

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

The calibratable pressure sensors **PREMASGARD® 711x-VA** (series) with eight switchable measuring ranges (eight devices in one), **stainless steel V4A** housing, optionally with /without display, with cable gland or M12 connector according to DIN EN 61076-2-101 and pressure port using quick connect (pipe fitting optional) are used to measure positive, negative or differential pressures in air. The piezoresistive measuring element is temperature-compensated and 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/standard for 25 Pa) and an offset potentiometer for final value correction. The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible.

**PREMASGARD® 711x-VA**  
with cable gland



**PREMASGARD® 711x-VAQ**  
with M12 connector



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



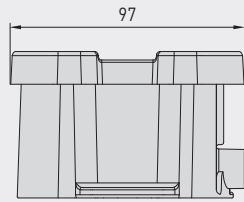
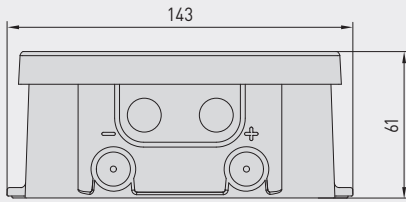
**TECHNICAL DATA**

Power supply:	24 V AC (± 10 %) for U variant, 15...36 V DC for I variant, depending on working resistance, residual ripple stabilised ± 0.3 V
Working resistance:	$R_B \text{ (Ohm)} = (U_B - 14 \text{ V}) / 0.02 \text{ A}$ for I variant, see working resistance diagram
Load resistance:	$R_L > 15 \text{ kOhm}$ for U variant
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 Ø 6 mm (external diameter) optionally with <b>pipe fitting</b> made from stainless steel V2A (1.4305) for pressure lines Ø 6 mm
Medium:	clean air and non-aggressive, non-combustible gases
Media temperature:	-20...+50 °C (temperature-compensated 0...+50 °C)
Accuracy:	<b>Type 7112</b> (25 Pa): typically ± 1 Pa <b>Type 7110</b> (100 Pa): typically ± 3 Pa <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 ± 2 % of final value for pressure ranges < ± 250 Pa
Temp. drift values:	± 0.1 % / °C ± 0.3 % / °C for pressure ranges < 250 Pa
Zero point offset:	< ± 0.7 % of final value ± 1.4 % of final value for pressure ranges < 250 Pa
Positive / negative pressure:	± 50 kPa
Signal filtering:	<b>switchable 1 s / 10 s</b> (via DIP switches)
Output:	0 -10 V or 4...20 mA
Connection type:	2- or 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) or <b>M12 connector</b> (male, 5-pin, 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 (Skadi2)
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), to display the ACTUAL pressure as well as the automatic zero point calibration
<b>ACCESSORIES</b>	(see table)



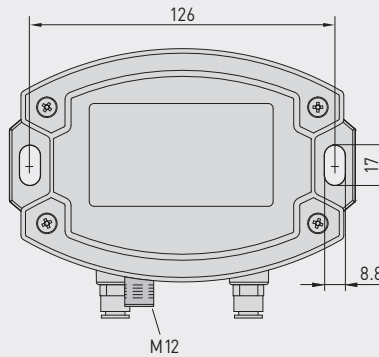
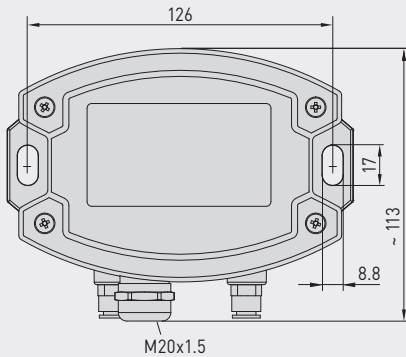
Dimensional drawing [mm]

PREMASGARD® 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)

