

Pressure and differential pressure measuring transducers,
incl. connection set,
with Modbus connection

PREMASGARD® 232x - Modbus - T3

Maintenance-free pressure measuring transducer **PREMASGARD® 232x - Modbus - T3** (Series), with Modbus connection, in an impact-resistant plastic housing with quick-locking screws, optionally with /without display, nozzles for pressure hose (Ø 6 mm), incl. connection set **ASD-06** (2m connecting hose, two pressure port nipples, screws).

The on-wall sensor is used to measure positive, negative or differential pressure in clean air (non-precipitating) or gaseous, non-aggressive, non-combustible media. It is used in the clean room, medical and filter technology, ventilation and air conditioning ducts, spray booths, large-scale catering facilities, for filter monitoring and level measurement or for triggering frequency converters. The piezoresistive measuring element is temperature-compensated and guarantees a high degree of reliability and accuracy.

Innovative Modbus sensor with galvanically separated RS485-Modbus-interface, selectable bus termination resistance, DIP switch for setting the bus parameters and bus address in current-free state, LEDs for telegram status display, two separate push-in terminals and large three-line display (illuminated; with customised programming in the 7-segment and dot-matrix range). The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible.



TECHNICAL DATA

Power supply:	24 V AC (±20%) and 15...36 V DC
Power consumption:	< 1,2 W / 24 V DC; < 1,8 VA / 24 V AC
Type of pressure:	differential pressure
Pressure connection:	with connection nozzles for pressure hose Ø 6 mm
Measuring ranges:	-500... +500 Pa or -7000...+7000 Pa depending on the type of device, see table
Accuracy:	Type 2328 (500 Pa): typically ± 3 Pa at +25 °C Type 2327 (7000 Pa): typically ±35 Pa at +25 °C compared to the calibrated reference device
Above- / below-pressure:	max. ± 50 kPa
Zero point offset:	± 5 % measuring range
Medium:	clean air and other non-aggressive, non-combustible gases
Media contacting parts:	Brass, Ni, Duroplast, Si, epoxy, RTV, BSG, UV silicone gel
Media temperature:	-20...+50 °C (temperature-compensated 0...+50 °C)
Hysteresis:	0,3% of final value
Linearity:	< ± 1 % of final value
Temperature drift values:	± 0,1 % / °C
Long-term stability:	± 1 % per year
Housing:	plastic, UV-stabilised, material polyamide, 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:	108 x 78,5 x 43,3 mm (Tyr 3 without display) 108 x 78,5 x 45,8 mm (Tyr 3 with display)
Cable connection:	cable gland , plastic (2x M 20 x 1,5; with strain relief, exchangeable, inner diameter 8 - 13 mm) or M12 connector according to DIN EN 61076-2-101 (optional on request)
Electrical connection:	0,2 - 1,5 mm², using push-in terminals
Permissible air 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 2014 / 30 / EU
Optional:	Display with illumination , three-line, programmable, cut-out approx. 51 x 29 mm (W x H), for displaying the ACTUAL pressure or an individually programmable display value
ACCESSORIES	see table

Device version with **M12 connector** (optional on request)



