

# DATASHEET

Dew point measuring device TPK 61





Completely ready-to-connect dew point measuring device, with integrated measuring chamber incl. power supply

The **TPK 61** dew point monitor is used as a transmitter with display for fast and uncomplicated humidity and dew point measurement, as well as for pressure or temperature monitoring. It also provides a freely configurable 4...20 mA or 0..10 V output signal for the dew point corresponding to -76...+68°F (-60...+20°C).

Two potential-free contacts are provided for pre-alarm and main alarm for the dew point as well as two potential-free alarm messages for a further adjustable measured value (e.g. pressure/temperature).

Thanks to an RS 485 MODBUS interface (customizable), the device has a digital interface and thus meets the latest "INDUSTRY 4.0 ready" standard.

The **TPK 61** is equipped with adjustable alarm management as standard. The visual and audible alarms can be easily displayed using the optional flashing light with buzzer via a standard cable connection with M12 plug.

The sophisticated software makes it very easy to simulate measured values. A "RELAY TEST" as well as a "RESET" to factory settings is also possible at any time via the display. This makes commissioning and a function test extremely easy and saves the service technician valuable time on site.

Due to the integrated measuring chamber, the measuring device can be integrated into the piping system either directly via a standard NW 7.2 compressed air coupling or using an optional PTFE hose.

All signals are provided internally and can be easily tapped via the M12 connectors integrated in the device and the optionally available cables.

As the high-quality polymer sensor is auto-calibrated every 13 hours as standard (can be switched off), measurement errors due to excessive moisture or dirt ingress are reduced to a minimum.

The device is also equipped with a data logging system. The data is converted and recorded on an SD card and can be read out by the customer as a csv file format via Excel. This means that the measured values can be conveniently stored and retrieved for billing purposes or for audits.

With the integrated USB interface, any necessary software updates are possible at any time.

With the **TPK 61** you get a pressure dew point monitor with the highest precision, state-of-the-art technology and unique features that is unrivaled on the market.



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**Technical data:**

Calibrated measuring range:	-76...+68°F (-60...+20°C <sub>tp</sub> )
Pressure range:	0 ... 232 psi (0 ... 16 bar)
Measuring medium:	clean, oil-free compressed air, free of aggressive, corrosive, corrosive, toxic, flammable and oxidizing components
Output- / Display values:	Pressure dew point                    °C, °F rel. system pressure                bar, psi abs. system pressure                bar, psi ambient pressure                    bar, psi gas temperature                    °C, °F ppm volume                         ppm V relative humidity                    % r.F., %r.H. absolute humidity                    g, Kg ppm mass                             ppm W molecular mixture                   ppm
Humidity sensor element:	capacitive polymer sensor
Analog output (active)	4...20 mA or 0...10 V (current or voltage signal adjustable) Output freely configurable
2 alarm thresholds:	pre alarm and main alarm, adjustable
4 x relay output:	independent, isolated NO contact (DC/AC 40V/100mA) Switching polarity adjustable via menu, upper and lower limit values can be set for each relay channel
RS485 interface:	with SENCOM and MODBUS protocol (customizable)
Accuracy:	± 1K dtp (at 0...+20°C t <sub>pd</sub> )
Power supply:	120V AC / max 20VA (power supply included) (Device: 24 V DC/5W ± 5%)



