

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

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 pressure connection 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
for pressure hose
(as standard)

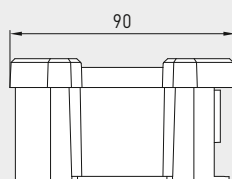
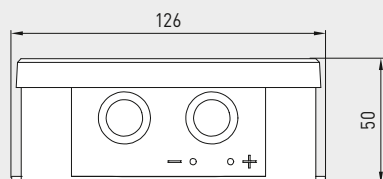


TECHNICAL DATA

Power supply:	24 V AC ($\pm 10\%$) for 3-wire I and U variant, 15...36 V DC for 2-wire I variant, depending on working resistance, residual ripple stabilised $\pm 0.3\text{ V}$
Working resistance:	R_a (Ohm) = 25 ...450 Ohm for 3-wire I variant, R_a (Ohm) = $(U_b - 14\text{ V}) / 0.02\text{ A}$ for 2-wire I variant, see working resistance diagram
Load resistance:	$R_L > 15\text{ kOhm}$ for U variant
Power consumption:	$< 2\text{ W}$ / 24 V DC, $< 4.4\text{ VA}$ / 24 V AC
Measuring ranges:	multi-range switching with 8 switchable measuring ranges (see table)
Type of pressure:	differential pressure
Pressure connection:	with connection nozzle for pressure hose $\varnothing 6\text{ mm}$, optionally with quick connect 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:	$-20\text{...}+50\text{ }^\circ\text{C}$ (temperature-compensated $0\text{...}+50\text{ }^\circ\text{C}$)
Accuracy:	Type 7112 (25 Pa): typically $\pm 1\text{ Pa}$ Type 7110 (100 Pa): typically $\pm 3\text{ Pa}$ Type 7111 (1000 Pa): typically $\pm 10\text{ Pa}$ Type 7115 (5000 Pa): typically $\pm 35\text{ Pa}$ compared to the calibrated reference device
Sum of linearity+hysteresis:	$< \pm 1\%$ of final value $\pm 2\%$ of final value for pressure ranges $< \pm 250\text{ Pa}$
Temp. drift values:	$\pm 0.1\%$ / $^\circ\text{C}$ $\pm 0.3\%$ / $^\circ\text{C}$ for pressure ranges $< 250\text{ Pa}$
Zero point offset:	$< \pm 0.7\%$ of final value $\pm 1.4\%$ of final value for pressure ranges $< 250\text{ Pa}$
Positive/negative pressure:	$\pm 50\text{ kPa}$
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:	0.2 - 1.5 mm ² , via push-in terminals
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 (Tyr 2)
Air humidity:	$< 95\%$ RH, 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
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

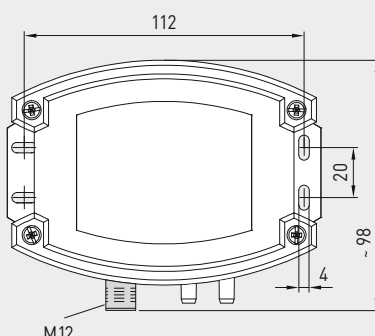
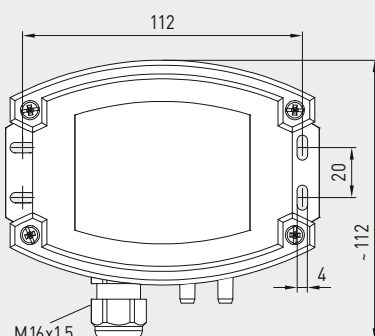
Dimensional drawing
[mm]

PREMASGARD® 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)

PREMASGARD® 711x
with cable gland
and display



PREMASGARD® 711x-Q
with M12 connector
and display

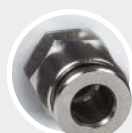
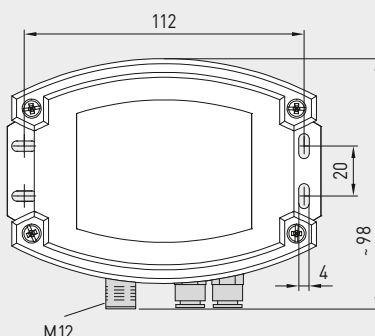
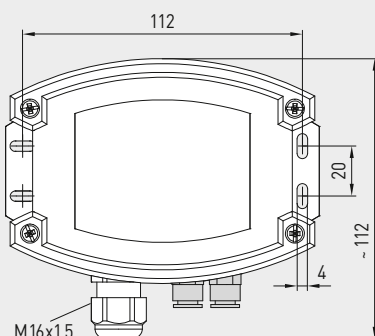


