

Bridge Amplifier, Selectable Configuration DABx MP4M

Features

- S/G Bridge amplifier
- Selectable bridge configuration
- Limit switches with switching output
- Peak value
- Double-line display
- Voltage and current output
- Digital signal path



Electrical Data	DABU	DABI
Output signal	± 10 V calibrated load > 10 k Ω	4 - 20 mA shunt < 500 Ω
Resolution	< 0,035% FS	< 0,07% FS
Measuring accuracy	< 0,15% v.E.	
Supply voltage range	15 - 33 VDC	
Current consumption	< 120 mA	
Bridge excitation	5 VDC	
Bridge completion resistors	350 Ω	
Zero reset active	< ± 10 mV	< ± 10 μ A
Reset input galvanically separated	active 5 - 33 VDC inactive < 1 VDC	
Taring range	± 6 mV/V	
Reset pulse	< 1 ms	
Holding time	< 5 ms	
Reset/operate offset	< ± 10 mV	< ± 15 μ A
Scanning rate	> 1 ms	
Frequency range (3 dB)	300 Hz	
Display refresh rate	2/sec	
Switching hysteresis limit switches	< 0,5% FS	
Max. load limit switches	max. 50 mA	
Signal polarity	selectable	

Mechanical Data

Control connection	13 pin terminal block
Sensor connection	13 pin terminal block
Shield connection	2 pin terminal block
Enclosure material	aluminum/plastic

Environmental Conditions

Operating temp. range	0...+65 °C
Storage temperature	-20...+80 °C
Protection class	IP 40

Order Code

DAB ☐ MP4M-FC- ☐ ☐ ☐ ☐

Gain

0.50 = 0,50 mV/V= 0-10 V resp. 4-20 mA
0.75 = 0,75 mV/V= 0-10 V resp. 4-20 mA
1.00 = 1,00 mV/V= 0-10 V resp. 4-20 mA
1.25 = 1,25 mV/V= 0-10 V resp. 4-20 mA
2.00 = 2,00 mV/V= 0-10 V resp. 4-20 mA

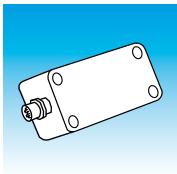
Output signal

U Voltage output ± 10 V

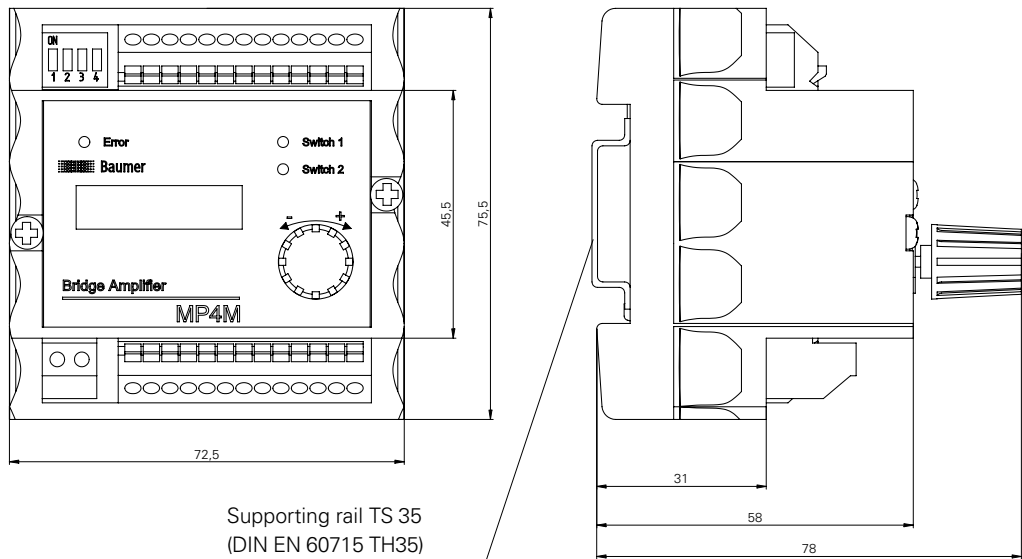
I Current output 4 - 20 mA

Delivery Contents

- Clamping clip for ground connection



Dimensions (mm)



