

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

The electronic **PREMASREG® 711x-VA** pressure sensors and switches are equipped with eight switchable measuring ranges, one switching output, one continuous output, and a display for setting the switchpoint 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 **stainless steel V4A**, with cable gland or M12 connector according to DIN EN 61076-2-101 and pressure port using quick connect (pipe fitting 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) as well as 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.

#### 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:	<b>multi-range switching with 8 switchable measuring ranges</b> (see table)
Type of pressure:	differential pressure
Pressure port:	with <b>quick connect</b> made from stainless steel for PVC/fabric pressure hose $\varnothing$ 6 mm (external diameter) optionally with <b>pipe fitting</b> made from stainless steel V2A (1.4305) for pressure lines $\varnothing$ 6 mm
Medium:	clean air and non-aggressive, non-combustible gases
Media temperature:	-20...+50 °C (temperature-compensated 0...+50 °C)
Accuracy:	<b>Type 7111</b> (1000 Pa): typically ± 10 Pa <b>Type 7115</b> (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 $\Delta p$ :	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:	<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:	0.2 - 1.5 mm <sup>2</sup> , via push-in terminals
Cable connection:	<b>cable gland, stainless steel V2A</b> (1.4305) (M20 x 1.5; with strain relief, exchangeable, inner diameter 6 - 12 mm) <b>or</b> <b>M12 connector</b> (male, <b>12-pin</b> , A-code) according to DIN EN 61076-2-101
Housing:	<b>stainless steel V4A</b> (1.4571), with non-distortion cover bolting, impact-resistant, high EMI shielding, corrosion, temperature, weather- and UV-resistant
Housing dimensions:	143 x 97 x 61 mm (Tyr 2E)
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 housing tested, TÜV SÜD, Report No. 713160960B (Skadi 2)
Standards:	CE conformity according to EMC Directive 2014 / 30 / EU
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)

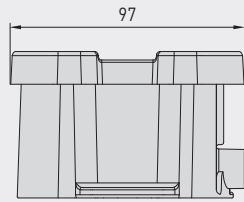
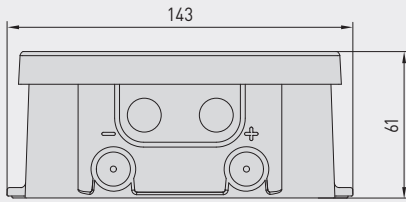
Pressure port for  
PVC / fabric pressure hose  
(as standard)





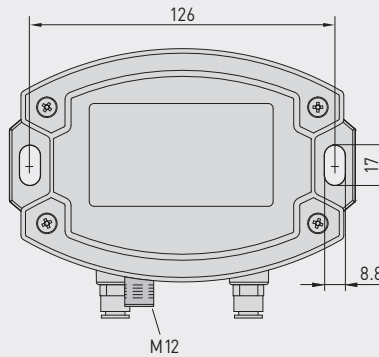
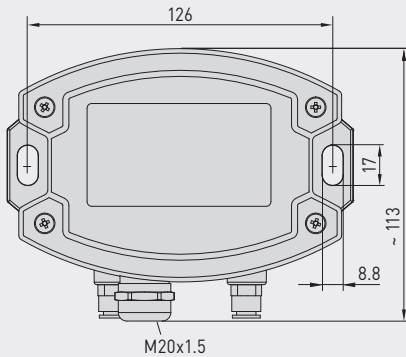
Dimensional drawing [mm]

PREMASREG® 711x-VA



Housing with **cable gland**  
equipped as standard with **quick connect**  
for pressure hoses

Housing with **M12 connector**  
equipped as standard with **quick connect**  
for pressure hoses



Pressure port for  
PVC / fabric pressure hose  
(as standard)



M12 connector  
(male)

PREMASREG® 711x-VA  
with cable gland  
and display



PREMASREG® 711x-VAQ  
with M12 connector  
and display

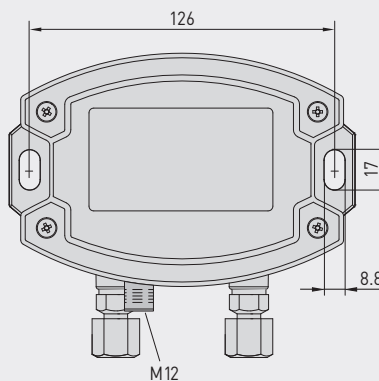
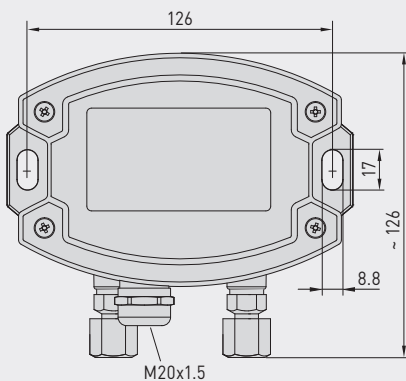