Dimensional drawing
[mm]

PREMASGARD® 711x

Housing with
cable gland
optional on request with
quick connect

Housing with
M12 connector
optional on request with
quick connect



Pressure port for
PVC/fabric pressure hose
(optional)



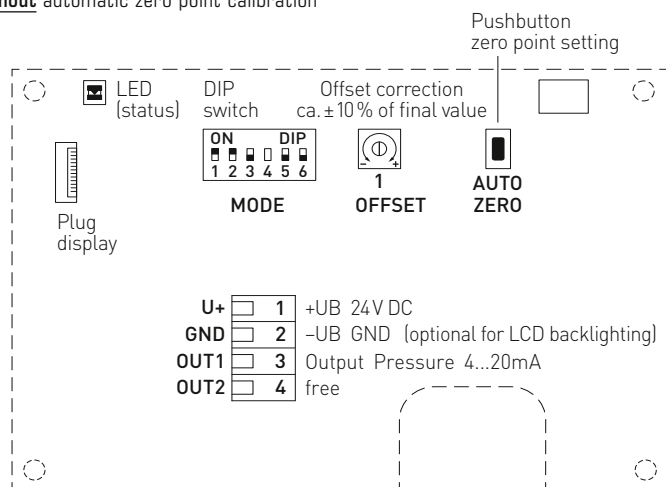
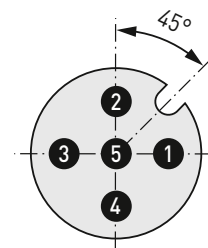
M12 connector
(male)

Pressure port for
PVC/fabric pressure hose
(optional)

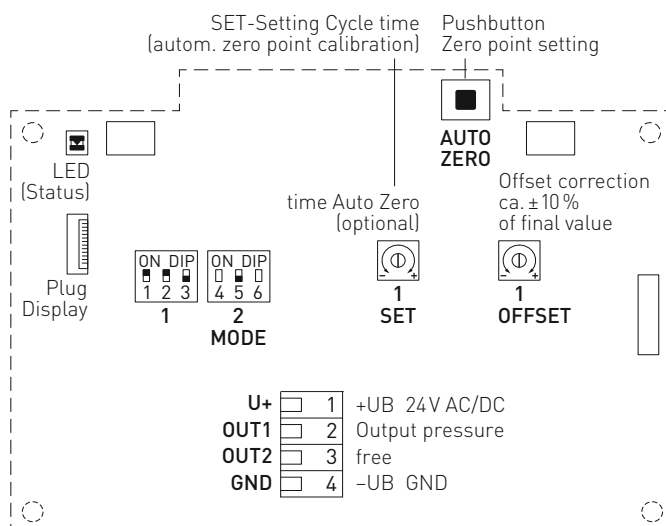


Pressure and differential pressure measuring transducers,
including connection set, adjustable, calibratable,
with multi-range switching and active output

S+S REGELTECHNIK

2-wire connection (I2W)**without** automatic zero point calibration**PREMASGARD® 711x-I****2-wire connection (I2W)**Pin assignment
(M12)**PREMASGARD® 711x-I**

- ① +UB 15...36V DC
- ② Output pressure 4...20mA
- ③ free
- ④ -UB GND (LCD backlighting)
- ⑤ Shield

3-wire connection**PREMASGARD® 711x-I
PREMASGARD® 711x-U****3-wire connection**Pin assignment
(M12)**PREMASGARD® 711x-I**