Programmable display screen

Modbus Tyr 3

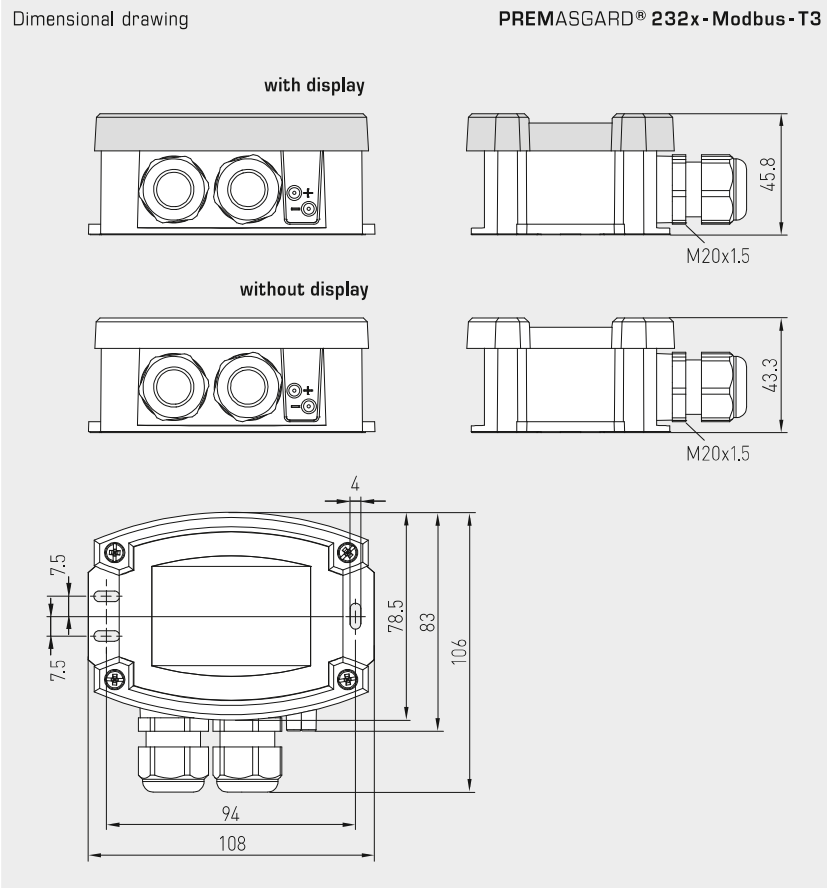




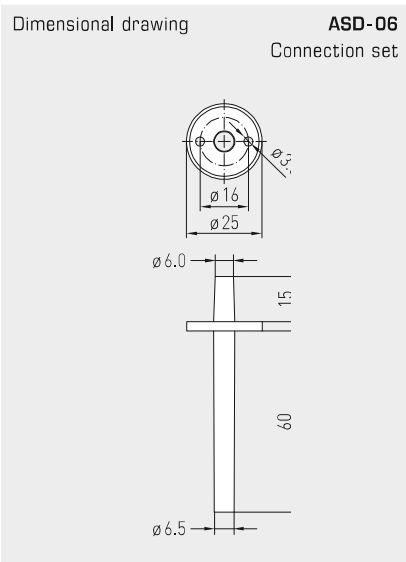
NEW

S+S REGELTECHNIK

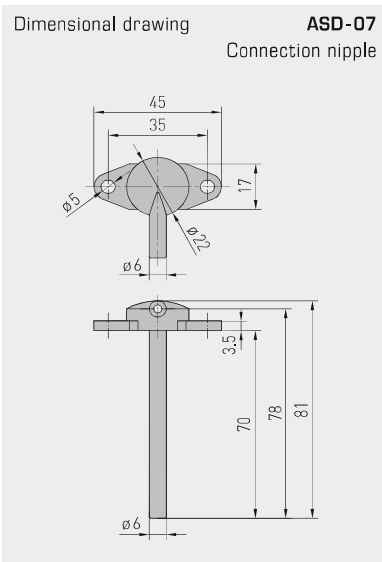
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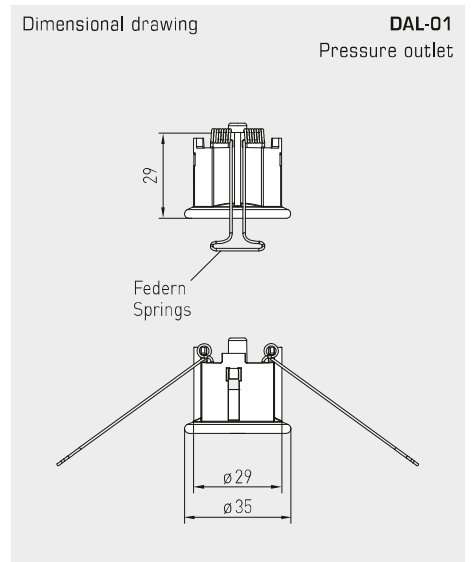
PREMASGARD® 232x-Modbus-T3 with display



