



# Dew point

Pneumatech offers a wide and field proven product portfolio for dew point sensors. With our especially designed stationary and mobile solutions, the dew point of refrigeration, desiccant or membrane dryers can be supervised. Tailor-made accessories like measuring chambers, dry containers or diffusion tight hose safeguard that Pneumatech dew point systems are the perfect solution for a flawless dew point measurement

To ensure that your processes using compressed air run smoothly, dew point has to be in compliance to the requirements accordingly. In several industries and applications, the dew point need to be measured in a professional way. Examples are generation of technical gases such as nitrogen or oxygen and other, in the plastics technology for the drying of granulate and many more. Customers all over the globe rely on the competence and knowledge of Pneumatech. Proven and reliable dew point meters from Pneumatech are helping customers worldwide to protect the required product quality in compressed air and gas systems.

## PDP Check M/ PDP Check M plus - Mobile dew point meters with data logger

### Features & Benefits

- ▶ Precise dew point measurement down to  $-80^{\circ}\text{C}_{\text{td}}$
- ▶ Quick response time
- ▶ 3.5" graphic display / easy operation via touch screen
- ▶ Integrated data logger for storage of the measured values
- ▶ USB interface for reading out via USB stick
- ▶ Calculates all necessary moisture parameters like  $\text{g}/\text{m}^3$ ,  $\text{mg}/\text{m}^3$ , ppm V/V,  $\text{g}/\text{kg}$ ,  $^{\circ}\text{C}_{\text{tdatm}}$
- ▶ 2nd freely assignable sensor input for third-party sensors (only DP 510)
- ▶ International: Up to 8 languages selectable

### Applications:

- ▶ Compressed air: Examination of refrigeration, membrane, adsorption dryers
- ▶ Technical gases: Residual moisture measurement in gases such as  $\text{N}_2$ ,  $\text{O}_2$  etc.
- ▶ Plastic industry: Examination of granulate dryers



### Special features



Quick installation



Ideal for service technicians

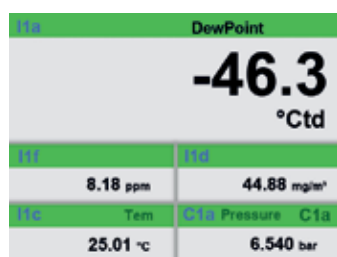
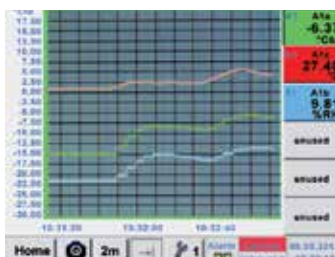


Dry container for sensor protection and quick adaptation time



Transfer of data per USB stick to the PC

## Everything a glance



Gradients are displayed graphically, so the operator sees at a glance the behavior of the dryer since the start of the measurement.

All physical parameters of the humidity measurement are calculated automatically. The PDP Check M plus also displays the measured values of the external sensor.

Up to 100 million readings can be stored. Each measurement may be accompanied by a comment, e.g. location name. The time interval can be determined freely.

Photo key saves current screen as an image file. No additional software necessary.

Description	Order no.
<b>PDP Check M in a case - consisting of:</b>	2255330386
• Portable dew point meter PDP Check M for compressed air and gases	2255332534
• Mobile measuring chamber up to 16 bar	2255332535
• Diffusion-tight PTFE hose with quick connector, length 1 m	2255332536
• Power supply for PDP Check M/ PDP Check M plus	2255332537
• Control and calibration set 11.3 % RH	2255332538
• Quick-lock coupling	2255332539
• Dry container for PMH dew point sensors	2255332540
• Transportation case (small) for PDP Check M	2255332541
<b>PDP Check M plus in a case - consisting of:</b>	2255332453
• Mobile dew point meter PDP Check M plus with one additional input external sensors	2255331735
• Mobile measuring chamber up to 16 bar	2255332535
• Diffusion-tight PTFE hose with quick connector, length 1 m	2255332536
• Power supply for PDP Check M/ PDP Check M plus	2255332537
• Control and calibration set 11.3 % RH	2255332538
• Quick-lock coupling	2255332539
• Dry container for PMH dew point sensors	2255332540
• Transportation case (large) for PDP Check M plus as well as other sensors	2255332523
<b>Further options, not included in the set:</b>	
Option: „Mathematics calculation function“ for 4 freely selectable channels, (virtual channels): addition, subtraction, division, multiplication	2255332521
Option: „Totalizer function for analogue signals“	2255332522
PMH Basic – data evaluation graphically and in tabular form - reading of the measured data via USB or Ethernet, license for 2 workstations	2255332468
Precision calibration at -40°Ctd or 3°Ctd with ISO certificate	2255332542
Additional calibration point freely selectable in the range between -80-+20°Ctd	2255332543
High pressure measuring chamber up to 350 bar	2255332544
Measuring chamber for atmospheric dew point	2255332545
Measuring chamber for granulate driers with minimum overpressure	2255332546
Portable dew point meter PDP Check M plus for compressed air and gases (high pressure version up to 350 bar)	2255332547
Portable dew point meter PDP Check M for compressed air and gases (high pressure version up to 350 bar)	2255332548