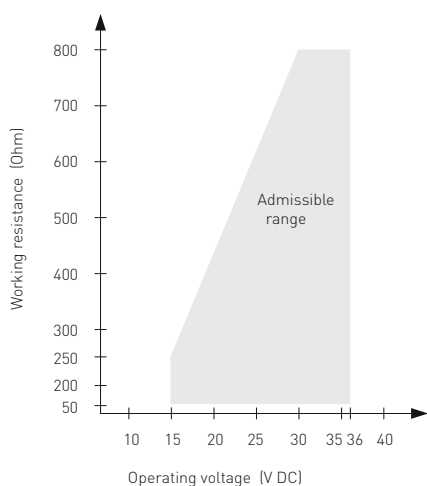
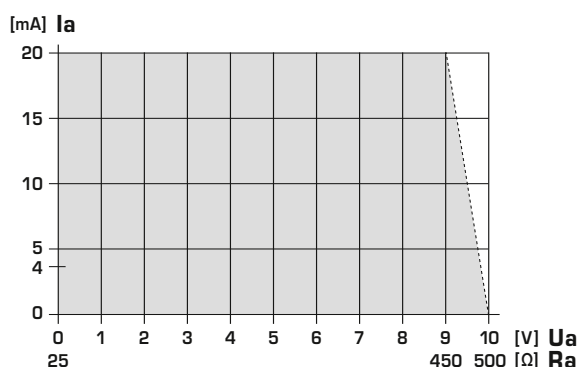
- ① +UB 24V AC
- ② Output pressure 4...20mA
- ③ free
- ④ -UB GND
- ⑤ Shield

3-wire connectionPin assignment
(M12)**PREMASGARD® 711x-U**

- ① +UB 24V AC
- ② Output pressure 0-10V
- ③ free
- ④ -UB GND
- ⑤ Shield

2-wire connection (I2W)

Load resistance diagram

PREMASGARD® 711x-I**3-wire connection**Dependence of output voltage
on output current**PREMASGARD® 7112-I**



S+S REGELTECHNIK

PREMASGARD® 711x

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

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
Bidirectional (-MR...+MR)	ON
Unidirectional (0...+MR) (default)	OFF

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

DIP switches 4 and 6
are not assigned!

Display with option
automatic zero point calibration



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



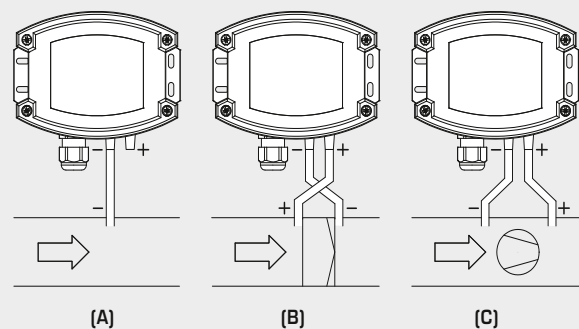
**Zero point calibration
active**
Remaining calibration time
(in seconds)



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

Mounting diagram

PREMASGARD® 711x



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

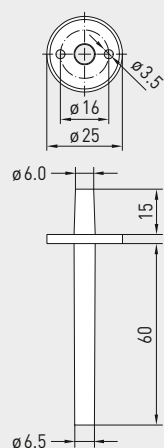
Pressure connections at the pressure switch are marked with
P1 (+) for higher pressure and P2 (-) for lower pressure.

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

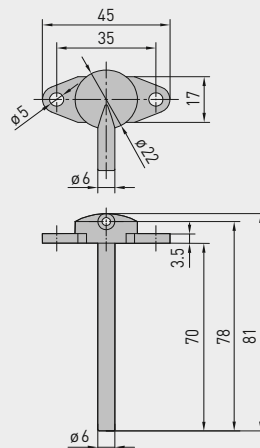
S+S REGELTECHNIK

Dimensional drawing
[mm]

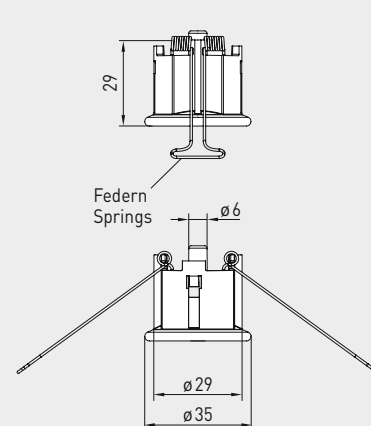
ASD-06

Dimensional drawing
[mm]

ASD-07

Dimensional drawing
[mm]

DAL-01

ASD-06
Connection setASD-07
Connection nippleDAL-01
Pressure outletWS-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
ASD-07	2 connection nipples (at 90 degree angle) made of plastic, ABS	7100-0060-7000-000
DAL-01	Pressure outlet for ceiling or in-wall installation (e.g. in clean rooms)	7300-0060-3000-001
WS-03	Weather and sun protection hood, 200 x 180 x 150 mm, stainless steel V2A (1.4301)	7100-0040-6000-000

For further information, see chapter Accessories!



