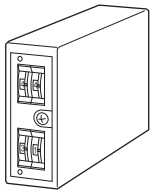
Dual Output Super-mini Signal Conditioners Pico-M Series

DC ALARM

(thumbwheel switch adjustment, CE)

Functions & Features

- Providing relay outputs at preset DC input levels
- Dual (Hi/Lo) trip
- Thumbwheel switch setpoint adjustments
- Space-saving, easy-to-maintain, multi-channel installation base



CE

MODEL: M8SED1-[1][2][3]-R[4]

ORDERING INFORMATION

- Code number: M8SED1-[1][2][3]-R[4]

Specify a code from below for each of [1] through [4].
(e.g. M8SED1-A12-R/Q)

- Specify the specification for option code /Q
(e.g. /C01)

[1] INPUT

Current
A: 4 – 20 mA DC (Input resistance 250 Ω)
Voltage
4: 0 – 10 V DC (Input resistance 1 MΩ min.)
5: 0 – 5 V DC (Input resistance 1 MΩ min.)
6: 1 – 5 V DC (Input resistance 1 MΩ min.)

[2] OUTPUT 1

1: Hi trip (ON = tripped; OFF = untripped or no power)
2: Hi trip (OFF = tripped; ON = untripped or no power)

[3] OUTPUT2

1: Lo trip (ON = tripped; OFF = untripped or no power)
2: Lo trip (OFF = tripped; ON = untripped or no power)

POWER INPUT

DC Power
R: 24 V DC
(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

[4] OPTIONS

blank: none
/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to our web site.)
/C01: Silicone coating
/C02: Polyurethane coating
/C03: Rubber coating

RELATED PRODUCTS

- Installation Base or Single Mount Base Socket (model: M8BSx)

This unit must be mounted on dedicated base or socket except Model M8BS2 base.

GENERAL SPECIFICATIONS

Construction: Plug-in
Mounting screw: M3 screw (torque 0.3 N·m)
Housing material: Flame-resistant resin (black)
Power supply: Via the Installation Base terminals (model: M8BSx)
Isolation: Input to output 1 to output 2 to power
Setpoint adjustments: Thumbwheel switches (front);
0 – 99 % independently; 1 % increments;
(factory setting: 50 %)
Hysteresis (deadband): Approx. 1 %
Front LEDs: Red LED turns on when the coil for Hi output is energized.
Green LED turns on when the coil for Lo output is energized.
Power ON timer: Relays de-energized for approx. 2 seconds after power is turned on.

INPUT SPECIFICATIONS

■ **DC Current**: Input resistor incorporated

OUTPUT SPECIFICATIONS

- **Relay contact**: 30 V DC @0.5 A (resistive load) *

Maximum switching voltage: 60 V DC
Maximum switching power: 15 W (≤ 0.5 A)
Minimum load: 100 mV DC @100 μA
Mechanical life: 5×10^6 cycles
* When used with a multi-channel installation base (e.g. M8BS-16), the ratings derated as following.
Terminal block type: 30 V DC @0.25 A
Cable connector type: 24 V DC @50 mA

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	TRIP ACTION	OUT CODE	POWERED		UNPOWERED
			INP < SET	INP > SET	
OUT 1	Hi	1	OFF	ON	OFF
	Hi	2	ON	OFF	ON
OUT 2	Lo	1	ON	OFF	OFF
	Lo	2	OFF	ON	ON

INSTALLATION

Current consumption: Approx. 60 mA
Operating temperature: 0 to 55°C (32 to 131°F)
Operating humidity: 30 to 95 %RH (non-condensing)
Mounting: Installation Base (model: M8BSx)
Weight: 70 g (2.5 oz)

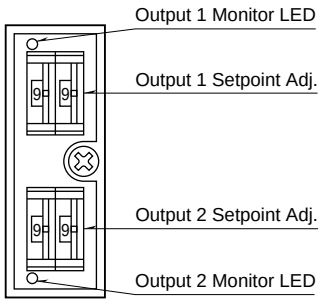
PERFORMANCE in percentage of span

Setpoint accuracy: ±0.5 %
Trip point repeatability: ±0.05 %
Temp. coefficient: ±0.02 %/°C (±0.01 %/°F)
Response time: ≤ 0.7 sec. (0 – 100 % at 90 % setpoint)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 V AC @1 minute (input to output 1 to output 2 to power to ground)
SWC test: ANSI/IEEE-C37.90.1-1989

STANDARDS & APPROVALS

EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

FRONT VIEW



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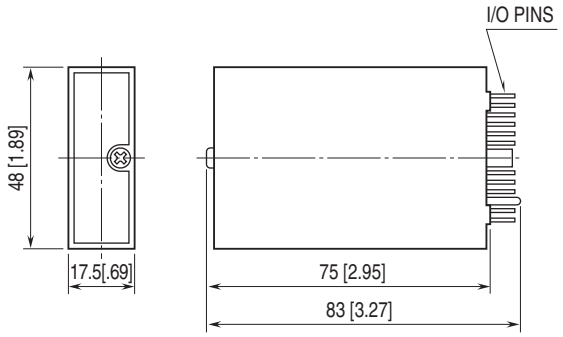
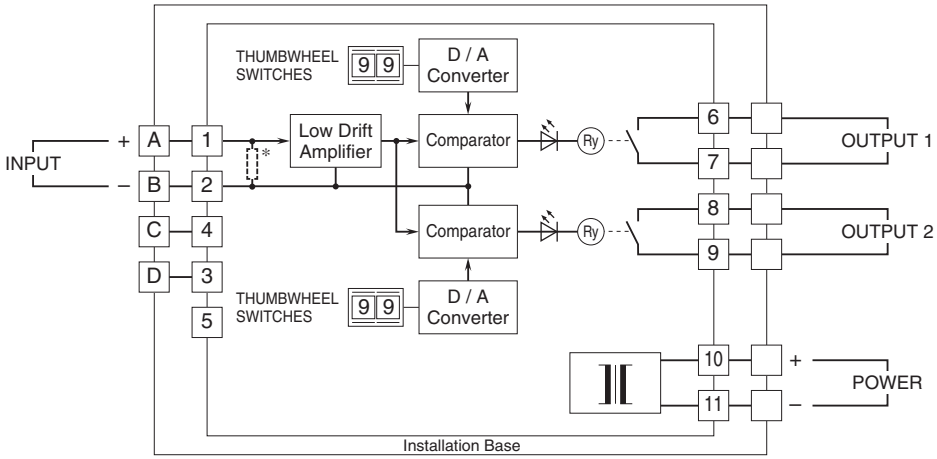
EXTERNAL DIMENSIONS unit: mm [inch]

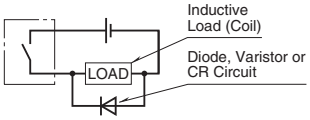


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current input.

■ Relay Protection
• DC Powered



⚠ Specifications are subject to change without notice.

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