Technical data PDP Check M/ PDP Check M Plus	
Display	3.5" Touch screen
Measuring range:	-80--+50°Ctd -20--+70°C 0-100 %rF
Accuracy	± 0,5°Ctd bei -10--+50°Ctd Typ. ± 2°Ctd (remain. range)
Moisture parameters	g/m³, mg/m³, ppm V/V, g/kg, °Ctdatm, %rF
Pressure range	-1-50 bar standard -1-350 bar special version
Interface	USB interface
Data logger	8 GB SD memory card (100 millions values)
Power supply for sensors	Output voltage: 24 VDC ± 10% Output current: 120 mA continuous operation
Power supply	Internal rechargeable Li-Ion batteries, approx 12 h continuous operation, 4 h charging time
Screw-in thread	G 1/2" stainless steel
Ambient temperature	0--+50°C
EMV	DIN EN 61326-1

## PDP Sens 1/PDP Sens 1A/PDP Sens 2/PDP Sens 2A - Dew point sensor

Dew point sensor for residual moisture measurement in compressed air and gases

### Features & Benefits

- ▶ Extremely long-term stable
- ▶ Analog output 4 - 20 mA for dew point
- ▶ Condensation insensitive
- ▶ Fast adjustment time
- ▶ Pressure resistant up to 350 bar (special version)
- ▶ Modbus RTU interface
- ▶ Higher resolution of the sensor signal due to improved evaluation electronics
- ▶ Sensor diagnosis on site with mobile device or PMH service software
- ▶ Readable via Modbus:
  - Pressure dew point [° Ctd.]
  - Temperature [° C]
  - Rel. humidity [% RH]
  - Abs. humidity [g / m<sup>3</sup>]
  - Moisture content [g / m<sup>3</sup>]
  - Moisture content V / V [ppmV / V]
  - Partial vapor pressure [hPa]
  - Atmospheric dew point [° Ctd.atm]

### Typical applications:

- ▶ Dew point measurement in the compressed air after adsorption dryer, membrane dryer, refrigeration dryer
- ▶ Residual moisture/ dew point measurement in gases like oxygen, nitrogen, argon
- ▶ Residual moisture/ dew point measurement after granulate dryers in plastics industry

### Recommendation:

- ▶ Mounting with standard measuring chamber for compressed air up to 16 bar
- ▶ Advantage: Easy installation via quick coupling



Description	Order no.
PDP Sens 2 dew point sensor for desiccant driers -80°-20°Ctd incl. inspection certificate, 4...20 mA output signal (3-wire connection) and Modbus-RTU interface	2255330413
PDP Sens 2A dew point sensor for desiccant driers -80°-20°Ctd incl. inspection certificate, 4...20 mA output signal (2-wire connection) or Modbus-RTU interface	2255331723
PDP Sens 1 dew point sensor for refrigerated driers -20-50°Ctd incl. inspection certificate, 4...20 mA output signal (3-wire connection) and Modbus-RTU interface	2255330412
PDP Sens 1A dew point sensor for refrigerated driers -20-50°Ctd incl. inspection certificate, 4...20 mA output signal (2-wire connection) or Modbus-RTU interface	2255332552
<b>Connection cables</b>	
Connection cable for Flow/ PDP sensors, 5 m	2255460213
Connection cable for Flow/ PDP sensors, 10 m	2255460214
Option for PDP Sens 1/ PDP Sens 2:	
Option: analogue output PDP Sens 1/2, Special version 2...10 Volt	2255332553
<b>Option for: PDP Sens 1/ PDP Sens 1A/ PDP Sens 2/ PDP Sens 2A</b>	
Option: max. pressure PDP sens 350 bar	2255332591
Option: special scaling PDP sens 4...20 mA=___ ... ___ g/m <sup>3</sup> , ppm etc.	2255332592
Option: connection thread PDP sens, 5/8" UNF	2255332593
Option: connection thread PDP sens, 1/2" NPT	2255332594
Option: surface condition PDP sens, free of oil & grease	2255332595
<b>Further accessories</b>	
Standard measuring chamber up to 16 bar	2255460229
High pressure measuring chamber up to 350 bar	2255332544
Measuring chamber, stainless steel 1.4305	2255332596
PMH Service Software for dew point sensors incl. PC connection set (Modbus to USB Interface)	2255332597
<b>Calibration and adjustment</b>	
Precision calibration at -40°Ctd or 3° Ctd including ISO certificate	2255332542
Additional calibration point freely selectable	2255332543

