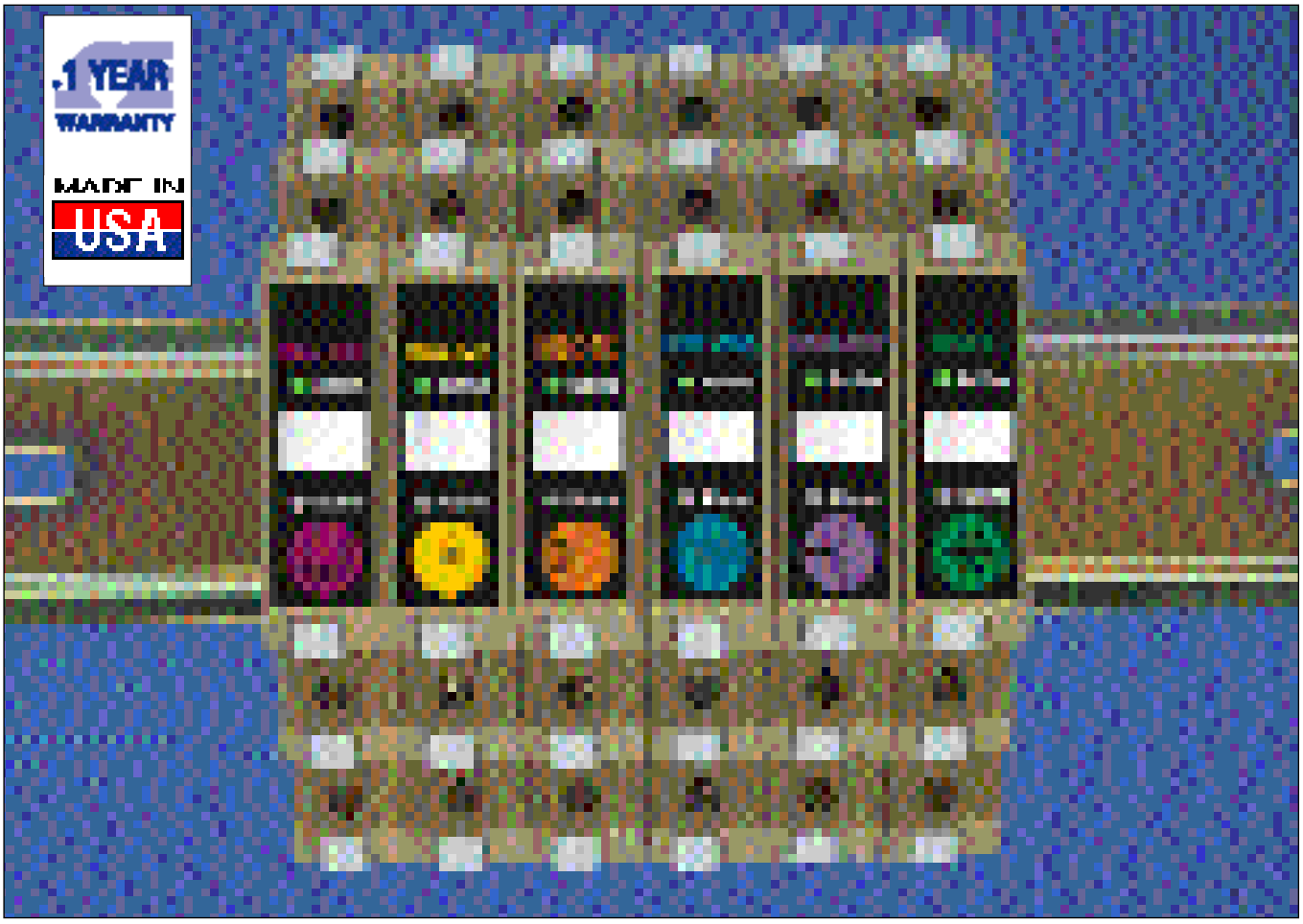
MSC Series High Performance Signal Conditioners & Isolators



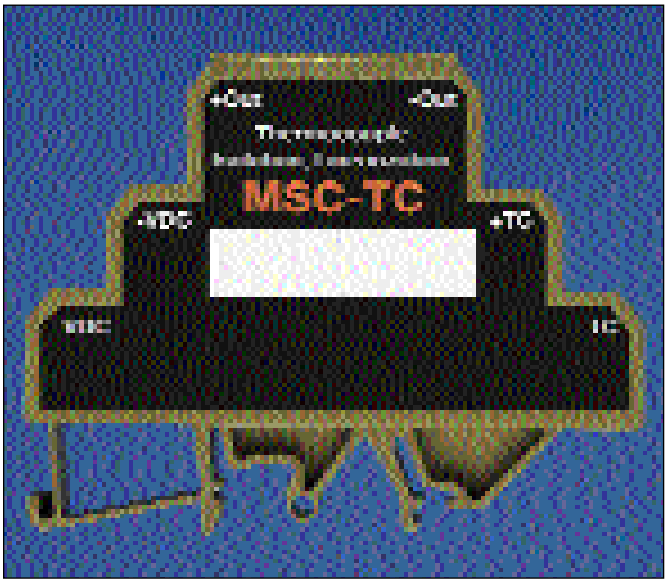
MSC Series

$199

- **Computer and Palm Top Configurable.**
- **Digital Modules Allow Scaling Output to User Specified Input Range**
- **Models Available for Thermocouple, RTD, Current, Voltage, Frequency, or Potentiometer**
- **0-5 V, 0-10 V, ±10 V, 4-20 mA or 0-20 mA Analog Output**
- **DIN Rail Terminal Module Tiny Package**

