

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

S+S REGELTECHNIK

The calibratable pressure sensors **PREMASGARD® 711x** (series) with eight switchable measuring ranges (eight devices in one), housing made from impact-resistant plastic, optionally with /without display, with **cable gland** or **M12 connector** according to DIN EN 61076-2-101 and with metal pressure port nozzles (quick connect 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. The delivery includes the connection set **ASD-06** (2 m connection hose, two pressure port nipples, screws).

PREMASGARD® 711x
with cable gland



PREMASGARD® 711x-Q
with M12 connector



Pressure port
Metal nozzles
(standard)



TECHNICAL DATA

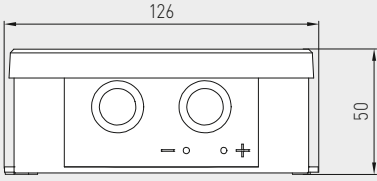
Power supply:	24 V AC (±20%); 15...36 V DC for U variant 15...36 V DC for I variant, depending on working resistance, residual ripple stabilised ±0.3 V
Working resistance:	R_B (Ohm) = $(U_0 - 14 V) / 0.02 A$ for I variant, see working resistance diagram
Load resistance:	$R_L > 5 k\Omega$ for U variant
Power consumption:	< 2 VA / 24 V DC, < 3.5 VA / 24 V AC
Measuring ranges:	multi-range switching with 8 switchable measuring ranges (see table)
Type of pressure:	differential pressure
Pressure connection:	equipped as standard with metal connection nozzles for pressure hose Ø 6 mm, optionally with quick connect made from stainless steel for PVC fabric pressure hose Ø 6 mm (external diameter)
Medium:	clean air and non-aggressive, non-combustible gases
Media temperature:	-20...+50 °C
Accuracy:	Type 7112 (25 Pa): typically ±1 Pa Type 7110 (100 Pa): typically ±2 Pa Type 7111 (1000 Pa): typically ±5 Pa Type 7115 (5000 Pa): typically ±25 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:	max. ±100 hPa
Signal filtering:	switchable 1 s / 10 s (via DIP switches)
Output:	0 -10 V or 4...20 mA
Connection type:	2- or 3-wire connection
Electrical connection:	0.14-1.5 mm ² , via plug-in screw terminal
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) or M12 connector (male, 5-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 (Tyr2)
Air humidity:	<95 % r. H., 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, according to EN 61326-1, according to EN 61326-2-3
Equipment:	display with illumination , three-line, cutout approx. 70 x 40 mm (W x H), to display the ACTUAL pressure as well as the automatic zero point calibration
ACCESSORIES	see table



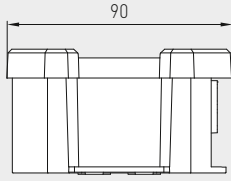
Pressure and differential pressure measuring transducers, including connection set, adjustable, calibratable, with multi-range switching and active output



Dimensional drawing PREMASGARD® 711x

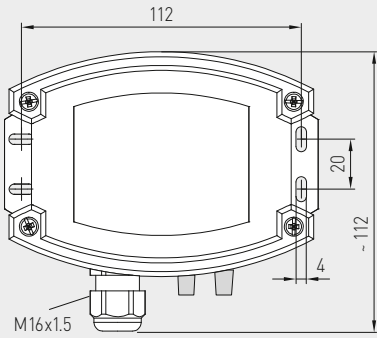


126
50




90

Housing with cable gland
equipped as standard with pressure port nozzles

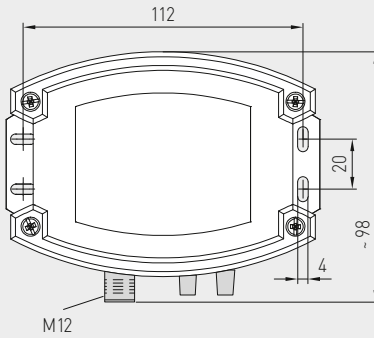


112
20
~ 112
4
M16x1.5

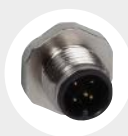


Pressure port nozzles, metal

Housing with M12 connector
equipped as standard with pressure port nozzles



112
20
~ 98
4
M12



M12 connector (male)