PREMASGARD® 711x-VA with cable gland and display



PREMASGARD® 711x-VAQ with M12 connector and display

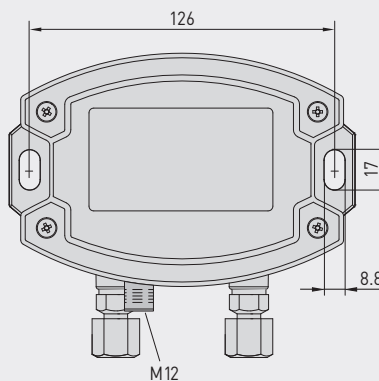
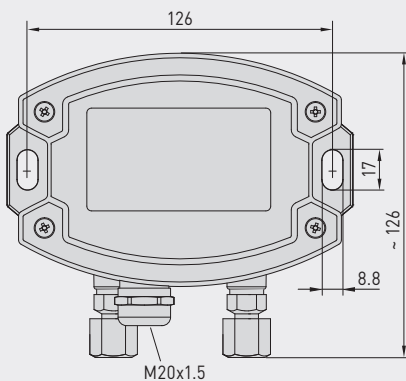


Dimensional drawing [mm]

PREMASGARD® 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)

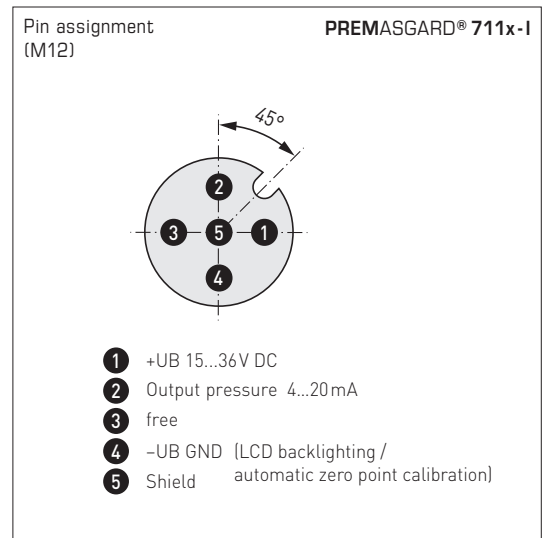
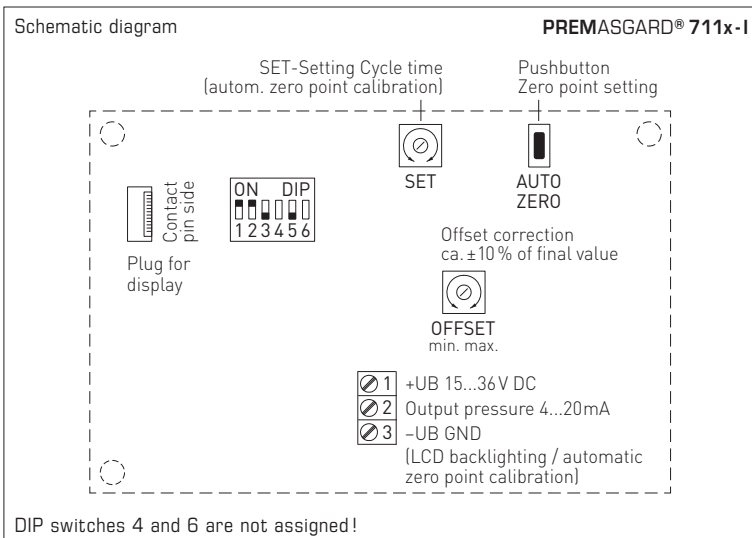
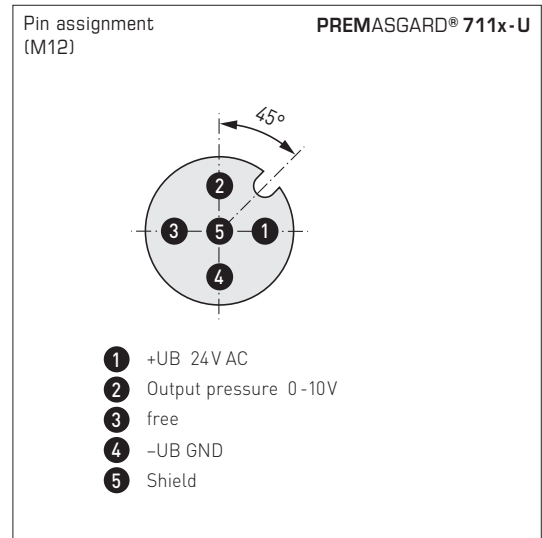
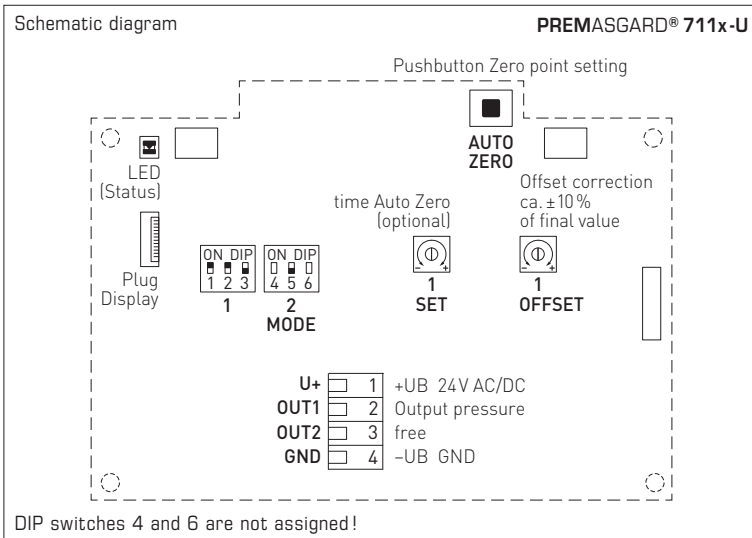


