

Digital amplifier for strain gauge

Characteristics



Single or double amplifier
 Input: up to 4 strain gauge full bridges (350 ohms)
 Input sensitivity: 0,1...5 mV/V
 Sensor supply: 5 VDC
 Analogue output: 4...20 mA / 0...10 V (standard version)
 Voltage supply: 24 VDC +/-30%
 Resolution: 12 / 14 / 15 / 16 bit
 Combined error: 0,2% of end scale value
 Limiting value switch (optionally)
 LCD-display
 Degree of protection: IP 65
 Interfaces (optionally): RS485 / CAN-Bus / Profibus
 Electronics completely potted (optionally)
 Adjustment via RS232 interface

Technical data

Input

Amplifier 1 / 2: up to 4 strain gauge full bridges 350 ohms as summing signal
 Sensitivity: 0,1...5 mV/V (programmable)
 Interface: RS232 (for programming)

Output

Analogue: each amplifier 2 outputs (programmable) 0...10 V and 4...20 mA (standard) optionally 2...10 V or 0...20 mA
 Current: working resistance <500 Ohm
 Voltage: load resistor > 600 Ohm
 Interface: RS232 optionally: RS485 / CAN-Bus / Profibus
 Sensor supply: 5 VDC 60 mA maximum (each amplifier)

Limiting value switch (optionally)

Relays: 2 with change over contact each with fail safe function
 Configuration: via programming software (assignment, limit value)
 Resistive load: peak switching current: 30 VDC 1 A / 125 VAC 0,3 A
 peak switching power: 30 W / 37,5 VA
 peak switching voltage: 110 VDC / 125 VAC
 peak switching current: 1 A

Indication

Display: microprocessor based multifunction indicator
 Function: 4 keys for programming
 Indication: current values / minimum/maximum values
 switch points / diagnostic values

Adjustment

Interface: RS232 (optionally RS485 / CAN-Bus / Profibus and/or optional display unit)
 Tare: key on base PCB or externally (active/passive)
 Measuring rate: 10 ms...5 s (programmable)
 Filter: 10 ms...5 s (programmable)

Accuracy

Resolution: 12 / 14 / 15 / 16 bit
 at measuring rate: 128 / 32 / 16 / 8 per second
 Combined error: +/- 0,2% of end scale value
 Temperature coeff.: <50 ppm/K

Power supply

Voltage: 24 VDC, +/-0%
 Power consumption: with options approx. 5 W
 Residual ripple: 200 mV

Ambient conditions

Operating temperature: -40...+75°C
 Storing temperature: -40...+85°C

Mechanics

Enclosure: aluCase AC 092 160 x 90 x 60 mm with clip-on design covers
 Material: die-cast aluminium
 Mounting: covered screw channels
 Colour: RAL 9006 (aluminium white)
 Degree of protection: IP 65
 Vibration protection: electronics completely potted (optionally)
 Weight: approx. 1,1 kg (with options)
 Connection: multipole pin and socket connector, lockable up to maximum 2,5 mm² (CPFT2/R-10)
 Cable entry: 1 amplifier: 2 screwed cable glands M20x1,5
 2 amplifiers: 4 screwed cable glands M20x1,5
 Enclosure saltwater-proof with special plating

Applications

The measuring amplifier is suitable in installations, where in heavy conditions a load/force measuring is necessary. With its options and the comfortable adjustment via interface the amplifier is for universal use, eg in container terminals, silo works or overhead cranes.



Ordering code

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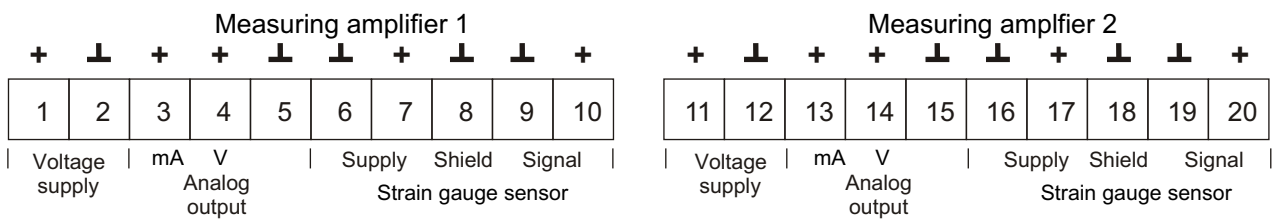
Model:	with 1 amplifier	0									
	with 2 amplifiers	1									
Voltage supply:	24 VDC		1								
Interface:	RS232										0
	RS232 and RS485*										1
	RS232 and CANopen*										2
	RS232 and Profibus*										3
Limiting value switch:	without										0
	with*										1
Display unit:	with										1
Enclosure:	Alu Case 160x90x60										0
	Alu Case 160x90x60 saltwater-proof										1
Vibration protection:	without potting										0
	with potting										1
Adjustment:	factory-set**										0
	customized (please indicate)***										1
Other / accessories:	special model										0
	V24 programming cable and software										1

*the additional interface and the limiting value switch are using the same multipole connector. So either an additional interface or the limiting value switch can be selected.

**Factory-set: sensitivity: 3 mV/V / analogue output: 0...10 V and 4...20 mA / resolution: 16 bit / measuring rate: 5/s / filter: 1s / external tare: active (24 V).

***the possibilities of the technical data can be selected. In case of not given values the details of factory-set are used.

Connection



Dimensions

