

FA 415-2 dew point sensor (-80...+20 °C_{td})

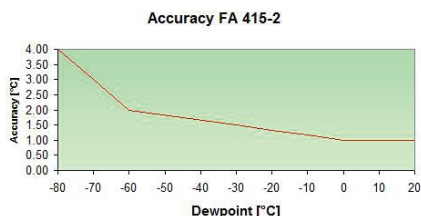

The CS dew point transmitter **FA 415-2** provides reliable and long term stable dew point monitoring in industrial applications. With these new models dew point measurement in desiccant and refrigerant dryers becomes affordable. FA 415-2 outputs the measurement value through the loop powered 4 – 20 mA signal.

Features

- Affordable dew point transmitter for mid range applications such as refrigerant dryer monitoring
- Long term stability
- IP65 casing provides robust protection in rough industrial environment
- Very fast response time ensures safe and reliable indication whenever dew points are out of valid ranges
- Can be installed directly into dryers through G 1/2" threat
- High accuracy of up to 2 °C dew point

Technical data FA 415-2

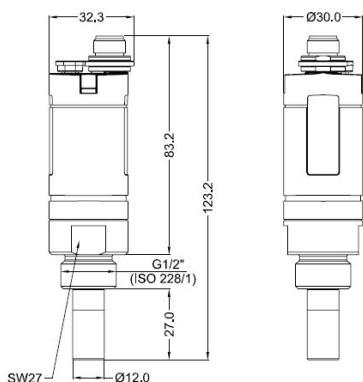
Measuring range	-80 ... +20 °C
Accuracy	Up to 2 °C dew point (see chart next page)
Pressure range	-0.1 ... 1.6 MPa
Power supply:	10 ... 30 VDC / 22 mA
Ambient conditions	0 ... 50 °C
Response time t ₉₅	< 30 sec (descending) < 10 sec (ascending)
Output signal	4...20 mA, loop powered
Connector	M12, 5 pole
Casing	Zinc alloy, PC + ABS
Classification	IP65
Process connection	G 1/2" thread (ISO 228/1)
Sensor protection	Stainless steel sinter filter pore size <30 um
EMC	According to IEC 61326-1



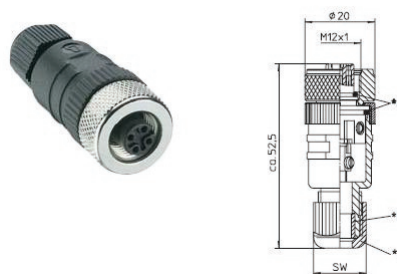
Stated accuracy under following conditions:

- Ambient temperature $23 \pm 3^\circ\text{C}$
- Process temperature $23 \pm 3^\circ\text{C}$
- Ambient humidity <95%, no condensation
- Airflow > 1 l/min at sensor tip

Dimensions

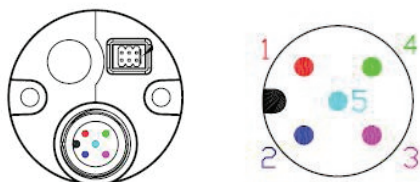


M12 connector



The sensor is delivered with the M12 connector. The user can connect the supply and signals according to the connection diagram below. If a connection cable is ordered (0553 0104, 0553 0105) M12 connector is replaced by a connection cable, with open wires at one side.

Connection diagram



- SDI: Digital signal (internal use)
 -VB: Negative supply voltage
 +VB: Positive supply voltage
 NC: not connected

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
SDI	-VB	+VB	NC	NC

Notes on safety

Please read prior to operation!

Attention: Do not exceed a pressure range of maximum 1.6 MPa with standard version. For higher pressure we offer special versions, please contact our sales.

Observe measuring ranges of sensor!

Observe max. storage and transport temperature as well as max. operating temperature (e. g. protect measuring instrument from direct sunlight).

Warranty claims no longer apply if the instrument is opened, in the case of inexperienced handling or use of force.

Adjustments or calibrations should be carried out by qualified measurement and control engineering staff only.

Important: Before installation briefly purge the compressed air in order to remove condensate and particles. This prevents contamination of sensor.

Calibration and service

Please observe from time to time the sinter cap. If it appears to be dirty, it's recommended to replace it. Contaminated filters can lead to longer response times and if the sensor is contaminated it can cause wrong measurements. Please contact our service.

According to DIN ISO certification of the measuring instruments, we recommend regular calibration, and if necessary, adjustment of instrument by the manufacturer. The calibration cycles should fit your internal scheme. We recommend a yearly cycle.

In the case of function faults please send us your measuring instrument with a brief description of the defect. Please also indicate your telephone number so that we can contact you if necessary.

CS provides a warranty for this product of 12 months covering the material and workmanship under the stated operating conditions from the date of delivery.

Order information Repairs immediately and within the warranty time guaranteed by us.

Excluded from this warranty is damage caused by improper use and non-adherence to the instruction manual.

The warranty is also cancelled once the measuring instrument has been opened provided this is not described in the instruction manual for maintenance purposes. This is also the case if the serial number has been changed, damaged or removed.

If in addition to the warranty service necessary repairs, adjustments or similar are carried out, the warranty services are free of charge but there is a charge for other services such as transport and packing costs. Other claims, especially those for damage occurring outside the instrument are not included unless responsibility is legally binding.

Order no.	Description
0699 2415	FA 415-2, dew point transmitter including M12 connector (straight type) -80 ... +20 °C, G 1/2" thread
0553 0104	Connection cable 5m, 5 pole
0553 0105	Connection cable 10 m, 5 pole
0554 2005	Service kit for sensor configuration including software
0699 3491	Measuring chamber for easy installation in compressed air system up to 15 bar
0699 3493	Measuring chamber bypass type (in and out 6 mm hose connection)
0198 0002	Sinter cap stainless steel