Technical data PDP Sens 1/ PDP Sens 1A/ PDP Sens 2/ PDP Sens 2A	
Measure range	-80-20°Ctd, -20-50°Ctd
Accuracy	± 1°C to 50--20°Ctd ± 2°C to -20--50°Ctd ± 3°C to -50--80°Ctd
Pressure range	-1-50 bar special version up to 350 bar
Power supply	24 VDC (16-30 VDC)
Protection class	IP 65
EMV	according to DIN EN 61326-1
Operating temp.	-20-70 °C
Connection	M12, 5-pole
PC connection	Modbus-RTU interface (RS 485)
Analog output	4-20 mA = -80-20°Ctd 4-20 mA = -20-50°Ctd PDP Sens 1/2: 4-20 mA (3-wire) PDP Sens 2A : 4-20 mA (2-wire)
Burden for analog output	< 500 Ω
Screw-in thread	G 1/2" optional: UNF 5/8", NPT 1/2"
Dimensions	Ø 30 mm, length approx. 130 mm
Via service software Choose units	% RH, °Ctd, g/m <sup>3</sup> , mg/m <sup>3</sup> , ppm V/V
Scaling	Change 4-20 mA

## PDP Check S - Dew point monitoring

Dew point sensor for residual moisture measurement in compressed air and gases

### Features & Benefits

- ▶ Alarm unit (Buzzer and continuous red light)
- ▶ Digital process meter PDP Check S
- ▶ 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 mA analogue output
- ▶ Option alarm unit: Buzzer and continuous red light
- ▶ Standard measuring chamber
- ▶ Dew point sensor PDP Sens 1/2

### Options

Alarm unit (Buzzer and continuous red light)



### Consisting of:

Digital process meter PDP Check S



Standard measuring chamber



Dew point sensor PDP Sens 1/2

The dew-point set is wired ready to plug in at the factory. The alarm values can be set freely. The dew point sensor PDP Sens 1/2 is extremely long-term stable and can be quickly and easily installed and

removed under pressure via the screw-on measuring chamber incl. Quick coupling.

Description	Order no.
<b>Dew point monitoring PDP Check S2 for desiccant driers consisting of:</b>	2255330390
PDP Check S LED display in wall housing	2255332549
PDP Sens 2 dew point sensor for desiccant driers -80°-20°Ctd incl. inspection certificate, 4...20 mA output signal (3-wire connection) and Modbus-RTU interface	2255330413
Standard measuring chamber up to 16 bar	2255460229
Connection cable for Flow/ PDP sensors, 5 m	2255460213
<b>Dew point monitoring PDP Check S for refrigeration dryers, consisting of:</b>	2255330387
PDP Check S LED display in wall housing	2255332549
PDP Sens 1 dew point sensor for refrigeration dryer -20-50°Ctd incl. inspection certificate, 4...20 mA output signal (3-wire connection) and Modbus-RTU interface	2255330412
Standard measuring chamber up to 16 bar	2255460229
Connection cable for Flow/ PDP sensors, 5 m	2255460213
<b>Options:</b>	
Power supply 24 VDC (instead of 230 VAC)	2255330388
Power supply 110 VAC (instead of 230 VAC)	2255330389
Alarm unit mounted at wall housing	2255460211
Alarm unit for external mounting with 5 m cable	2255460231
<b>Calibration and adjustment:</b>	
Precision calibration at -40°Ctd including ISO certificate	2255332542
Additional calibration point freely selectable	2255332543

Technical data display PDP Check S	
Dimension	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	4-20 mA
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 °C (storage temperature -20°C-+80°C)
Alarm thresholds	freely adjustable
Hysteresis	2 °Ctd
Analog output	4-20 mA = -80-20 Ctd or -20-50°Ctd.



