



## Measuring transducers for atmospheric pressure calibratable, with active output

S+S REGELTECHNIK

**PREMASGARD® ALD** measures the atmospheric pressure within a range of 850 - 1150 mbar and converts it into a standard signal of 0-10V or 4...20mA respectively. The sensor system is designed for measurements in clean air and other non-aggressive, non-condensing gaseous media. Areas of application for this pressure sensor include ventilation and air conditioning technology, air-pressure-dependent control systems, meteorological measurement stations and climate observation units. The pressure sensor excels thanks to its high accuracy, long-term stability and reliability. A variant with an additional display for pressure reading is available.

ALD

### TECHNICAL DATA

Power supply:	5 ... 36 V DC for I variant 24 V AC (half-wave rectification) for U variant
Output signal:	0 - 10 V or 4 ... 20 mA
Current consumption:	max. 20 mA (at 24 V DC)
Electrical connection:	2- or 3-wire connection
Medium:	clean air and other non-aggressive, non-combustible gases
Type of pressure:	atmospheric pressure / absolute pressure
Measuring range:	850 - 1150 mbar / 750 - 1250 mbar (selectable via DIP switches)
Max. pressure:	2000 mbar
Accuracy:	± 1.5% of final value (at +20°C)
Long-term stability:	± 0.5% of final value per year
Linearity:	± 0.5% of final value
Temperature drift values:	± 0.5% of final value per 10 K
Hysteresis:	± 0.1% of final value
Ambient temperature:	-10...+50 °C
Operating range:	10 ... 95% r.H.
Storage temperature:	-20...+50 °C
Turn-on time:	< 1 min
t90:	<b>0 s / 1 s / 5 s / 10 s</b> (selectable via DIP switches)
Enclosure:	plastic, material polyamide, 30% glass-globe-reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), enclosure cover for display is transparent!
Enclosure dimensions:	72 x 64 x 37.8 mm (Tyr 1 without display) 72 x 64 x 43.3 mm (Tyr 1 with display)
Cable gland:	M 16 x 1.5; including strain relief, exchangeable, max. inner diameter 10.4 mm
Electrical connection:	0.14 - 1.5 mm <sup>2</sup> , via terminal screws
Humidity:	< 95% r.H., non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP65 (according to EN 60 529)
Standards:	CE conformity, electromagnetic compatibility according to EN 61 326, EMC directive 2004 / 108 / EC
Features:	illuminated single line <b>display</b> , cutout 36 x 15 mm (W x H) indicating atmospheric pressure / absolute pressure



### DIP switch block [B] for selecting output attenuation and zero balancing:

Measuring range (Magnitude or interval selectable)	DIP [B] *	
	DIP 3	DIP 4
0 s	OFF	OFF
1 s	ON	OFF
5 s	OFF	ON
10 s	ON	ON

\* DIP 1 and 2  
are not assigned!

### DIP switch block [A] for measuring range selection:

Measuring range (Measuring range selectable)	DIP [A]	
	DIP 1	DIP 2
750 - 1250 mbar	OFF	OFF
850 - 1150 mbar	ON	OFF