PREMASGARD® 711x with cable gland and display

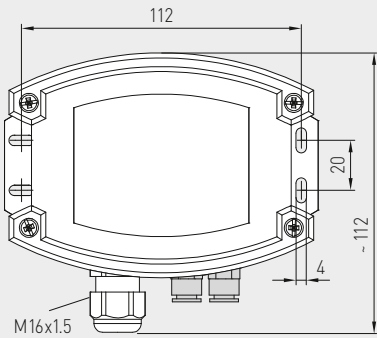


PREMASGARD® 711x-Q with M12 connector and display




Dimensional drawing PREMASGARD® 711x

Housing with cable gland
optional on request with quick connect

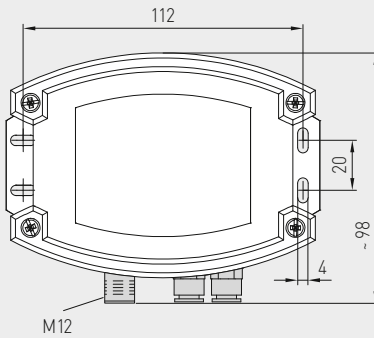


112
20
~ 112
4
M16x1.5

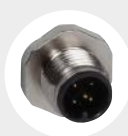


Stainless steel quick connect

Housing with M12 connector
optional on request with quick connect



112
20
~ 98