M12 connector (male)

Pressure port for pressure lines / pipes (optional)



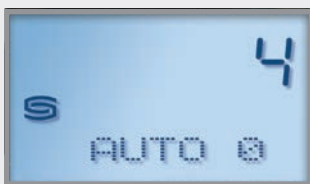
Pressure and differential pressure measuring transducers,  
adjustable, calibratable,  
with multi-range switching and active output



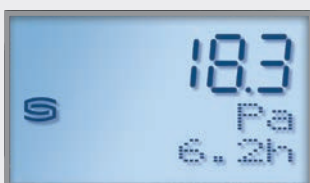
Display with option automatic zero point calibration



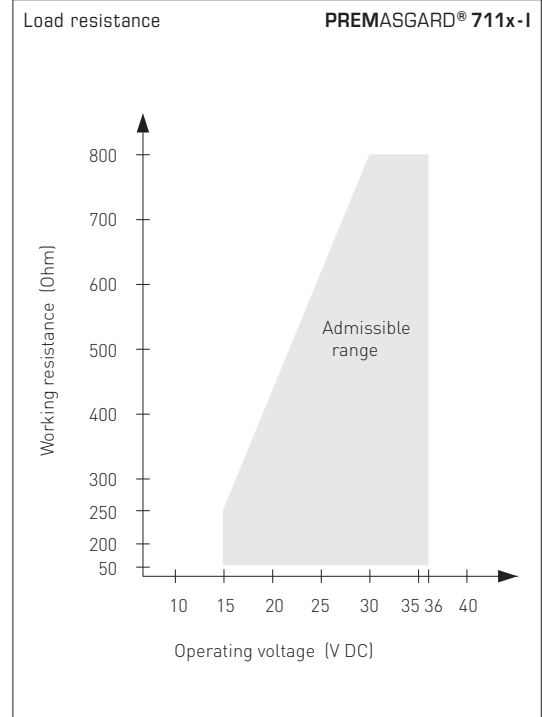
**Standard**  
Actual pressure (in Pa)  
Calibration interval (arrows)



**Zero point calibration active**  
Remaining calibration time (in seconds)



**Adjustment of zero point calibration**  
Cycle time (15 min to 24 hours) adjustable by potentiometer.





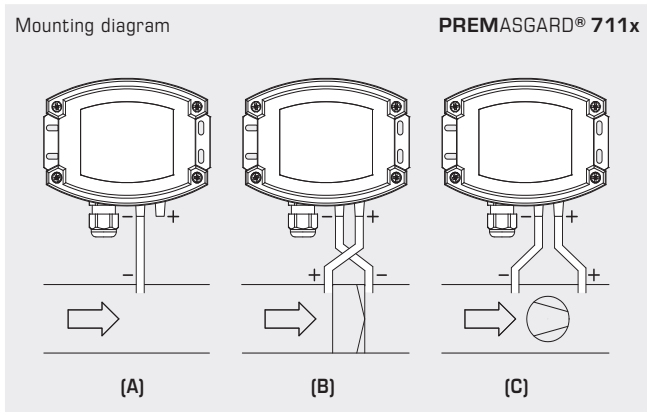
PREMASGARD® 711x-VAQ  
with display,  
hinged



