Analogue amplifier with output 0/4 … 20 mA or 0 … 10 V

Linearity: better than 0,01 % of F.S,

Description

Analog amplifiers are used to adapt the output signal of DMS force transducers to digital displays or downstreamed controlling units. The analog outputs of 0..10 Volt or 0(4)..20 mA allow the direct signal proceeding in SPS controlling units.

For mounting in switchboards a version with clips is available for mounting on top hat rails. acc to DIN EN 50 022. All DMS force transducers are connectable , that can be runned by DC voltage. The measuring range and eventually exsisting initial load (tara) can be adjusted on site. Interfering signals can be reduced by an input low pass filtering.

The amplifier offers a logical output for safety reasons. This contact is normally closed, if an error occurs (short circuit at supply voltage-, sensor or signal cable of force transducer / max. output signal exceeded / problems with supply voltage) the output opens.

The supply voltage of > 12 V up to 24 V ensures a direct connection to a SPS controlling unit. Usually these units work on 24 V supply voltage.

Special features

- Linearity better than 0,01 % of full scale value
- Output selectable 0/4...20mA or 0...10V
- All DMS-sensors between 80 and 350 Ohm connectable
- 6-wire with Sense-System
- Security switch off with logical output
- Active low pass filtering from 0,33 Hz up to 33 Hz
- Supply voltage of 12 - 24 VDC or 14-18VAC
- Function control vial LED display
- Zero point and amplifying rough and fine adjustable
- Easy installation and calibration
- Paralell switchingof up to (4) load cells
- Case with clips for mounting on top hat rail

Applications

- Industrial weighing technology
- Force measurement in automation technology
- Force controlling in machines and plants

Specific information

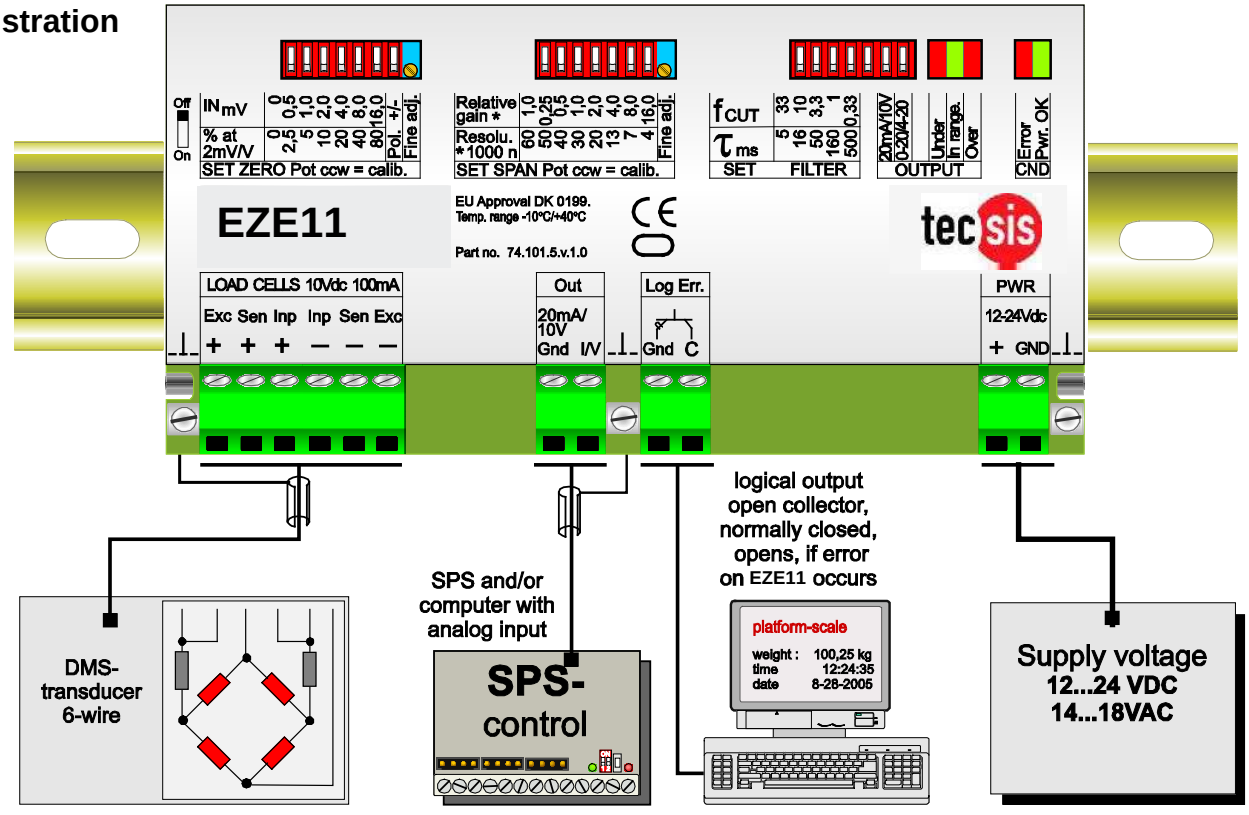
- Logic output Open Collector normally closed. In case of errors (short-circuit to supply, sensor or signal wires of the load cells, overshoothing of the max. output signal, problems with the voltage supply) the output opens.
- Loading capacity maximal 30 VDC, 300 mA

Model: EZE11

Technical data

Model	EZE11
Output	
- Signal	0/4 … 20 mA or 0 … 10 V
- Accuracy	0.01%
- Burden	Output voltage: >/= 500Ω Output current: < 500Ω
Input	
- Signal	1 … 35 mV*; 6-wire technology (* 1 mV= minimal, still fully amplifiable input signal)
- Sensor supply	10 VDC, max. 120 mA active sensor switching for cable lengths up to 100 m
- Limit frequency	active low-pass 0.33 … 33 Hz, selectable in stages
Setting	
- Zero point	up to approx. 80% continuously adjustable
- Amplification	coarse and fine adjustable
Power requirement	12 … 24 VDC +10/-15%or 14 … 18 VAC, max. 3 W, not electrolytically
Nominal temperature range	-10 … +40°C
Sevice temperature range	-10 … +60°C.
Storage temperature range	-20 … +60°C
Temperature effect	
- Zero point	0.025% / 10 K;
- Measuring span	0.05% / 10 K
Noise emission	acc. to EN 61326
Noise immunity	acc. to EN 61326
Protection type (acc. to EN 60 529/IEC 529)	IP 40
Electrical connection	Screw terminal
Housing	For mounting on top hat rail with TS35-clips, (other cases on request)
- Material	Tin-plated metal / plastic
- Dimension (WxHxD)	135 x 66 x 28 mm
Weight	approx. 200 g
Security routine switches	logical output, open collector, NC, if error occurs (short circuit at supply voltage-, Sensor and signal cable of load cell / max. output signal exceed / problems with supply voltage) opens output , max.load 30VDC, 300mA

Illustration



Subject to technical changes