

NEW!

11/05

Steuerleitungen • LSC-Verdrahtungssystem • Entstörtechnik • Interfacetechnik • Spannungsversorgungen • Steuerungen • Feldbustechnik



Measuring Bridge Amplifier (for evaluation of full bridges)

Article numbers: 750522, 751522

These measuring transducers amplify the output signals from measuring bridges and convert them into standard output voltages (e.g. 0-10 V) or output currents (e.g. 4-20 mA).

- For pressure pickup cells and load cells, strain gauges and other measuring bridges.
- Differential, high-resistance voltage input, bipolar input and output.
- High-precision voltage source to supply the measuring bridge (5 V or 10 V, max. 50 mA)
- Zero point (max. ± 15 mV), measuring range (max. ± 127 mV)
- Output (voltage or current)
- Interference/surge protection: Protected against short circuit and polarity reversal, up to 40 VDC overvoltage protection on all inputs, compliant with EC EMC standard (EN50082/IEC 801)
- Screw or spring terminal technology

For use in the following sectors:

- Machine and plant engineering and construction
- Metal working industry
- Pneumatic and hydraulic cylinders
- Textile industry
- Plastics industry
- Packaging industry

Interface technology • Microcompact signal converter

Input : Full bridge

Bridge voltage DC 5 V oder DC 10 V

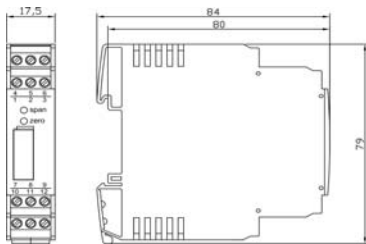
Output: 0-10 V, 0-20 mA, 4-20 mA

Isolation : 4 kV; 3-way isolation

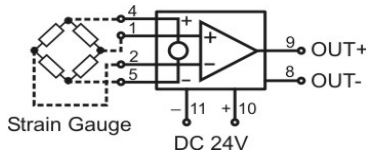


Description	Article number	Microcompact type	PU
Screw terminal			
DC 24V	750522	WBRA 6-0522	1
Spring terminal			
DC 24V	751522	WBRA 6-1522	1

Bridge			
Bridge supply	DC 5 V, DC 10 V		
Temperature drift	35 ppm/K		
Bridge current	25 mA (5 V); 50 mA (10 V)		
Zero point	± 15 mV, can be adjusted via DIP switch		
Working range	± 127 mV, can be adjusted via DIP switch		
Deviation from nominal value	0.5 %		
Measuring input			
Input current (typical)	1 nA		
Noise 0.1-10 Hz, pp RTI, typical	1 mV		
Range changeover error	0.5 %		
Common-mode range	-7 V to +7 V		
Output side	0-10 V	0-20 mA	4-20 mA
Output signal	Adjustable		
Max. load impedance at I - output	400 Ω		400 Ω
Max. load impedance at U - output	>1 kΩ		
Output impedance	50 Ω		
Output current (I-output)	Max. 20.5 mA		
Output current (U-output)	Max. 5 mA		
Output voltage	Min.: -10.2 V; max. 10.5 V		
Residual ripple	< 5mV _{eff}		



Pin assignment:



Range adjustment:

S2	Switch On	1	2	3	4
Excitation	10V max. 50mA	•			
	5V max. 25mA		•		
Output	0-10V			•	
	0-20mA				•
	4-20mA				•
Bandwidth	6 (1.5)Hz				•
[Range: 30 (1)mV]	25 (2)Hz				•

Range	On
+1mV	S1-8
+2mV	S1-7
+4mV	S1-6
+8mV	S1-5
+16mV	S1-4
+32mV	S1-3
+64mV	S1-2

Zero	On
+1mV	S1-1
+2mV	S2-8
+4mV	S2-7
+8mV	S2-6
-15mV	S2-5

General Data	
Rated voltage	DC 24 V
Operating voltage range	DC 20.4 V - 28.8 V
Rated current	Typically 20 mA, max. 30 mA (no load)
Status indication	Yellow LED
Input/output protection	Overvoltage AC/DC 30 V; output short-circuit-proof
Accuracy	0.1 % FSR (23 °C)
Linearity error	0.02 %
Transmission frequency	Range 30 mV: 25 Hz/6 Hz; range 1 mV: 2 Hz/1.5 Hz; reversible
Settling time to 1 % accuracy	25 Hz: 50 ms; 6 Hz: 200 ms; 2 Hz: 600 ms; 1.5 Hz: 800 ms
Operating voltage influence	0.005 % / V
Amplification stability (ranges > 8 mV)	Temperature: 70 ppm/K; ageing: 1 year 800 ppm; 10 years 2500 ppm
Stability zero point	Temperature: 1 µV/K; ageing: 10 µV; 10 years 40 µV
Insulation voltage input/output	-
Housing material	PPE
Mount	Can be snapped onto TS 35 (EN50022)
IP rating	IP 20
Installation position	Any
Connection method	Screw terminal: 0.14 mm ² - 1.5 mm ² ; spring method: 0.14 mm ² - 1.5 mm ²
Operating temperature range	Screw terminal: 0.14 mm ² - 1.5 mm ² ; spring method: 0.14 mm ² - 1.5 mm ²
Storage temperature range	-25 °C to +60 °C
Storage temperature range	-40 °C to +80 °C
Weight	0.070 kg
Dimensions	17.5 x 79 x 84 mm
Approvals	UL, CSA pending
Standards	EN 60721-3-3; EN 55011; EN 61000-4-2/6; EN 50178 degree of contamination 2, overvoltage category III

Accessories	Article number:	Type:	PU
Text label 4.23 x 11mm	681034	LEB 0411 PB	1