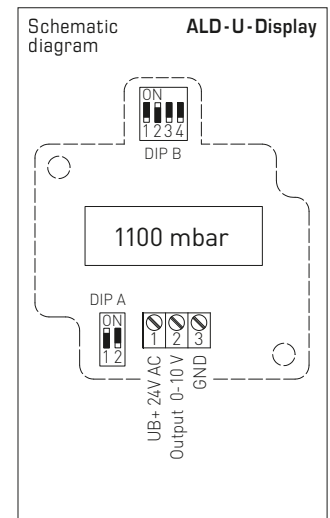
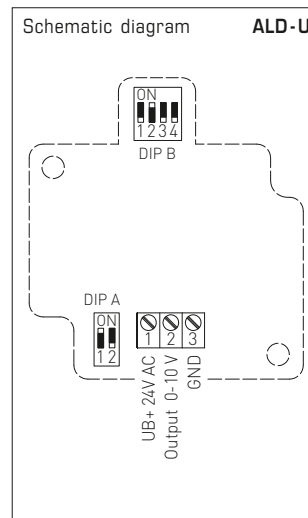
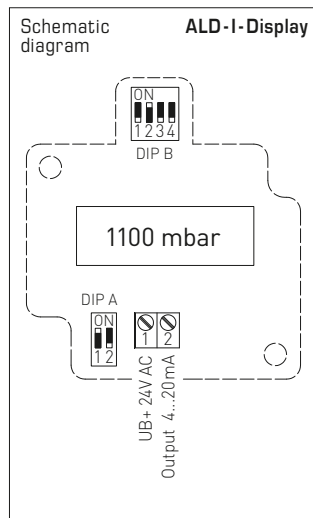
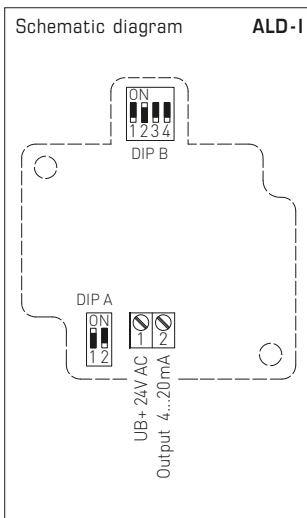
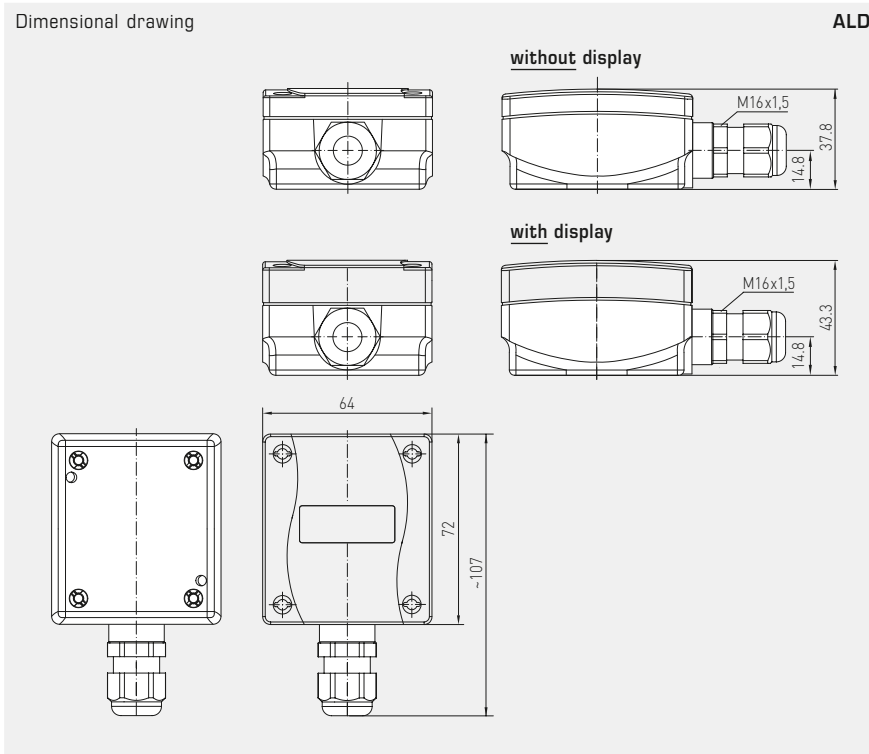
### Conversion table for pressure values:

Unit =	bar	mbar	Pa	kPa	mH <sub>2</sub> O
1 Pa	0.00001 bar	0.01 mbar	1 Pa	0.001 kPa	0.000101971 mH <sub>2</sub> O
1 kPa	0.01 bar	10 mbar	1000 Pa	1 kPa	0.101971 mH <sub>2</sub> O
1 bar	1 bar	1000 mbar	100000 Pa	100 kPa	10.1971 mH <sub>2</sub> O
1 mbar	0.001 bar	1 mbar	100 Pa	0.1 kPa	0.0101971 mH <sub>2</sub> O
1 mH <sub>2</sub> O	0.0980665 bar	98.0665 mbar	9806.65 Pa	9.80665 kPa	1 mH <sub>2</sub> O

Dimensional drawing

ALD

ALD  
with display



PREMASGARD® ALD – Measuring transducers for atmospheric pressure

Type / WG01	Measuring Range (adjustable)	Output	Display	Item No.
<b>ALD-I</b>				<b>I-variant</b>
ALD-I	850 - 1150 mbar / 750 - 1250 mbar	4...20 mA		1301-1152-0080-100
ALD-I-DISPLAY	850 - 1150 mbar / 750 - 1250 mbar	4...20 mA	■	1301-1152-1080-100
<b>ALD-U</b>				<b>U-variant</b>
ALD-U	850 - 1150 mbar / 750 - 1250 mbar	0 - 10 V		1301-1151-0080-100
ALD-U_DISPLAY	850 - 1150 mbar / 750 - 1250 mbar	0 - 10 V	■	1301-1151-1080-100