

Premasgard 7112 Difference pressure sensor



Summary Pressure and differential pressure sensor for overpressure, underpressure and differential pressure measurement of air and other non-aggressive and non-flammable gases. A piezoresistive measuring element provides high accuracy and reliability.

Application • Clean room technologies, medical applications, filtering technologies, air handling units, variable speed drives control etc.

Function An elastic diaphragm transmits the pressure difference to the measuring element. The electric signal is amplified and evaluated and sent to the output terminals. The sensor is factory-calibrated. We recommend performing an initial manual adjustment on-site during commissioning and subsequently at regular intervals.

Technical data	
Power supply	24 V AC $\pm 20\%$, 15...36 V DC
Measuring range	-25...25 Pa
Consumption	< 2 VA (24 V DC), < 3.5 VA (24 V AC)
Output signal	0...10 V or 4...20 mA
Connection	cable gland M16, screw terminals, wires 0,14 ... 1,5 mm ²
Media temperature	-25 ... 50 °C
Media connection	hose with inner diameter 6 mm
Medium	air and non-aggressive and non-combustible gases
Accuracy	± 1 Pa of measuring range 25 Pa
Hysteresis +linearity	$\pm 2\%$ of measuring range
Temperature drift	$\pm 0,3\%$ / °C
Zero point - offset	$\pm 1,4\%$ of measuring range
Max. overpressure and underpressure	± 100 hPa

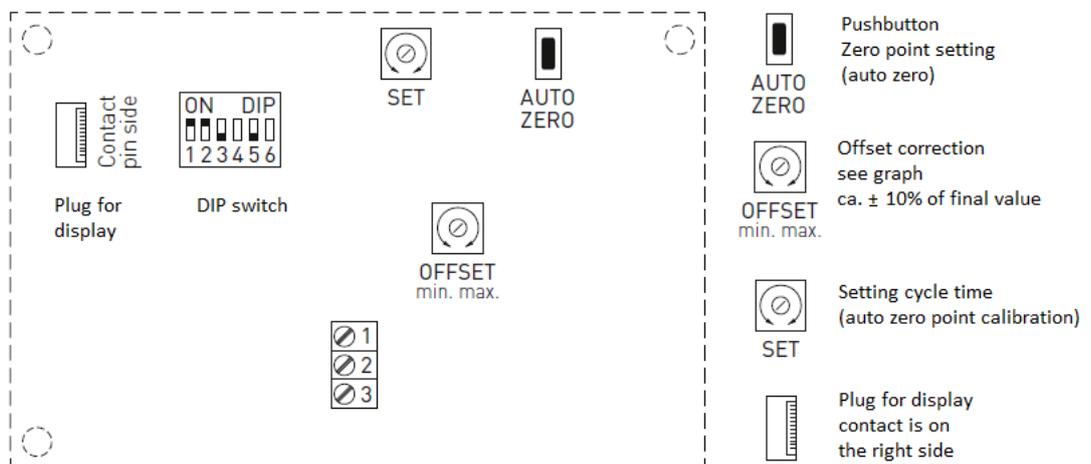
Signal filtering	switchable 1 s / 10 s
Cover	polyamide with 30 % glass fibre reinforcing, RAL 9010; 72 x 64 x 37,8 mm (without display); 72 x 64 x 43,3 mm (with display)
Electrical connection	screw terminals for wires 0,14 – 1,5 mm ²
Air humidity	< 95 %, non-condensing
Protection degree	IP65 (according to EN 60 730)
Protection class	III (according to EN 60 529)
Accessories (included in delivery)	ASD-06 , mounting set containing: 2 straight plastic tubes 2m PVC hose 4 screws
Accessories (optional)	ASD-07 , connection nipples 2 plastic tubes, at 90 degree angle DAL-01 , pressure outlet for ceiling or in-wall installation WS-03 , weather and sun protection hood

Sensor types

Type	Measuring ranges (selectable)	Output
Premasgard 7112-U	-25...25 Pa	0...10 V
Premasgard 7112-I	-25...25 Pa	4...20 mA

Is possible to order variant with display.

