



FA 410 from -80 to 20 °C_{td}

FA 410 – the ideal dew point sensor for monitoring membrane and adsorption dryers

Typical use in compressed air dryers/granulate dryers at very low dew points down to -80 °C.

Recommendation:



Mounting with standard measuring chamber for compressed air up to 16 bar

Advantage: Easy installation via fast coupling.

Special features

- Measuring range -80...20 °C_{td}
- Extremely long-term stable
- Analogue output 4...20 mA
- Condensation insensitive
- Quick response time
- Pressure-tight up to 350 bar (special version)



Technical data FA 410	
Measuring range:	-80...20 °C _{td} resp. -20...50 °C _{td}
Accuracy:	± 1 °C at 20...-20 °C _{td} ± 2 °C at -20...-50 °C _{td} ± 3 °C at -50...-80 °C _{td}
Pressure range:	-1...50 bar special version up to 350 bar
Power supply:	24 VDC (16...30 VDC)
Protection class:	IP 65
EMC:	according to DIN EN 61326
Operating temp:	-20...70 °C
Connection:	M12, 5-pole
PC connection:	SDI interface
Analogue output:	4...20 mA = -80...20 °C _{td} resp. 4...20 mA = -20...50 °C _{td}
Burden for analogue output:	< 500 Ohm
Screw-in thread:	G1/2"
Dimensions:	Ø 30 mm, length approx. 130 mm
Via service software:	
– choose units:	% RH, °C _{td} , g/m ³ , mg/m ³ , ppm V/V
– scaling	change 4...20 mA
Special version:	4...20mA, 2-wire technology

Description	Order no..
FA 410 dew point sensor, -80°...20°C _{td} incl. inspection certificate	0699 0410
FA 410 dew point sensor, -20°...50°C _{td} incl. inspection certificate	0699 0412
Connection cables:	
Connection cable, length: 5 m	0553 0104
Connection cable, length: 10 m	0553 0105
Options for FA 410:	
Option special version up to 350 bar	0699 4003
Option output in mg/m ³ , g/kg, oder %RH, special scaling 4...20 mA	0699 4004
Additional accessories:	
Standard measuring chamber up to 16 bar	0699 3390
High-pressure measuring chamber up to 350 bar	0699 3590
Measuring chamber for respiratory air bottles up to 350 bar	0699 3790
CS Service Software for FA/VA 400 sensors including PC connection set, USB adapter and interface adapter to the sensor as well as CS Soft Professional software for data recording, please see page 11	0554 2005
Mains unit in wall housing 100-240 V, 10 VA, 50-60 Hz/24 VDC, 0.35 A	0554 0108
Mains unit on DIN rail 100-240 VAC / 24 VDC, 0.35 A	0699 3340
Calibration:	
Precision calibration at -40 °C _{td} including ISO certificate	0699 3396
Precision calibration at 0 °C and 10 °C _{td} including ISO certificate	3200 0003
Control and calibration set 11.3 % RH	0554 0002
Control and calibration set 33 % RH	0554 0004
Control and calibration set 75.3 % RH	0554 0005

Dew point set DS 52 for adsorption dryers

Dew point set DS 52

consisting of:

- Digital process meter DS 52



• Dew point sensor FA 410

• Standard measuring chamber

Option alarm unit (buzzer and continuous red light):

The measuring range of $-80...20\text{ }^{\circ}\text{Ctd}$ makes the dew point set DS 52 with alarm the ideal dew point monitor with analogue output $4...20\text{ mA}$.

The dew point sensor FA 410 is extremely long-term stable and can be installed and removed quickly and easily under pressure by means of the screwable measuring chamber including quick-coupling. The dew point set is supplied ready for plug-in, i. e. everything is completely wired. The alarm values can be freely adjusted.

Special features

- System ready for plug-in: Everything completely wired
- No time-consuming studying of the instruction manual
- 2 alarm contacts (230 VAC, 3 A) pre- and main alarm freely adjustable
- $4...20\text{ mA}$ analogue output
- Option alarm unit: Buzzer and continuous red light

Technical data display DS 52

Dimensions:	118 x 92 x 93 mm
Display:	LED red, 7 segments, height: 13 mm, 5 digits, 2 LED for alarm relay
Keypad:	4 keys
Input:	dew point sensor FA 410
Power supply:	230 VAC, 50/60 Hz; Option: 24 VDC or 110 VAC 50/60 Hz
Alarm outputs:	2 x relay output, changeover contact, 250 VAC, max. 3 A
Operating temperature:	$-10...+60\text{ }^{\circ}\text{C}$ (storage temp. $-20\text{ }^{\circ}\text{C}...+80\text{ }^{\circ}\text{C}$)
Alarm thresholds:	freely adjustable
Hysteresis:	$2\text{ }^{\circ}\text{Ctd}$
Analogue output:	$4...20\text{ mA} = -80...20\text{ }^{\circ}\text{Ctd}$

Technical data dew point sensor FA 410

Measuring range:	$-80...20\text{ }^{\circ}\text{Ctd}$
Accuracy:	$\pm 1\text{ }^{\circ}\text{C}$ at $20...-20\text{ }^{\circ}\text{Ctd}$ $\pm 2\text{ }^{\circ}\text{C}$ at $-20...50\text{ }^{\circ}\text{Ctd}$ $\pm 3\text{ }^{\circ}\text{C}$ at $-50...-80\text{ }^{\circ}\text{Ctd}$
Pressure range:	$-1...50\text{ bar}$ (with meas. chamber 16 bar), special version up to 350 bar
Protection class:	IP 65
EMV:	according to DIN EN 61326
Operating temp.:	$-20...70\text{ }^{\circ}\text{C}$
Burden analogue output:	$< 500\text{ Ohm}$
Screw-in thread:	G 1/2" without meas. chamber

Description	Order no.
Dew point set DS 52 for adsorption dryers consisting of:	0600 0420
DS 52 LED digital process meter in wall housing	0500 0007
FA 410 dew point sensor ($-80...20\text{ }^{\circ}\text{Ctd}$)	0699 0410
Standard measuring chamber up to 16 bar	0699 3390
Connection cable for VA/FA Series, 5 m with M12 plug	0553 0104
Options:	
Power supply 24 VDC (instead of 230 VAC)	Z500 0001
Power supply 110 VAC (instead of 230 VAC)	Z500 0002
Alarm unit mounted at wall housing	Z500 0003
Alarm unit for external mounting with 5 m cable	Z500 0004
Additional accessory:	
Precision calibration at $-40\text{ }^{\circ}\text{Ctd}$ including ISO certificate	0699 3396