

**Pressure and differential pressure measuring transducers/switches,
incl. connection set, with multi-range switching
and adjustable, switching and active output**

The electronic **PREMASREG® 711x** pressure sensors and switches are equipped with eight switchable measuring ranges, one switching output, one continuous output, and a display for setting the switch-point and to display the ACTUAL pressure (eight devices in one, plus differential pressure switch / differential pressure monitor, continuous pressure sensor in a single device).

The pressure sensor with a housing made from impact-resistant plastic, with cable gland or M12 connector according to DIN EN 61076-2-101 and pressure connection nozzles (quick connect optional) is used to measure positive, negative or differential pressures in clean air, with limit value switching. The piezoresistive measuring element guarantees a high degree of reliability and accuracy.

Applications of these pressure sensors are in clean room, medical and filter technology, in ventilation and air conditioning ducts, in spray booths, in large-scale catering facilities, for filter monitoring and level measurement or for triggering frequency converters. Media measured with these pressure transducers are air (non-precipitating), or other gaseous, non-aggressive, non-combustible media.

The pressure sensor has a button for manual zero point calibration (automatic zero point calibration optional) and one offset potentiometer for setting the switching point and one for final value correction. The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible. The delivery includes the connection set **ASD-06** (2 m connection hose, two pressure port nipples, screws).

TECHNICAL DATA

| | |
|--------------------------------|--|
| Power supply: | 24 V AC / DC (± 10 %) |
| Load resistance: | $R_L > 15 \text{ k}\Omega$ |
| Power consumption: | < 2 W / 24 V DC; < 4.4 VA / 24 V AC |
| Measuring ranges: | multi-range switching with 8 switchable measuring ranges (see table) |
| Type of pressure: | differential pressure |
| Pressure connection: | with connection nozzle for pressure hose $\varnothing 6 \text{ mm}$, optionally with quick connect made from stainless steel for PVC fabric pressure hose $\varnothing 6 \text{ mm}$ (external diameter) |
| Medium: | clean air and non-aggressive, non-combustible gases |
| Media temperature: | -20...+50 °C (temperature-compensated 0...+50 °C) |
| Accuracy: | Type 7111 (1000 Pa): typically ± 10 Pa Type 7115 (5000 Pa): typically ± 35 Pa compared to the calibrated reference device |
| Sum of linearity+hysteresis: | < ± 1 % of final value |
| Temp. drift values: | ± 0.1 % / °C |
| Zero point offset: | < ± 0.7 % of final value |
| Setting increment Δp : | 1 % of pressure range (100 Pa => 1 Pa; 5000 Pa => 50 Pa) |
| Switching hysteresis: | ± 1 % of pressure range (100 Pa => ± 1 Pa; 5000 Pa => ± 50 Pa) |
| Positive /negative pressure: | ± 50 kPa |
| Signal filtering: | switchable 1 s / 10 s (via DIP switches) |
| Output: | 0 -10 V 1 changeover contact (24 V), 1 A ohmic load |
| Connection type: | 3-wire connection |
| Electrical connection: | 0.2 - 1.5 mm ² , via push-in terminals |
| Cable connection: | cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) or M12 connector (male, 12-pin , A-code) according to DIN EN 61076-2-101 |
| Housing: | plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), cover for display is transparent! |
| Housing dimensions: | 126 x 90 x 50 mm (Tyr 2) |
| Air humidity: | < 95 % RH, non-precipitating air |
| Protection class: | III (according to EN 60 730) |
| Protection type: | IP 65 (according to EN 60 529) in the built-in state |
| Standards: | CE conformity according to EMC Directive 2014 / 30 / EU |
| Equipment: | display with illumination , three-line, cutout approx. 70 x 40 mm (W x H), for displaying ACTUAL pressure and /or SETPOINT pressure as well as automatic zero point calibration |
| ACCESSORIES | see table |

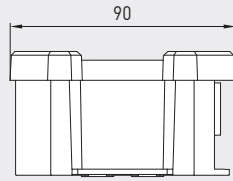
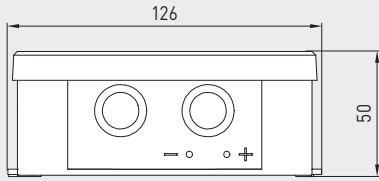
Pressure port
for pressure hose
(as standard)