Dimensional drawing [mm]

PREMASREG® 711x-VA

Housing with **cable gland**  
**optional** on request  
with **pipe fitting**  
for pressure lines

Housing with **M12 connector**  
**optional** on request  
with **pipe fitting**  
for pressure lines



Pressure port  
for pressure lines / pipes  
(optional)

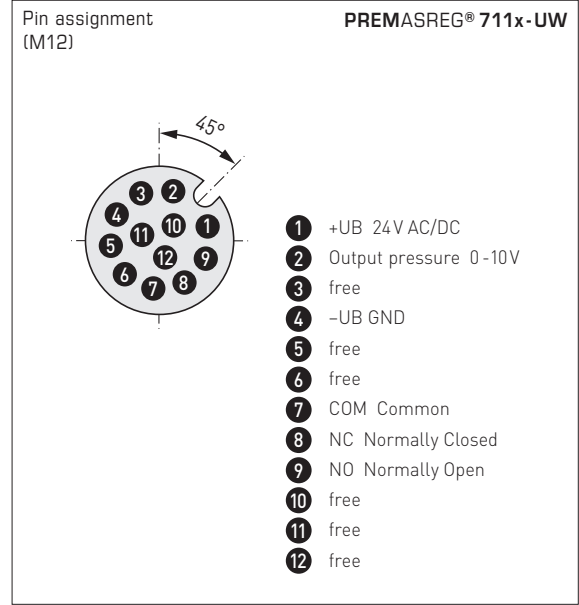
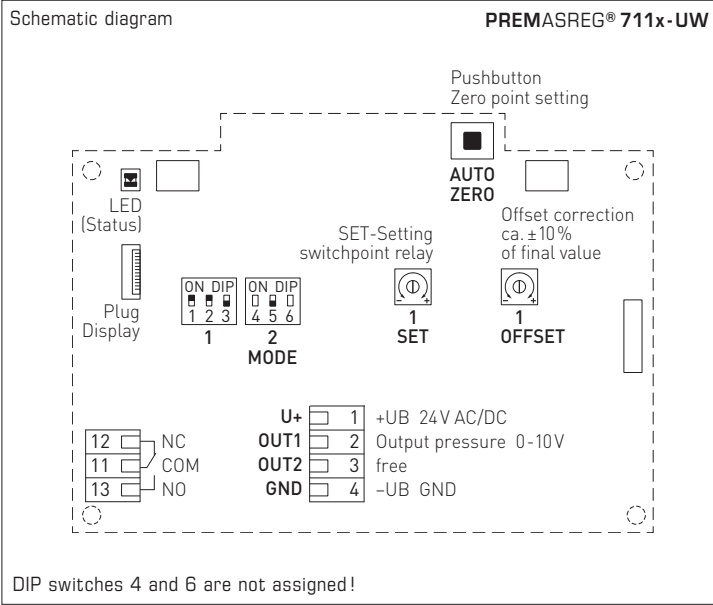


M12 connector  
(male)

Pressure port  
for pressure lines / pipes  
(optional)



Pressure and differential pressure measuring transducers/switches,  
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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
<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>

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.

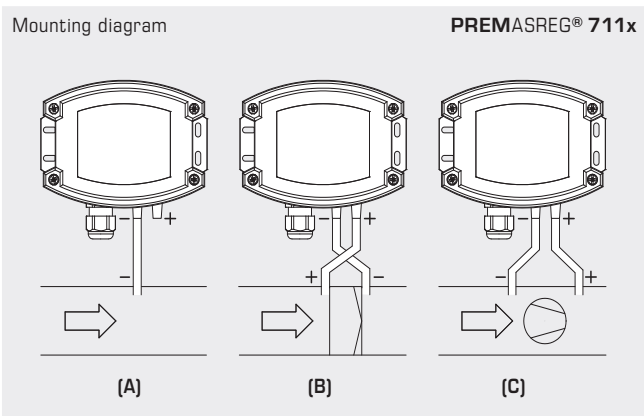


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PREMASREG® 711x-VA

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

PREMASREG® 711x-VAQ  
with display,  
hinged



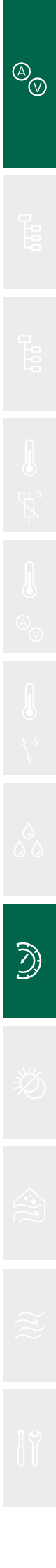
**TYPES OF MONITORING:**

- (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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**PREMASREG® 711x-VAQ**  
with M12 connector



