



Dew point sensor FA 500 from -80 to 20°Ctd

FA 500 is the ideal dew point measuring instrument with integrated display and alarm relay for refrigeration, membrane and desiccant driers.



Special features:

- Integrated display
- Threshold value adjustable via keypad alarm relay (max. 60 VDC, 0.5 A)
- Pressure-tight up to 350 bar (special version)
- Extreme long-term stability
- Quick response time
- 4...20 mA analogue output
- 2 versions: Refrigeration driers and desiccant driers
- **NEW: Modbus-RTU interface**
- **NEW: Higher resolution of sensor signal caused by the improved evaluation electronics**
- **NEW: Sensor diagnosis on site with a portable device or CS Service Software**

The integrated keys enable an easy menu-driven operation



Upper connection:

Power supply
4...20 mA output
Modbus-RTU output

Lower connection:

Alarm relay





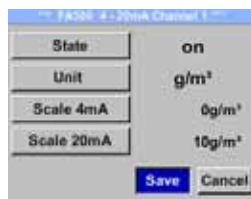
FA 500 – easy operation via keys at the display



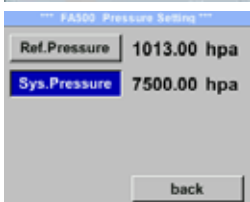
The integrated display shows the dew point in big figures as well as further humidity parameters on two more display pages. By means of the arrow key it can be browsed between the display pages.



The alarm threshold value for the integrated relay can be entered via the keys. Apart from the alarm threshold it is also possible to enter the hysteresis freely.



The 4...20 mA analogue output can be scaled freely resp. also allocated to one further parameter, e. g. g/m³.



If requested the sensor can also reckon back from the measured pressure dew point to the atmospheric dew point upon entering the system pressure of the compressed air plant and the reference pressure (atmospheric pressure).

Description	Order No.
FA 500 dew point sensor for refrigeration driers, -20...50 °Ctd	0699 0501
FA 500 dew point sensor for desiccant driers, -80...20 °Ctd	0699 0502
FA 500 dew point sensor for desiccant driers, -60...30 °Ctd	0699 0503
Connection cables:	
Connection cable, 5 m	0553 0104
Connection cable, 10 m	0553 0105
Alarm cable, length: 5 m	0553 0106
Alarm cable, length: 10 m	0553 0107
Options for FA 500:	
Option max. pressure FA5xx 350 bar	Z699 0515
Option max. pressure FA5xx 500 bar	Z699 0516
Option special scaling FA5xx 4...20 mA= __ ... __ g/m ³ , ppm etc.	Z699 0514
Option connection thread FA5xx, 5/8" UNF	Z699 0511
Option connection thread FA5xx, 1/2" NPT	Z699 0512
Option surface condition FA5xx, free of oil & grease	Z699 0517
Ethernet-Interface for VA500/520 and FA 500	Z695 5006
Ethernet-Interface PoE for VA500/520 and FA500	Z695 5007
M-Bus board for VA500/520 and FA500	Z695 5004
Additional accessories:	
Standard measuring chamber up to 16 bar	0699 3390
High pressure measuring chamber up to 350 bar	0699 3590
CS Service Software for FA/VA sensors incl. PC connection set, USB connection and interface adapter to the sensor	0554 2007
Mains unit in wall housing for maximum 2 sensors of the series VA/FA 5xx, 100-240 V, 23 VA, 50-60 Hz / 24 VDC, 0.35 A	0554 0110
AC adapter plug 100-240 V AC/ 24 V for VA/FA 500/520	0554 0109
Calibration:	
Precision calibration at -40°Ctd or +3°Ctd including ISO certificate	0699 3396

Technical data FA 500

Measuring range:	-80...20 °Ctd, -60...30 °Ctd, -20...50 °Ctd, resp. 0...100% RH
Accuracy:	± 1°C bei +50...-20°Ctd ± 2°C bei -20...-50°Ctd ± 3°C bei -50...-80°Ctd
Pressure range:	-1...50 bar special version up to 350 bar
Power supply:	24 VDC (18...30 VDC) smoothed
Protection class:	IP 65
EMV:	according to DIN EN 61326
Operating temp:	-20...50 °C
Connection:	2 x M12, 5-pole for analogue output, Modbus-RTU and alarm output
PC connection:	Modbus-RTU interface (RS 485)
Output: (3-wire)	4...20 mA = -80...20°Ctd 4...20 mA = -60...30°Ctd 4...20 mA = -20...50°Ctd
Burden for analogue output:	< 500 Ω
Alarm relay:	NC, max.60 VDC, 0.5 A
Screw-in thread:	G 1/2"
Dimensions of housing	76,5 x 85 x 75 (WxHxD)