Pressure range (selectable) – max. measuring range (default) is depending to the type of device								DIP 1	DIP 2
0...25 Pa	0...50 Pa	0...100 Pa	0...1000 Pa	-25...+25 Pa	-50...+50 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...25 Pa</b>	<b>0...100 Pa</b>	<b>0...1000 Pa</b>	<b>0...5000 Pa</b>	<b>-25...+25 Pa</b>	<b>-100...+100 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



**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,  
adjustable, calibratable,  
with multi-range switching and active output

PREMASGARD® 711x-VAQ  
with M12 connector



PREMASGARD® 711x-VAQ		Pressure and differential pressure measuring transducer, ID 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	PREMASGARD 7111-U VAQ	0-10 V	●	2004-6191-1100-001	598,52 €
0... 300 Pa / - 300... + 300 Pa	PREMASGARD 7111-U VAQ LCD	0-10 V	● ■	2004-6192-1100-001	792,92 €
0... 500 Pa / - 500... + 500 Pa	PREMASGARD 7111-I VAQ	4...20mA	●	2004-6191-2100-001	598,52 €
0... 1000 Pa / -1000... + 1000 Pa	PREMASGARD 7111-I VAQ LCD	4...20mA	● ■	2004-6192-2100-001	792,92 €
<b>max. - 5000...+ 5000 Pa</b>		<b>Type 7115</b>			
0... 1000 Pa / - 1000... + 1000 Pa	PREMASGARD 7115-U VAQ	0-10 V	●	2004-6191-1100-011	598,52 €
0... 2000 Pa / -2000... + 2000 Pa	PREMASGARD 7115-U VAQ LCD	0-10 V	● ■	2004-6192-1100-011	792,92 €
0... 3000 Pa / -3000... + 3000 Pa	PREMASGARD 7115-I VAQ	4...20mA	●	2004-6191-2100-011	598,52 €
0... 5000 Pa / -5000... + 5000 Pa	PREMASGARD 7115-I VAQ LCD	4...20mA	● ■	2004-6192-2100-011	792,92 €
<b>max. - 100...+ 100 Pa</b>		<b>Type 7110</b>			
0... +50 Pa / -50... +50 Pa	PREMASGARD 7110-U VAQ	0-10 V	●	2004-6191-1100-021	665,31 €
0...+100 Pa / -100...+100 Pa	PREMASGARD 7110-U VAQ LCD	0-10 V	● ■	2004-6192-1100-021	851,21 €
	PREMASGARD 7110-I VAQ	4...20mA	●	2004-6191-2100-021	665,31 €
	PREMASGARD 7110-I VAQ LCD	4...20mA	● ■	2004-6192-2100-021	851,21 €
<b>max. - 25...+ 25 Pa</b>		<b>Type 7112</b>			
0... +25 Pa / -25... +25 Pa	PREMASGARD 7112-U VAQ	0-10 V	●	2004-6191-1100-031	760,52 €
<i>equipped as standard with automatic zero point calibration (3-wire connection)</i>	PREMASGARD 7112-U VAQ LCD	0-10 V	● ■	2004-6192-1100-031	929,32 €
	PREMASGARD 7112-I VAQ	4...20mA	●	2004-6191-3100-001	760,52 €
	PREMASGARD 7112-I VAQ LCD	4...20mA	● ■	2004-6192-3100-001	929,32 €
<b>Housing variant "Q":</b>		Cable connection with <b>M12 connector</b> (male, 5-pin, A-code)			
Multi-range switching:	The <b>pressure ranges</b> 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 pipe fitting made from stainless steel V2A for pressure lines Ø 6 mm				53,37 € 77,73 € 44,93 €

