

digital charge amplifier

type: PSA4-XXXX-EC

ref.: product_data_sheet

01.04.2021

507001040000



- very large measuring range
- high accuracy
- very fast measurement
- EtherCAT

picture alike

The Piezo Signal Amplifier PSA4 is a digital 4-channel charge measuring amplifier with integrated EtherCAT fieldbus interface for measuring force, tonnage, pressure, acceleration, vibration and torsion using piezoelectric sensors.

The high sampling rate and high resolution enable the evaluation of very fast processes for all types of piezoelectric sensors.

The robust aluminum housing and IP67 protection class allow the PSA4 to be used in harsh industrial environments and guarantee reliable and long-lasting functionality.

The low drift of the input stages and the digital processing of the charge signal are very precise and therefore also allow quasi-static measurements.

subject to change

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technical data

charge amplifier inputs 1..4

resolution switching	yes
measuring range switching	switchable per channel
minimum resolution	~2.1 pC/Digit (Scale = 1) ~22 pC/Digit (Scale = 0)
measuring range	+/- 2.147 x 10 ⁹ Digit
data format output	32 Bit Integer (whole number)
output data format scaled to +/-10V	16 BIT INT
sampling rate/integration rate	100 KSPS
connectors	4-pin M12 A-coded

digital inputs 1..2

switching threshold for log "1"	>=18 V
max. input voltage	27 V DC
connectors	M8 3-pin

digital outputs 1..2

output level	power supply voltage Up (24 VDC)
max. Current	500mA
connectors	M8 3-pin

EtherCAT (IN/OUT)

type	100 MBit/s, full duplex
protocol	EtherCAT
connectors	M8 4-pin. D-coded socket

power supply

power supply voltage Us/Up	24 VDC +/- 10%
current consumption (Us)	<= 250mA at 24V
current consumption (Up)	0..1000mA at 24V
connectors	M8 4-pin plug (IN) M8 4-pin socket (OUT)

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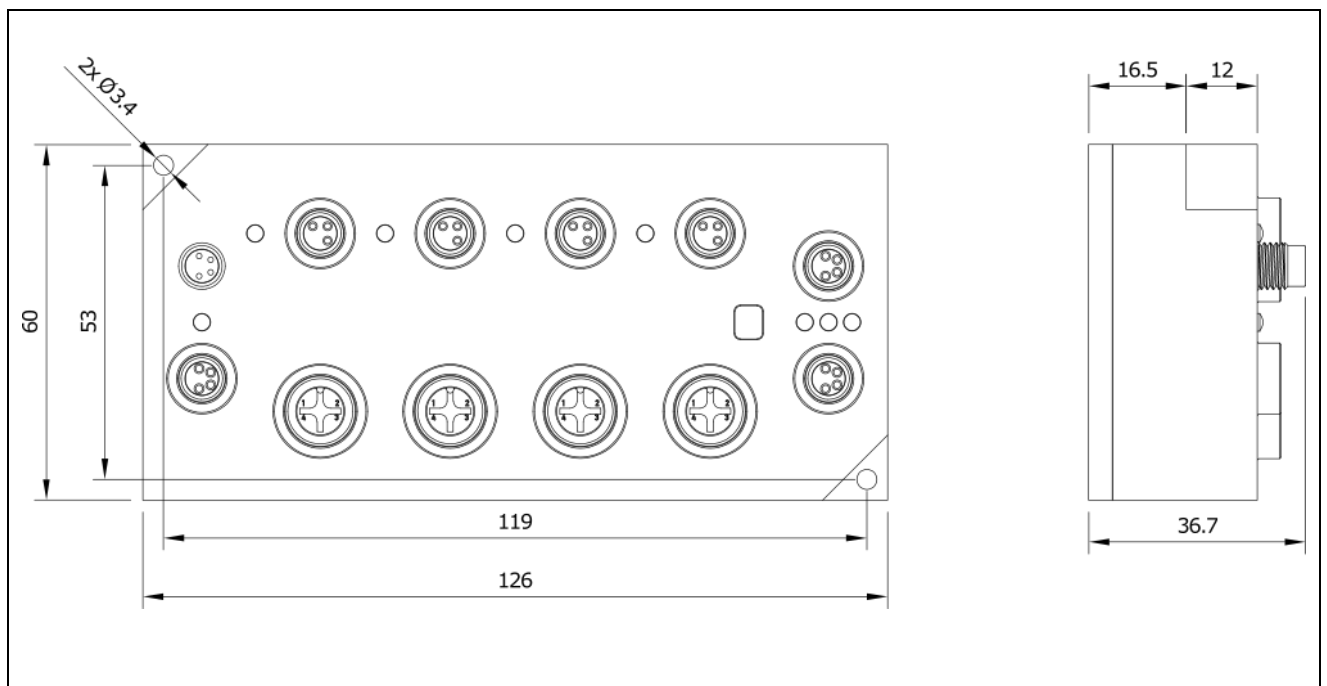
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environmental conditions