Supporting rail TS 35
(DIN EN 60715 TH35)

Electrical Connections

Pin assignment sensor side

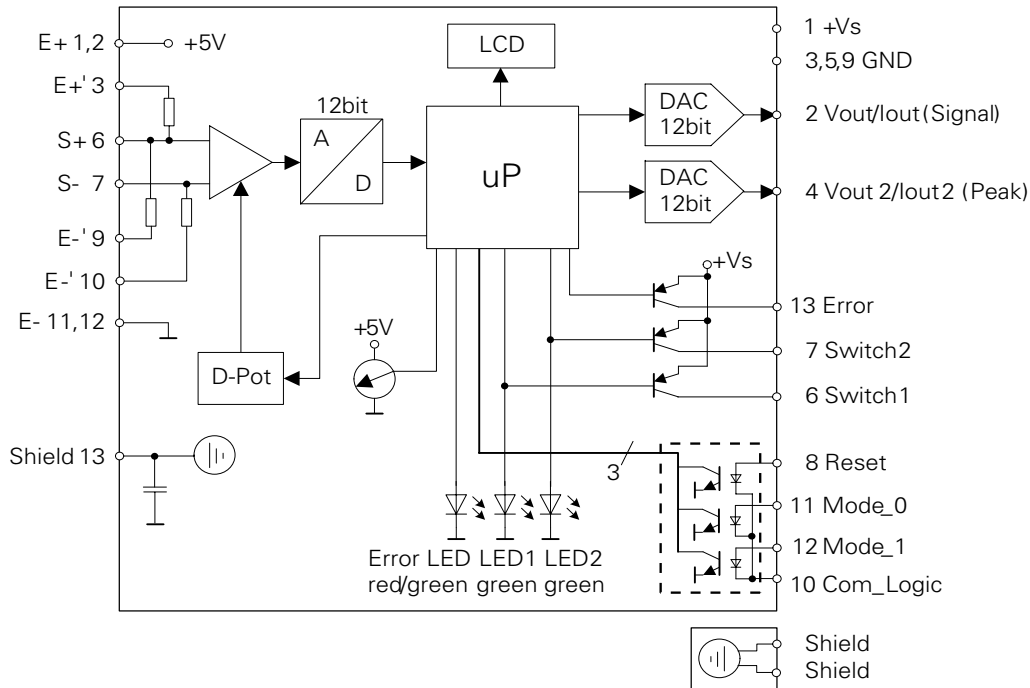
Pin	Signal	Description
1	+E	+bridge excitation
2	+E	+bridge excitation
3	+E'	bridge to completion resistor
4	n.c.	
5	n.c.	
6	+S	+ signal input
7	-S	- signal input
8	n.c.	
9	-E'	bridge to completion resistor
10	-E'	bridge to completion resistor
11	-E	- bridge excitation
12	-E	- bridge excitation
13	Shield	

Pin assignment control side

Pin	Signal	Description
1	+Vs	+supply voltage
2	Vout1/Iout 1	output signal
3	GND	-supply voltage
4	Vout2/Iout2 (peak value)	analog output
5	GND	signal reference
6	switch S1	output 1
7	switch S2	output 2
8	Reset	Taring of output signal
9	GND	signal reference
10	Comm_Logic	logical reference
11	Mode_0	mode 0
12	Mode_1	mode 1
13	Error	output

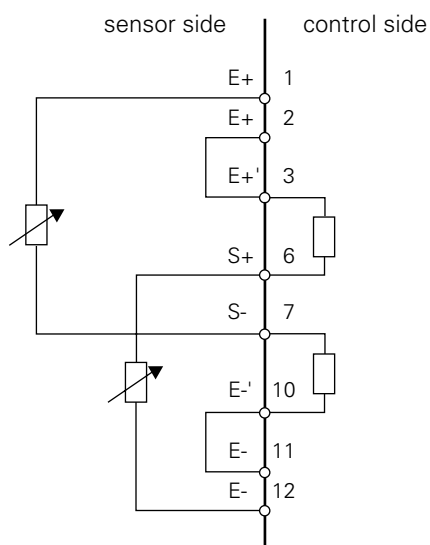
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Electrical Connections

