

Pressure measuring transducer for differential pressure and volume flow,
incl. connection kit, Bluetooth-enabled,
with EtherCATP port

Networkable pressure measuring transducer **PREMASGARD® 612x-EtherCATP** (series) with M8 plug-in connector (EtherCATP-encoded), Bluetooth-enabled, in an impact-resistant plastic housing with quick-locking screws, optionally with /without display and bar graph, nozzles for pressure hose (Ø 6mm), incl. connection kit **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 and gaseous media as well to calculate volume flows using the K-factor with function selection. The piezoresistive measuring element is temperature-compensated and guarantees a high degree of reliability and accuracy. The sensor is factory-calibrated.

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. In case of direct solar irradiation, we recommend using our weather and sun protection hood **WS03** (accessory).

EtherCATP-enabled measuring transducer for industrial requirements with maximum reliability: includes easy PLC integration using the device's ESI configuration file, diagnostics (such as communication failure counter), advanced settings options, access to historical data (min / max) and establishing the sensor's service interval. Optionally with large illuminated display (3-line, customised programming in the 7-segment and dot-matrix range) and bar graph (7-digit, LEDs freely configurable) for graphical display, e.g., as a traffic light indicator.

PREMASGARD® 612x-ECATP



TECHNICAL DATA

Power supply:	24VDC via EtherCATP (U _S)
Power consumption:	< 3W
Bus protocol:	EtherCAT
Radio technology:	Bluetooth (LE)
Type of pressure:	Differential pressure [Pa], volume flow [m ³ /h]
Pressure port:	With nozzles for pressure hose Ø 6mm
Measuring range, pressure:	-500... +500 Pa or -7000...+7000 Pa depending on the device type, see table
Pressure accuracy:	Type 6128 (500 Pa): typically ± 3 Pa at +25°C type 6127 (7000 Pa): typically ± 35 Pa at +25°C compared to the calibrated reference device
Positive / negative pressure:	max. ± 50 kPa
Medium:	Clean air and non-aggressive, non-combustible gases
Parts in contact with media:	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
Temp. drift values:	± 0.1% / °C
Long-term stability:	± 1% per year
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 dimension:	126 x 90 x 50mm (Tyr 2)
Cable connection:	M8 plug-in connector , EtherCATP-encoded
Permitted humidity:	< 95% RH, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 54 (according to EN 60 529) when built-in
Standards:	CE conformity, according to EMC Directive 2014 / 30 / EU, according to RED 2014 / 53 / EU
Equipment:	Display with illumination , 3-line, customised programming, cutout approx. W51 x H29mm, to display the actual pressure or a customised display value. Bar graph , 7-digit, LEDs freely configurable, to graphically display the reading.

ACCESSORIES See table



EtherCAT P
Cable connection and LED status display

Display screen Reading xx-ECATP Tyr 2

Differential pressure

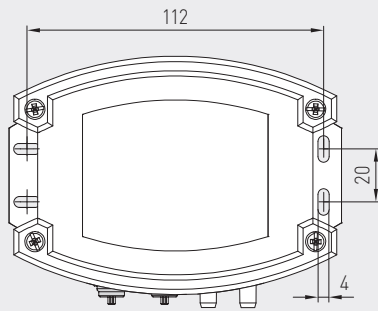
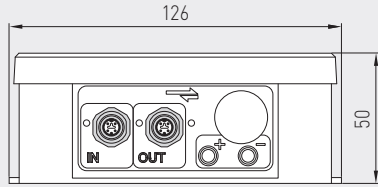
Volume flow rate

Programmable display screen xx-ECATP Tyr 2

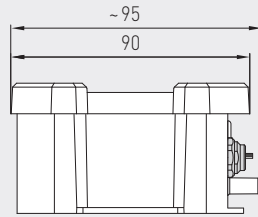


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Dimensional drawing



PREMASGARD® 612x-ECATP



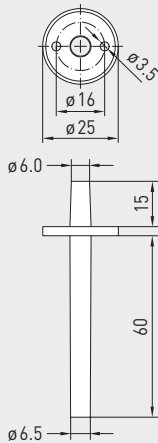
M8-plug-in connector
EtherCATP - encoded