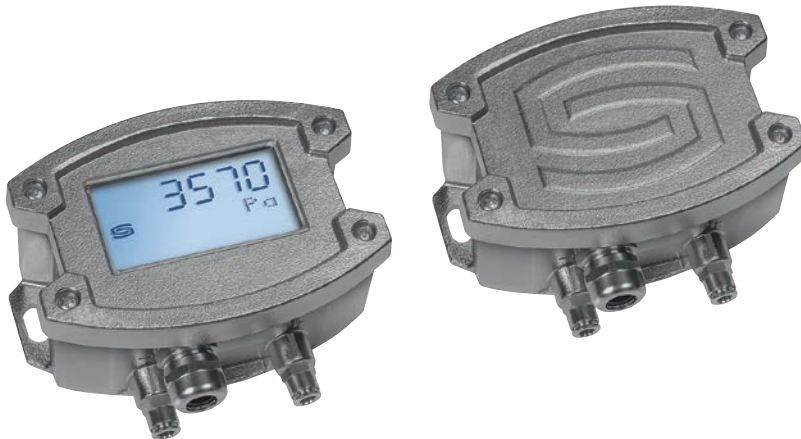
ACCESSORIES

xx-M12 Special accessories for M12 connector

For further information, see chapter Accessories!



PREMASGARD® 711x-VA  
with cable gland



PREMASGARD® 711x-VA		Pressure and differential pressure measuring transducer, 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	PREMASGARD 7111-U VA	0-10V		2004-6191-1200-001	560,42 €
0... 300 Pa / - 300... + 300 Pa	PREMASGARD 7111-U VA LCD	0-10V	■	2004-6192-1200-001	751,63 €
0... 500 Pa / - 500... + 500 Pa	PREMASGARD 7111-I VA	4...20mA		2004-6191-2200-001	560,42 €
0... 1000 Pa / -1000... + 1000 Pa	PREMASGARD 7111-I VA LCD	4...20mA	■	2004-6192-2200-001	751,63 €
<b>max. - 5000...+ 5000 Pa</b>		<b>Type 7115</b>			
0...1000 Pa / - 1000 ... + 1000 Pa	PREMASGARD 7115-U VA	0-10V		2004-6191-1200-011	560,42 €
0...2000 Pa / -2000 ... +2000 Pa	PREMASGARD 7115-U VA LCD	0-10V	■	2004-6192-1200-011	751,63 €
0...3000 Pa / -3000 ... +3000 Pa	PREMASGARD 7115-I VA	4...20mA		2004-6191-2200-011	560,42 €
0...5000 Pa / -5000 ... + 5000 Pa	PREMASGARD 7115-I VA LCD	4...20mA	■	2004-6192-2200-011	751,63 €
<b>max. - 100...+ 100 Pa</b>		<b>Type 7110</b>			
0... +50 Pa / -50... +50 Pa	PREMASGARD 7110-U VA	0-10V		2004-6191-1200-021	624,02 €
0...+100 Pa / -100...+100 Pa	PREMASGARD 7110-U VA LCD	0-10V	■	2004-6192-1200-021	809,91 €
	PREMASGARD 7110-I VA	4...20mA		2004-6191-2200-021	624,02 €
	PREMASGARD 7110-I VA LCD	4...20mA	■	2004-6192-2200-021	809,91 €
<b>max. - 25...+ 25 Pa</b>		<b>Type 7112</b>			
0... +25 Pa / -25... +25 Pa	PREMASGARD 7112-U VA	0-10V		2004-6191-1200-031	719,23 €
<i>equipped as standard with automatic zero point calibration (3-wire connection)</i>	PREMASGARD 7112-U VA LCD	0-10V	■	2004-6192-1200-031	888,05 €
	PREMASGARD 7112-I VA	4...20mA		2004-6191-3200-001	719,23 €
	PREMASGARD 7112-I VA LCD	4...20mA	■	2004-6192-3200-001	888,05 €
<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				53,37 € 77,73 € 44,93 €



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



Pressure port  
for pressure lines / pipes  
(optional)