WISE AIR 4.0®
MEASURE TO MANAGE

2026 · PRODUCT BROCHURE

Dew Point Sensors

WADS-207

Dew Point Sensor with Display

WADS-207 · 208 · IN-LINE, 1.5" TOUCH DISPLAY

Read the pressure dew point right at the pipe — and send it on over Modbus RTU and an isolated 4–20 mA output.

Dew point · Temperature · Humidity · Pressure



−80...+60
°C td range (207 / 208)

±2 °C td
+20 ... −60 °C td

1.5" touch
colour display on the sensor

2 × M12
Modbus RTU · isolated 4–20 mA

OVERVIEW

The dew point, on the sensor. The data, in your system.

The WADS-207 and WADS-208 are in-line dew point sensors with a built-in 1.5" capacitive touch display. Fitted after the dryer in the supplied measurement chamber, they show the pressure dew point, temperature and relative humidity where you need them — at the pipe — and send the values on over RS485 Modbus RTU and an isolated 4–20 mA output. WADS-207 covers −60 … +60 °C td for refrigerant and membrane dryers; WADS-208 covers −80 … +20 °C td for desiccant dryers. Variant -B adds a pressure sensor and shows both pressure dew point and atmospheric dew point.



MEASURES

- Dew point
- Temperature
- Humidity
- Pressure

Display at the pipe

1.5" capacitive touch display shows dew point, temperature and humidity without a separate indicator.

Two M12 connectors

A: 18 … 30 VDC and RS485 Modbus RTU. B: isolated 4-wire 4–20 mA and pulse output.

Pressure and atmospheric DP

Variant -B adds a MEMS pressure sensor and shows pressure dew point and atmospheric dew point.

Drift-compensated sensor

Polymer film sensor with up to 9-point dew point calibration and multi-point temperature compensation.

Fits in minutes

Measurement chamber and quick-release coupler included; connect to any G ¼" point after the dryer.

Robust in service

Stainless-steel sinter filter; resistant to condensation, particles, oil and most chemicals.

APPLICATIONS

- Dryer performance monitoring
- Early warning of dryer and drain faults
- Local reading plus PLC or SCADA signal
- Checking ISO 8573-1 moisture class targets
- Dry air for food, pharma and paint lines
- Nitrogen and other technical gases

PRESSURE DEW POINT

Dew point rises with pressure. Variant -B shows both values, so you can compare pressure dew point with atmospheric dew point on the sensor.

PRODUCT ANATOMY

Inside the WADS-207



1.5" capacitive touch display
Pressure dew point, temperature and RH read at the pipe.

2 × M12 connectors (rear)
A: 18 … 30 VDC + RS485 Modbus RTU. B: isolated 4–20 mA + pulse.

Spanner flats
Screw into the supplied measurement chamber and tighten here — never on the housing.

Stainless-steel sinter filter
30 … 45 µm filter protects the sensing element from particles and oil.

Polymer film sensor (inside)
Up to 9-point dew point calibration with temperature compensation.

TECHNICAL DATA

Specifications

MEASURING RANGE

Dew point, WADS-207	−60 … +60 °C td
Dew point, WADS-208	−80 … +20 °C td
Temperature	−40 … +100 °C
Pressure (-B)	0 … 15 bar

DEW POINT ACCURACY (AIR, N_2)

+20 … −60 °C td	±2 °C td
−60 … −80 °C td (208)	±3 °C td

TEMPERATURE ACCURACY

0 … +50 °C	±3 °C
Other range	±5 °C; higher accuracy on request

PRESSURE SENSOR (-B)

Accuracy at 23 °C	±3 % FS
Temperature effect	±0.01 bar / 10 °C

RESPONSE (63 % / 90 %)

−50 → +20 °C td	20 … 40 s
+20 → −50 °C td	1 … 3 min
Conditions	20 °C, 1 bar(g), 4 L/min

OUTPUTS AND DISPLAY

Digital	RS485 Modbus RTU
Analogue	4–20 mA, 4-wire, isolated; pulse output
Values	PDP, atmospheric DP, RH, temperature, pressure (-B)
Display	1.5" capacitive touch panel

POWER AND ENVIRONMENT

Supply	24 VDC nominal (18 … 30 VDC); PSU rating 1 A
Ambient	−30 … +70 °C, 0 … 95 % RH
Storage	−40 … +80 °C

MECHANICAL

Electrical connection	2 × M12, 5-pin
Process connection	G ¼" via measurement chamber and quick-release coupler
Pilot gas flow	> 1 L/min
EMC	IEC 61326-1

DEW POINT
±2 °C td
+20 … −60 °C td

LOW RANGE
±3 °C td
−60 … −80 °C td (WADS-208)

RESPONSE
20 … 40 s
dry to wet, 63 % / 90 %

Calibration Every sensor is calibrated before dispatch and ships with a calibration certificate. Recommended recalibration every 2 years.

