

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

S+S REGELTECHNIK

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 (± 20 %)
Load resistance:	$R_L > 5 \text{ k}\Omega$
Power consumption:	< 1 VA / 24 V DC, < 2.2 VA / 24 V AC
Measuring ranges:	<b>multi-range switching with 8 switchable measuring ranges</b> (see table)
Type of pressure:	differential pressure
Pressure connection:	with connection <b>nozzle</b> for pressure hose $\varnothing 6 \text{ mm}$ , optionally with <b>quick connect</b> 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
Accuracy:	<b>Type 7111</b> (1000 Pa): typically $\pm 5 \text{ Pa}$ <b>Type 7115</b> (5000 Pa): typically $\pm 25 \text{ Pa}$ compared to the calibrated reference device
Sum of linearity+hysteresis:	< $\pm 1 \%$ of final value
Temp. drift values:	$\pm 0.1 \%$ / °C
Zero point offset:	< $\pm 0.7 \%$ of final value
Setting increment $\Delta p$ :	1 % of pressure range (100 Pa $\Rightarrow$ 1 Pa; 5000 Pa $\Rightarrow$ 50 Pa)
Switching hysteresis:	$\pm 1 \%$ of pressure range (100 Pa $\Rightarrow$ $\pm 1 \text{ Pa}$ ; 5000 Pa $\Rightarrow$ $\pm 50 \text{ Pa}$ )
Positive /negative pressure:	max. $\pm 100 \text{ hPa}$
Signal filtering:	<b>switchable 1 s / 10 s</b> (via DIP switches)
Output:	0 -10 V 1 changeover contact (24 V), 1 A ohmic load
Connection type:	3-wire connection
Electrical connection:	0.14 -1.5 mm <sup>2</sup> , via plug-in screw terminal
Cable connection:	<b>cable gland</b> , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) <b>or</b> <b>M12 connector</b> (male, 12-pin, A-code) according to DIN EN 61076-2-101
Housing:	<b>plastic</b> , 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:	<b>IP 65</b> (according to EN 60 529) in the built-in state
Standards:	CE conformity according to EMC Directive 2014 / 30 / EU, according to EN 61326-1, according to EN 61326-2-3
Equipment:	<b>display with illumination</b> , 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
<b>ACCESSORIES</b>	see table

Pressure port  
for pressure hose  
(as standard)





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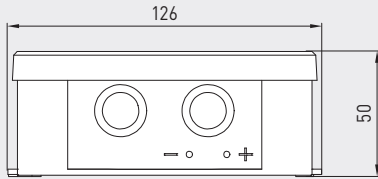
PREMASREG® 711x

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

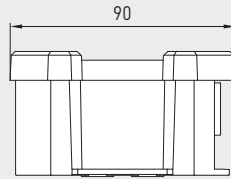


Dimensional drawing  
[mm]

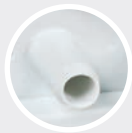
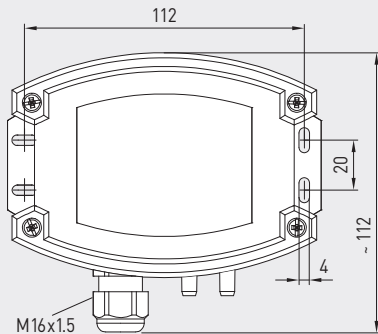
PREMASREG® 711x



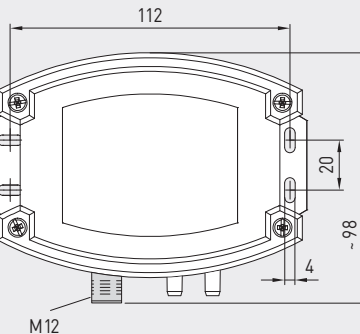
Housing with  
**cable gland**  
equipped as standard with  
pressure port **nozzles**



Housing with  
**M12 connector**  
equipped as standard with  
pressure port **nozzles**



Pressure port  
for pressure hose  
(as standard)



M12 connector  
(male)

