Characteristics

Channels:	1 measuring amplifier / 2 measuring amplifiers
- Input:	up to 4 strain gauge full bridges (350 Ω)
- Sensitivity:	0,1...5 mV/V (adjustable)
- Analog output:	4...20 mA / 0...10 V (standard version)
- Limit contacts:	2 relays (option)
- Vibrating protection:	electronics potted (option)
- Voltage supply:	24 VDC
- Accuracy:	0,2% of end scale value (combined error)
- Interfaces:	several options
- Protection:	IP65
- Enclosure:	impact-resistant plastics, diecast aluminium

Technical data

Input	
Amplifier 1 and 2:	up to 4 strain gauge full bridges 350 ohms (sum signal)
Sensitivity:	0,1...5 mV/V (programmable)
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
Sensor supply:	5 VDC 60 mA maximum (each amplifier)
Limiting value switch (optionally)	
Relays:	2, each with change over contact, with fail safe function, assignment programmable
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 multifuntion indicator
Function:	4 keys for programming
Indication:	current values / minimum/maximum values / switch points / diagnostic values
Configuration	
Adjustment:	interface and/or display unit
Tare:	key on base PCB or externally (active/passive)
Measuring rate and filter:	10 ms....5 s (programmable)
Interface	
Standard (Interface 1):	RS232 for configuration and data read (always available)
Option Interface 2:	without / RS485 / CAN-bus / Profibus (for evaluation)

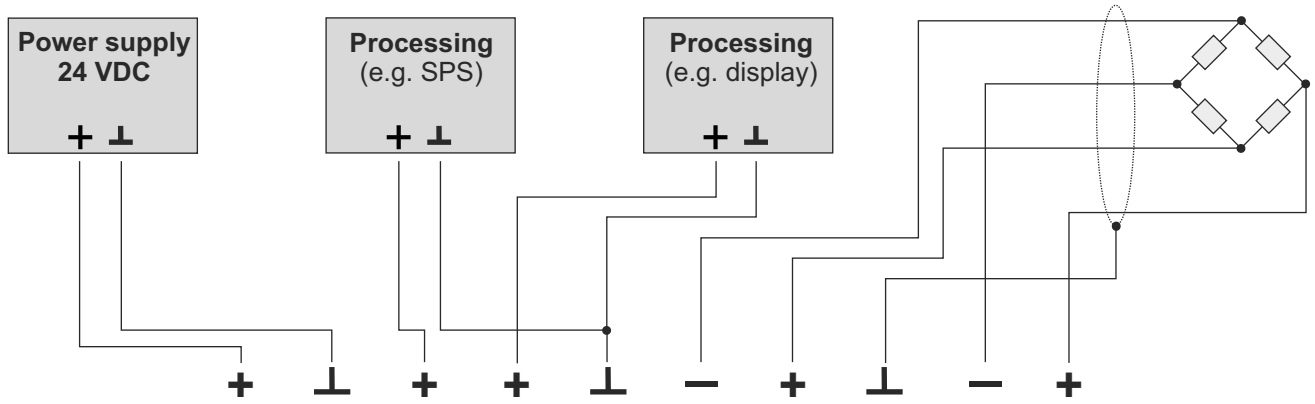
Applications

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 unniversal use, eg in container terminals, silo works or overhead cranes.

Technical data (continued)