PREMASGARD® 612x-ECATP
with display and bar graph



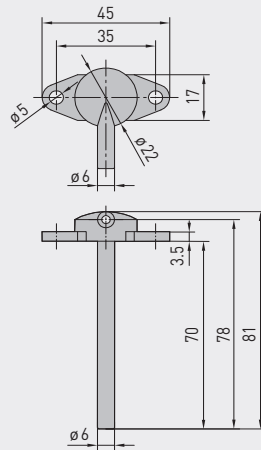
Dimensional drawing

ASD-06
Connection set



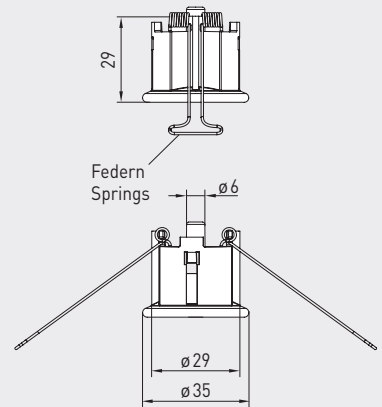
Dimensional drawing

ASD-07
Connection nipple



Dimensional drawing

DAL-01
Pressure outlet



ASD-06
Connection set



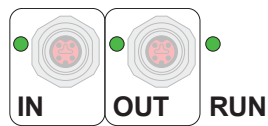
ASD-07
Connection nipple



DAL-01
Pressure outlet



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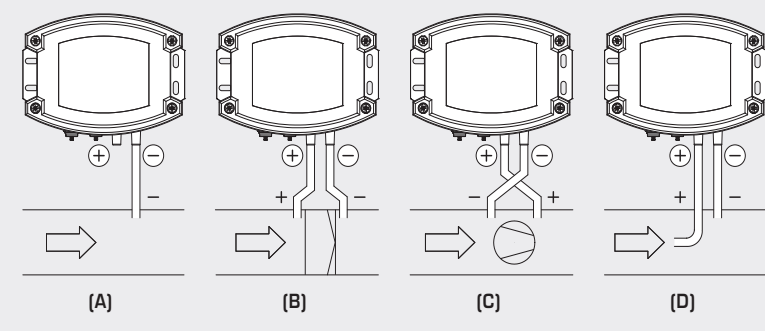
WS-03
Weather and sun protection hood,
(optional)



EtherCAT P	LED status display
1. LED	"IN"
off	no connection to upstream EtherCAT module
illuminated	LINK: connection to upstream EtherCAT module
blinking	ACT: communication with upstream EtherCAT module
2. LED	"OUT"
off	no connection to downstream EtherCAT module
illuminated	LINK: connection to downstream EtherCAT module
blinking	ACT: communication with downstream EtherCAT module
3. LED	"RUN"
off	EtherCAT module is in "Init" state
quickly blinking	EtherCAT module is in "Pre-Operational" state
slowly blinking	EtherCAT module is in "Safe-Operational" state
illuminated	EtherCAT module is in "Operational" state
The status LEDs are next to the cable connection.	

Mounting diagram

PREMASGARD® 612x-ECATP



TYPES OF MONITORING:

The pressure connections are on the housing with P1 (+) for higher pressure and P2 (-) for lower pressure.

- (A) Below-atmospheric pressure**
P1 (+) is not connected, but open to the 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
- (D) Volume flow**
P1 (+) dynamic pressure, connected in flow direction
P2 (-) static pressure, connected free of dynamic pressure components

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



S+S REGELTECHNIK

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PREMASGARD® 612x-ECATP
with display and bar graph



PREMASGARD® 612x-EtherCAT P		Pressure measuring transducer for differential pressure and volume flow, with EtherCAT port			
Type / WG02	Measuring Range / Readout Pressure	Output	Bar graph Display	Item No.	Price
Type 6128	- 500...+ 500 Pa				
PREMASGARD 6128-ECATP	-500...+ 500 Pa	EtherCAT P		2004-6271-9100-011	388,99 €
PREMASGARD 6128-ECATP LCD	-500...+ 500 Pa	EtherCAT P	<input type="checkbox"/> <input checked="" type="checkbox"/>	2004-6272-9100-011	438,55 €
Type 6127	- 7000...+ 7000 Pa				
PREMASGARD 6127-ECATP	-7000...+ 7000 Pa	EtherCAT P		2004-6271-9100-001	388,99 €
PREMASGARD 6127-ECATP LCD	-7000...+ 7000 Pa	EtherCAT P	<input type="checkbox"/> <input checked="" type="checkbox"/>	2004-6272-9100-001	438,55 €
Note:	Cable connection with M8 plug-in connector (EtherCATP-encoded)				

ACCESSORIES					
ASD-06	Connection set (included in the scope of delivery), consisting of 2 connection nipples (straight) made of ABS, 2 m PVC hose (soft, UV-resistant) and 4 screws			7100-0060-3000-000	8,18 €
ASD-07	2 connection nipples (at 90° angle) made of ABS			7100-0060-7000-000	8,18 €
DAL-01	Pressure outlet for ceiling or in-wall installation (e.g. in clean rooms)			7300-0060-3000-001	38,31 €
WS-03	Weather and sun protection hood, 200 x 180 x 150 mm, stainless steel V2A (1.4301)			7100-0040-6000-000	47,92 €

For further information, see last chapter Accessories!

