

# Signal Conditioners

## Line-Monitoring Signal Conditioners

### Isolator, 3-Way, Limit Value Monitoring

- Three-way Isolation
- Low Trip/ High Trip
- Failsafe/Non-Failsafe
- Two relay outputs

#### 931S-C2R1D-DC2R

Specifications	<b>Isolator, 3-Way, Limit Value Monitoring</b>	
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	
<b>Input Ratings</b>		
Voltage	0...10V	
Current	0...20 mA / 4...20 mA	
Input Resistance (voltage/current)	$\geq 100 \text{ k}\Omega / \leq 110 \Omega$	
Input	Passive	
<b>Output Ratings</b>		
Contact Complement	2 change-over contacts	
Contact Material	AgNi 90/10	
Switching Thresholds	1...90% (independently for channel 1 and channel 2)	
Hysteresis	1...10% (independently for channel 1 and channel 2)	
Switching Voltage, Max	253V AC	
Step Response Time	$\leq 62 \text{ ms}$	
Continuous Current	3 A	
Temperature Coefficient	$\leq 500 \text{ ppm/K}$	
Status Indicator	LED green ON: OK, LED red ON: alarm (per channel)	
Output	Relay	
<b>General Specifications</b>		
Supply Voltage	24V DC $\pm 25 \%$	
Power Consumption	typically 1 W both relays picked up	
Current-carrying Capacity of Cross-Connect.	$\leq 2 \text{ A}$	
Operating Temperature	-10 °C...+55 °C	
Storage Temperature	-20 °C...+85 °C	
Default Settings	channel A/B: low trip and FAILSAFE	
Rated Voltage	300V	
Impulse Withstand Voltage	4kV	
Isolation Voltage Input - Output	$2\text{kV}_{\text{eff}} / 5 \text{ s}$	
Surge Category	III	
Pollution Severity	2	
Connection Type	Screw	
L x W x D (mm)	92.4 x 17.5 x 112.4	
<b>Signal Conditioner</b>	Cat. No.	Pkg. Quantity
	931S-C2R1D-DC2R	1

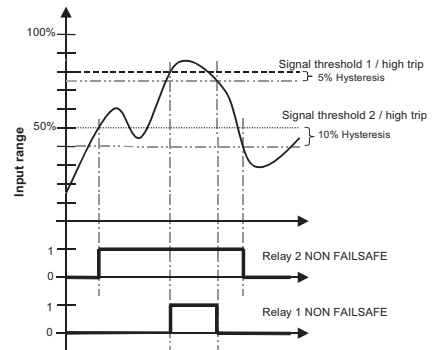
#### Switch position/setting options

function	SW 1			
	1	2	3	4
Channel A High Trip	■			
Channel A Low Trip	□			
Channel B High Trip		■		
Channel B Low Trip		□		
FAILSAFE, Channel 1 & 2			□	□
NON FAILSAFE, Chan. 1 & 2			■	■

■ = on  
□ = off

- NON FAILSAFE:** The relay picks up when the alarm is triggered
- FAILSAFE:** The relay drops out when the alarm is triggered. An alarm is also triggered in the FAILSAFE mode, if for example, the operating voltage to the moduls fail
- Low Trip:** Alarm is triggered if the signal is undershoot the threshold.
- High Trip:** Alarm is triggered if the signal is overshoot the threshold.
- Signal threshold:** Adjustments of the signal threshold (1...90%) are made for channel 1 with the potentiometer P1, and separately for channel 2 via potentiometer P2.
- Hysteresis:** Adjustments of the hysteresis (1...10%) are made for channel 1 with the potentiometer P3, and separately for channel 2 via potentiometer P3.

#### Example 1



#### Example 2

