

Plug-in Signal Conditioners M-UNIT

DC ALARM

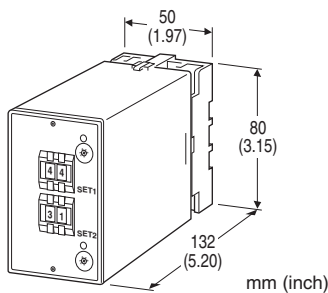
(thumbwheel switch adjustment)

Functions & Features

- Providing SPDT relay outputs at preset DC input levels
- Dual trip
- Latching or non-latching output
- Thumbwheel switch setpoint adjustments
- Enclosed relays
- Relays can be powered 110 V DC
- Isolation up to 2000 V AC
- High-density mounting

Typical Applications

- Annunciator
- Various alarm applications



MODEL: ASD1-[1][2][3][4][5]-[6][7]

ORDERING INFORMATION

- Code number: ASD1-[1][2][3][4][5]-[6][7]
- Specify a code from below for each of [1] through [7].
(e.g. ASD1-61302-K3/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 M Ω min.)

5: 0 - 5 V DC (Input resistance 1 M Ω min.)

6: 1 - 5 V DC (Input resistance 1 M Ω min.)

[2] SETPOINT 1 OUTPUT

1: Hi (coil energized at alarm)

2: Hi (coil de-energized at alarm)

3: Lo (coil energized at alarm)

4: Lo (coil de-energized at alarm)

[3] SETPOINT 2 OUTPUT

1: Hi (coil energized at alarm)

2: Hi (coil de-energized at alarm)

3: Lo (coil energized at alarm)

4: Lo (coil de-energized at alarm)

[4] ON DELAY TIME

0: 0.5 seconds

1: 1 second

2: 2 seconds

3: 3 seconds

4: 4 seconds

[5] POWER ON DELAY TIME

1: 1 second

2: 2 seconds

5: 5 seconds

[6] POWER INPUT

AC Power

K3: 100 - 120 V AC

(Operational voltage range 90 - 132 V, 47 - 66 Hz)

L3: 200 - 240 V AC

(Operational voltage range 180 - 264 V, 47 - 66 Hz)

[7] OPTIONS

blank: none

/Q: Options other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3.5 screw terminals

Screw terminal: Chromated steel (standard) or stainless steel

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

Setpoint adjustments: Thumbwheel switches (front); 0 - 99 % independently; 1 % increments

Deadband and latching control: 16-position rotary switches (front)

• **Deadband:** 0.5, 1 - 14 % independently; 1 %

increments (SW position 0 = 0.5, A thr. E = 10 thr. 14); [Lo SP + Deadband] ≤ 102

• **Latching:** enabled at the position "F." For resetting, turn the power supply off or set the switch position to other than "F."

Front LEDs

Output 1: Red LED turns on when the coil is energized.

Output 2: Green LED turns on when the coil is energized.

INPUT SPECIFICATIONS

■ **DC Current:**

Shunt resistor attached to the input terminals (0.5 W)

OUTPUT SPECIFICATIONS

■ **Relay Contact:** 100 V AC @ 5 A (cos φ = 1)

120 V AC @ 5 A (cos φ = 1)

240 V AC @ 2.5 A (cos φ = 1)

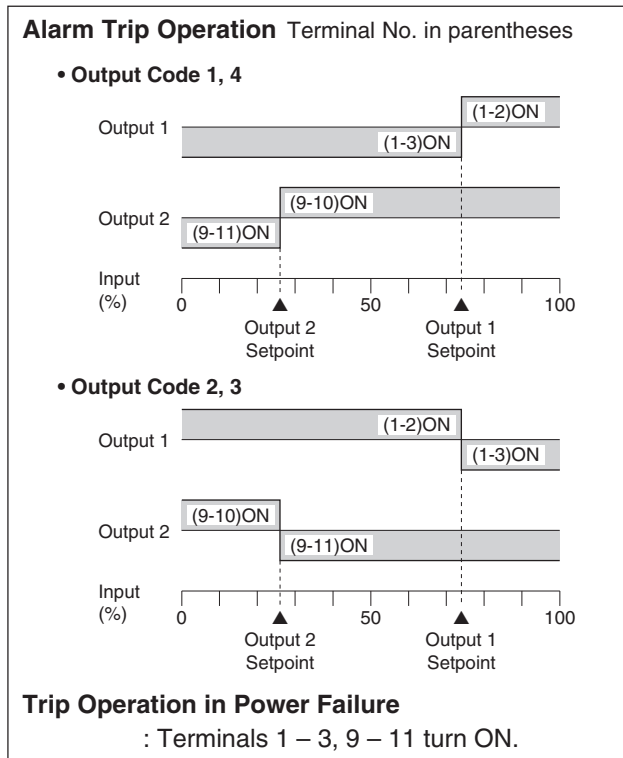
30 V DC @ 5 A (resistive load)

Maximum switching voltage: 300 V AC or 125 V DC

Maximum switching power: 600 VA or 150 W

Minimum load: 5 V DC @ 10 mA

Mechanical life: 5 × 10⁷ cycles



Weight: 300 g (0.66 lb)

PERFORMANCE in percentage of span

Setpoint accuracy: ±0.5 %

Deadband setpoint accuracy: ±0.3 %

Power ON delay time accuracy: rating ±35 %

Trip point repeatability: ±0.05 %

Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)

ON delay time accuracy: (0 – 100 % at 90 % setpoint)

Code 0: 0.5 ±0.2 sec.

