

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

The calibratable **PREMASGARD® 711x** pressure sensors (series) are equipped with eight switchable measuring ranges and equipped with optional display (eight devices in one) and are used to measure above-atmospheric, below-atmospheric, or differential pressures in air. The piezoresistive measuring element is temperature-compensated and guarantees a high degree of reliability and precision.

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 monitoring filters, for level measurement or for triggering frequency converters. Media measured with these pressure transducers are clean 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 at 25 Pa) and one offset potentiometer for final value correction. The delivery includes the connection set **ASD-06** (2 m connection hose, two pressure connection nipples, screws).

PREMASGARD® 711x



M12 connector or quick connect for PVC fabric pressure hose (optional on request)



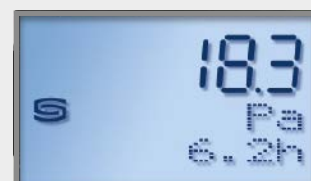
Display with option automatic zero point calibration



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

TECHNICAL DATA

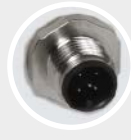
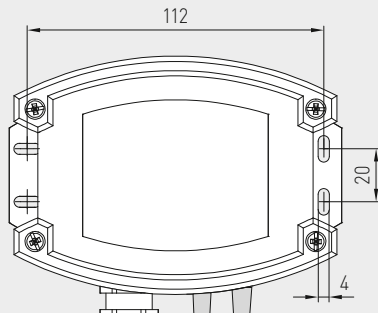
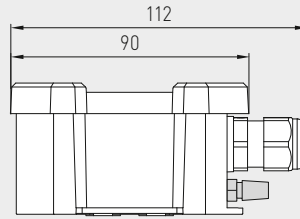
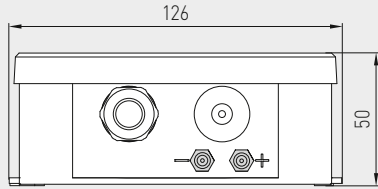
Power supply:	24 V AC (± 20 %); 15...36 V DC for U variant 15...36 V DC for I variant, depending on working resistance, residual ripple stabilised ± 0.3 V
Working resistance:	$R_a \text{ (ohm)} = (U_b - 14 \text{ V}) / 0.02 \text{ A}$ for I variant
Load resistance:	$R_L > 5 \text{ kOhm}$ for U variant
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)
Output:	0 -10V or 4...20 mA
Connection type:	2- or 3-wire connection
Media temperature:	-20...+50 °C
Pressure connection:	with metal connection nozzles for pressure hose Ø 6 mm (optional on request with quick connect for PVC fabric pressure hose Ø 6 mm)
Type of pressure:	differential pressure
Medium:	clean air and non-aggressive, non-combustible gases
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
Temperature 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
Above- / below-atmospheric pressure:	max. ± 100 hPa
Signal filtering:	switchable 1 s / 10 s
Housing:	plastic, UV-stabilised, 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!
Dimensions:	126 x 90 x 50 mm (Tyr 2)
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 (optional on request)
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:	three-line display with illumination , cutout approx. 70 x 40 mm (W x H), for displaying ACTUAL pressure as well as automatic zero point calibration
ACCESSORIES	see table



Dimensional drawing

PREMAGARD® 711x

PREMAGARD® 711x with display



M12 connector (optional on request)



M16x1.5

Dimensional drawing

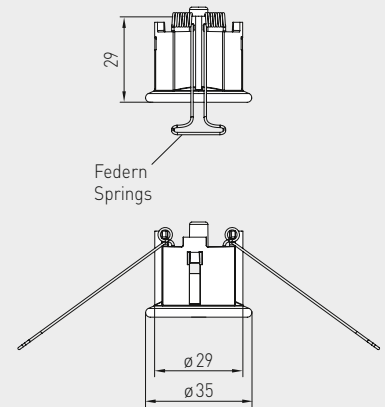
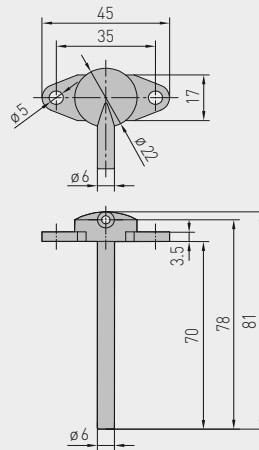
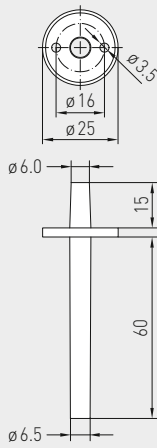
ASD-06 Connection set

