

# Signal Conditioners

## Current/Voltage Signal Conditioners

### Passive Converter

- Electrical isolation
- Very low power consumption
- Input range selected via DIP switch
- No calibration necessary

### 931S-C1A2D-OP

Specifications	<b>Passive Converter</b>

Wiring Diagram	
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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
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Certifications	cULus (NRAQ/7.E113724), CE
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Input Ratings	
Voltage	0...5V / 0...10V
Current	0...20 mA / 4...20 mA
Max Voltage	30V DC
Max Current	40 mA
Input Resistance (voltage/current)	0...5V: 210 kΩ; 0...10V: 430 kΩ / 51 Ω
Input	Passive

Output Ratings	
Current	4...20 mA
Output Signal Limit	approx. 24 mA
Load Impedance (current)	$R_L = (U_B - 12 V) / 20 \text{ mA}$ e.g. 600 Ω at 24 V
Accuracy	0.2% of measuring range final value
Temperature Coefficient	≤ 150 ppm/K
Residual Ripple	50 mV at 500 Ω
Step Response Time	< 10 Hz: 80 ms; 100 Hz: 50 ms
Cut-off Frequency (-3 dB)	< 10 Hz/ 100 Hz switchable
Output	Passive

General Specifications					
Supply Voltage	min. 12V DC, max. 30V DC				
Power Type	Output Loop Powered				
Operating Temperature	0 °C...+55 °C				
Storage Temperature	-20 °C...+85 °C				
Default Settings	0...20 mA, 10Hz				
Rated Insulation Voltage	300V				
Impulse Withstand Voltage	4 kV				
Isolation Voltage Input - Output	4 kV <sub>eff</sub> / 5 s				
Surge Category	III				
Pollution Severity	2				
Connection Type	Screw				
L x W x D (mm)	92.4 x 17.4 x 112.4				
Signal Conditioner	<table border="1" style="width: 100%;"> <tr> <td style="text-align: center;">Cat. No.</td> <td style="text-align: center;">Pkg. Quantity</td> </tr> <tr> <td style="text-align: center;"><b>931S-C1A2D-OP</b></td> <td style="text-align: center;">1</td> </tr> </table>	Cat. No.	Pkg. Quantity	<b>931S-C1A2D-OP</b>	1
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Setting options/switch position

Input	SW 1			
	1	2	3	4
0...20 mA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4...20 mA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0...5 V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
0...10 V	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Transmission frequency</b>				
10 Hz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
100 Hz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

■ = on  
□ = off

Example of application