PREMASREG® 711x-VAQ Pressure and differential pressure measuring transducers/switches, <i>ID</i> (Stainless steel housing with M12 connector)					
Pressure range (adjustable)	Type / WG02I	Output	Display ● = Q	Item No.	Price
<b>max. - 1000...+ 1000 Pa</b>		<b>Type 7111</b>			
0... 100 Pa / - 100... + 100 Pa	PREMASREG 7111-UW VAQ LCD	0-10V 1x Changeover contact	● ■	2004-6192-4100-001	<b>800,66 €</b>
0... 300 Pa / - 300... + 300 Pa					
0... 500 Pa / - 500... + 500 Pa					
0... 1000 Pa / -1000... + 1000 Pa					
<b>max. - 5000...+ 5000 Pa</b>		<b>Type 7115</b>			
0... 1000 Pa / - 1000 ... + 1000 Pa	PREMASREG 7115-UW VAQ LCD	0-10V 1x Changeover contact	● ■	2004-6192-4100-011	<b>800,66 €</b>
0... 2000 Pa / -2000 ... + 2000 Pa					
0... 3000 Pa / -3000 ... + 3000 Pa					
0... 5000 Pa / -5000 ... + 5000 Pa					
<b>Housing variant "Q":</b>	Cable connection with <b>M12 connector</b> (male, <b>12-pin</b> , A-code)				
<b>Multi-range switching:</b>	The <b>pressure ranges</b> depend on the device type and can be set via DIP switches.				
<b>Extra charge:</b>	Other special measuring ranges up to max. 5000 Pa <b>with optional automatic zero point calibration</b> <b>with optional pipe fitting</b> made from stainless steel V2A for pressure lines Ø <b>6 mm</b>				<b>53,37 €</b> <b>77,73 €</b> <b>44,93 €</b>

ACCESSORIES	
<b>xx-M12</b>	<b>Special accessories for M12 connector</b>
For further information, see chapter Accessories!	



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PREMASREG® 711x-VA  
with cable gland



PREMASREG® 711x-VA		Pressure and differential pressure measuring transducers/switches, ID (Stainless steel housing with cable gland)			
Pressure range (adjustable)	Type/WG02I	Output	Display	Item No.	Price
<b>max. - 1000...+ 1000 Pa</b>		<b>Type 7111</b>			
0... 100 Pa / - 100... + 100 Pa	PREMASREG 7111-UW VA LCD	0-10V 1x Changeover contact	■	2004-6192-4200-001	<b>759,41 €</b>
0... 300 Pa / - 300... + 300 Pa					
0... 500 Pa / - 500... + 500 Pa					
0... 1000 Pa / -1000... + 1000 Pa					
<b>max. - 5000...+ 5000 Pa</b>		<b>Type 7115</b>			
0...1000 Pa / - 1000 ... + 1000 Pa	PREMASREG 7115-UW VA LCD	0-10V 1x Changeover contact	■	2004-6192-4200-011	<b>759,41 €</b>
0...2000 Pa / -2000 ... + 2000 Pa					
0...3000 Pa / -3000 ... + 3000 Pa					
0...5000 Pa / -5000 ... + 5000 Pa					
<b>Housing variant:</b>	Cable connection with <b>cable gland</b> made from stainless steel V2A (1.4305)				
<b>Multi-range switching:</b>	The <b>pressure ranges</b> depend on the device type and can be set via DIP switches.				
<b>Extra charge:</b>	Other special measuring ranges up to max. 5000 Pa <b>with optional automatic zero point calibration</b> <b>with optional pipe fitting</b> made from stainless steel V2A for pressure lines Ø 6 mm				<b>53,37 €</b> <b>77,73 €</b> <b>44,93 €</b>



Pressure port for  
PVC / fabric pressure hose  
(as standard)



Pressure port for  
pressure lines / pipes  
(optional)