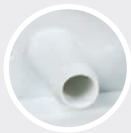
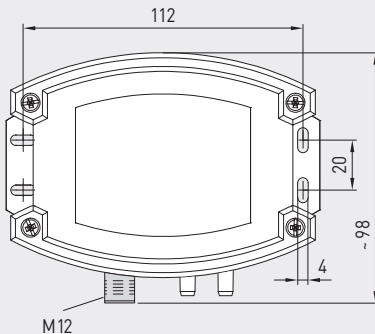
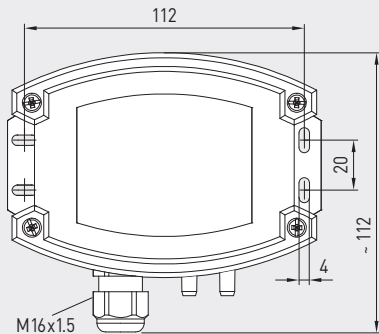
Dimensional drawing [mm]

PREMASREG® 711x



Housing with cable gland equipped as standard with pressure port nozzles

Housing with M12 connector equipped as standard with pressure port nozzles



Pressure port for pressure hose (as standard)



M12 connector (male)

PREMASREG® 711x with cable gland and display



PREMASREG® 711x-Q with M12 connector and display

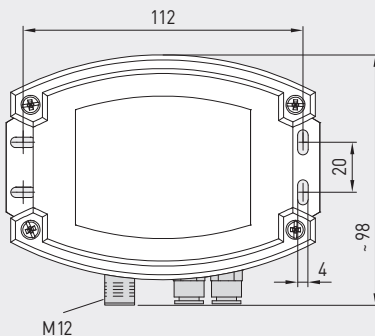
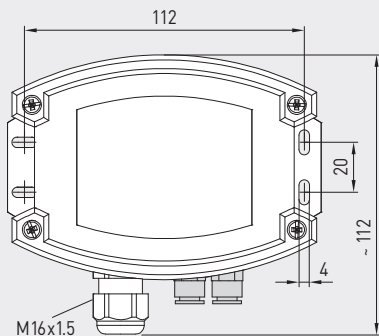


Dimensional drawing [mm]

PREMASREG® 711x

Housing with cable gland optional on request with quick connect

Housing with M12 connector optional on request with quick connect



Pressure port for PVC/fabric pressure hose (optional)

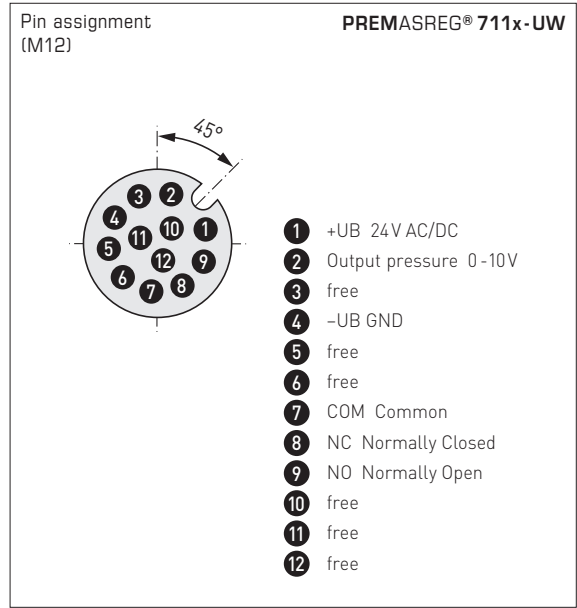
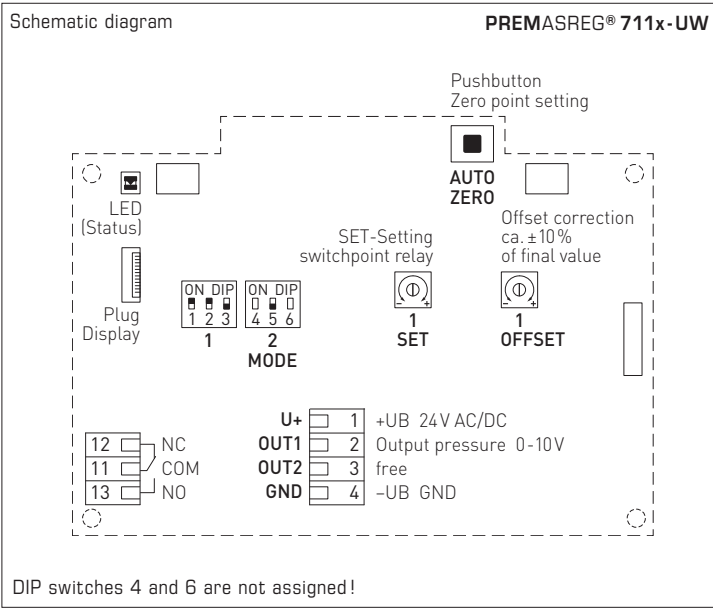


M12 connector (male)

Pressure port for PVC/fabric pressure hose (optional)



