

Bridge Converter, 3-Way

- Three-way isolation
- Input and output ranges adjustable using DIP switch
- No calibration necessary
- Inverse output signals possible

931S-B1C6D-DC

Specifications	Bridge Converter, 3 Way	
Wiring Diagram		
Standards Compliance	UL 508, CSA C22.2 No. 142-M1987, EN 50178:1997, EN 61000-6-1:2007, EN 61000-6-2: 2005, EN 61000-6-3:2007, EN 61000-6-4:2007	
Certifications	cULus (NRAQ/7.E113724), CE	
Input Ratings		
Input Voltage	-500mV...+500mV (adjustable)	
Input Resistance	> 1 mΩ	
Input	Active	
Output Ratings		
Voltage	0...5V / 5...0V / 10...0V / 0...10V	
Current	0...20 mA / 20...0 mA / 4...20 mA / 20...4 mA	
Load Impedance (voltage/current)	≥ 1 kΩ / ≤ 600 Ω	
Step Response Time	Typically <200 ms	
Temperature Coefficient	≤ 250 ppm/ K of output range	
Accuracy	0.3% of output range	
Offset Current / Voltage	max. 100 μA / max. 0.05V	
Status Indicator	green LED	
Wire Break Detection	output: 0V or 0/4 mA	
Bridge Supply Voltage	+10V, +5V, 4.8...10.2V; offset adjustable; max. 40 mA	
Output	Active	
General Specifications		
Supply Voltage	24V DC ± 25 %	
Power Consumption	max. 1.9 W at I _{OUT} = 20 mA	
Current-carrying Capacity of Cross-connect	≤ 2 A	
Operating Temperature	0 °C...+55 °C	
Storage Temperature	-20 °C...+85 °C	
Default Settings	-500 mV...+500 mV / 0...10V / + 10V / standard	
Rated Insulation Voltage	300V	
Impulse Withstand Voltage	4kV	
Isolation Voltage Input - Output	2kV _{eff} / 5 s	
Surge Category	III	
Pollution Severity	2	
Connection Type	Screw	
L x W x D (mm)	92.4 x 17.5 x 112.4	
Signal Conditioner	Cat. No.	Pkg. Quantity
	931S-B1C6D-DC	1

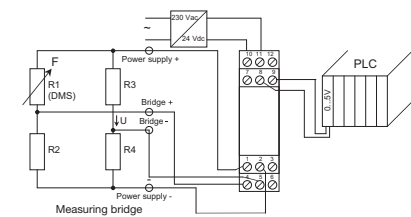
Switch position/setting options

Input voltage	SW 1									
	1	2	3	4	5	6	7	8	9	10
0...10 mV										
0...20 mV										■
0...50 mV										■
0...100 mV										■
0...200 mV										■
0...500 mV										■
-10 mV...10 mV										■
-20 mV...20 mV										■
-50 mV...50 mV										■
-100 mV...100 mV										■
-200 mV...200 mV										■
-500 mV...500 mV										■
Output										
0...+10 V										□ □
0...+5 V										□ ■
0...20 mA										■ □
4...20 mA										■ ■
Bridge supply voltage										
+10V										■ □ □
+5V										■ □ □
+4.8...+10.2V adjustable										□ ■ □
+4.8...+10.2V adjustable man. adjustment and offset possible										□ ■ ■
Transmission method										
standard output signal										□
inverse output signal										■

■ = on
 □ = off

Status LED	
LED on	normal operating
LED off	Error
LED blinks slow	measurement range undershoot U _{in} < U _{max} - 10 %
LED blinks fast	measurement range overshoot U _{in} < U _{max} + 10 %

Application



Example for bridge supply voltage

Temperature adjustment:	
Input voltage	0...10 mA
Output	0...10 V
Bridge supply voltage	+4.8...10.2 V
Bridge excitation	1 mV/V

(Declaration from manufacturer)

