

# ECO Series Pulse Amplifiers

Single and Double Pickup with frequency output

## FEATURES

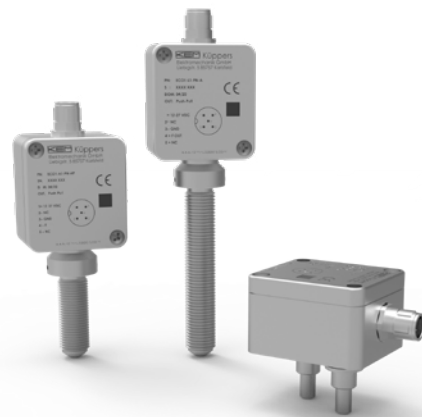
- Compact design for volume meters<sup>1)</sup>
- Medium temperatures up to +150 °C [+302 °F].
- Frequency doubling
- Detection of the flow direction
- EMC Directive 2014/30/EU compliant

## BENEFITS

- ▶ Wide variety of applications with few sensors
- ▶ Suitable for all mechanical meters
- ▶ User-friendly (plug and play)
- ▶ Short delivery times
- ▶ Optimized for stockpiling

## TECHNICAL DATA

Mounting:	Flush-mount version (1- or 2-channel) Screw-in version M14x1.5 (1-channel)
Supply Voltage:	12 ... 27 V DC, regulated
Power Consumption:	<20 mA
Frequency Range:	1 ... 5,000 Hz; suitable for all KEM volume meter <sup>1)</sup>
Output Stage:	Push-Pull active
Output Signal:	1:1-frequency or direction signal & double frequency
Ambient Temperature:	-40 °C ... +60 °C [-40 °F ... +140 °F]
Medium Temperature:	Flush-mount version (1- or 2-channel) -40 °C ... +80 °C [-40 °F ... +176 °F]  Screw-in version M14x1.5 (1-channel) -40 °C ... +120 °C [-40 °F ... +248 °F] <sup>2)</sup> -40 °C ... +150 °C [-40 °F ... +302 °F] <sup>3)</sup>
Housing Material:	Aluminum die-casting alloy 231
Sensor Material:	Flush-mount version (1- or 2-channel) 1.4404 [AISI 316L]  Screw-in version M14x1.5 (1-channel) 1.4404 [AISI 316L]
Ingress Protection:	IP65 (mounted)
Weight:	approx. 200 g

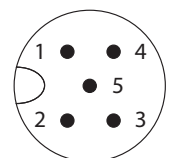


## ELECTRICAL CONNECTION

(short-circuit proof, reverse polarity protected)

M12 plug-in connector (5-polig, male, A-coded)

Pin	1-channel	2-channel <sup>1)</sup>
1	+U <sub>B</sub>	+U <sub>B</sub>
2	NC	DIR
3	GND	GND
4	F <sub>OUT</sub>	F <sub>OUT</sub>
5	NC	NC



## SAFETY INSTRUCTIONS

Exceeding or falling below the valid measuring, process temperature and ambient temperature range could cause malfunctions.

Shielded cables must be used as connecting cables. The shielding should be connected at both ends.

Changes to the wiring may only be carried out with the power supply switched off.

Due to the measuring principle, strong, static or low-frequency magnetic fields can influence the function.

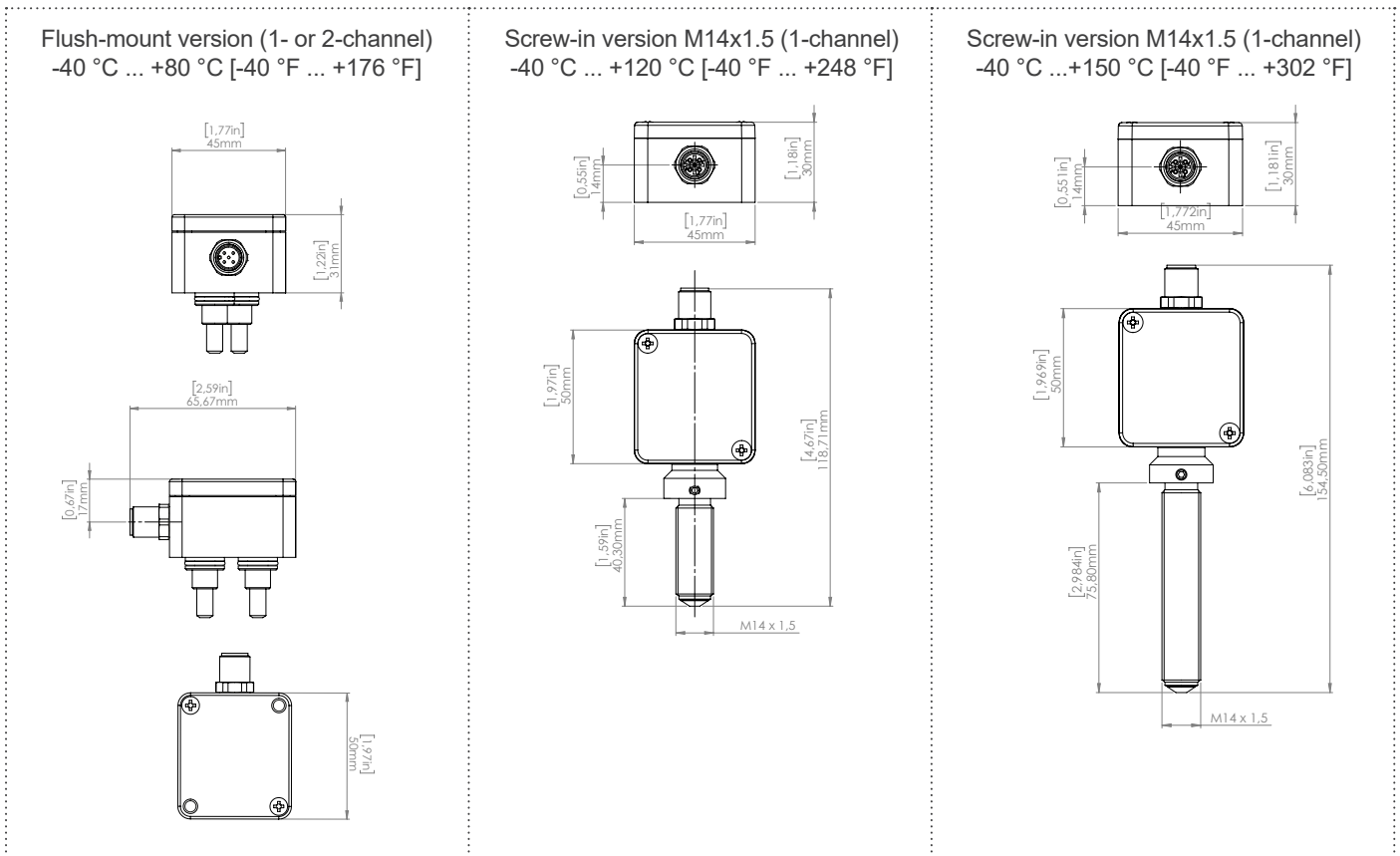
The devices must always be connected by a specialist in accordance with EMC directive.

<sup>1)</sup> Only applies to the gear meter series.

<sup>2)</sup> With a distance >25 mm between flow meter and electronic housing.

<sup>3)</sup> With a distance >65 mm between flow meter and electronic housing.

## DIMENSIONAL DRAWING



## ORDERING CODE

	ECO	X	-	X	X	-	X	X	-	X	X
<b>Variant</b>											
ECO [Frequency]		1									
<b>Mounting</b>											
Flush-mount / ZHM 01/3-03 (+80 °C [+176 °F])											C
Flush-mount / ZHM 04 (+80 °C [+176 °F])											E
Screw-in M14x1,5 (+120 °C [+248 °F]) / ≤ZHM 04, SRZ & HM											K
Screw-in M14x1,5 (+150 °C [+302 °F]) / ZHM, SRZ & HM											L
<b>Channels</b>											
1-Channel											1
2-Channel [DIR, 2 x f] (not available with "Mounting" K & L)											2
<b>Output Stage</b>											
Push-Pull											P
<b>Digital Interface</b>											
None											N
<b>Housing / Sensor / IP protection</b>											
Aluminum / 1.4404 [AISI 316L] / IP65											A
<b>Connector plug</b>											
M12 plug-in connector (5-pin, male, A-coded), nickel-plated brass											P