

Data Sheet for Amplifier

Amplifier for load cells with strain gauge full bridge

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Series IMA2-DMS

Amplification module for force sensors including DMS-full bridges with 5V or 10V bridge supply.



- For all strain gauge sensors
- Temp. coefficient <0,02% F.S./°C
- Misc. output signals
- Galvanically isolated

Electrical Data

Supply voltage	24 VDC (18..36 VDC), optional 12 VDC (9..18 VDC)
Power consumption (no load)	max. 150 mA @ 24 VDC, max. 300 mA @ 12 VDC
Supply voltage sensor	10 VDC, optional 5 VDC
Sensitivity DMS	1,0 mV/V / 1,2 mV/V / 1,5 mV/V / 2,0 mV/V / 3,0 mV/V ±10%
Setting range offset	< ±10%
Setting range amplification	< ±10%
Output signal	0..5 V / 0..10 V / ±5 V / ±10 V / 0..20 mA / 4..20 mA
Noise, residual ripple	< 20 mV _{eff} (DC..20 MHz)
Linearity deviation	< ±0,01%
Temperature coefficient sensitivity	< ±0,02% /°C
Temperature coefficient zero point	< ±0,01% /°C
Limit frequency / Output (3db)	1 kHz
Insulation resistance 1.)	1 GOhm @ 500 VDC
Insulation voltage1.)	500 VAC, 1 min
Overvoltage max.	40 V

Mechanical Data, Environmental Conditions, Miscellaneous

Housing	UEGM (PhoenixConact)
Mounting	DIN Rail
Operating temperature range	-25..+85°C
Storage temperature range	-30..+85°C
Mass	ca. 100 g

1.) According IEC 60393

2.) Determined by climatic conditions according to IEC 68-1, para. 5.3.1 without load collectives

Please note: Max. permissible supply voltage <75 VDC respectively <50 VAC in addition the max. power rating must be observed

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Order code

Description Selection: standard=black/bold, possible options=grey/cursive

Series:	IMA2-DMS				
Supply voltage: 24 V (18..36 VDC) <i>Option 12 V (9..18 VDC)</i>		24 V <i>15 V</i>			
Output signal: 0.5 V 0..10 V ±5 V ±10 V 0..20 mA 4..20 mA			0-5V 0-10V ±5V ±10V 0-20mA 4-20mA		
Excitation voltage 10 V <i>Option 5 V</i>				- <i>5 V</i>	
DMS-Sensitivity: 1,0 mV/V 1,2 mV/V 1,5 mV/V 2,0 mV/V 3,0 mV/V					1 1,2 1,5 2 3

For higher quantities or on-going demand, additional options are available on request

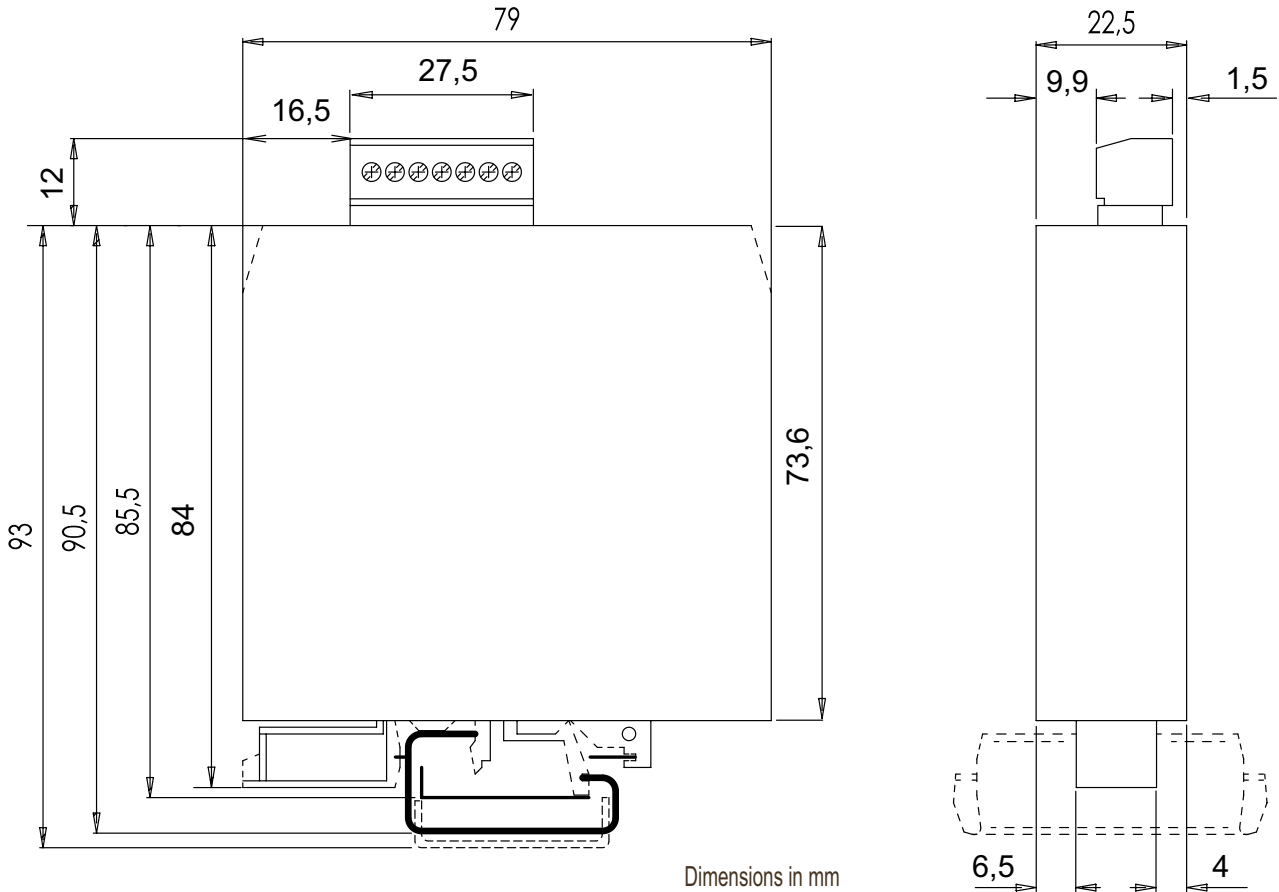
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Drawing



Connection