MODEL SELECTION AND INSTALLATION

Pick the variant. Fit it right.

Choose your variant

CODE	RANGE °C TD	PRESSURE	DISPLAYS
207-A	−60 … +60	–	**PDP, T, RH**
207-B	−60 … +60	✓	**+ pressure, atm. DP**
208-A	−80 … +20	–	**PDP, T, RH**
208-B	−80 … +20	✓	**+ pressure, atm. DP**

WADS-207 for refrigerant and membrane dryers; WADS-208 for desiccant dryers down to −80 °C td.

PRESSURE DEW POINT VS ATMOSPHERIC DEW POINT

Dew point rises with pressure. Air with an atmospheric dew point of −10 °C td, compressed to 2 bar absolute, has a dew point of about −1 °C td. Variant -B show both values, so you always compare like with like.

Which WiseAir dew point product

YOU NEED	CHOOSE
In-line sensor with display	WADS-207/208
Wall monitor with screen and alarm	WADS-205/206
In-line sensor for PLC or logger	WADS-201… 204
Dew point below −80 °C td	WADS-204

All WiseAir dew point products connect to the WASM-604 Smart Monitoring platform through the WADL-301 data logger.

ISO 8573-1 moisture classes

CLASS	PDP ≤	MODELS
1	−70 °C td	WADS-208
2	−40 °C td	WADS-207, WADS-208
3	−20 °C td	WADS-207, WADS-208
4	+3 °C td	WADS-207, WADS-208
5	+7 °C td	WADS-207, WADS-208
6	+10 °C td	WADS-207, WADS-208

Water vapour classes of ISO 8573-1:2010. Typical: refrigerant dryer class 4–6, desiccant dryer class 1–3.

1

Choose the point

Horizontal pipe downstream of the dryer, in dry air. Mount the sensor upright on top of the pipe, never upside down or sideways.

2

Prepare the connection

A G ¼" female ball valve, socket or weld nipple with a bore of at least 13 mm. A valve lets you remove the sensor without depressurising.

3

Fit and set the flow

Screw the sensor into the chamber, couple it to the valve, open slowly and set the bleed screw to a pilot flow above 1 L/min.

4

Connect and wait

Connector A: 18 … 30 VDC and Modbus; B: 4–20 mA. Let the sensor dry down to the process dew point.

ORDERING INFORMATION

WADS-207-A	Dew point sensor with 1.5" touch display, −60 … +60 °C td
WADS-207-B	As WADS-207-A, with pressure sensor: pressure and atmospheric dew point
WADS-208-A	Dew point sensor with 1.5" touch display, −80 … +20 °C td
WADS-208-B	As WADS-208-A, with pressure sensor: pressure and atmospheric dew point

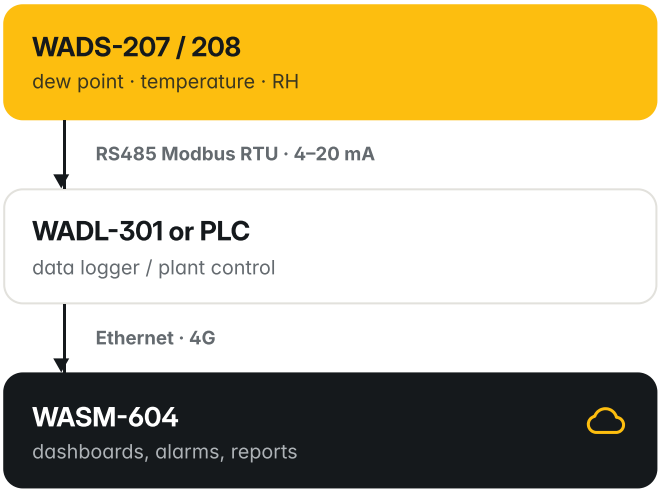
OPTIONS AND ACCESSORIES

Y-type M12 splitter	Several sensors on one RS485 bus
Analogue display unit	Panel display for the 4–20 mA signal
WADL-301 data logger	Records values, sends them to WASM-604
WASM-604 Smart Monitoring	Online dashboards, alarms and reports

IN THE BOX

- Dew point sensor, as ordered
- Connection cable, M12, 2 m
- M12 field-wireable connector
- Measurement chamber
- Quick-release coupler
- Calibration certificate
- User manual

CONNECT TO WISEAIR 4.0



The dew point, right where you need it.

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