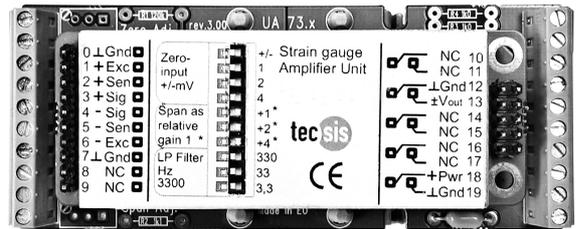


Analogue amplifier for highly dynamic applications



Description

This analogue measurement amplifier, which has been specially developed for very fast and accurate force measurement is used to condition the output signal from strain gauge force transducers to displays or a connected control system. The analogue output of +/-10V enables the signal to be processed directly.

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 with a DIP switch. A finely trimmed signal is generally not necessary for the SPS controls. If required, however, the adaptor board can be supplied with potentiometers for fine trimming. Interference signals can be reduced with the input low pass filter.

The supply voltage of more than 12 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 voltage +/- 10 V
- Specially designed for static and dynamic signals
- Active low-pass filtering from 3.3 Hz to 3300 Hz
- All strain gauge sensors can be connected from 350 Ω to 7000 Ω
- Spannungsversorgung von 12 - 24 VDC
- Zero point and amplification can be set via microswitches
- Optional: Adapter board for mounting on top hat rail*

Applications

- Force measurement in automation systems
- Force monitoring on machines

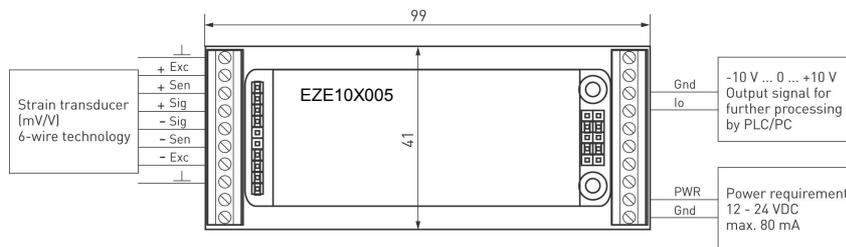
Model: EZE10X005

Technical data

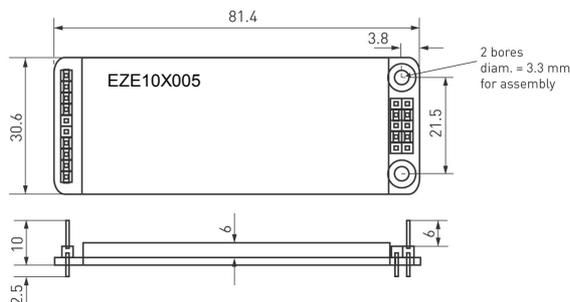
Model	EZE10X005	
Output	<ul style="list-style-type: none"> - Signal - Accuracy - Burden 	- 10 ... 0 ... 10 VDC 0.01 % Output voltage: > 500Ω Output current: < 500Ω
Input	<ul style="list-style-type: none"> - Signal - Sensor supply - Limit frequency 	-32 ... 0 ... 32 mV; 4-wire; 10 VDC, max. 30 mA 3,3; 33; 330 or 3300 Hz selectable via DIP-switch; Surge response < 0.7 ms at 3300 Hz
Setting	<ul style="list-style-type: none"> - Zero point - Amplification 	±20%, from -7 mV to + 7mV in 1-mV-steps for 0 V output signal; in case of adapter board with potentiometers continuous adjustment in 8 steps: 1=±32 mV Input / 10 V Output to 8=±4 mV Input / 10 V Output; in case of adapter board with potentiometers continuous adjustment
Power requirement	12 ... 24 VDC, <70 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	<ul style="list-style-type: none"> - Zero point - Measuring span 	0.05% / 10 K 0.05% / 10 K
Noise emission	acc. to EN 61326	
Noise immunity	acc. to EN 61326	
Protection type (acc. to EN 60529 /IEC 529)	IP 40 (additional housing IP65 upon request)	
Electrical connection	Terminal block or screw terminals (Adapter board)	
Housing	<ul style="list-style-type: none"> - Material - Dimensions (B x H x T) 	for board or top hat rail mounting Tin-plated metal 81.3 x 30.6 x 5.6 mm; with adapter board 99 x 41 x 12 mm
Weight	approx. 26 g; with adapter board approx. 50 g	
EMC / Certification	CE 73/23/EEC; 93/98/EEC and 89/336/EEC	

Dimensional drawing

Amplifier EZE10X005 with optional adapter board



Amplifier EZE10X005



Subject of technical changes