

Barometers /

Measuring transducers for atmospheric pressure,
calibratable, with active output

ALD

Calibratable barometer **PREMASGARD® ALD** with active output (U/I switchable) and 4 measuring ranges (max. 600...1100 hPa, switchable), in a compact plastic housing with quick-locking screws, optionally with/without display.

The pressure sensor is used for measuring atmospheric air pressure in clean air (non-precipitating) or other non-aggressive, non-combustible gases. It is used in various applications such as ventilation and air conditioning technology, in meteorological measurement stations and air-pressure-dependent control systems.

The piezoresistive measuring element is temperature-compensated and guarantees a high degree of reliability and accuracy. The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible.

TECHNICAL DATA

Power supply:	24 V AC/DC ($\pm 10\%$)
Working resistance:	R_a (Ohm) = 25...450 Ohm for I-output
Load resistance:	$R_L > 25$ kOhm for U-output
Power consumption:	< 1 W at 24 V DC; < 2 VA at 24 V AC
Current consumption:	< 45 mA
Measuring ranges:	multi-range switching with 4 switchable measuring ranges (see table)
Output:	switchable 0-10V / 4...20 mA (via DIP switches)
Connection type:	3-wire connection
Ambient temperature:	storage $-35...+85$ °C; operation $-30...+75$ °C, non-precipitating
Type of pressure:	atmospheric air pressure/absolute pressure
Medium:	clean air and non-aggressive, non-combustible gases
Accuracy:	typically ± 0.4 kPa compared to calibrated reference device
Zero point offset:	± 50 hPa
Positive pressure:	200 kPa
Signal filtering:	switchable 1 s / 10 s (via DIP switches)
Temperature drift:	$\pm 0.1\%$ of final value per °C
Housing:	plastic, UV-resistant, polyamide material, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent!
Housing dimensions:	72 x 64 x 37.8 mm (Tyr 1 without display) 72 x 64 x 43.3 mm (Tyr 1 with display)
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, inner diameter 10.4 mm) or M12 plug-in connector (flush-type connector, 5-pin, A-coding) according to DIN EN 61076-2-101 (optional, available upon request)
Electrical connection:	0.14 - 1.5 mm ² , via screw terminals
Air humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60730)
Protection type:	IP65 (according to EN 60529) housing tested, TÜV SÜD, report no. 713139052 (Tyr 1)
Standards:	CE conformity according to EMC Directive 2014 / 30 / EU
Equipment:	display , one-line, cutout approx. 36 x 15 mm (W x H), for displaying the atmospheric air pressure/absolute pressure
ACCESSOIRES	see chapter Accessories
WS-04	weather and sun protection hood , 130 x 180 x 135 mm, stainless steel V2A (1.4301)



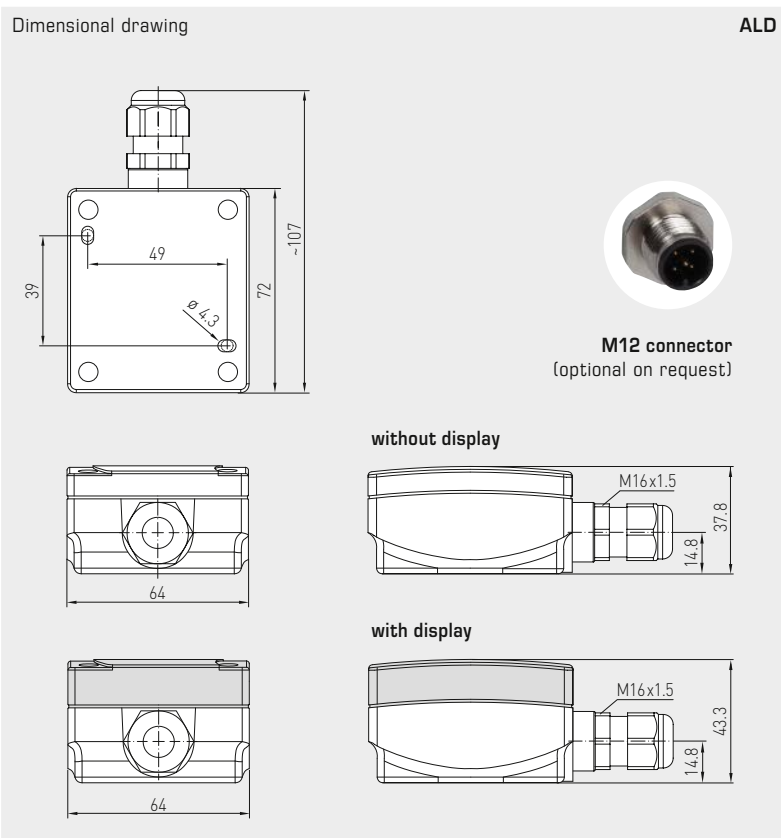
Pressure range (adjustable)	DIP 1	DIP 2
600...1100 hPa	OFF	OFF
700...1100 hPa	ON	OFF
800...1100 hPa	OFF	ON
900...1100 hPa (default)	ON	ON

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

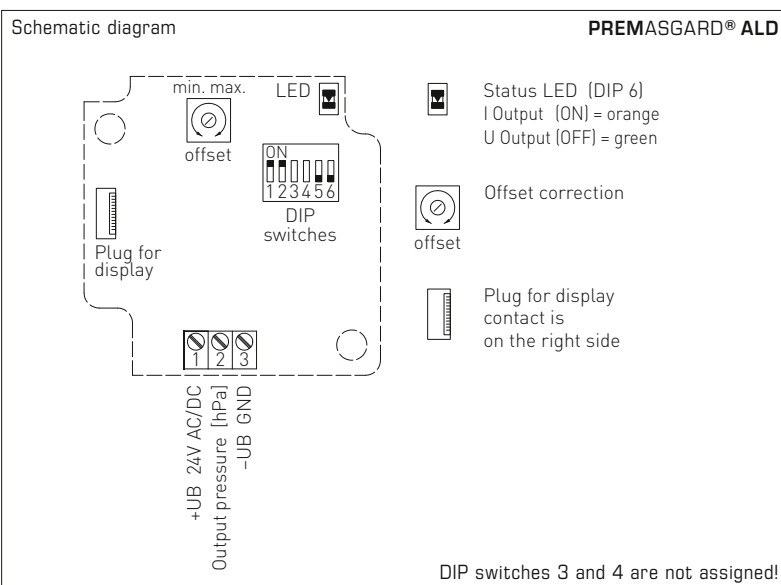
Output (selectable)	DIP 6
Voltage 0-10V (default)	OFF
Current 4...20 mA	ON

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



ALD
with display



WS-04
Weather and sun protection hood
(optional)



PREMASGARD® ALD Measuring transducer for atmospheric pressure

Pressure range (adjustable)	Type / WG01	Output (switchable)	Display	Item no.
max. 600...1100 hPa	ALD			
600...1100 hPa	ALD	0-10 V / 4...20 mA		1301-1157-0130-200
700...1100 hPa				
800...1100 hPa	ALD LCD	0-10 V / 4...20 mA	■	1301-1157-2130-200
900...1100 hPa				
Multi-range switching:	The pressure ranges can be set via DIP switches.			
Output:	0-10V or 4...20mA (selectable via DIP switches)			
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101 (on request)			