

# Signal Conditioners

## Thermocouple Signal Conditioners

### Thermocouple, Type J

- Two-way isolation between input and output/power supply
- Cold junction compensation
- Linearization
- Output can be switched via DIP switch

### 931H-T1C1D-DC

Specifications	<b>Thermocouple, Type J</b>	
Wiring Diagram		
Standards Compliance	UL 508, UL 1604, UL 60079-15, CSA E60079-15:02, CSA C22.2 No. 213-1987, CSA C22.2 No. 142-M1987, EN 50178:1997, EN 60079-0:2006, EN 60079-15:2005, EN 61000-6-1:2007, EN 61000-6-2: 2005, EN 61000-6-3:2007, EN 61000-6-4:2007	
Certifications	cULus (Class 1, Div. 2/Zone 2, Groups A, B, C and D, NRAG/7.E10314 and NWGD/7.E10314 ), CE, ATEX (Class 1, Zone 2, Demko 09ATEX 147279X)	
<b>Input Ratings</b>		
Sensor	Thermo element to IEC 584, type: J	
Temperature Input Rating	0...700 °C	
Input	Passive	
<b>Output Ratings</b>		
Voltage	0...10V / 0...5V	
Current	0...20 mA / 4...20 mA	
Load Impedance (voltage/current)	≥ 10 kΩ / ≤ 300 Ω, ≤ 400 Ω @ 24V	
Accuracy	< 0.7% of measuring range	
Temperature Coefficient	≤ 250 ppm/K of final value	
Step Response Time	< 0.7 s	
Wire Break Detection	output value: > 20 mA, >10V	
Residual Ripple	< 20 mV <sub>eff</sub>	
Output	Active	
<b>General Specifications</b>		
Supply Voltage	24V DC ± 10 %	
Power Consumption	approx. 0.6 W	
Current Carrying Capacity of Cross Connect	≤ 2 A	
Operating Temperature	0 °C...+55 °C	
Storage Temperature	-20 °C...+85 °C	
Default Settings	0...20 mA	
Rated Insulation Voltage	100V	
Impulse Withstand Voltage	1.5 kV	
Isolation Voltage Input - Output	500V <sub>eff</sub> / 1 s	
Surge Category	III	
Pollution Severity	2	
Connection Type	Screw	
L x W x D (mm)	88 x 6.1 x 97.8	
Signal Conditioner	Cat. No.	Pkg. Quantity
	931H-T1C1D-DC	1

#### Setting options/switch position

Output	Switch			
	1	2	3	4
0 ... 10 V	■	■	■	□
0 ... 20 mA	□	□	□	□
4 ... 20 mA	□	□	□	■
0 ... 5 V	■	■	■	■

■ = on  
□ = off

#### Setting options/switch position

Output	Switch			
	1	2	3	4
0 ... 10 V	■	■	■	□
0 ... 20 mA	□	□	□	□
4 ... 20 mA	□	□	□	■
0 ... 5 V	■	■	■	■

■ = on  
□ = off

#### Connection

