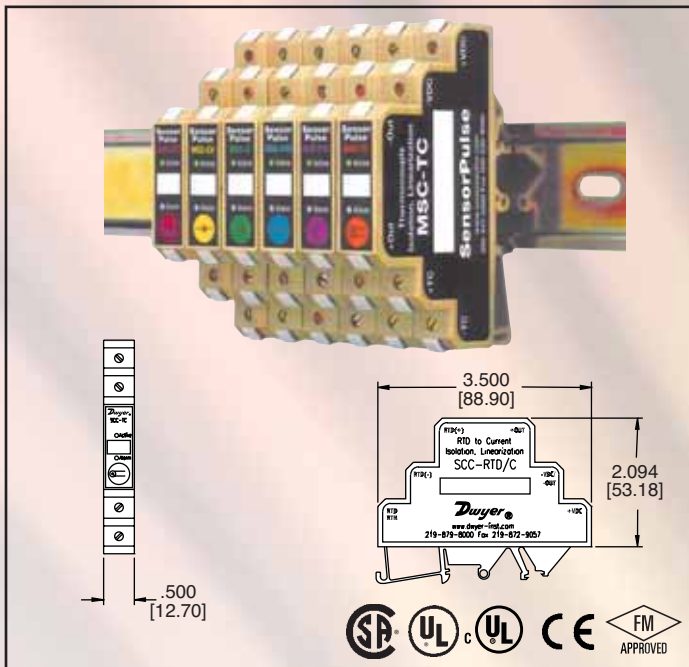


Series
MSC

Signal Conditioners

±0.05% Accuracy, 1500 VAC Isolation, 3-Way



The Series MSC Signal Conditioners provide maximum accuracy with minimal cost. Built-in microprocessor digitally scales, amplifies, linearizes and isolates thermocouple, RTD, current, voltage, frequency or potentiometer analog input signals. Units offer 16-bit input resolution with 0.05% full scale accuracy. Eliminate ground loops with 1500 VAC isolation. Two LEDs, one red and one green, located on the front face of the enclosure provide visual indication of operation. Additional features include short circuit, reverse power protection, digital calibration and cold junction compensation.

Installation is a snap with the DIN rail mountable enclosure. Units are factory set to support a specific analog input and output, however, can be easily reconfigured to suit your application with the user-friendly Windows® Configuration software and cable (sold separately).

Also available is the SCC-4W DIN Rail Mount power supply and SCC-L1 Loop Isolator. Model SCC-4W is designed specifically to provide 24 VDC power for the SCC modules. Model SCC-L1 accepts a 4 to 20 mA signal and provides an isolated 4 to 20 mA signal output.

SPECIFICATIONS

- Isolation:** 1500 VAC. 3-way: C, V, TC; 2-way: RTD, POT, FRQ, LI.
- Input Protection:** 220 VAC continuous.
- Input Impedance:** 1GΩ (mV/TC); >55KΩ (Voltage); 82Ω (Current).
- Excitation:** 150μA (RTD), 1.25V (POT).
- Output Impedance:** >10MΩ (Current); ~ 0Ω (Voltage).
- Output Load:** ≤ 600Ω (Current); ≥ 4KΩ (±10 Volts); ≥ 2KΩ (± 5 Volts).
- Power Requirements:** 15-32 VDC @ 25-45 mA.
- Over Voltage:** 240 Vrms continuous.
- Accuracy:** 0.05% Full Scale (includes linearity, repeatability and calibration errors).
- Cold Junction Compensation:** ±0.2°C (-15 to 55 °C) for all T/C.
- Resolution:** 16-bit (input); 13-bit (output).
- Drift:** 0.01% full scale per °C.
- Ambient Operating Temperature:** Operating: -40 to 167°F (-40 to 75°C).
- Storage Temperature:** -49 to 185°F (-45 to 85°C); 0-95% RH, non-condensing.
- Mounting:** DIN rail (32 mm-G and 35 mm-H).
- Connections:** Socketed screw terminals for 14-22 AWG.
- Response Time:** 150 ms @ 60 Hz, typical.
- Housing Material:** Polyamide.
- Weight:** 1.4 oz (40 g).
- Agency Approvals:** CE, CSA, FM, cUL, UL.

All Series MSC Single Channel Conditioners

ACCESSORIES

- SCC-L1** Loop Isolator 4 to 20 mA input and output
- SCC-4W** Power Supply 85 - 265 VAC @ 50/60 Hz
- SCC-CC-A1** Windows® Software and Cable

* Units can be reconfigured from their factory (default) settings with the SCC-CC-A1 Windows® Software (sold separately).

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MODELS

Model Number	Input Types and Ranges	Default Input Range	Output Types and Ranges	Default Output Range
MSC-C/C	0 to 10 mA, 0 to 20 mA, 4 to 20 mA, ±10 mA, ±20 mA	4-20 mA	0 to 20 mA or 4 to 20 mA	4 to 20 mA
MSC-C/V			0 to 5 V, 0 to 10 V, ±5 V or ±10V	0 to 10V
MSC-V/C	0 to 5V, 1 to 5V, ±5V, ±1.5V, 0 to 1.5V, 0 to 1.25V, ±1.25V, ±300mV, 0 to 300 mV, ±10mV, 0 to 10 mV, 0 to 50 mV, and ±50mV	0-10V	0 to 20 mA or 4 to 20 mA	4 to 20 mA
MSC-V/V			0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V	0 to 10V
MSC-TC/C	-148 to 1832°F, -328 to 32°F (Type E T/C), 32 to 1400°F, -328 to 32°F (Type J T/C), -328 to 32°, 32 to 2372°F (Type N T/C), 32 to 2498°F, -328 to 32°F (Type K T/C), -256 to 752°F, 32 to 752°F (Type T T/C)	Type J -32 to 1400°F	0 to 20 mA or 4 to 20 mA	4 to 20 mA
MSC-TC/V			0 to 5V or 0 to 10V	0 to 10V
MSC-RTD/C	-328 to 1562°F (Pt100Ω), -148 to 500°F (Ni120Ω), -148 to 500°F (Cu10Ω)	Pt100 -328 to 1562°F	0 to 20 mA or 4 to 20 mA	4 to 20 mA
MSC-RTD/V	0 to 500Ω		0 to 5V or 0 to 10V	0 to 10V
MSC-POT/C	0 to 500Ω (min.) or 0 to 100KΩ (max.)	0 to 10KΩ	0 to 20 mA or 4 to 20 mA	4 to 20 mA
MSC-POT/V			±5V, ±10V, 0 to 5V or 0 to 10V, 1 to 5V	0 to 10V
MSC-FRQ/C	0 to 100 kHz at a magnitude of 0 to 50 mV, 0 to 500 mV, 0 to 5V, 0 to 50 V or 0 to 250 V	0-10KHz (24 VDC)	0 to 20 mA or 4 to 20 mA	4 to 20 mA
MSC-FRQ/V			0 to 5V or 0 to 10V	0 to 10V

Transmitter / Alarms