Dimensional drawing

ASD-07 Connection nipple

Dimensional drawing

DAL-01 Pressure outlet



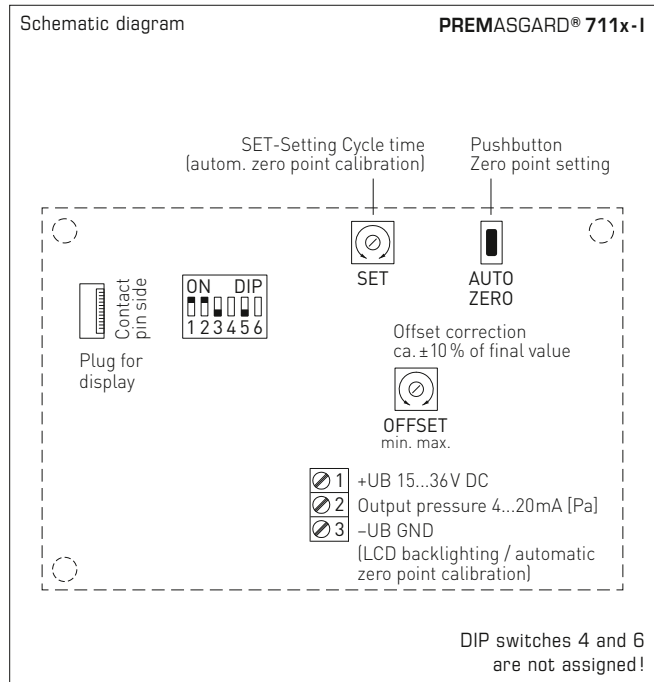
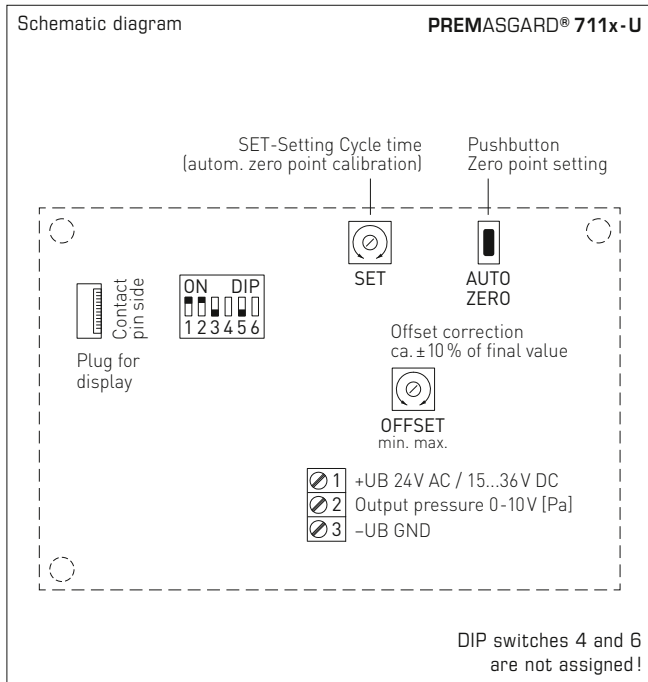
ASD-06 Connection set

ASD-07 Connection nipple

DAL-01 Pressure outlet



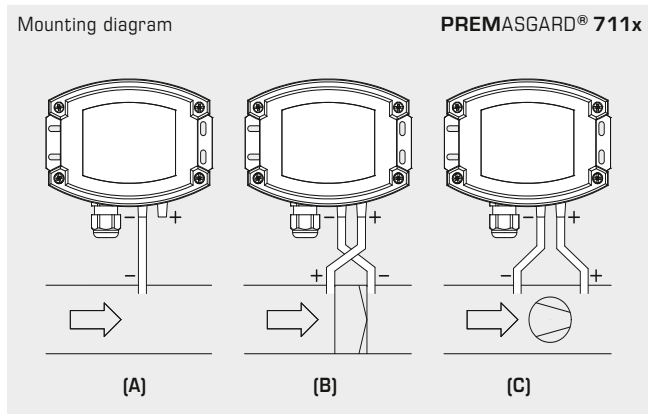
Pressure and differential pressure measuring transducers, including connection set, calibratable, with multi-range switching and active output



