dry) Typically <13 s, with filter (dry to wet)
Response time temperature sensor T63: @ -50 °C T <sub>d</sub>	Typically <15 min, with filter
Temperature sensor	Pt1000, Class B 1/3 DIN
Measurement interval	2 sec.
Pressure resistance	16 bar 100 bar (with LDP-MCS measurement chamber)
Dimensions	145 x 31 mm (probe head) Hexagonal nut: 27 mm
Interface	UART
Weight	Probe 260 g Measurement chamber POM 140 g Measurement chamber steel 610 g
Storage and transport conditions	-40...85 °C, non-condensing
Conformity with Standards	
CE / EMC compatibility	2004/108/EC
FDA / GAMP directives	Compatible
Housing material	Stainless steel, 1.4301

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