## PDP Check S3/S4 - Dew point monitoring

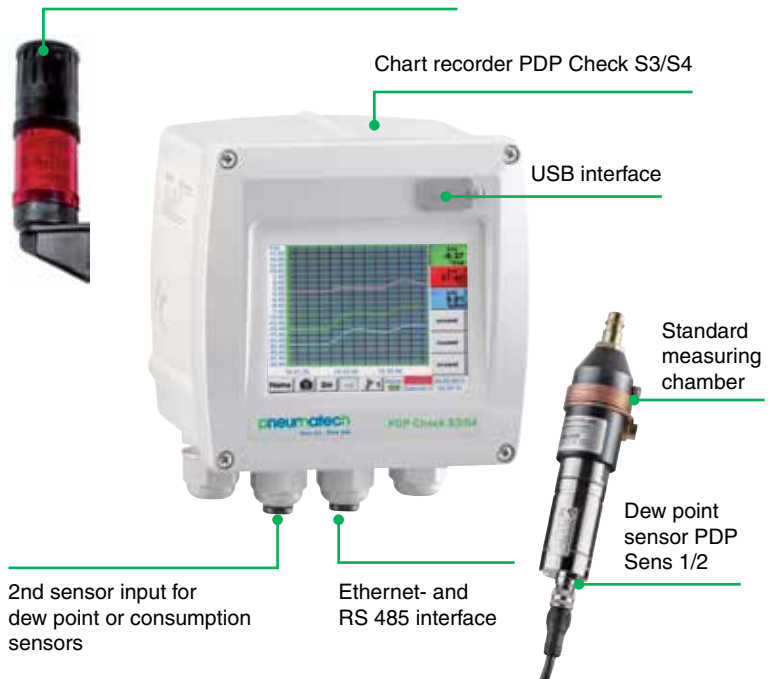
For stationary dew point monitoring of refrigeration or desiccant dryers. The touch screen graphic display enables an intuitive operation and shows the progress of the measured values. 2 alarm relays are available for monitoring of threshold values. Available either with a classic analogue output 4-20 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 PMH Soft Basic.

### Features & Benefits

- ▶ 3.5" Graphic display – easy to use with touchscreen
- ▶ Plug-in 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
- ▶ Option: Integrated data logger
- ▶ Record dew point curve up to 100 million readings
- ▶ PMH Basic for graphical and tabular evaluation. Read out data either via USB stick or Ethernet
- ▶ Option: Alarm unit (buzzer and continuous red light)

### Options

Alarm unit (Buzzer and continuous red light)



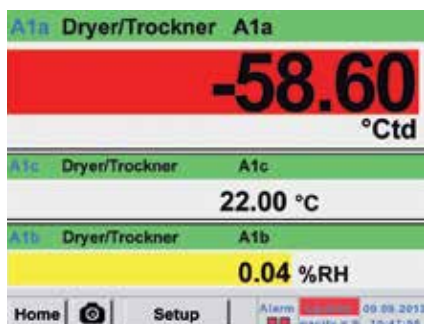
### Feature

Transfer the data via USB stick to the PC



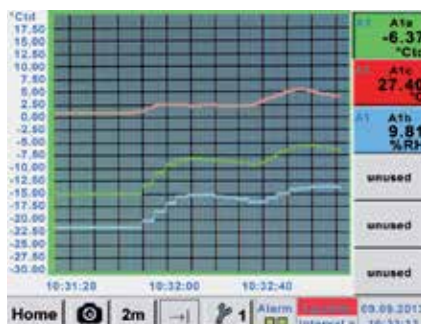


## Easy operation via Touch screen



### Actual measured values

All measured values can be seen at a glance. Threshold exceeding are indicated in red color. 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 brows 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

Check Box S „speaks“ several languages. The required language can be selected by means of the select button.

Alarm settings for channel A1 (A1a)				
Upper limit				
	Value °Ctd	Hysteresis +/-	Relay 1	Relay 2
Alarm 1	-35.000	2.000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alarm 2	-30.000	2.000	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lower limit				
Alarm 1	12.000	2.000	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alarm 2	8.000	2.000	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Selection of the language

Each one of the 2 alarm relays can be allocated individually to a connected sensor. The alarm thresholds and the hysteresis can be freely adjusted. New: It is possible to set an alarm delay for each alarm relay so that the relay is just triggered after that period of time.

