DIN RAIL Dual Setpoint Controller MCR Series

1 YEAR WARRANTY

Model MCR-2SP

$356

Basic Unit

- **Available in Isolated and Nonisolated Models**
- **0 to 10 V or 0 to 20 mA Input**
- **Dual 3 A SPDT Relays with Independent Setpoints**
- **Isolated Model Features 4 kV of Signal Isolation**
- **20 to 30 V dc Power**
- **0.5% FS Accuracy**
- **0.1% FS Repeatability**

Shown larger than actual size.

The MCR-2SP/UI dual setpoint module is designed specifically for process control applications. The flexibility of either internal or external alarm setpoint adjustments and DIN-rail mounting, creates many installation possibilities.

The MCR-2SP/UI accepts either 0(4)-20 mA or 0-10 V dc analog input signals. DIP switch selectable variables include a 1% setpoint hysteresis and normally open/ normally closed selectable alarm relay action.

The two digit, decade switches located on the top of the module allow for easy adjustment of the alarm setpoints. A corresponding yellow LED indicates the status of the relay contact for each setpoint.

Each setpoint has a 0-4 seconds on-delay timer adjustment. This on-delay adjustment is very useful in applications involving turbulence. The time delay will eliminate relay chatter caused by any analog level process signal's quick fluctuation. This delay can eliminate nuisance relay tripping or chattering.

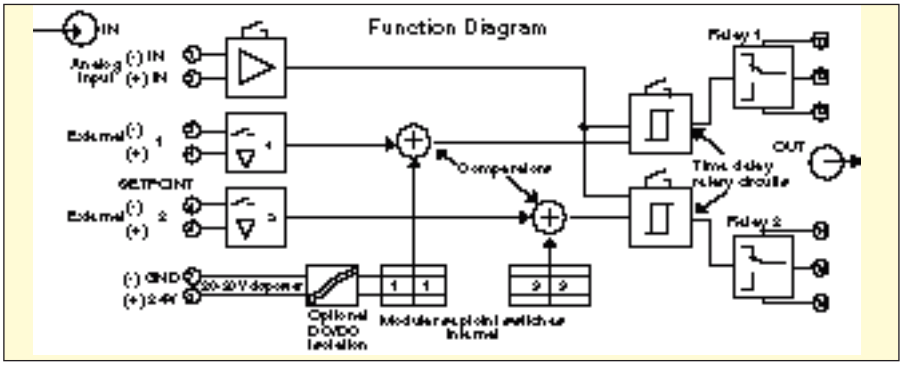
The MCR-2SP/UI contains a ±5% zero and span adjustment for fine calibration of the setpoint trip points.

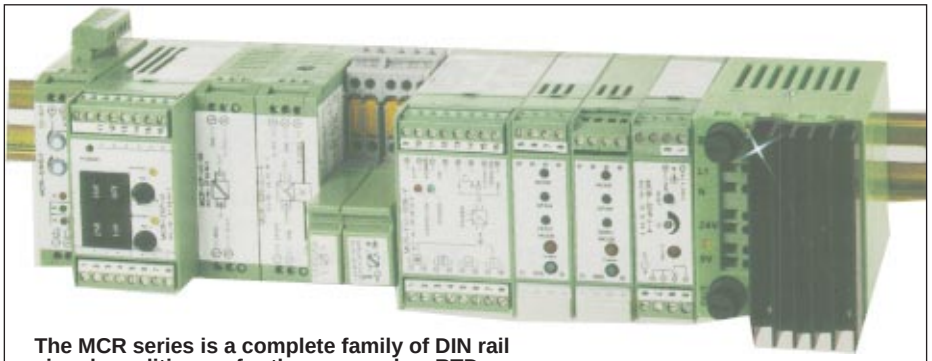
The two setpoint relays are rated at 3A/250 V ac/dc, and utilize silver cadmium oxide contacts.

