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Measuring Amplifier for Strain Gauge Sensors Type M2428-91

- 350 to 5000
- 4...20mA, 2-Wire Technics
- 24VDC Power Supply
- Programmable



Application examples:



comparison to
1 Euro coin

Example: M2428-91, 2mV/V
20x74mm (incl. screw joint)

Technical description

The very small measuring amplifier type M2428-91 converts the measuring bridge directly to a 4...20mA 2-wire signal.

The M2428-91 works with a resolution of 12 bit, is pre-calibrated and connected between the sensor supply line and signal acquisition instrument (e.g. PLC).

The robust housing confirms the protected class IP67 and allows application in rough environments.

Any range within the measuring range can be programmed by the customer. E.g. 45kg to 420kg = 4 to 20mA within a calibrated range of 0 to 500kg.

It is possible to tare the M2428-91 in the range of 0...30% of full scale from outside with a simple permanent magnet. Within this tare range the full measuring range remains available.

Technical Data:

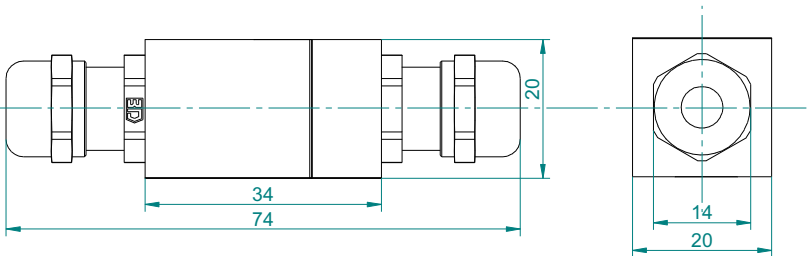
Material:	anodised aluminium, IP67, others on request
Signal output:	4...20mA for any given range
Overload	min. 1.5 x load without damage, breaking load 3 x range
Measuring principle:	Metallic strain gage, full bridge
Bridge resistance	350 to 5000
Sensor sensitivity:	2mV/V pre-calibrated, others on request
Sensor supply:	5V
Zero point:	< 0.08% @ 25°C
Zero stability:	< 0.008% per °C
Accuracy:	< 0.08% @ 25°C
Stability:	< 0.0024% per °C
Creep after 30':	< 0.5%
Reproducibility:	< 0.1%
Linearity:	< 0.05%
Rise time:	< 50ms for 99% load change
Measuring rate:	16ms, programmable with programming adapter [16 bis 1000ms]
Input range:	0 to 100% = 4 to 20mA, programmable with programming adapter [Zero 0 to 130%, Gain 0 to 130%]
Tare:	0 to 30% with a simple magnet from outside
Resolution :	12bit
Hysteresis:	< 0.3%
Max. load, 24V:	< 500
Power supply range:	22 to 35VDC
Insulation resistance:	> 5000M @ 50VDC
Operating temperature:	-10 to 40°C
Max. working temperature:	-25 to 65°C
Storage temperature:	-40 to 85°C

Connection 2-wire signal: Cable ends: red = +24VDC, black = 4...20mA and shield
 Connection sensor: Connecting Pads: +5V, GND, out+, out-. On request factory-made connected
 Cable length 2-wire signal: < 300m, 3m factory-made delivered
 Cable length sensor: < 3m, customer-made connected

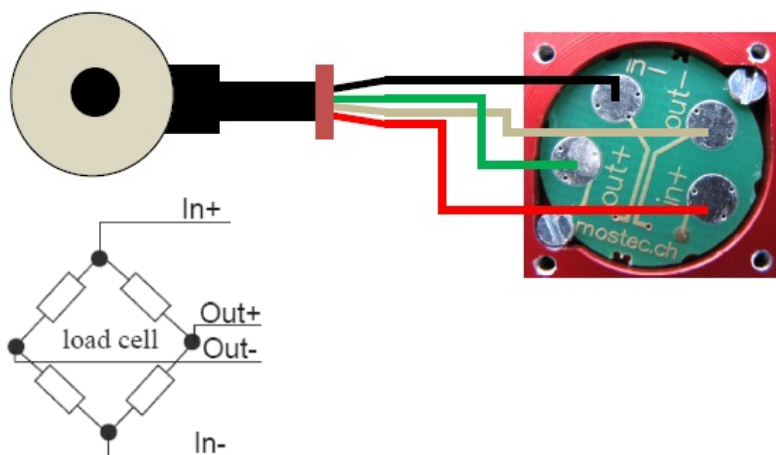
Ordering example: M2428-91, 2mV/V

- Options:
- USB programming unit for MOSTEC devices with cable and software
 - other sensor sensitivity
 - other measuring principle
 - customer specified functions

Dimensions in mm:



Wiring:



Programming:



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