Time interval (sec)	
1	2
5	10
15	30
60	120
15	

force new record file

Comment:

**Logger stopped**  timed Start  timed Stop

START STOP | 12:26:00 - 06.0 | 13:28:00 - 06.0

Remaining logger capacity = 9999 days  
Logging: 0 channels selected  
time interval (min 1 sec)

### Adjustment of the alarm relays

Measured values are stored in Check Box S by means of 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.

### Technical data PDP Check S3/ S4

Dimensions	118 x 115 x 98 mm IP 54 (wall housing) 92 x 92 x 75 mm (panel mounting)
Inputs	2 digital inputs for PDP Sens 1/2 resp. Flow Check
Interface	USB interface
Power supply	100-240 VAC, 50-60 Hz
Accuracy	please see PDP Sens 1/2
Alarm outputs	2 relays, (pot. - free)
Options	
Data logger	100 million measuring 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 PDP Sens 1/2

Measuring range:	-80-20 °Ctd resp. -20-50 °Ctd
Accuracy:	± 1 °C at 50--20 °Ctd ± 2 °C at -20--50 °Ctd ± 3 °C at -50--80 °Ctd
Pressure range:	-1-50 bar, special version up to 350 bar

Description	Order no.
Dew point monitoring PDP Check S3 for desiccant driers (-80+20° Ctd.)	2255332598
Dew point monitoring PDP Check S4 for refrigeration driers (-20+50°Ctd)	2255332599
Options	
Option: Integrated data logger for 100 million measured values	2255460217
Option: Integrated Ethernet and RS 485 interface	2255460216
Option: Integrated webserver	2255460218
Option: 2 additional sensor inputs for analogue sensors (pressure sensor, temperature sensor and so on)	2255332600
Additional accessories	
PMH Basic – data evaluation graphically and in tabular form - reading of the measured data via USB or Ethernet, license for 2 workstations	2255332468
Alarm unit mounted at wall housing	2255460211
Alarm unit for external mounting with 5 m cable	2255460231
Calibration and adjustment	
Precision calibration at -40 °Ctd or +3 °Ctd including ISO certificate	2255332542

## Accessories for PDP Sens - 1, 1A, 2, 2A

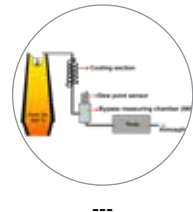
Description	Order no.
Diffusion-tight PTFE hose 6 mm with quick-release coupling length 1 m	2255332536
Diffusion-tight PTFE hose 6 mm, length 1 m	2255332602



Flow Check  
Universal

Description	Order no.
Cooling section made of stainless steel	2255332603

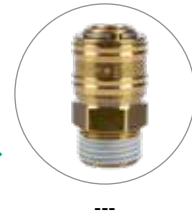
- 8 mm stainless steel tube wound as a spiral.
- With the cooling section, process gases from ovens etc. can be cooled from high temperatures (about 900°C) to a sensor-compatible temperature of about 50°C. Condensation of the dew point to be avoided.



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Description	Order no.
Quick-lock coupling NW 7,2 - G 1/2" male thread	2255332539



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Description	Order no.
Control and calibration set 11,3 %RH	2255332538
Control and calibration set 33 %RH	2255332605
Control and calibration set 75,3 %RH	2255332606

- Control and calibration sets provide a defined humidity over a saturated saline solution
- The control and calibration set is screwed onto the dew point sensor and thus enables a simple and inexpensive control and calibration option down to -20° Ctd dew point on site



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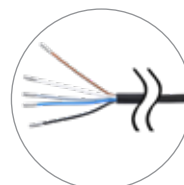
Description	Order no.
Dry container for PMH dew point sensors	2255332540

- Provides sensor protection and fast equalization time. Recommended for storage of mobile sensors



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Description	Order no.
Connection cable for Flow / PDP series, 5 m	2255460213
Connection cable for Flow / PDP series, 10 m	2255460214
Connection cable for Flow / PDP series, 20 m	2255460215
Connection cable for Flow / PDP series, 5 m shielded	2255332607
Connection cable for Flow / PDP series, 10 m shielded	2255332608
Cable for alarm/pulse output, with M12 plug, 5 m	2255332609
Cable for alarm/pulse output, with M12 plug, 10 m	2255332610