Code 1, 2, 3, 4: rating ±20 %

Line voltage effect: ±0.1 % over voltage range

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

Low Voltage Directive

EN 61010-1

Measurement Category II (output)

Installation Category II (power)

Pollution Degree 2

Input to output to power: Basic insulation (300 V)

RoHS Directive

INSTALLATION

Power consumption

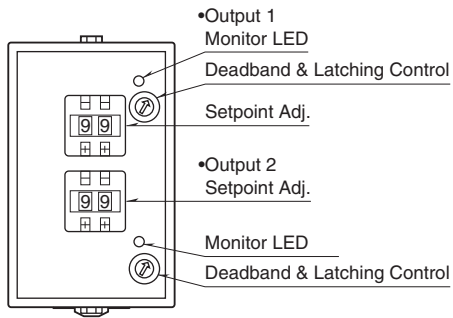
• **AC:** Approx. 3 VA

Operating temperature: -5 to +60°C (23 to 140°F)

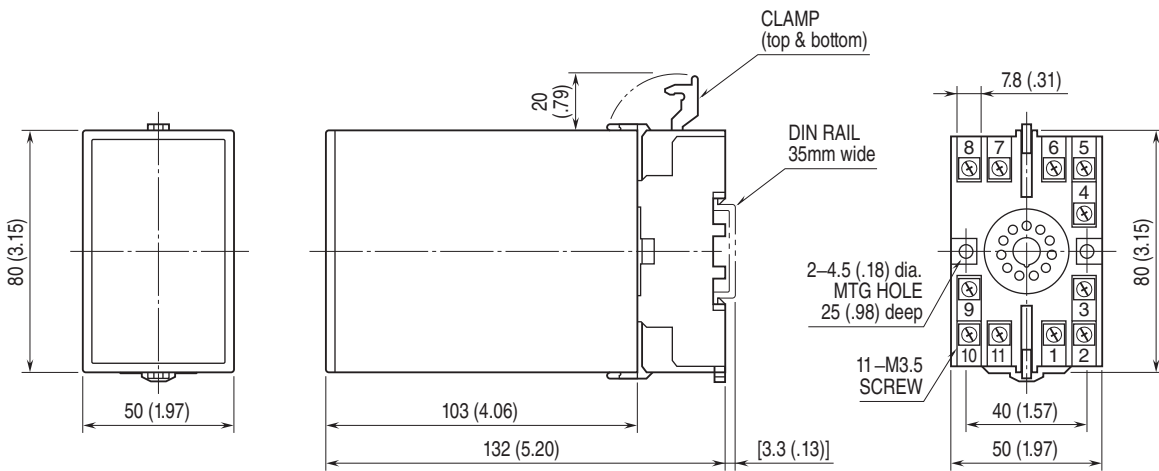
Operating humidity: 30 to 90 %RH (non-condensing)

Mounting: Surface or DIN rail

EXTERNAL VIEW

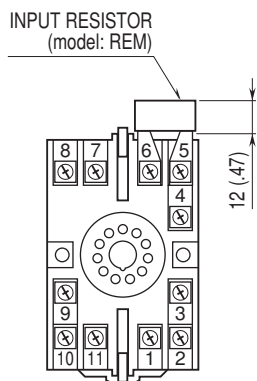


EXTERNAL DIMENSIONS unit: mm (inch)



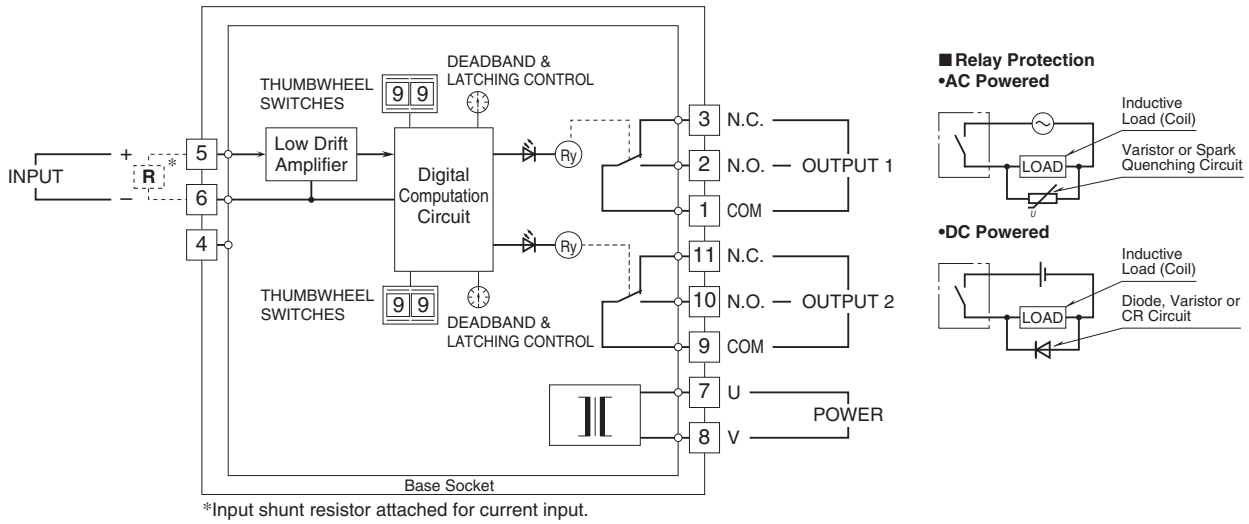
• When mounting, no extra space is needed between units.

TERMINAL ASSIGNMENTS unit: mm (inch)



Input shunt resistor attached for current input.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.