Pressure and differential pressure measuring transducers/switches,
incl. connection set, with multi-range switching
and adjustable, switching and active output



| Pressure range (selectable) – max. measuring range (default) is depending to the type of device | | | | DIP 1 | DIP 2 |
|--|--------------------|-------------------------|-------------------------|-----------|-----------|
| 0...100 Pa | 0...1000 Pa | -100...+100 Pa | -1000...+1000 Pa | OFF | OFF |
| 0...300 Pa | 0...2000 Pa | -300...+300 Pa | -2000...+2000 Pa | ON | OFF |
| 0...500 Pa | 0...3000 Pa | -500...+500 Pa | -3000...+3000 Pa | OFF | ON |
| 0...1000 Pa | 0...5000 Pa | -1000...+1000 Pa | -5000...+5000 Pa | ON | ON |

| Measuring range mode (Mode selectable) | DIP 3 |
|---|-------|
| Bidirectional (-MR...+MR) | ON |
| Unidirectional (0...+MR) (default) | OFF |

| Measurement signal filtering (Time interval selectable) | DIP 5 |
|--|-------|
| 1 s | ON |
| 10 s (default) | OFF |

Display with option
automatic zero point calibration



Zero point calibration active

Remaining calibration time (in seconds)

Cycle time (approx. 90 minutes) is fixed in the factory.

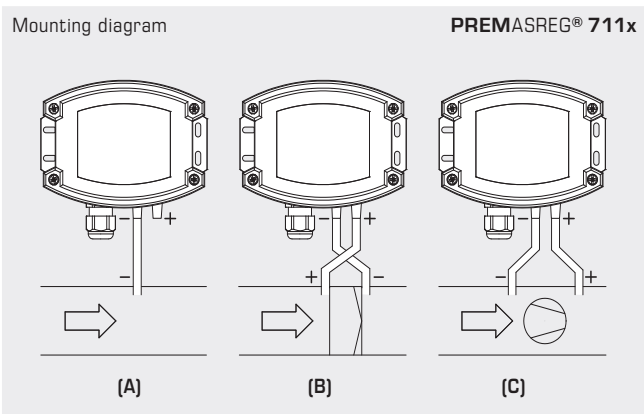


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PREMASREG® 711x

Pressure and differential pressure measuring transducers/switches,
incl. connection set, with multi-range switching
and adjustable, switching and active output

PREMASREG® 711x-Q
with display,
hinged



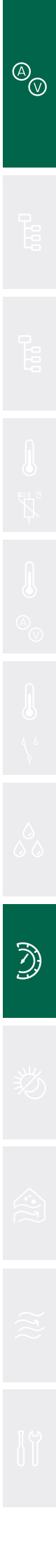
TYPES OF MONITORING:

- (A) Below-atmospheric pressure:**
P1 (+) is not connected
but open against atmosphere
P2 (-) connected to inside of duct
- (B) Filter:**
P1 (+) connected upstream of filter
P2 (-) connected downstream of filter
- (C) Ventilator:**
P1 (+) connected downstream of ventilator
P2 (-) connected upstream of ventilator

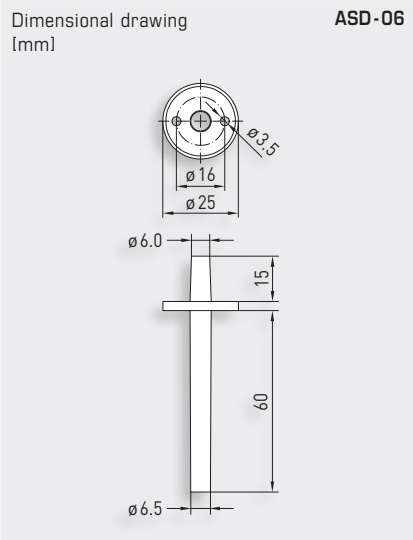
Pressure connections at the pressure switch are marked with P1 (+) for higher pressure and P2 (-) for lower pressure.

Conversion table for pressure values:

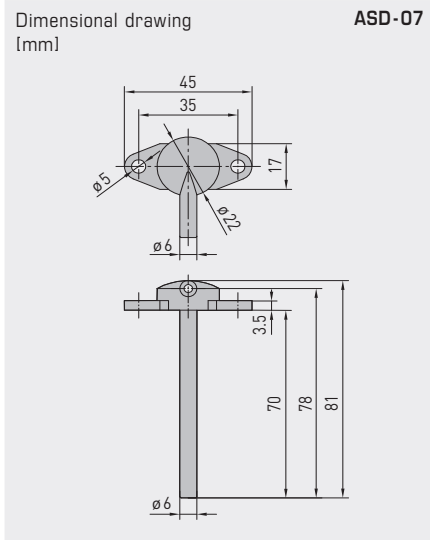
| Unit = | bar | mbar | Pa | kPa | mWS |
|--------|---------------|--------------|------------|-------------|-----------------|
| 1 Pa | 0,00001 bar | 0,01 mbar | 1 Pa | 0,001 kPa | 0,000101971 mWS |
| 1 kPa | 0,01 bar | 10 mbar | 1000 Pa | 1 kPa | 0,101971 mWS |
| 1 bar | 1 bar | 1000 mbar | 100000 Pa | 100 kPa | 10,1971 mWS |
| 1 mbar | 0,001 bar | 1 mbar | 100 Pa | 0,1 kPa | 0,0101971 mWS |
| 1 mWS | 0,0980665 bar | 98,0665 mbar | 9806,65 Pa | 9,80665 kPa | 1 mWS |