External Analog Setpoint Function

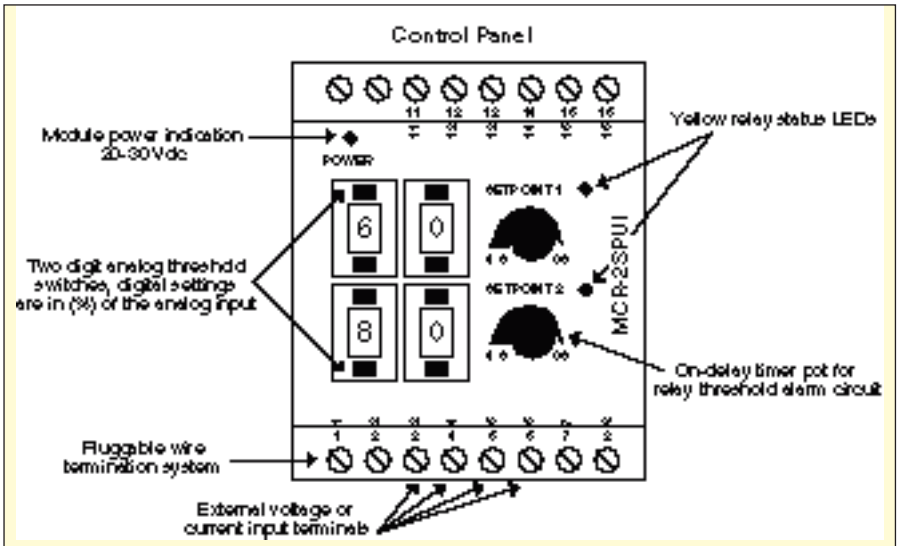
The MCR-2SP/UI can accept up to two external voltage or current setpoint inputs. By applying an external voltage or current, an additive effect is created to the threshold circuit. For example, if the MCR-2SP/UI is configured for a 0-10 Vdc analog input signal, and setpoint (1) threshold decade switch is set at 60 (60%) (a 6 volt relay setpoint), by introducing a 1 V dc signal, the effective alarm threshold is now 70% or 7 Vdc.

By setting both module setpoint decade threshold switches to 0 (0%) it is possible to have full control of the relay threshold setpoints externally.

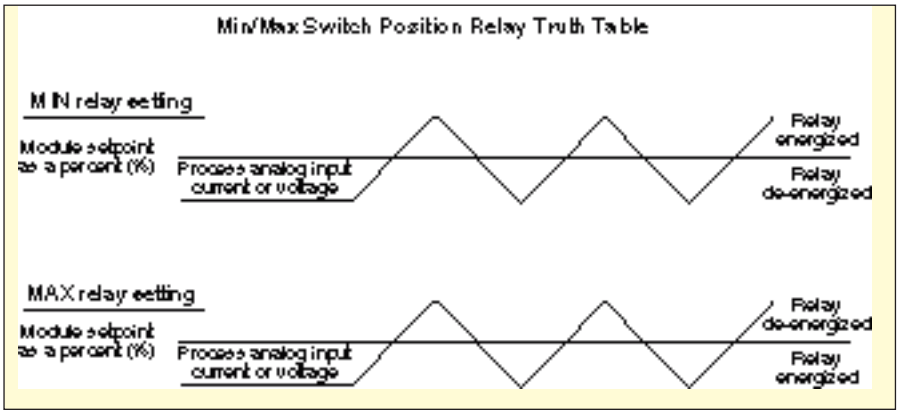




The MCR series is a complete family of DIN rail signal conditioners for thermocouples, RTDs, frequency, current, as well as setpoint alarm, isolation and threshold switch modules



Each of the relays has an associated Min/Max dip switch which controls the relays action. In the MIN position the relay is energized above the setpoint. in the MAX position the relay is energized below the setpoint.



To Order *(Specify Model Number)*		
Model Number	**Price**	**Description**
MCR-2SP/UI	**$356**	Nonisolated Dual Setpoint Alarm Module
MCR-2SP/UI-DC	**397**	Isolated Dual Setpoint Alarm Module
Rail-35-2	**15**	DIN Rail, 35 mm, 2 meter Length

Ordering Example: *MCR-2SP/UI-DC isolated dual setpoint alarm module,* ***$397****.*

Specifications

INPUT

Input Signals: One 0 to 10 V dc or 0 to 20 mA, DIP switch select

Maximum Input: 30 V dc, 100µA

Input Resistance: Current: ≤100Ω; voltage: ≥100 kµ

Input Protection: Surge suppressor diodes

Setpoints: 2

Setpoint Range Adjustments: 0-99% of input range

External Setpoint: 0 to 10 V dc or 0 to 20 mA

Maximum External Input Signal: 30 Vdc, 100 µA

External Input Protection: Surge suppressor diodes

Setpoint Hysteresis: 1%; DIP switch selectable

ZERO/SPAN CALIBRATION

Adjustments: ±20%

OUTPUT SPECIFICATIONS

Relays: (2) form C (SPDT)

Relay Load Characteristics:

24 V dc	48 V dc	110 V dc	250 V dc
72 W	70W	50W	750 VA

Contact: Silver Cadmium Oxide (AgCdO)

Maximum Current Inrush: 3 A

Relay Output Time Delay: 0 to 4 sec

Relay Action: Normally Open/ Normally Closed, Min/Max Settings; DIP Switches select

General Specifications

Power Supply Voltage: 20 to 30 V dc

Input Supply Protection: Surge suppressor diodes

Current Consumption: 80 mA

Operating Temperature: -2° to 65°C

Accuracy: 0.5% FS

Repeatability: 0.1% FS

Temperature Coefficient: 100ppm/K

Isolated Versions (Common Mode): 4 kV

Max Wire Size: 14 AWG

Dimensions: 2.95" H x 1.77" W x 4.3" D (75 mm x 45 mm x 110 mm)

Mounting: 35 mm DIN rail