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Description	Order no.
M12 plug for PDP Sens 1, 1A, 2, 2A	2255332611
M12 plug angled 90°	2255332612



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Description	Order no.
Ethernet connection cable length 5 m, M12 plug x-coded (8 pol.) on RJ 45 plug	2255332614
Ethernet connection cable length 10 m, M12 plug x-coded (8 pol.) on RJ 45 plug	2255332615



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Description	Order no.
Adapter plug PDP Sens 1A/ 2A Michell easidew valve plug DIN 43650 shape C 8 mm	2255332613



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## Accessories for all PDP Sens

Description	Order no.
Mains unit in wall housing for max. 2 sensors of the Flow / PDP Sens series 100-240 V, 23 VA, 50-60 Hz / 24 VDC, 0,35 A	2255332616



2255332616

Description	Order no.
Power supply unit 100-240 V AC/24 V for Flow / PDP Sens	2255332617



2255332617

## Measuring chambers

Description	Order no.
Standard measuring chamber for compressed air	2255460229

- Applicable for 2-16 bar
- Process connection: Plug nipple NW 7.2 (Parker series 26) or G1/4" female thread when used without plug nipple
- Sensor connection: G 1/2" female thread
- Gives 2-3 liters / min of process air to the environment
- The copper capillary relaxes the compressed air and prevents the backflow of moisture from the ambient air into the measuring chamber



2255460229

Description	Order no.
Stainless steel measuring chamber for compressed air up to 50 bar	2255332618

- Applicable for 2-50 bar
- Process connection: G 1/4" female thread
- Sensor connection: G 1/2" female thread
- Gives 2-3 liters / min of process air to the environment



2255332618

Description	Order no.
Stainless steel measuring chamber for compressed air up to 50 bar with NPT thread	2255332619

- Process connection: G 1/4" female thread
- Sensor connection: 5/8" UNF female thread
- Applicable for 2 - 50 bar
- Gives 2-3 liters / min of process air to the environment via a fine nozzle



2255332619

Description	Order no.
High pressure measuring chamber for compressed air up to 350 bar	2255332544

- Applicable for 30-350 bar
- Process connection: G 1/4" female thread
- Sensor connection: G 1/2" female thread
- Gives 2-3 liters / min of process air to the environment via a fine nozzle
- Via the high-pressure valve, the amount of air for sampling can be adjusted individually depending on the pressure level. The process air is released to the environment via the sinter filter



2255332544

Description	Order no.
Stainless steel bypass measuring chamber for dew point measurement in gases under pressure	2255332596

- Applicable for -1-350 bar
- Process connection: G 1/4" female thread gas inlet and G 1/4" female thread gas outlet
- Sensor connection: G 1/2" female thread
- The flow of at least 2 liters / min of gas must be ensured by the customer



2255332596

## Measuring chambers

Description	Order no.
Measuring chamber for atmospheric dew point	2255332545

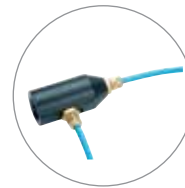
- Applicable for 2-16 bar
- Process connection: Plug nipple NW 7.2 (Parker series 26) or G 1/4" female thread when using without plug nipple
- Sensor connection: G 1/2" female thread
- Gives 2-3 liters / min of process air to the environment
- The throttle valve in front of the measuring chamber relaxes the compressed air to atmospheric pressure in the measuring chamber. The manometer integ-rated in the measuring chamber indicates the overpressure to the atmosphere



2255332545

Description	Order no.
Measuring chamber for granulate dryers and gases	2255332546

- Applicable for 2-16 bar
- Process connection: Plug nipple NW 7.2 (Parker series 26) or G 1/4" female thread when using without plug nipple
- Sensor connection: G 1/2" female thread
- Gives 2-3 liters / min of process air to the environment
- The throttle valve in front of the measuring chamber relaxes the compressed air to atmospheric pressure in the measuring chamber. The manometer integ-rated in the measuring chamber indicates the overpressure to the atmosphere



2255332546





## Calibration of dew point sensors

### The calibration range for dew point sensors are $-80^{\circ}\text{Ctd}$ - $20^{\circ}\text{Ctd}$

Both dew point sensors from us and from other manufacturers can be calibrated. High precision reference measuring instruments with DKD resp. BAM certificate grant an accuracy of up to  $0.1^{\circ}\text{C}$  dew point..