4
M12



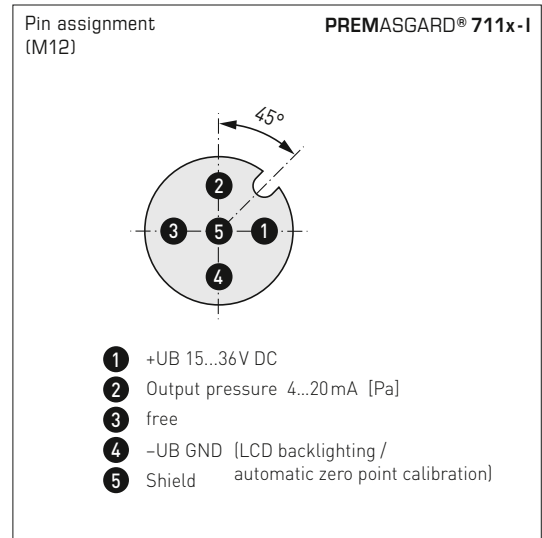
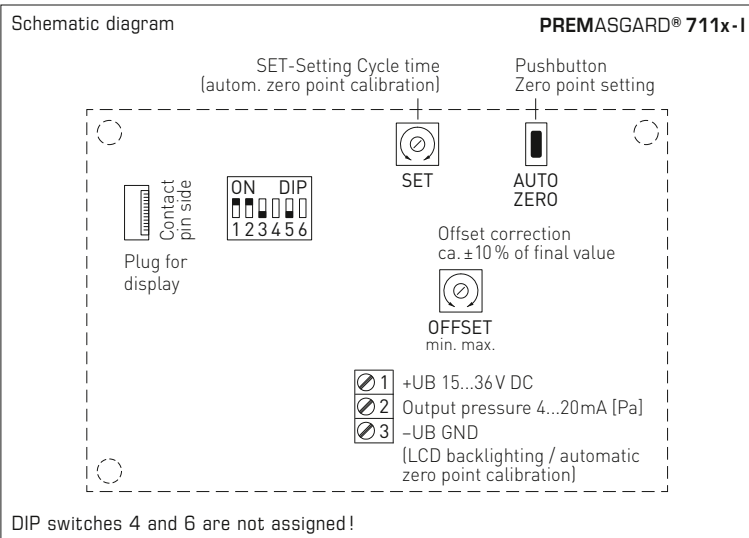
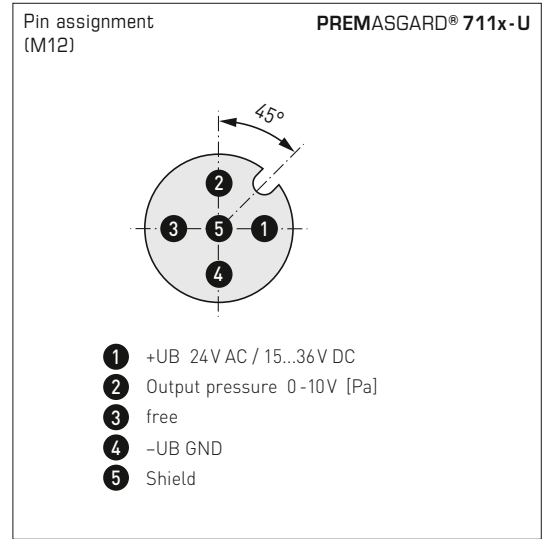
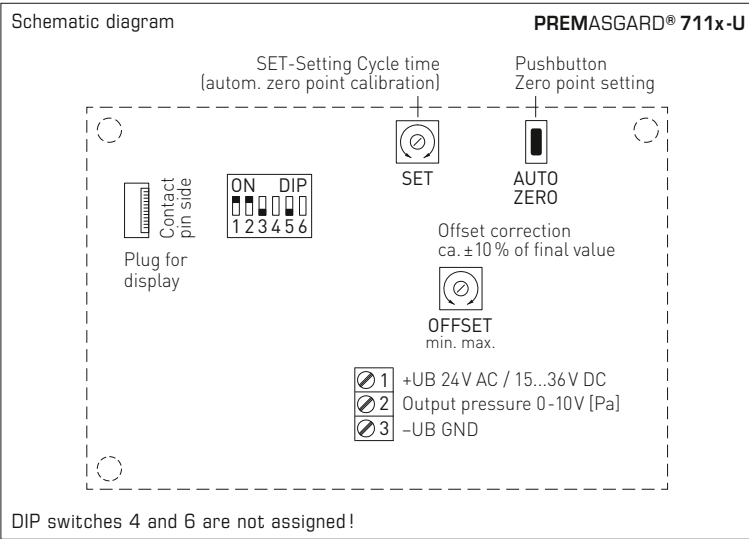
M12 connector (male)



Pressure port Stainless steel quick connect (optional)



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

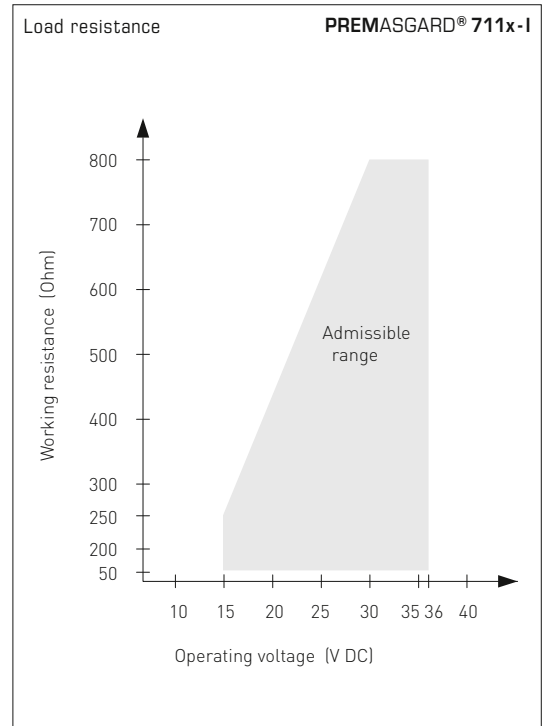


Display with option automatic zero point calibration

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.