S+S REGELTECHNIK

PREMASGARD® 711x

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

PREMASGARD® 711x-Q
with M12 connector



PREMASGARD® 711x
with cable gland



PREMASGARD® 711x

Pressure and differential pressure measuring transducers, *Deluxe*

Pressure range (adjustable)	Type / WG02	Connection 2- or 3-wire	Output	Display ● = Q	Item No.
max. - 1000...+ 1000 Pa	Type 7111				
0... 100 Pa / - 100... + 100 Pa	PREMASGARD 7111-U	3	0-10 V		1301-7111-0010-200
0... 300 Pa / - 300... + 300 Pa	PREMASGARD 7111-U LCD	3	0-10 V	■	1301-7111-4010-200
0... 500 Pa / - 500... + 500 Pa	PREMASGARD 7111-I	2	4...20 mA		1301-7112-0010-10L
0... 1000 Pa / - 1000... + 1000 Pa	PREMASGARD 7111-I LCD	2(3)	4...20 mA	■	1301-7112-4010-10L
	PREMASGARD 7111-U Q	3	0-10 V	●	2004-6131-1100-001
	PREMASGARD 7111-U Q LCD	3	0-10 V	● ■	2004-6132-1100-001
	PREMASGARD 7111-I Q	2	4...20 mA	●	2004-6131-2100-002
	PREMASGARD 7111-I Q LCD	2(3)	4...20 mA	● ■	2004-6132-2100-002
max. - 5000...+ 5000 Pa	Type 7115				
0... 1000 Pa / - 1000... + 1000 Pa	PREMASGARD 7115-U	3	0-10 V		1301-7111-0050-200
0... 2000 Pa / - 2000... + 2000 Pa	PREMASGARD 7115-U LCD	3	0-10 V	■	1301-7111-4050-200
0... 3000 Pa / - 3000... + 3000 Pa	PREMASGARD 7115-I	2	4...20 mA		1301-7112-0050-10L
0... 5000 Pa / - 5000... + 5000 Pa	PREMASGARD 7115-I LCD	2(3)	4...20 mA	■	1301-7112-4050-10L
	PREMASGARD 7115-U Q	3	0-10 V	●	2004-6131-1100-011
	PREMASGARD 7115-U Q LCD	3	0-10 V	● ■	2004-6132-1100-021
	PREMASGARD 7115-I Q	2	4...20 mA	●	2004-6131-2100-012
	PREMASGARD 7115-I Q LCD	2(3)	4...20 mA	● ■	2004-6132-2100-012
max. - 100...+ 100 Pa	Type 7110				
0... +50 Pa / -50... +50 Pa	PREMASGARD 7110-U	3	0-10 V		1301-7111-0110-200
0...+100 Pa / -100...+100 Pa	PREMASGARD 7110-U LCD	3	0-10 V	■	1301-7111-4110-200
	PREMASGARD 7110-I	2	4...20 mA		1301-7112-0110-10L
	PREMASGARD 7110-I LCD	2(3)	4...20 mA	■	1301-7112-4110-10L
	PREMASGARD 7110-U Q	3	0-10 V	●	2004-6131-1100-021
	PREMASGARD 7110-U Q LCD	3	0-10 V	● ■	2004-6132-1100-031
	PREMASGARD 7110-I Q	2	4...20 mA	●	2004-6131-2100-022
	PREMASGARD 7110-I Q LCD	2(3)	4...20 mA	● ■	2004-6132-2100-022
max. - 25...+ 25 Pa	Type 7112				
0... +25 Pa / -25... +25 Pa	PREMASGARD 7112-U	3	0-10 V		1301-7111-0370-200
	PREMASGARD 7112-U LCD	3	0-10 V	■	1301-7111-4370-200
	PREMASGARD 7112-I	3	4...20 mA		1301-7112-0370-200
	PREMASGARD 7112-I LCD	3	4...20 mA	■	1301-7112-4370-200
	PREMASGARD 7112-U Q	3	0-10 V	●	2004-6131-1100-031
	PREMASGARD 7112-U Q LCD	3	0-10 V	● ■	2004-6132-1100-011
	PREMASGARD 7112-I Q	3	4...20 mA	●	2004-6131-3100-001
	PREMASGARD 7112-I Q LCD	3	4...20 mA	● ■	2004-6132-3100-011
2-wire connection:	LCD backlight inactive – activation via PIN 'GND' (I2W)				
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 (3-wire connection) with optional quick connect for PVC fabric pressure hose Ø 6 mm				