Terminals



Premasgard...U

- 1 Power 24 V AC, 15...36 V DC
- 2 Output 0..10 V, pressure in Pa
- 3 GND – common ground

Premasgard...I

- 1 Power 15...36 V DC
- 2 Output 4...20 mA, pressure in Pa
- 3 GND – common ground

Type	Measuring ranges (selectable)	DIP switch 1 and 2
Premasgard 7112	-25...25 Pa	OFF OFF ON ON

DIP switch 3: measuring range

OFF 0...+ range (default)
ON - range...+ range

DIP switch 5: signal filtering

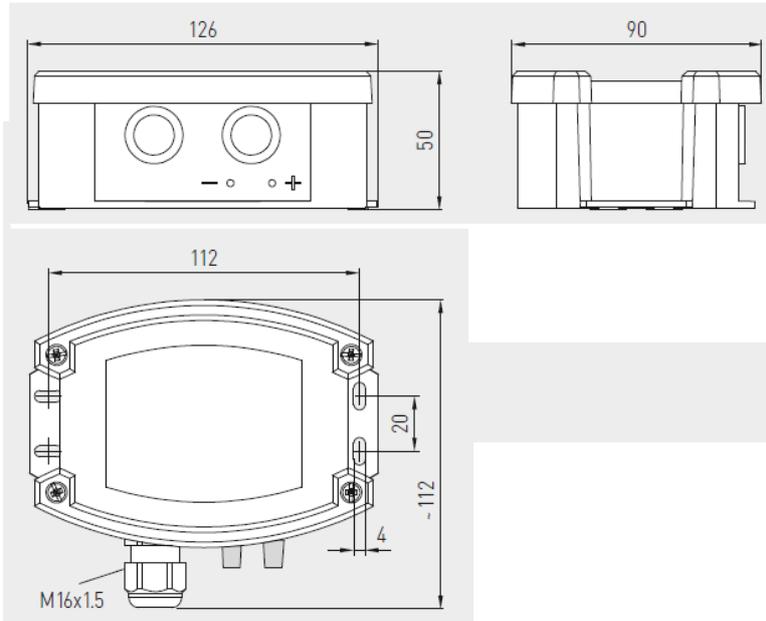
OFF 10 s (default)
ON 1 s

The pressure inputs are:

P1 (+) higher pressure

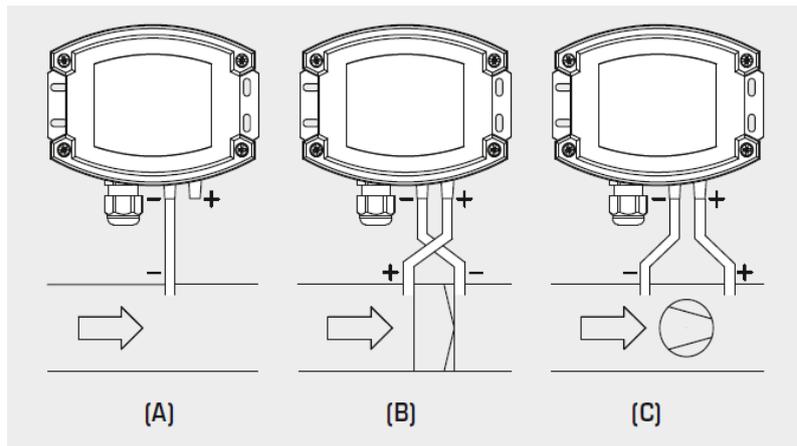
P2 (-) lower pressure

Dimensions



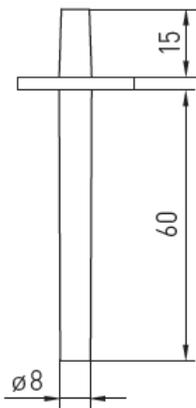
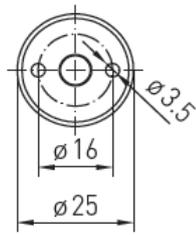
Dimensions are in *mm*.

Installation

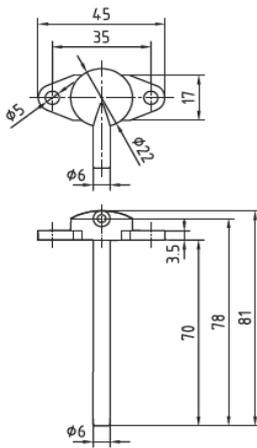


- A underpressure, P1 (+) is open, P2 (-) installed in the duct
B on a filter, heat recovery plate exchanger, etc.
C on a fan

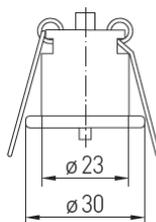
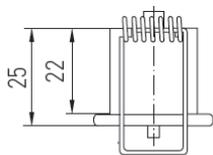
Accessories ASD-06



ASD-07



DAL-01



Dimensions are in mm.

**Changes in
versions**

01/2021 – First datasheet version.