operating temperature	0...+50 °C
storage temperature	-20..+80 °C
shock	25 G, 10 ms, ½ Sinus
vibration IEC 68 Teil 2-6	10 G
protection class	IP 67

dimensions



dimensions

housing (LxWxH)	126 x 60 x 27 mm
drill hole dimensions (LxW)	119 x 53 mm
weight	350g

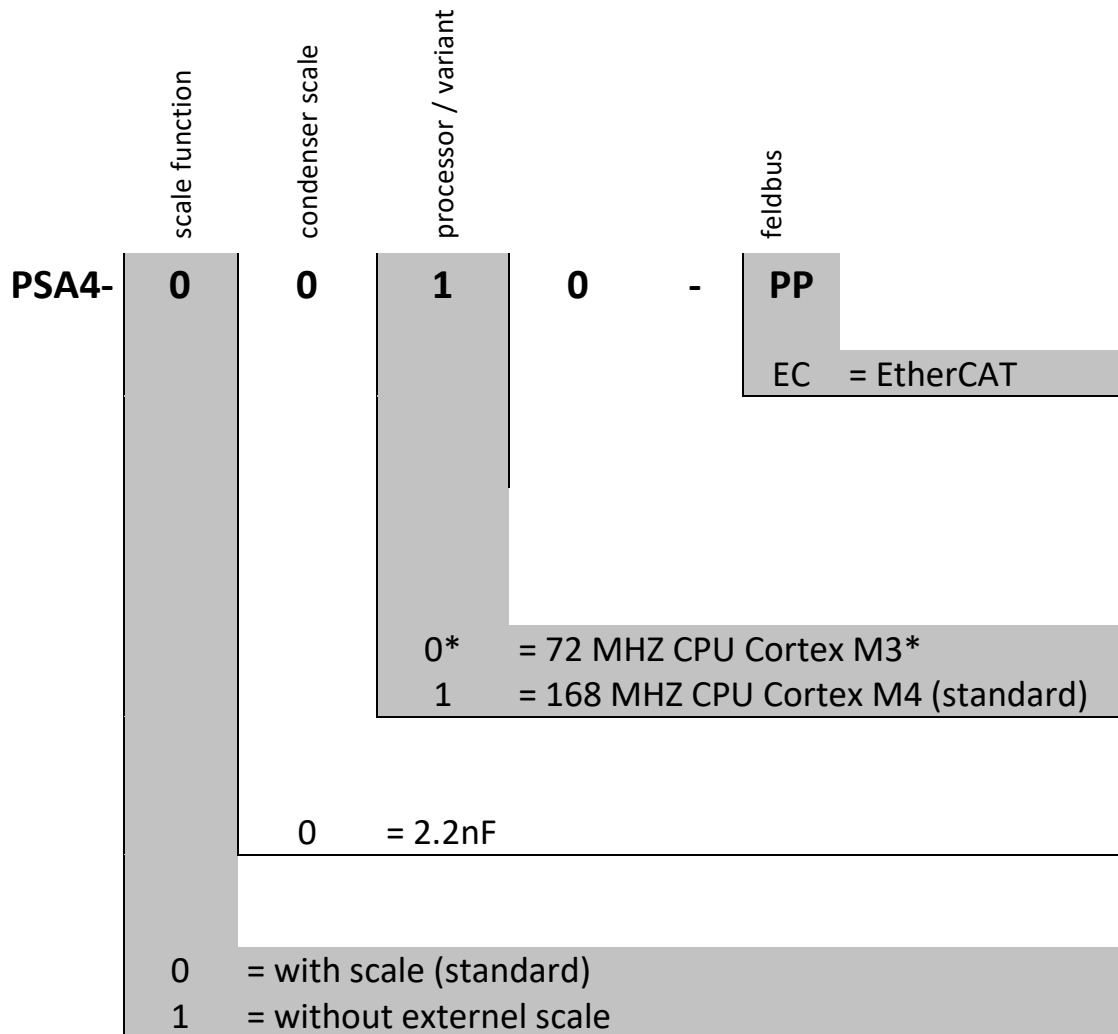
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variations



**product no longer available*

order information

variation	article number
PSA4-0010-EC	50 700 104 0000
<i>other variants on request</i>	

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