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



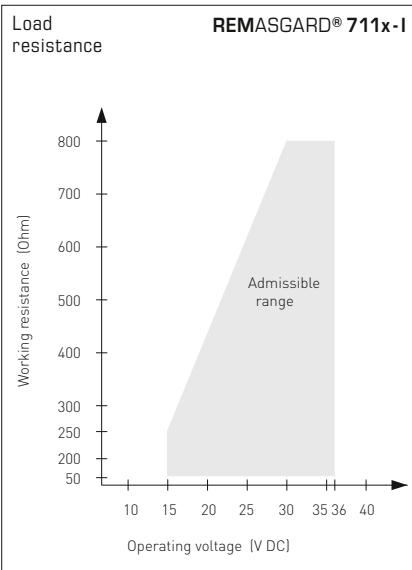
TYPES OF MONITORING:

- (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	mH ₂ O
1 Pa	0.00001 bar	0.01 mbar	1 Pa	0.001 kPa	0.000101971 mH ₂ O
1 kPa	0.01 bar	10 mbar	1000 Pa	1 kPa	0.101971 mH ₂ O
1 bar	1 bar	1000 mbar	100000 Pa	100 kPa	10.1971 mH ₂ O
1 mbar	0.001 bar	1 mbar	100 Pa	0.1 kPa	0.0101971 mH ₂ O
1 mH ₂ O	0.0980665 bar	98.0665 mbar	9806.65 Pa	9.80665 kPa	1 mH ₂ O



PREMASGARD® 711x with display

PREMASGARD® 711x Pressure and differential pressure measuring transducers, *Deluxe*

Pressure range (adjustable)	Type / WG02	Output	Display	Item No.	Price
max. - 1000...+ 1000 Pa PREMASGARD® 7111					
0... 100 Pa / - 100... + 100 Pa	PREMASGARD 7111-U	0-10V		1301-7111-0010-200	145,32 €
0... 300 Pa / - 300... + 300 Pa	PREMASGARD 7111-U LCD	0-10V	■	1301-7111-4010-200	203,87 €
0... 500 Pa / - 500... + 500 Pa	PREMASGARD 7111-I	4...20mA		1301-7112-0010-100	145,32 €
0... 1000 Pa / - 1000... + 1000 Pa	PREMASGARD 7111-I LCD	4...20mA	■	1301-7112-4010-100	203,87 €
max. - 5000...+ 5000 Pa PREMASGARD® 7115					
0... 1000 Pa / - 1000... + 1000 Pa	PREMASGARD 7115-U	0-10V		1301-7111-0050-200	145,32 €
0... 2000 Pa / - 2000... + 2000 Pa	PREMASGARD 7115-U LCD	0-10V	■	1301-7111-4050-200	203,87 €
0... 3000 Pa / - 3000... + 3000 Pa	PREMASGARD 7115-I	4...20mA		1301-7112-0050-100	145,32 €
0... 5000 Pa / - 5000... + 5000 Pa	PREMASGARD 7115-I LCD	4...20mA	■	1301-7112-4050-100	203,87 €
max. -100...+100 Pa PREMASGARD® 7110					
0... +50 Pa / -50... +50 Pa	PREMASGARD 7110-U	0-10V		1301-7111-0110-200	182,96 €
0...+100 Pa / -100...+100 Pa	PREMASGARD 7110-U LCD	0-10V	■	1301-7111-4110-200	235,24 €
	PREMASGARD 7110-I	4...20mA		1301-7112-0110-100	182,96 €
	PREMASGARD 7110-I LCD	4...20mA	■	1301-7112-4110-100	235,24 €
max. -25...+25 Pa PREMASGARD® 7112					
0... +25 Pa / -25... +25 Pa	PREMASGARD 7112-U	0-10V		1301-7111-0370-200	234,19 €
	PREMASGARD 7112-U LCD	0-10V	■	1301-7111-4370-200	277,27 €
	PREMASGARD 7112-I	4...20mA		1301-7112-0370-200	234,19 €
	PREMASGARD 7112-I LCD	4...20mA	■	1301-7112-4370-200	277,27 €
Equipped as standard with automatic zero point calibration (3-wire connection)					
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 (please specify in your order)				43,08 € 62,73 €
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101 (on request)				

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, and 4 tapping screws	7100-0060-3000-000	6,61 €
ASD-07	2 connection nipples (at 90 degree angle) made of plastic, ABS	7100-0060-7000-000	6,61 €
DAL-01	Pressure outlet for ceiling or in-wall installation (e.g. in clean rooms)	7300-0060-3000-001	30,93 €
WS-03	Weather and sun protection hood , 200x 180x 150mm, stainless steel V2A (1.4301)	7100-0040-6000-000	38,68 €

For further information, see last chapter Accessories!