



CS INSTRUMENTS GmbH

# Dew point set DS 400

for monitoring of medical  
compressed air

Display of **humidity ratio in ppm**  
and **pressure dew point °Ctd.**



Since 1st August 2001 medical compressed air is subject to the Medicines Act. Until that point of time the requirements to medical compressed air were specified in DIN EN 737-3.

Compared to DIN EN 737-3 the monograph "Aer medicalis" in the appendix to the European Pharmacopoeia includes essentially altered purity features whereas especially the drastically reduction of the **dew point temperature** to **-46°C** atmospheric (this corresponds to 67 ppm V/V) leads to considerable difficulties. The value **67 ppm V/V** for water equals the point of condensation at a pressure of 200 bars and a temperature of 11 °C. This limitation of the water content to the point of condensation is necessary since the condensation of water may cause corrosion damages and furthermore can favor the increase of microbes.



## Dew point set DS 400

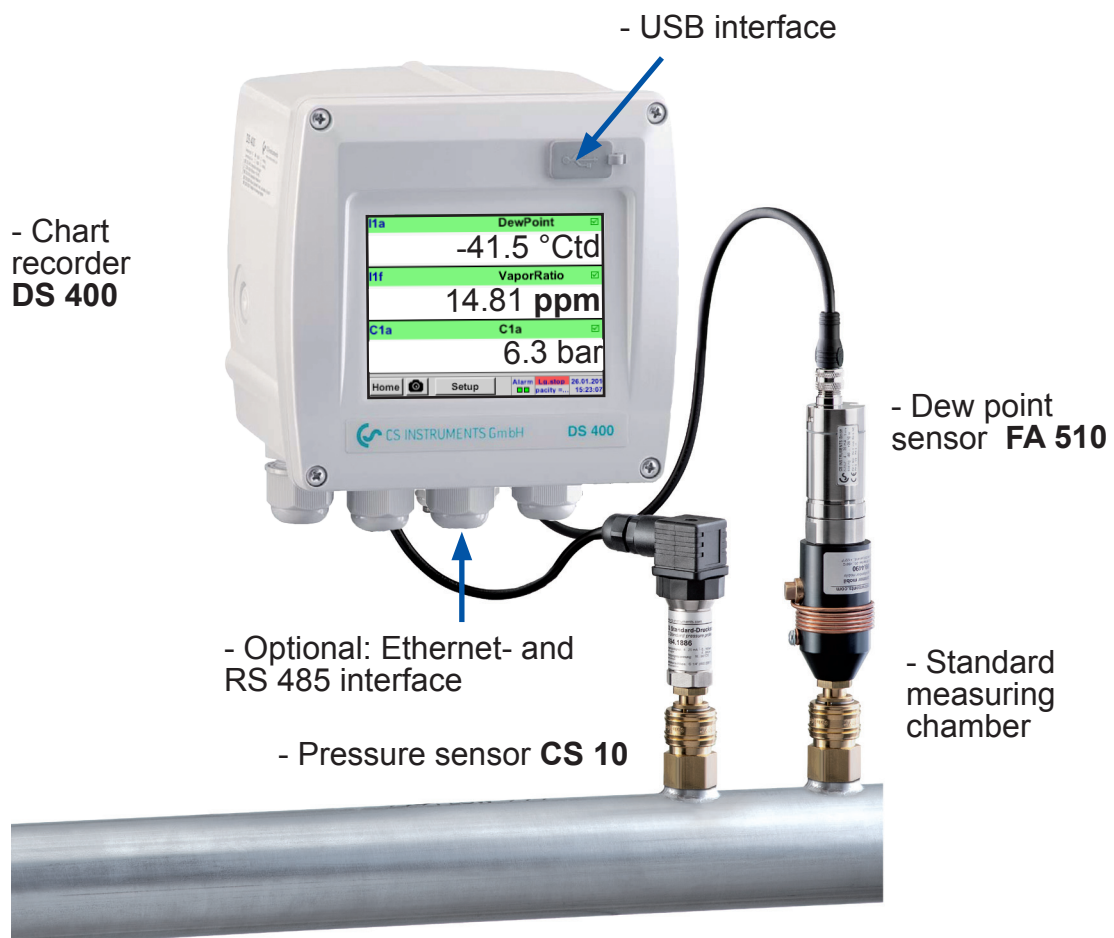
for monitoring of medical compressed air

- display of **humidity ratio** in **ppm** and pressure dew point.

for stationary dew point monitoring of refrigeration or desiccant driers. The touch screen graphic display enables an intuitive operation and shows the progress of the measured values. 2 alarm relays are available for monitoring of threshold values. Available either with a classic analogue output 4...20 mA or optionally with digital interfaces like Ethernet and RS 485 (Modbus protocol). As a stand-alone solution the measured data stored in the optional data logger can be read-out via USB stick and evaluated by means of the software CS Soft Basic.

## Dew point set DS 400

consisting of:





Description	Order No.
<b>Dew point set DS 400 for desiccant driers (-80...+20°Ctd) threshold value 67 ppm (V/V)</b>	<b>0601 0513</b>
<b>Dew point set DS 400 for refrigeration driers (-20...+50°Ctd) threshold value 870 ppm (V/V)</b>	<b>0601 0514</b>
Integrated data logger for 100 million measured values	Z500 4002
Option: Integrated Ethernet and RS 485 interface	Z500 4004
Option: Integrated webserver	Z500 4005
<b>Further accessories</b>	
CS Soft Basic - data evaluation in graphic and table form - reading out of the measured data via USB or Ethernet	0554 7040
Alarm unit mounted at wall housing	Z500 0003
Alarm unit for external mounting with 5 m cable	Z500 0004
<b>Calibration</b>	
Precision calibration at -40 °Ctd or +3 °Ctd including ISO certificate	0699 3396

### Technical data DS 400

<b>Dimensions:</b>	118 x 115 x 98 mm IP 54 (wall housing) 92 x 92 x 75 mm (panel mounting)
<b>Inputs:</b>	2 digital inputs for FA 510 2 analogue inputs for pressure sensors
<b>Interface:</b>	USB-interface
<b>Power supply:</b>	100...240 VAC, 50-60 Hz
<b>Accuracy:</b>	see technical data FA 510
<b>Alarm outputs:</b>	2 relays, (pot.-free)
<b>Data logger:</b>	100 million measuring values start/stop time, measuring rate freely adjustable

### Technical data CS 10

<b>Housing:</b>	316L
<b>Unit:</b>	bar
<b>Type of pressure:</b>	relativ
<b>Measuring range:</b>	0...10 bar 32 bar overrange limit
<b>Process connection:</b>	G 1/4A according to DIN 3852-E
<b>Accuracy:</b>	+/- 0.5 %
<b>Allowed medium temperature:</b>	0...+80 °C
<b>Output signal</b>	4...20 mA, 2-wire

### Technical data FA 510

<b>Measuring range:</b>	-80...20 °Ctd or -20...50 °Ctd
<b>Accuracy:</b>	± 1 °C at 20...-20 °Ctd ± 2 °C at -20...-50 °Ctd ± 3 °C at -50...-80 °Ctd
<b>Pressure range:</b>	-1...50 bar, special version 350 bar



### Integrated data logger

- Recording of the dew point progression of up to 100 million measuring values

### Option:

- CS Soft Basic for evaluation in graphic and table form. Read-out of the data either via USB stick or via Ethernet





Dew point



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