The MSC, Micro Signal Conditioning Modules represent state of the art signal conditioning technology. Models feature 2 & 3 way isolation, programmable outputs, digital calibration, high accuracy, and high-density terminal DIN rail packaging. The signal conditioners are excellent for front-end interfaces for Programmable Logic Controllers and Data Acquisition systems. Models are available for thermocouples, RTDs, Current, Voltage, Frequency and Potentiometers. The MSC modules are configurable via any PC or the new HPC (Handheld Personal Computer) Windows CE palm tops. A complete digital design replaces potentiometers with software for calibration via a PC or HPC. Store all setup parameters in non-volatile EEPROM on-board the unit. Save configuration files, for backup and restoration of field settings. The thermocouple units utilize solid state cold junction compensation for high accuracy and stability.

The MSC modules are microprocessor based. The processor allows the units to perform scaling, linearization, and cold junction compensation. The units offer 16 bit input resolution and 13 to 16 bit output resolution. The MSC conditioners offer optical and transformer isolation, thus eliminating the concern of ground loops and noise. Designed to operate in the industrial arena short circuit, surge and reverse power protection is standard on all models. The MSC DIN rail mountable terminal block package allows for high-density installations, at only 12 mm wide twenty-four modules can be installed per linear foot of DIN rail.



Specifications

Input Power: 15-32 Vdc (30 mA per module)
Output: 0-10 V @ 5 mA max; 0-20 mA or 4-20 mA, 12 V compliance
Isolation: 3 way-input, output and power; 2 way-input to power/output 1500 V peak
Over Voltage: 240 VRMS continuous
Step Response to 99%: 0.2 seconds
Operating Temperature: -40 to +75°C
Storage Temperature: -40 to + 85°C
Mounting: 32 and 35 mm DIN Rail & G Rail
Dimensions: 88 mm H X 12.1 mm W X 68 mm D (3.5" X 0.485" X 2.7")
Diagnostics LEDs: Active & Alarm Indications

To Order *(Specify Model Number)*

Model Number	Price	Description
MSC-TC-V	**$199**	Thermocouple to voltage signal conditioner
MSC-TC-C	**199**	Thermocouple to current signal conditioner
MSC-RTD-V	**199**	RTD to voltage signal conditioner
MSC-RTD-C	**199**	RTD to current signal conditioner
MSC-CV-V	**199**	Current/voltage to voltage signal conditioner
MSC-CV-C	**199**	Current/voltage to current signal conditioner
MSC-POT-V	**199**	Potentiometer to voltage signal conditioner
MSC-POT-C	**199**	Potentiometer to current signal conditioner
MSC-FRQ-V	**199**	Frequency to voltage signal conditioner
MSC-FRQ-C	**199**	Frequency to current signal conditioner
MSC-LI-C	**199**	Current loop isolator

All signal conditioners include a complete user's manual.

Ordering Example: *MSC-TC-V thermocouple signal conditioner, MSF-CC-A1 configuration software and cable, DRN-PS-750 power supply, $199 + 49 + 130 =* ***$378****.*

Units are user configured for sensor type and scaling via computer and configuration software. Please contact factory for pre-configured units.

Accessories

Model Number	Price	Description
MSF-CC-A1	**$49**	Configuration software and 9 Pin D-sub serial cable, 3.5" disks
DRN-PS-750	**130**	Power supply, 115/230 Vac input, 24 Vdc output @ 750mA

Input	Thermocouple	RTD	Current/Voltage	Potentiometer	Frequency	Loop Isolator
Series	MSC-TC	MSC-RTD	MSC-CV	MSC-POT	MSC-FRQ	MSC-LI
Input Type	Thermocouple Temperature Sensor	RTD Temperature Sensors: Platinum Nickel or Copper	DC Current Millivolt or Volts Input	Potentiometer and Slide Wire Resistors	Pulse Input for Frequency Measurements	Loop Isolation (Loop powered)
Input Range(1)	MSC-TC J, K, T, E, N Fully Scalable to User Input Specifications	Full Range of RTDs 2 or 3 Wire	±10 mV to ±10 V 4-20 mA 0-20 mA ±20 mA	100 Ohm to 1 M Ohm	0-200 Hz 0-2 kHz 0-10 kHz 0-20 kHz 5V TTL or 24 Vdc Levels	0-20 mA 4-20 mA
Accuracy	±0.05% FS	±0.05% FS	±0.05% FS(2)	±0.05% FS	±0.05% FS	±0.05% FS
Resolution	0.05°C	0.05°C	13 to 16 Bit	13 to 16 Bit	13 to 16 Bit	0.05% of FS
Output	0-5 V, 4-20 mA	0-5 V, 0-10 V, 4-20 mA	0-5V, 0-10 V, 4-20 mA or 0-20 mA	0-5V, 0-10 V 4-20 mA or 0-20 mA	0-5V, 0-10 V 4-20 mA or 0-20 mA	0-20 mA 4-20 mA(3)
Isolation	3 Way	2 Way	3 Way	2 Way	3 Way	2 Way

(1) The listed input ranges are the maximum limits. The MSC modules are fully scaleable, using the configuration software any input range (within the limits) may be set to equal the full scale output.

(2) The accuracy for the MSC-CV, ±10 mV range is ±0.25% FS.

(3) The 4-20 mA mode provides 3.3 mA open circuit and 23 mA overange indication.