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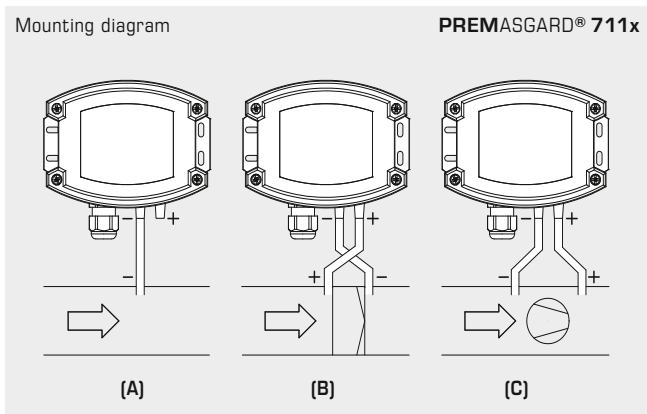
PREMASGARD® 711x-Q with display, hinged



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
0...25 Pa	0...100 Pa	0...1000 Pa	0...5000 Pa	-25...+25 Pa	-100...+100 Pa	-1000...+1000 Pa	-5000...+5000 Pa	ON	ON

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

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



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

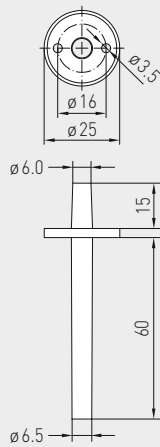
Pressure connections at the pressure switch are marked with P1 (+) for higher pressure and P2 (-) for lower pressure.

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

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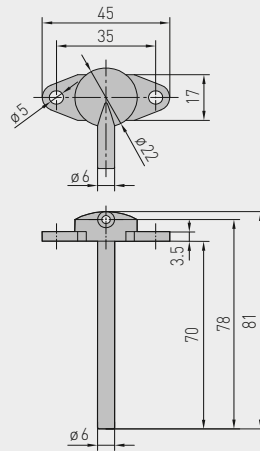
Dimensional drawing **ASD-06**
Connection set



ASD-06
Connection set



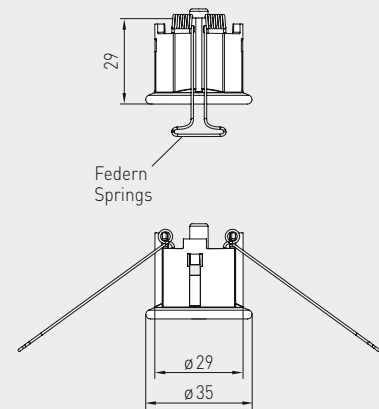
Dimensional drawing **ASD-07**
Connection nipple



ASD-07
Connection nipple



Dimensional drawing **DAL-01**
Pressure outlet



DAL-01
Pressure outlet



WS-03
Weather and sun protection hood (optional)

Pressure port
equipped as standard with pressure port metal nozzles



optional on request with stainless steel quick connect



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	6,74 €
ASD-07	2 connection nipples (at 90 degree angle) made of plastic, ABS	7100-0060-7000-000	6,74 €
DAL-01	Pressure outlet for ceiling or in-wall installation (e.g. in clean rooms)	7300-0060-3000-001	31,55 €
WS-03	Weather and sun protection hood , 200 x 180 x 150 mm, stainless steel V2A (1.4301)	7100-0040-6000-000	39,45 €

For further information, see chapter Accessories!