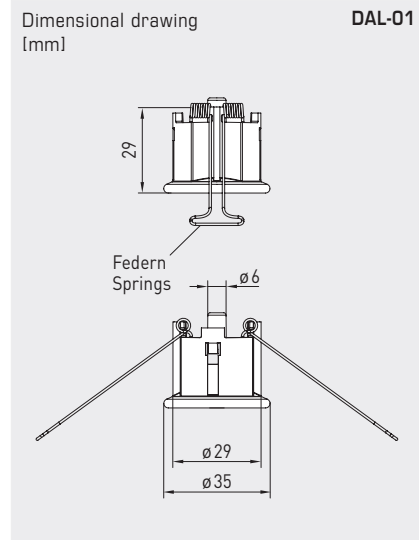
Pressure and differential pressure measuring transducers/switches,
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ASD-06
Connection set



ASD-07
Connection nipple



DAL-01
Pressure outlet



WS-03
Weather and sun protection hood
(optional)

Pressure port
for pressure hose
(as standard)



Pressure port for
PVC/fabric pressure hose
(optional)



ACCESSORIES

| | | | |
|---------------|---|--------------------|----------------|
| ASD-06 | Connection set (included in the scope of delivery) , consisting of 2 connection nipples (straight) made of ABS, 2 m PVC hose (soft, UV-resistant) and 4 screws | 7100-0060-3000-000 | 8,18 € |
| ASD-07 | 2 connection nipples (at 90 degree angle) made of plastic, ABS | 7100-0060-7000-000 | 8,18 € |
| DAL-01 | Pressure outlet for ceiling or in-wall installation (e.g. in clean rooms) | 7300-0060-3000-001 | 38,31 € |
| WS-03 | Weather and sun protection hood , 200 x 180 x 150 mm, stainless steel V2A (1.4301) | 7100-0040-6000-000 | 47,92 € |

For further information, see chapter Accessories!



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Pressure and differential pressure measuring transducers/switches,
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PREMASREG® 711x-Q
with M12 connector



PREMASREG® 711x
with cable gland



| PREMASREG® 711x | | Pressure and differential pressure measuring transducers/switches, <i>Deluxe</i> (with cable gland or M12 connector) | | | |
|-------------------------------------|---|---|------------------|--------------------|-------------------------------|
| Pressure range (adjustable) | Type/WG02 | Output | Display ● = Q | Item No. | Price |
| max. - 1000...+ 1000 Pa | Type 7111 | | | | |
| 0... 100 Pa / - 100... + 100 Pa | PREMASREG 7111-UW LCD | 0-10V 1x Changeover contact | ■ | 1302-7111-4011-200 | 257,78 € |
| 0... 300 Pa / - 300... + 300 Pa | | | | | |
| 0... 500 Pa / - 500... + 500 Pa | | | | | |
| 0... 1000 Pa / -1000... + 1000 Pa | PREMASREG 7111-UW Q LCD | 0-10V 1x Changeover contact | ● ■ | 2004-6132-4100-001 | 302,71 € |
| max. - 5000...+ 5000 Pa | Type 7115 | | | | |
| 0... 1000 Pa / - 1000 ... + 1000 Pa | PREMASREG 7115-UW LCD | 0-10V 1x Changeover contact | ■ | 1302-7111-4051-200 | 257,78 € |
| 0...2000 Pa / -2000 ... + 2000 Pa | | | | | |
| 0...3000 Pa / -3000 ... + 3000 Pa | | | | | |
| 0...5000 Pa / -5000 ... + 5000 Pa | PREMASREG 7115-UW Q LCD | 0-10V 1x Changeover contact | ● ■ | 2004-6132-4100-011 | 302,71 € |
| Housing variant "Q": | Cable connection with M12 connector (male, 12-pin , A-code) | | | | |
| Multi-range switching: | The pressure ranges depend on the device type and can be set via DIP switches. | | | | |
| Extra charge: | Other special measuring ranges up to max. 5000 Pa with optional automatic zero point calibration with optional quick connect for PVC fabric pressure hose Ø 6 mm | | | | 53,37 € 77,73 € 44,93 € |