ASD-06 Connection set



ASD-07 Connection nipple



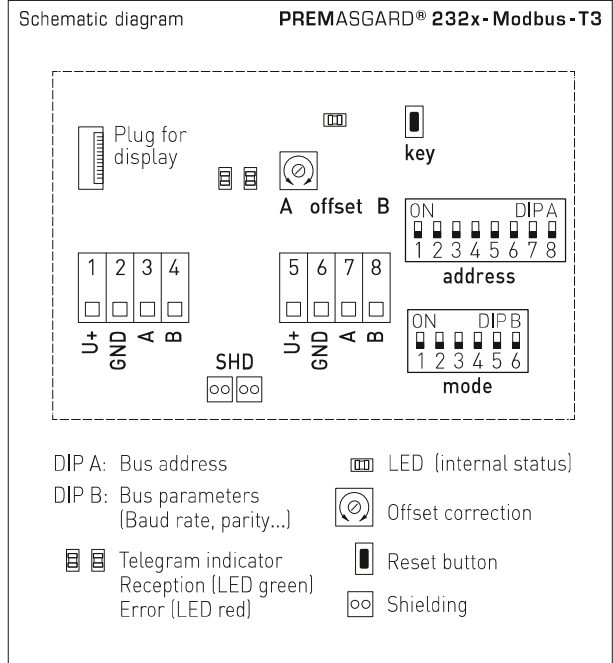
DAL-01 Pressure outlet



Pressure and differential pressure measuring transducers,
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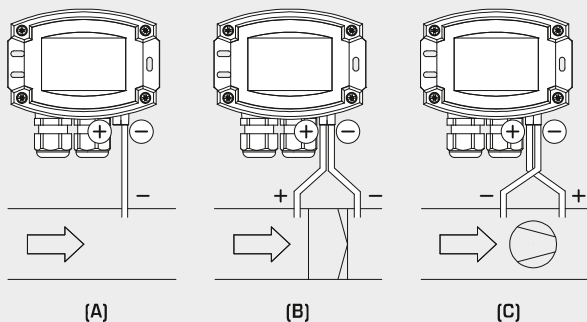
WS-04

Weather and sun protection hood
(optional)



Mounting diagram

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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.

Conversion table for pressure values:

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



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Type / WG01	Measuring Range Pressure range	Output	Display	Item No.
PREMASGARD® 2328 - Modbus - T3	- 500...+ 500 Pa			
PREMASGARD 2328	-500...+ 500 Pa	Modbus		1301-12C4-0910-200
PREMASGARD 2328 LCD	-500...+ 500 Pa	Modbus	■	1301-12C4-4910-200
PREMASGARD® 2327 - Modbus - T3	- 7000...+ 7000 Pa			
PREMASGARD 2327	-7000...+ 7000 Pa	Modbus		1301-12C4-0950-200
PREMASGARD 2327 LCD	-7000...+ 7000 Pa	Modbus	■	1301-12C4-4950-200
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101			on request

ACCESSORIES

KA2-Modbus	Communication adapter (USB/RS485) for system connection	1906-1200-0000-100
LA-Modbus	Line termination device (with terminating resistor) as an active bus termination	1906-1300-0000-100
ASD-06	Connection set (included in the scope of delivery) , consisting of 2 connection nipples (straight) made of ABS, 2 m PVC hose, soft, and 4 tapping 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-04	Weather and sun protection hood , 130 x 180 x 135 mm, stainless steel V2A (1,4301)	7100-0040-7000-000

For further information, see last chapter Accessories!