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PREMASGARD® 711x-Q
with M12 connector



PREMASGARD® 711x
with cable gland



PREMASGARD® 711x		Pressure and differential pressure measuring transducers, <i>Deluxe</i>			
Pressure range (adjustable)	Type / WG02	Output	Display ● = Q	Item No.	Price
max. - 1000...+ 1000 Pa		Type 7111			
0... 100 Pa / - 100... + 100 Pa	PREMASGARD 7111-U	0-10V		1301-7111-0010-200	148,23 €
0... 300 Pa / - 300... + 300 Pa	PREMASGARD 7111-U LCD	0-10V	■	1301-7111-4010-200	207,95 €
0... 500 Pa / - 500... + 500 Pa	PREMASGARD 7111-I	4...20mA		1301-7112-0010-100	148,23 €
0... 1000 Pa / -1000... + 1000 Pa	PREMASGARD 7111-I LCD	4...20mA	■	1301-7112-4010-100	207,95 €
	PREMASGARD 7111-U Q	0-10V	●	2004-6131-1100-001	185,20 €
	PREMASGARD 7111-U Q LCD	0-10V	● ■	2004-6132-1100-001	244,92 €
	PREMASGARD 7111-I Q	4...20mA	●	2004-6131-2100-001	185,20 €
	PREMASGARD 7111-I Q LCD	4...20mA	● ■	2004-6132-2100-001	244,92 €
max. - 5000...+ 5000 Pa		Type 7115			
0... 1000 Pa / - 1000... + 1000 Pa	PREMASGARD 7115-U	0-10V		1301-7111-0050-200	148,23 €
0... 2000 Pa / - 2000... + 2000 Pa	PREMASGARD 7115-U LCD	0-10V	■	1301-7111-4050-200	207,95 €
0... 3000 Pa / - 3000... + 3000 Pa	PREMASGARD 7115-I	4...20mA		1301-7112-0050-100	148,23 €
0... 5000 Pa / - 5000... + 5000 Pa	PREMASGARD 7115-I LCD	4...20mA	■	1301-7112-4050-100	207,95 €
	PREMASGARD 7115-U Q	0-10V	●	2004-6131-1100-011	185,20 €
	PREMASGARD 7115-U Q LCD	0-10V	● ■	2004-6132-1100-021	244,92 €
	PREMASGARD 7115-I Q	4...20mA	●	2004-6131-2100-011	185,20 €
	PREMASGARD 7115-I Q LCD	4...20mA	● ■	2004-6132-2100-011	244,92 €
max. - 100...+ 100 Pa		Type 7110			
0... +50 Pa / -50... +50 Pa	PREMASGARD 7110-U	0-10V		1301-7111-0110-200	186,62 €
0...+100 Pa / -100...+100 Pa	PREMASGARD 7110-U LCD	0-10V	■	1301-7111-4110-200	239,94 €
	PREMASGARD 7110-I	4...20mA		1301-7112-0110-100	186,62 €
	PREMASGARD 7110-I LCD	4...20mA	■	1301-7112-4110-100	239,94 €
	PREMASGARD 7110-U Q	0-10V	●	2004-6131-1100-021	223,59 €
	PREMASGARD 7110-U Q LCD	0-10V	● ■	2004-6132-1100-031	276,91 €
	PREMASGARD 7110-I Q	4...20mA	●	2004-6131-2100-021	223,59 €
	PREMASGARD 7110-I Q LCD	4...20mA	● ■	2004-6132-2100-021	276,91 €
max. - 25...+ 25 Pa		Type 7112			
0... +25 Pa / -25... +25 Pa	PREMASGARD 7112-U	0-10V		1301-7111-0370-200	238,87 €
	PREMASGARD 7112-U LCD	0-10V	■	1301-7111-4370-200	282,82 €
	PREMASGARD 7112-I	4...20mA		1301-7112-0370-200	238,87 €
	PREMASGARD 7112-I LCD	4...20mA	■	1301-7112-4370-200	282,82 €
	PREMASGARD 7112-U Q	0-10V	●	2004-6131-1100-031	275,85 €
	PREMASGARD 7112-U Q LCD	0-10V	● ■	2004-6132-1100-011	319,79 €
	PREMASGARD 7112-I Q	4...20mA	●	2004-6131-3100-001	275,85 €
	PREMASGARD 7112-I Q LCD	4...20mA	● ■	2004-6132-3100-011	319,79 €
Housing variant "Q":	Cable connection with M12 connector (male, 5-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				43,94 € 63,98 € 36,98 €