

Analogue cable amplifier

For strain gauge resistance thermometry bridges

Model EZE09

WIKA data sheet AC 50.03

Applications

- Machine building and plant construction
- Manufacturing automation
- Industrial weighing technology

Special features

- High accuracy
- Input signal: strain gauge resistance thermometry bridge; output signal 0/4 ... 20 mA or DC 0 ... 10 V
- Cable length between amplifier and read-out unit: up to 100 m are possible
- Compact design
- Ingress protection IP67



Analogue cable amplifier, model EZE09

Description

The model EZE09 analogue cable amplifier is used to adapt the output signal of strain gauge force transducers to indicators or to a downstream controller.

Through the practical form of its case, it can be fastened almost anywhere with a simple screw clamp. The case corresponds to IP67 ingress protection and is thus suitable for use in harsh environments.

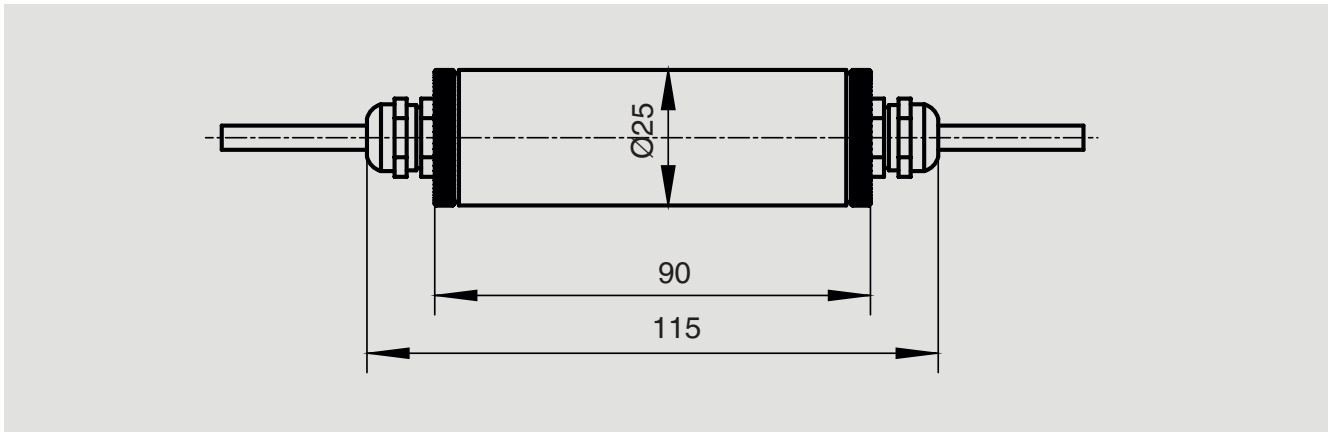
All strain gauge force transducers that can be operated with a DC voltage can be connected. With the combination of the cable amplifier with a force transducer, this measuring unit can be adjusted in line with customer wishes.

The supply voltage of DC 12 ... 28 V ensures a direct connection to a PLC. These usually feature a 24-volt supply voltage. The analogue output enables the direct signal processing in the PLC.

Specifications

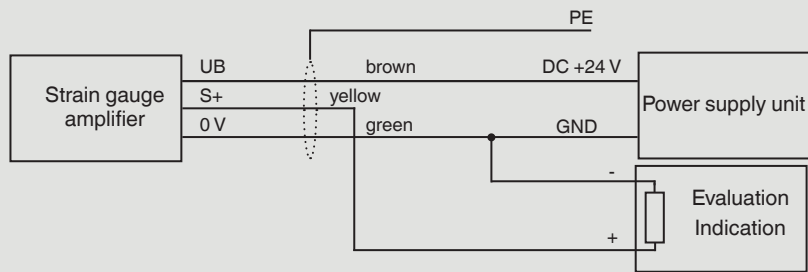
Model EZE09	4 ... 20 mA version	DC 0 ... 10 V version
Input signal	Resistance thermometry bridge, 4- or 6-wire	
Sensitivity	0.35 ... 3.5 mV/V	
Input resistance	> 10 ⁹ Ω	
Linearity	< 0.02 %	
Output signal	0/4 ... 20 mA, 3-wire	DC ±5 V / ±10 V, 3-wire
Residual ripple	< 10 mV at 400 Ω	< 10 mV
Max. load	Load < 400 Ω	≤ 2 mA
Output resistance	-	< 1 Ω
Sensor supply	DC 5 V short-circuit-proof (max. 20 mA)	
Temperature effect on the supply voltage	< 25 ppm / K	
Temperature effect on the characteristic value TK_c	< 0.02 % / 10 K	< 0.015 % / 10 K
Temperature effect on the zero signal TK₀	< 0.02 % / 10 K	< 0.015 % / 10 K
Rated temperature range	10 ... 50 °C	
Service temperature range	0 ... 60 °C	
Storage temperature range	-10 ... +70 °C	
Supply voltage	DC 12 ... 28 V	
Residual ripple	< 10 %	
Current supply	max. 70 mA	
Limit frequency	1 kHz -3 dB others on request	
Ingress protection	IP67	
Electromagnetic compatibility	EN 61326-1:2013 EN 61000-6-2:2005 EN 61000-6-3:2007 EN 55011:2016	
Dimensions (Ø x L)	25 x 115 mm (incl. threaded connection)	
Cable length		
Sensor side	1 m (max. 3 m)	
Output side	3 m (max. 100 m)	3 m (max. 10 m)
Weight	approx. 100 g	

Dimensions in mm



Electrical connection

Amplifier output, flying leads, unfinished



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