

# 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
- Trace moisture monitoring at low limits
- 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.

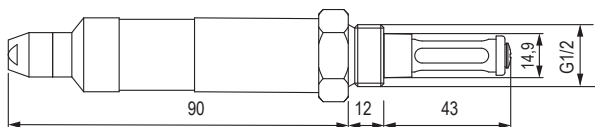
## Accessories

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<br>Compressed air fitting DN 7.2 (only LDP-FC)<br>2 x G 1/4" thread (only LDP-MC) |
| Housing material                   | Base unit: POM / Stainless steel 1.4301<br>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> )<br>±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   |
| 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<br>100 bar (with LDP-MCS measurement chamber)  |
| Dimensions  | 145 x 140 mm (probe head)<br>Hexagonal nut: 3 x 140 mm  |
| Interface   | UART  |
| Weight  | Probe 260 g<br>Measurement chamber POM 140 g<br>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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