

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 ±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	± 2 % of measuring range
Temperature drift	± 0.3 % / °C
Zero point - offset	± 1.4 % of measuring range
Max. overpressure and underpressure	± 100 hPa

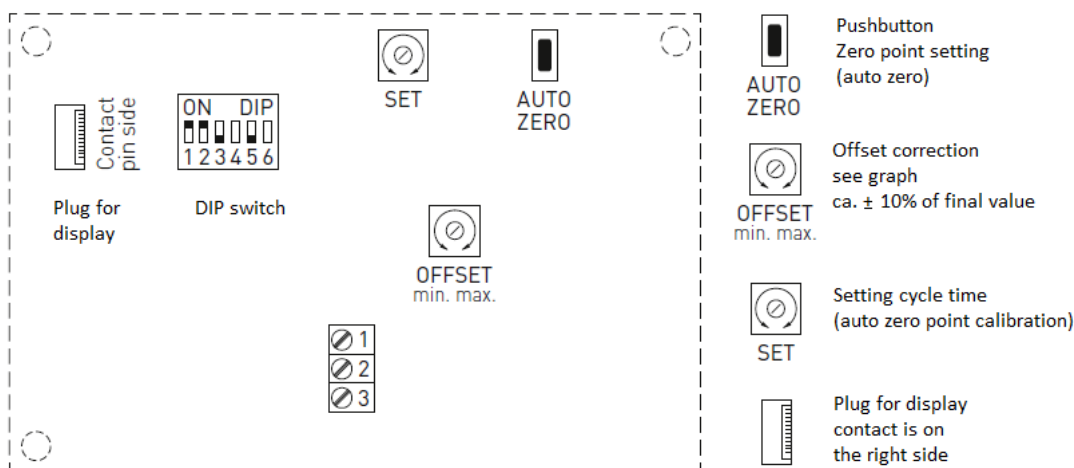
Signal filtering	switchable 1 s / 10 s
Cover	polyamide with 30 % glass fibre reinforcing, RAL 9010; 72 x 64 x 37.8 mm (without display); 72 x 64 x 43.3 mm (with display)
Electrical connection	screw terminals for wires 0.14...1.5 mm ²
Air humidity	< 95 %, non-condensing
Protection degree	IP65 (according 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

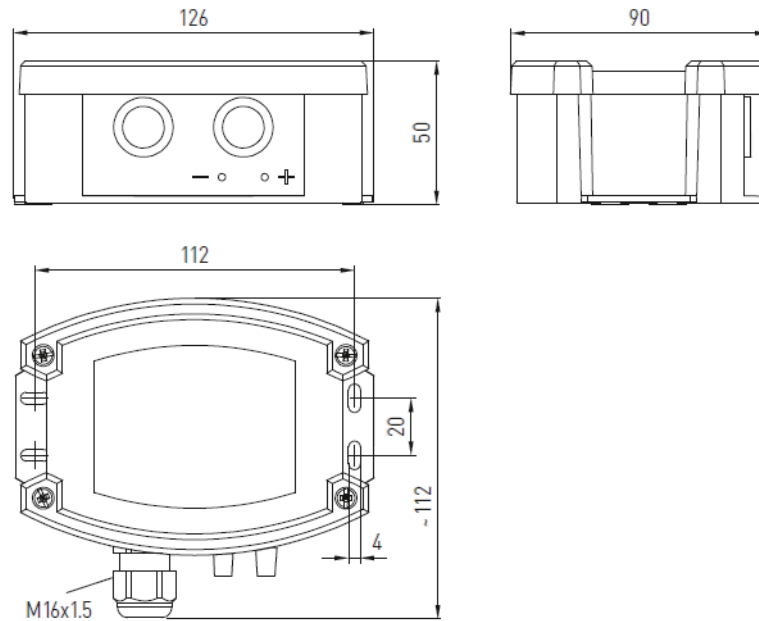
OFF 10 s (default)
ON 1 s

The pressure inputs are:

P1 (+) higher pressure

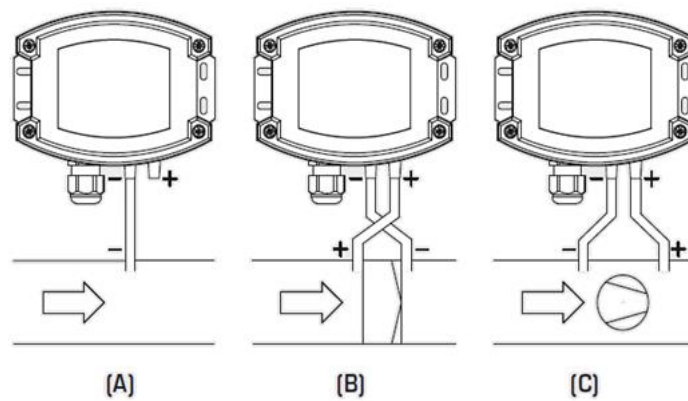
P2 (-) lower pressure

Dimensions



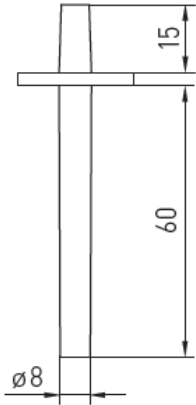
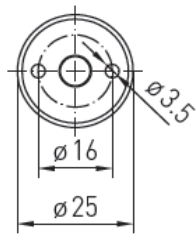
Dimensions are in *mm*.

Installation

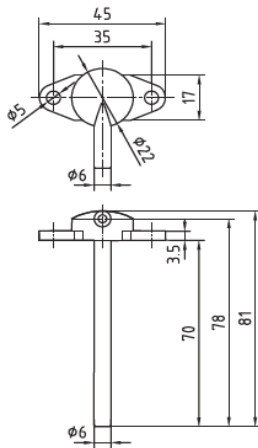


- A underpressure, P1 (+) is open, P2 (-) installed in the duct
- B on a filter, heat recovery plate exchanger, etc.
- C on a fan

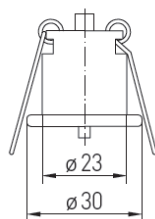
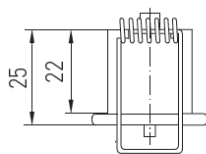
Accessories ASD-06



ASD-07



DAL-01



Dimensions are in *mm*.

**Changes in
versions**

01/2021 – First datasheet version.

07/2021 – Images of *dimensions* and *installation* fixed.