#### Special feature:

- ▶ Due to the digital data transmission, only the dew point sensor has to be calibrated. The display devices remain wired on site.
- ▶ **Calibration range:** from  $-80$  to  $20^{\circ}\text{Ctd}$  -
- ▶ **Accuracy of the DKD reference:**  $0,1^{\circ}\text{Ctd}$



### Control and calibration set

Control and calibration sets guarantee a defined humidity by means of a saturated saline solution.

The control and calibration set is screwed onto the dew point sensor and therefore enables an easy and low-priced possibility for on-site control and calibration down to  $-20^{\circ}\text{C}$  dew point.



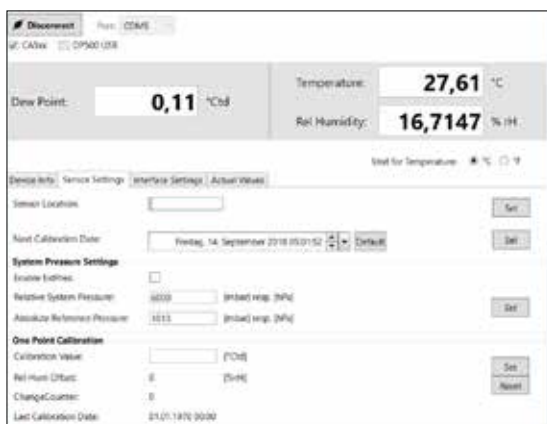
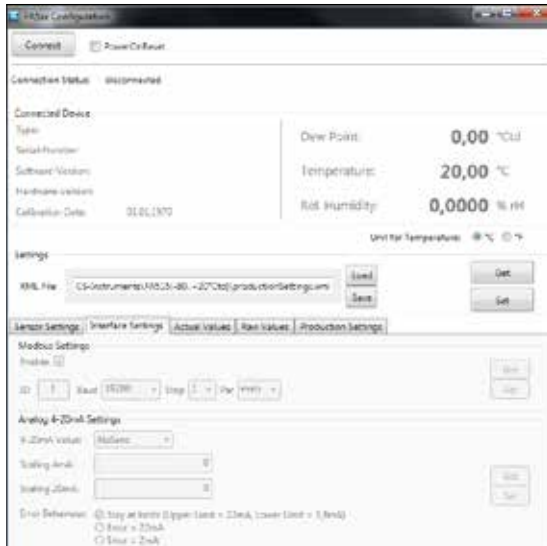
Description	Order no.
Recalibration and precision calibration at $-40^{\circ}\text{Ctd}$ or $3^{\circ}\text{Ctd}$ including ISO-Certifikate	2255332622
Precision calibration in the range $-80$ - $20^{\circ}\text{Ctd}$ , $^{\circ}\text{Ctd}$ points freely selectable	2255332543
Control and calibration set 11.3 %RH	2255332538
Control and calibration set 33 %RH	2255332605
Control and calibration set 75.3 %RH	2255332606
Precision calibration at $-40^{\circ}\text{Ctd}$ or $3^{\circ}\text{Ctd}$ including ISO certificate	2255332542
Replacement unit for the period of re-calibration	2255332625
Dew point sensor in exchange with calibration certificate at $-40^{\circ}\text{Ctd}$	2255332626



## PMH Service Software

With the PMH service software including the USB - Modbus interface adapter, the PDP Sens 1/ 1A/ 2/ 2A dew point sensors can be configured via laptop / PC. The following settings can be made via PMH Service Software:

- ▶ Scaling of the 4-20 mA analogue output
- ▶ Assignment of the measured variable to the analogue output (e.g. 4-20 mA = 0-10 g/m<sup>3</sup>)
- ▶ Available units: °Ctd, °Ftd, g/m<sup>3</sup>, mg/m<sup>3</sup>, ppmv/v, g/kg
- ▶ Reading out the firmware version, serial number, date of the last calibration
- ▶ One-point calibration (adjustment) of the sensors in the process. This requires a reference device
- ▶ Update of the sensor software (Firmware)
- ▶ Modbus settings as Modbus-ID, Baud rate, Stopbit, Parity



Description	Order no.
PMH Service Software incl. PC connection set, USB connection and interface adapter to the sensor	2255332597