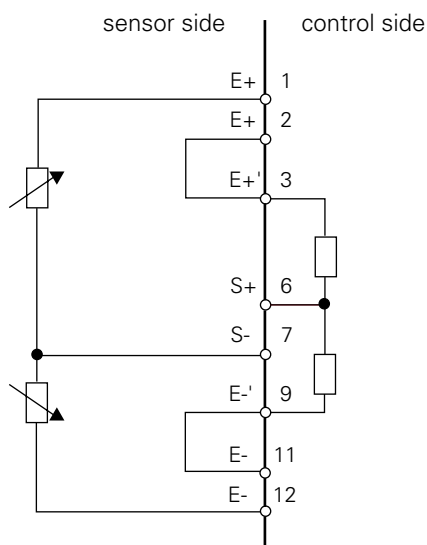


S/G Bridge

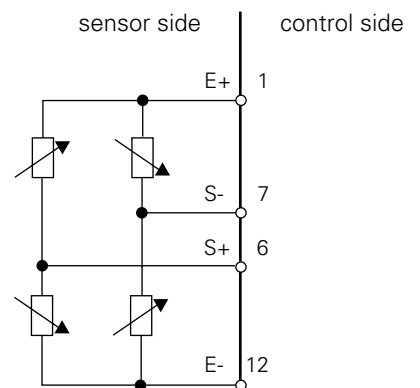
2 x 1/4-bridge (diagonal)

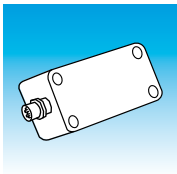


half bridge

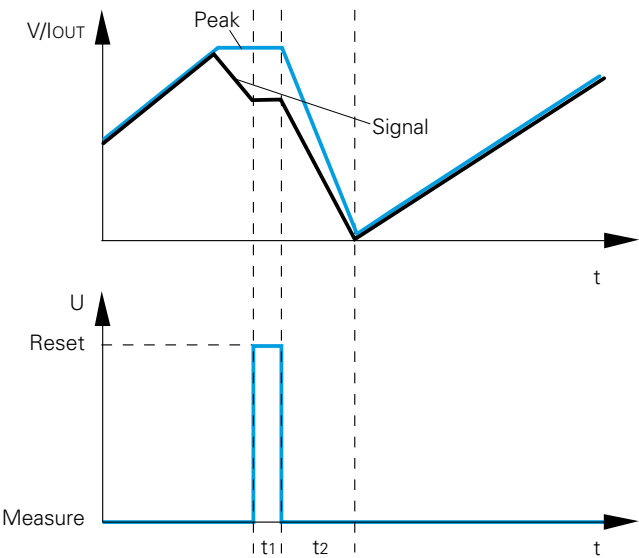


full bridge



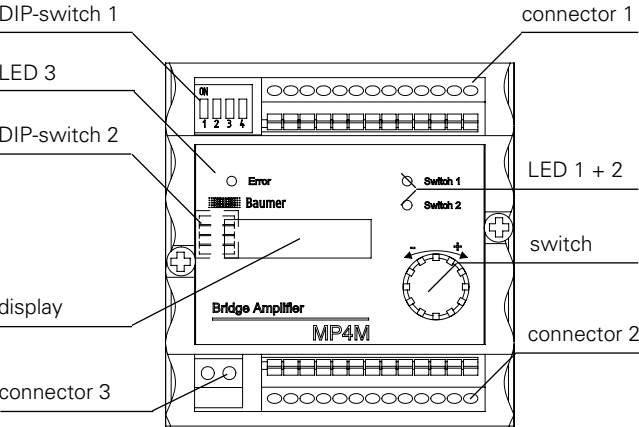


Reset Function



V/IOUT	Output signal resp. peak signal
Reset	Reset input (active high)
t ₁	Reset pulse (> 1 ms)
t ₂	Reset holding time after Reset-Pulse (< 5 ms)

Control Element



DIP-Switch 1	Selection of display
Connector 1	Connection sensor side
LED 3	Error display
LED 1 + 2	Limit value (active/inactive)
DIP-Switch 2	Reset (active/inactive); signal polarity
Switch	For limit value adjustment
Connector 3	Shield connection
Connector 2	Control side connection
Display	Double-line LC-display with back ground lighting