

Analogue amplifier for board or top hat rail mounting



Description

Analogue measurement amplifiers are used to condition the output signal of strain gauge force transducers to displays or a connected control system. The analogue output of 0(4)...20 mA enables direct signal processing in the SPS control system.

The amplifier can be plugged into an integrated plug strip on a printed circuit board. An optional adaptor board for top hat assembly as specified in DIN EN 50022 can be supplied for fitting in a control cubicle*. Any strain gauge force transducers which can be driven with direct current can be connected. The measuring range and a possible pre-load (Tara) can be calibrated on site by a DIP switch. A finely trimmed signal is generally not necessary for the SPS controls. If required, however, the adaptor board can be supplied potentiometers for fine with trimming. Interference signals can be reduced with the input low pass filter.

The supply voltage of more than 12 up to 24 Volt guarantees a direct connection to an SPS control system, since this generally has a 24 Volt supply system.

* An optional adaptor board for top hat assembly must be specially ordered at extra charge

Features

- Output current 0/4 ... 20 mA
- Optional: Output voltage 10 V across 500 Ω resistance on the adapter board
- Active low-pass filtering from 0.33 Hz to 33 Hz
- All strain gauge sensors can be connected from 350 Ω to 7000 Ω
- Zero point and amplification can be set via microswitches
- Optional: Adapter board for mounting on top hat rail

Applications

- Industrial weighing technology
- Force measurement in automation systems
- Force monitoring on machines

Model: EZE10X006

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Technical data

Model		EZE10X006
Output		
	Signal	0/4 20 mA
	Option	0 10 V
- A	ccuracy	0.01 %
	Burden	Output voltage: > 500Ω
		Output current: < 500Ω
Input		
- S	Signal	-2 0 23 mV; 4-wire;
- S	Sensor supply	10 VDC, max. 30 mA
	imit frequency	0.33, 3.3; 33 Hz, selectable
Setting		
- Z	ero point	±65%, from 0 mV to +15mV in 1-mV-steps for 0 or 4 mA output signal;
		in case of adapter board with potentiometers, continuous adjustment
- A	mplification	in 8 steps:
		$1 = \pm 20 \text{ mV}$ Input / 20 mA Output to
		$8 = \pm 2.5 \text{ mV Input / } 20 \text{ mA Output;}$
-		in case of adapter board with potentiometers, continuous adjustment
Power requirement		12 24 VDC, <80 mA, not electrolytically isolated
Nominal temperature range		-10°C +40°C
Service temperature range		-10°C +40°C
Storage temperature range		-20°C +50°C
Temperature effect		
	ero point	0.05% / 10 K
	leasuring span	0.05% / 10 K
Noise emission		acc. to EN 61326
Noise immunity		acc. to EN 61326
Protection type		IP 40 (additional housing IP 65 upon request)
(acc. to EN 60 529/IEC 529)		
Electrical connection		Terminal block, screw terminals (adapter board)
Housing		for board or top hat rail mounting
	laterial	Tin-plated metal
-	imensions	81,3 x 30,6 x 5,6 mm;
	N x H x D)	with adapter board 99 x 41 x 12 mm
Weight		approx. 26 g; with adapter board approx. 50 g
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EMC / Certification		CE 73/23/EEC; 93/98/EEC and 89/336/EEC

Dimensions

Amplifier EZE10X006 with optional adapter board





Subject of technical changes