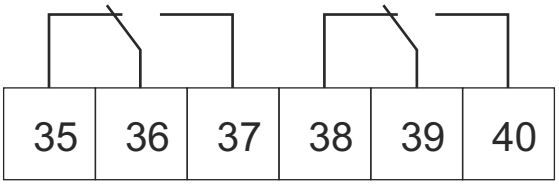
Accuracy		
Resolution:	12 /14 /15 /16 bit (measuring rate:128 / 32 / 16 / 8 per second)	
Combined error:	±0,2% of end scale value	
Temperature coefficient.:	<50 ppm/K	
Power supply		
Voltage:	24 VDC	
Power consumption:	with options approx. 5 W	
Residual ripple:	200 mV	
Ambient conditions		
Operating temperature:	-40...+75°C	
Storing temperature:	-40...+85°C	
Mechanics		
Enclosure aluminium:	Type:	aluCase AC 092 with clip-on design covers
	Dimensions:	160 x 90 x 60 mm
	Material:	die-cast aluminium
	Mounting:	covered screw channels
	Colour:	RAL 9006 (aluminium white)
	Weight:	approx.1,1 kg (with options)
	Cable entry:	each amplifier 2 screwed cable glands M20x1,5
	Saltwater-proof:	with special plating
Enclosure plastics:	Type:	U-CASE 2
	Dimensions:	162,2 x 92,2 (101,1) x 60,2 mm
	Material:	ASA 757G Luran S
	Flammability:	UL94 HB
	Mounting:	4 mounting holes
	Colour:	black
	Weight:	approx. 0,7 kg (with options)
	Cable entry:	each amplifier 2 screwed cable glands M20x1,5
	Protective insulation:	according VDE100
Degree of protection:	IP 65	
Vibration protection:	electronics completely potted (optionally)	
Connection:	multipole pin and socket connector, lockable, up to 2,5 mm² (CPFT2/R-10)	

Connection



Measuring amplifier 1	1	2	3	4	5	6	7	8	9	10
	Voltage supply		mA	V Analog output		Supply		Shield	Signal	
						Strain gauge sensor				

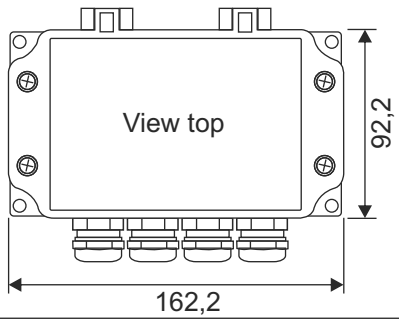
Measuring amplifier 2	11	12	13	14	15	16	17	18	19	20
	Voltage supply		mA	V Analog output		Supply		Shield	Signal	
						Strain gauge sensor				

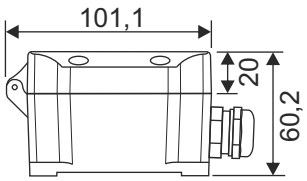


Limit value relays	35	36	37	38	39	40
	Limit value 2			Limit value 2		

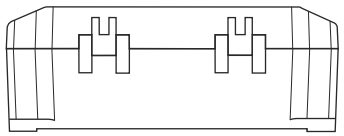
Dimensions (in mm)

Enclosure plastics



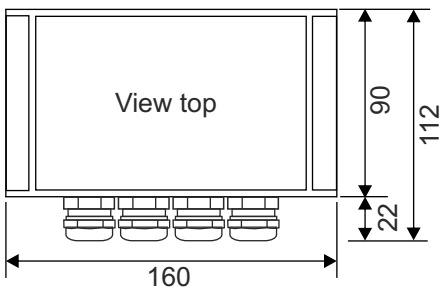


View side

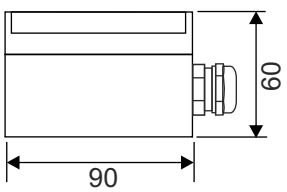


View rear

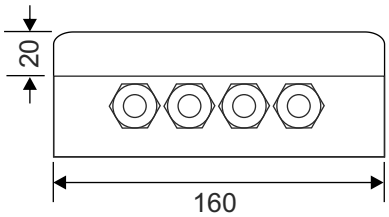
Enclosure aluminium



View side



View front



Ordering code

D	D	X	X	X	X	X	X	-	X	X	X

Model:	1 measuring amplifier		0
	2 measuring amplifiers		1
Supply:	24 VDC		1
Option Interface 2:	without		0
	RS485[1)]		1
	CANopen[1)]		2
	Profibus[1)]		3
Limit value contacts:	without		0
	with 2 relays[1)]		1
Display:	with		1
Enclosure:	aluminium	160x90x60	0
	aluminium	160x90x60 saltwater-proof	1
	plastics	162x92x60	2
	plastics	162x92x60 with EMC coating	3
Vibrating protection:	without potting		0
	with potting		1
Configuration:	factory configuration[2)]		0
	customized (to specify)[3)]		1
Other:	special model		0

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.

2) 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)

3) Possible options are within the limits of technical data. In case of not given values the details of factory configuration are used.

Accessories:	
V24 programming cable, software	Order No.: