PREMASGARD® 612x-EtherCAT P

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

NEW

S+S REGELTECHNIK

Networkable pressure measuring transducer **PREMASGARD® 612x-EtherCAT P** (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 6 mm), 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 **WS 03** (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

EtherCAT P
Cable connection and LED status display

TECHNICAL DATA

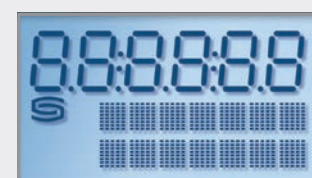|	
Power supply:	24VDC via EtherCATP (U$_S$)
Power consumption:	< 3W
Bus protocol:	**EtherCAT**
Radio technology:	**Bluetooth** (LE)
Type of pressure:	Differential pressure [Pa], volume flow [m^3/h]
Pressure port:	With nozzles for pressure hose Ø 6mm
Measuring range, pressure:	**–500... +500 Pa** or **–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), enclosure cover for display is transparent!
Dimensions:	126 x 90 x 50mm (Tyr 2)
Cable connection:	**M8 plug-in connector**, EtherCATP-encoded
Permitted humidity:	< 95% r. H., 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

Display screen — xx-ECATP
Reading — Tyr 2
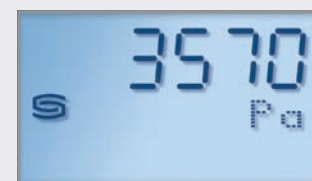
Differential pressure

Volume flow rate

Programmable display screen — xx-ECATP Tyr 2

S+S REGELTECHNIK

PREMASGARD® **612x - EtherCAT P**

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

NEW

Dimensional drawing   **PREM**ASGARD® **612x - ECATP**

126

~95
90

50

112

20

4

M8 - plug-in connector
EtherCATP - encoded

PREMASGARD® **612x - ECATP**
with display and bar graph

Dimensional drawing   **ASD - 06**
Connection set

ø 3.5
ø 16
ø 25
ø 6.0
15
60
ø 6.5

Dimensional drawing   **ASD - 07**
Connection nipple

45
35
17
ø 5
ø 22
ø 6
3.5
70
78
81
ø 6

Dimensional drawing   **DAL - 01**
Pressure outlet

29
Federn
Springs
ø 29
ø 35

ASD - 06
Connection set

ASD - 07
Connection nipple

DAL - 01
Pressure outlet

PREMASGARD® 612x-EtherCAT P

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

NEW

S+S REGELTECHNIK

IN **OUT** **RUN**

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

(A)   (B)   (C)   (D)
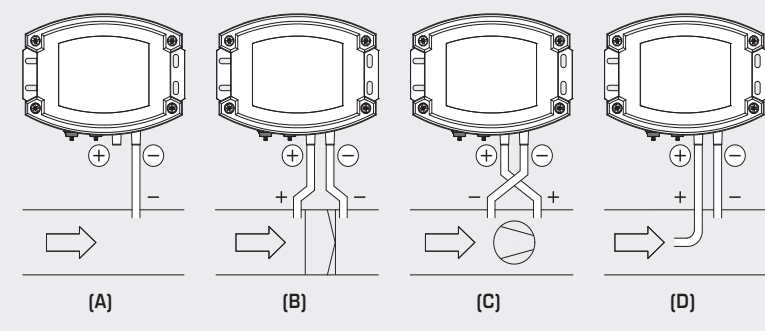
TYPES OF MONITORING:
The pressure connections are on the housing with
P1 (+) for higher pressure and
P2 (–) for lower pressure.

(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

NEW

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

PREMASGARD® **612x-ECATP**
with display and bar graph
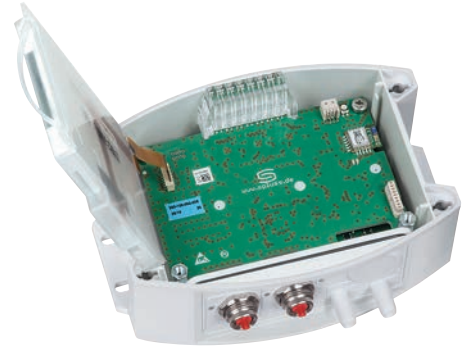
PREMASGARD® 612x-EtherCAT P	Pressure measuring transducer for differential pressure and volume flow, with EtherCATP port				
Type / WG02	Measuring Range / Readout Pressure	Output	Bar graph Display	Item No.	Price
Type 6128	**– 500...+ 500 Pa**				
PREMASGARD 6128-ECATP	– 500...+ 500 Pa	EtherCAT P		2004-6271-9100-011	**345,85 €**
PREMASGARD 6128-ECATP **LCD**	– 500...+ 500 Pa	EtherCAT P	☐ ■	2004-6272-9100-011	**389,90 €**
Type 6127	**– 7000...+ 7000 Pa**				
PREMASGARD 6127-ECATP	– 7000...+ 7000 Pa	EtherCAT P		2004-6271-9100-001	**345,85 €**
PREMASGARD 6127-ECATP **LCD**	– 7000...+ 7000 Pa	EtherCAT P	☐ ■	2004-6272-9100-001	**389,90 €**
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	**7,28 €**
ASD-07	**2 connection nipples** (at 90° angle) made of ABS	7100-0060-7000-000	**7,28 €**
DAL-01	**Pressure outlet** for ceiling or in-wall installation (e.g. in clean rooms)	7300-0060-3000-001	**34,07 €**
WS-03	**Weather and sun protection hood,** 200 x 180 x 150 mm, stainless steel **V2A** (1.4301)	7100-0040-6000-000	**42,61 €**
	For further information, see last chapter Accessories!		