PREMASREG® 711x-Q  
with cable gland  
and display



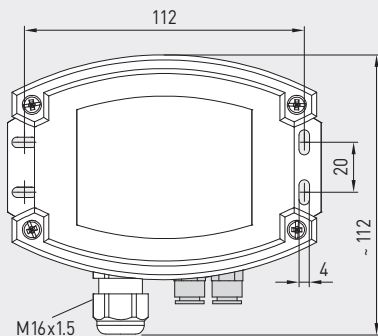
PREMASREG® 711x-Q  
with M12 connector  
and display



Dimensional drawing  
[mm]

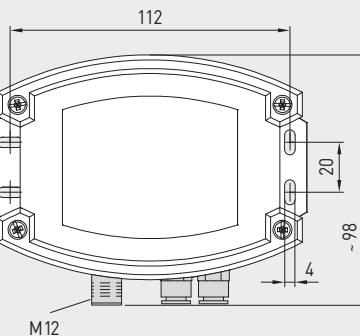
PREMASREG® 711x

Housing with  
**cable gland**  
optional on request with  
**quick connect**



Pressure port for  
PVC/fabric pressure hose  
(optional)

Housing with  
**M12 connector**  
optional on request with  
**quick connect**



M12 connector  
(male)

Pressure port for  
PVC/fabric pressure hose  
(optional)



Schematic diagram

Diagram of the front panel of the pressure transmitter, showing various controls and terminals.

**Top Section:**

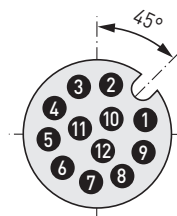
- SET-Setting relay switchpoint:** A button labeled **SET**.
- Pushbutton Zero point setting:** A button labeled **AUTO ZERO**.
- OFFSET:** A button labeled **OFFSET** with the text "Offset correction ca.  $\pm 10\%$  of final value" and "min. max." below it.

**Bottom Section (Terminals):**

- 12:** NC Normally Closed
- 11:** COM Common
- 13:** NO Normally Open
- 1:** +UB 24V AC / 15...36V DC
- 2:** Output pressure 0-10V
- 3:** -UB GND

Pin assignment  
(M12)

PREMASREG® 711x-UW



- |    |                            |
|----|----------------------------|
| 1  | +UB 24 V AC / 15...36 V DC |
| 2  | Output pressure 0-10V      |
| 3  | free                       |
| 4  | -UB GND                    |
| 5  | free                       |
| 6  | free                       |
| 7  | COM Common                 |
| 8  | NC Normally Closed         |
| 9  | NO Normally Open           |
| 10 | free                       |
| 11 | free                       |
| 12 | free                       |

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	<b>ON</b>	OFF
0...500 Pa	0...3000 Pa	-500...+500 Pa	-3000...+3000 Pa	OFF	<b>ON</b>
<b>0...1000 Pa</b>	<b>0...5000 Pa</b>	<b>-1000...+1000 Pa</b>	<b>-5000...+5000 Pa</b>	<b>ON</b>	<b>ON</b>

<b>Measuring range mode</b> (Mode selectable)	<b>DIP 3</b>
Unidirectional (0...+MR) (default)	OFF
Bidirectional (-MR...+MR)	<b>ON</b>

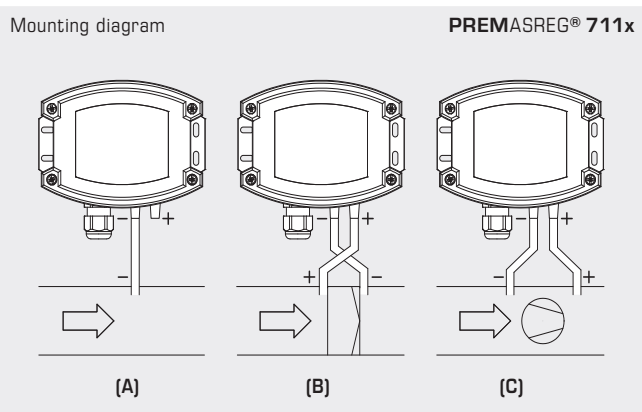
<b>Measurement signal filtering</b> (Time interval selectable)	<b>DIP 5</b>
10 s (default)	OFF
1 s	ON

4  
S AUTO 0

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

Pressure and differential pressure measuring transducers/switches,  
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and adjustable, switching and active output

PREMASREG® 711x-Q  
with display,  
hinged



#### TYPES OF MONITORING:

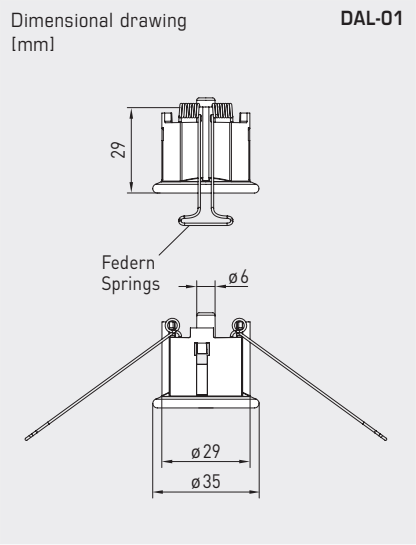
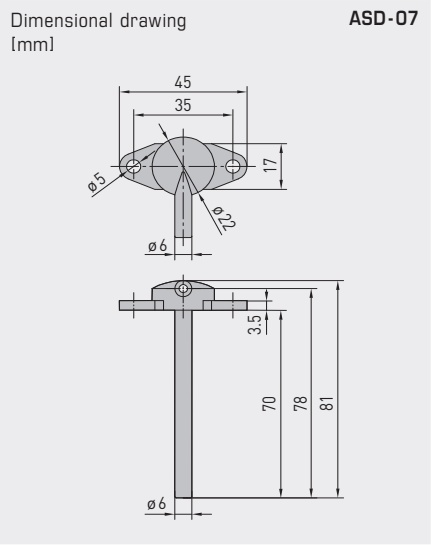
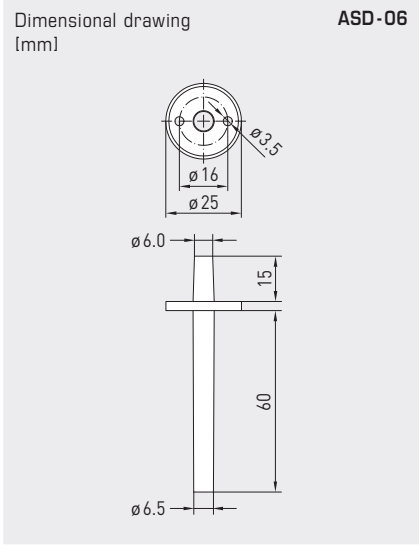
- (A) Below-atmospheric pressure:**  
P1 (+) is not connected  
but open against atmosphere  
P2 (-) connected to inside of duct
- (B) Filter:**  
P1 (+) connected upstream of filter  
P2 (-) connected downstream of filter
- (C) Ventilator:**  
P1 (+) connected downstream of ventilator  
P2 (-) connected 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	7,87 €	
ASD-07	2 connection nipples (at 90 degree angle) made of plastic, ABS	7100-0060-7000-000	7,87 €	
DAL-01	Pressure outlet for ceiling or in-wall installation (e.g. in clean rooms)	7300-0060-3000-001	36,84 €	
WS-03	Weather and sun protection hood, 200 x 180 x 150 mm, stainless steel V2A (1.4301)	7100-0040-6000-000	46,08 €	
For further information, see chapter Accessories!				



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and adjustable, switching and active output

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 0... 300 Pa / - 300... + 300 Pa 0... 500 Pa / - 500... + 500 Pa 0... 1000 Pa / -1000... + 1000 Pa	PREMASREG 7111-UW LCD	0-10 V 1x Changeover contact	■	1302-7111-4011-200	247,87 €
	PREMASREG 7111-UW Q LCD	0-10 V 1x Changeover contact	● ■	2004-6132-4100-001	291,07 €
max. - 5000...+ 5000 Pa	Type 7115				
0... 1000 Pa / - 1000 ... + 1000 Pa 0... 2000 Pa / - 2000 ... + 2000 Pa 0... 3000 Pa / - 3000 ... + 3000 Pa 0... 5000 Pa / - 5000 ... + 5000 Pa	PREMASREG 7115-UW LCD	0-10 V 1x Changeover contact	■	1302-7111-4051-200	247,87 €
	PREMASREG 7115-UW Q LCD	0-10 V 1x Changeover contact	● ■	2004-6132-4100-011	291,07 €
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				51,32 € 74,74 € 43,20 €