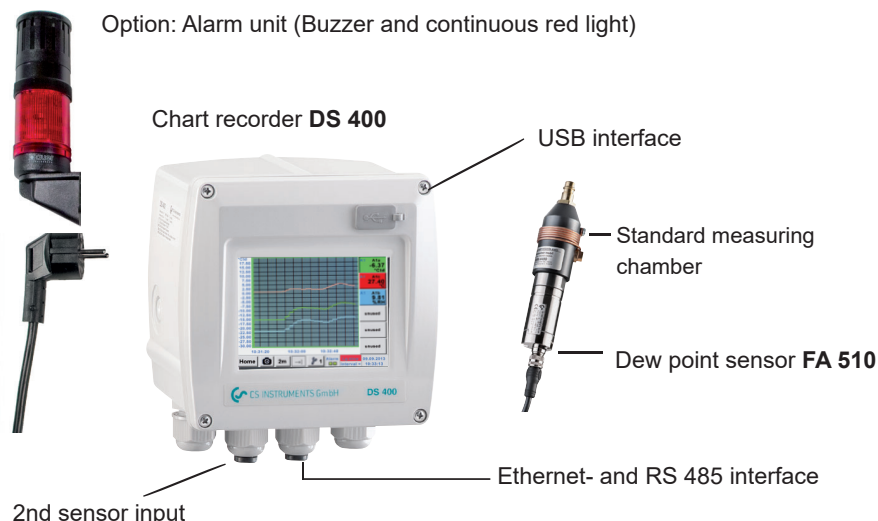# DS 400 Dew point monitoring set

For stationary dew point monitoring of refrigeration or adsorption dryers. The touch screen graphic display enables intuitive operation and graphically shows the progress of the measured values. Two alarm relays are available for monitoring threshold values. Available interfaces are either analog output 4...20 mA or optional digital interfaces such as Ethernet and RS 485 (Modbus protocol). As a stand-alone solution, the measured values stored in the optional data logger can be read-out via USB stick and evaluated on the computer by means of the software CS Basic.

Option: Alarm unit (Buzzer and continuous red light)

Chart recorder **DS 400**

USB interface

Standard measuring chamber

Dew point sensor **FA 510**

Ethernet- and RS 485 interface

2nd sensor input

SPECIAL FEATURES:

- 3.5" Graphic display – easy to use with touchscreen
- Plug-and-play system: everything wired and ready
- 2 alarm contacts (230 VAC, 3 A), pre-alarm and main alarm freely adjustable
- An alarm delay can be set for each alarm relay.
- 4...20 mA analog output
- Option: Ethernet and RS 485 interface (Modbus protocol)
- Option: Webserver

Transfer of data to the PC via USB stick

- **Option**: Integrated data logger
- Record dew point curve up to 100 million measured values
- CS Basic for evaluation in graphs and tables. Read out data either via USB stick or Ethernet

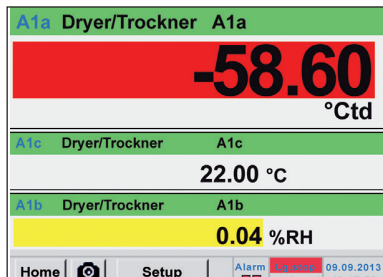| DESCRIPTION	ORDER NO.
Dew point monitoring DS 400 set for adsorption dryers (-112…+68 °Ftd)	0601 0510
Dew point monitoring DS 400 set for refrigeration dryers (-4…+122 °Ftd)	0601 0512
Options:	
Option: Integrated data logger for 100 million measured values	Z500 4002
Option: Integrated Ethernet and RS 485 interface	Z500 4004
Option: Integrated webserver	Z500 4005
Option: 2 additional sensor inputs for analog sensors (pressure sensors, temperature sensors etc.)	Z500 4001
Further accessories	
CS Basic – data evaluation graphically and in table form - reading of the measured data via USB or Ethernet, license for 2 workstations	0554 8040
Alarm unit mounted to the wall housing	Z500 0003
Alarm unit for external mounting with 16 ft cable	Z500 0004
Calibration and adjustment	
Precision calibration at -40 °…37.4 °Ftd incl. ISO certificate	0699 3396

TECHNICAL DS 400	
Dimensions:	4.6 x 4.53x 3.8 Inches IP 54 (wall housing) 3.6 x 3.6 x 2.9 Inches (panel mounting)
Inputs:	2 digital inputs
Interface:	USB interface
Power supply:	100…240 VAC, 50-60 Hz
Accuracy:	See FA 510
Alarm outputs:	2 relays, (pot.-free)
Options:	
Data logger:	100 million measured values start/stop time, measuring rate freely adjustable
2 additional sensor inputs:	For connection of pressure sensors, temperature sensors, clamp-on ammeters, third-party sensors with 4...20 mA, 0 to 10 V, Pt 100, Pt 1000

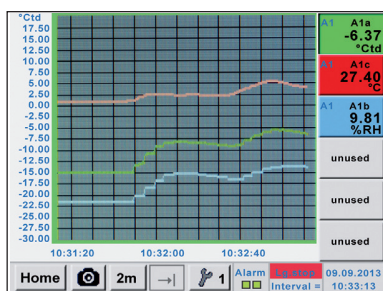| TECHNICAL DATA FA 510	
Measuring range:	-112 to 68 °Ftd or -4…122 °Ftd
Accuracy:	± 1 °F at 122…-4 °Ftd ± 2 °F at -4…-122 °Ftd ± 3 °F at -122…-112 °Ftd
Pressure range:	-14.5...725 psi, special version 5076 psi

Easy operation via touchscreen

Actual measured values

All measured values are able to be seen.. Threshold value exceedances are indicated in red. A "measuring site name" can be allocated to each sensor.

Graphic view

In the graphic view all measured values are indicated as curves. It is possible to browse back on the time axis by a slide of the finger (without data logger maximum 24 h, with data logger back to the start of the measurement).

Data logger

Measured values are stored in DS 400 with the option "integrated data logger".
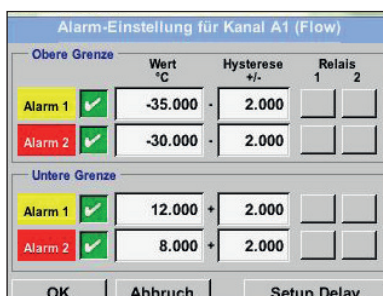The time interval can be freely set. Furthermore there is the possibility to fix the starting time and the end time of the data recording.
Read-out of the measured data via USB interface or via the optional Ethernet interface.

Selection of the language

DS 400 is available in several languages.

Adjustment of the alarm relays

Each one of the two alarm relays can be allocated individually to a connected sensor. The alarm thresholds and the hysteresis can be easily adjusted.
New: It is possible to set an alarm delay for each alarm relay so that the relay is only triggered after a set period of time.