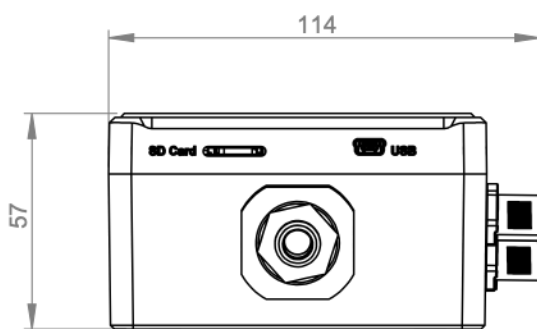
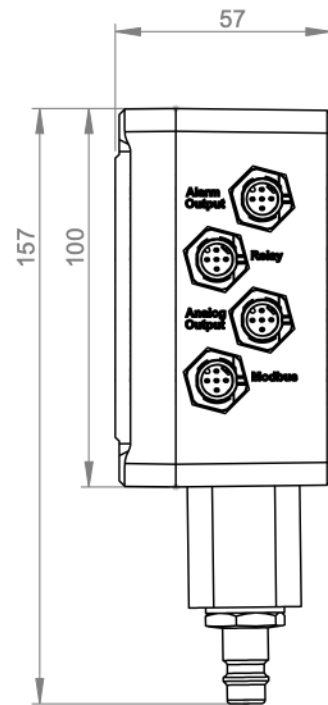
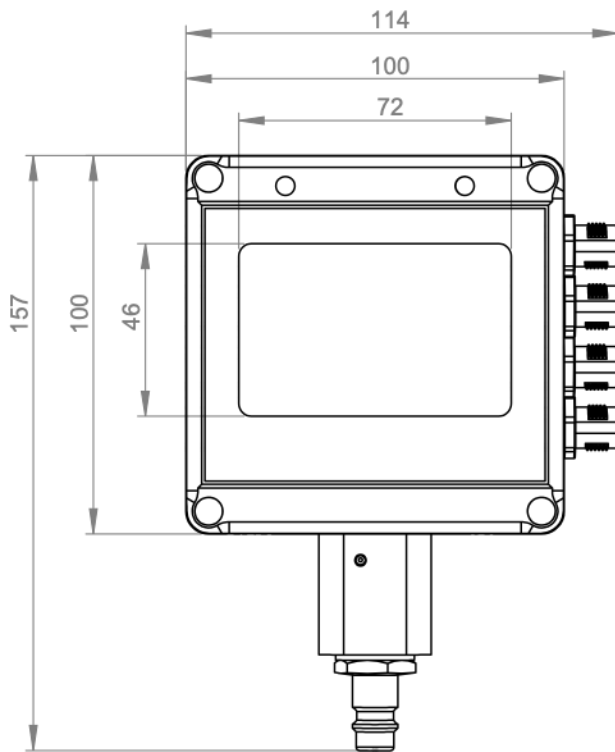
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**Technical data:**

Operating temperature:	-4°F ... 122°F (-20°C ... 50°C) (sensor element)
Gas temperature:	-4°F ... 122°F (-20°C ... 50°C)
Protection class:	Device and power supply IP 54
Mechanical connection:	3/8" female thread, supplied with plug for quick-release coupling, SW 27
Electrical connection:	M12 plug
Material measuring chamber (wetted parts)	Stainless steel 1.4404
Purge loss via measuring chamber:	0.035 cfm (60 l/h)
Display:	LCD, monochrome, touchscreen
Dimensions:	6 3/8" x 4" x 2 3/8" (160 x 101 x 59 mm) (w x l x d)
Weight:	ca. 1.3 lb (without power supply)
Housing material:	ABS plastic
Languages:	English, French, German Adjustable via display
Industry 4.0:	ready
Data logging:	SD card, 32 GB (ring memory)

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**Dimensions:**



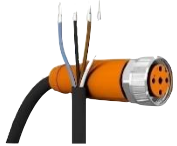


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### optional accessories:

#### Sensor/actuator cable, 5-pin, PUR halogen-free, black-grey RAL 7021

one side straight M12 socket, other side free cable end - length 3.0 m  
one side straight M12 socket, other side free cable end - length 10.0 m



#### S Sensor/actuator cable, 5-pin, PUR halogen-free, black-grey RAL 7021

one side straight M12 socket, other side straight M12 coupling - length 3.0 m  
one side straight M12 socket, other side straight M12 coupling - length 10.0 m



#### Indicator light with acoustic signal transmitter with acknowledgement button

For all dew point measuring devices of the TPK series, yellow flashing light, loud piezo sound, with wall bracket, 10 m connection cable permanently connected with 5-pin M12 plug, A-coded



#### External relay box for potential-free relays

Relay box with 4 relays, for controlling power consumers, 4 relays 8A/230V with changeover contact. Supplied with power supply.

The TPK series has potential-free 30 V outputs. If external aggregates (e.g. electric ball valves) with a power supply of 220 V need to be controlled, this relay box must be used. It transforms the potential-free output into the correct voltage



#### Excel Makro

The TPK logs data points on the internal SD card and makes them available in csv format. To facilitate time-consuming formatting and conversion work, this macro offers a complete solution from reading the SD card to evaluation, analysis and display in tabular form.

Product	Cost	Price	Units	Units Proposed	Total Sales	Total Profit
Chemische Reagenzien	25,95	75,95	35	350	26645	10000
Chemische Reagenzien	25,95	75,95	20	400	30380	8000
Verfahren-Chemische Reagenzien	25,95	49,95	20	800	32790	10000
Assessments-Chemische Reagenzien	49,95	75,95	30	500	37975	10000
Chemische Reagenzien	25,95	25,95	7	800	20780	9000

#### Stylos pen

Suitable for TPK series (1 pin included in standard scope of supply)  
Replacement stylus for easier operation of display

