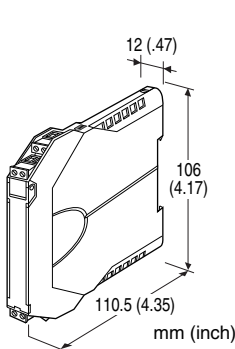


Super-space-saving Signal Conditioners M3S-UNIT Series

CURRENT LOOP SUPPLY

Functions & Features

- Powers a two-wire transmitter and galvanically isolates its output signal
- High-density mounting
- Power indicator LED



MODEL: M3SDY-[1]-R[2]

ORDERING INFORMATION

- Code number: M3SDY-[1]-R[2]
Specify a code from below for each [1] and [2].
(e.g. M3SDY-A-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

INPUT

Current

4 – 20 mA DC (Input resistance 249.5 Ω)

[1] OUTPUT

Current

A: 4 – 20 mA DC (Load resistance 550 Ω max.)

Voltage

4: 0 – 10 V DC (Load resistance 10 k Ω min.)

5: 0 – 5 V DC (Load resistance 5000 Ω min.)

6: 1 – 5 V DC (Load resistance 5000 Ω min.)

POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V $\pm$ 10 %, ripple 10 %p-p max.)

[2] OPTIONS

Other Options

blank: none

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

SPECIFICATIONS OF OPTION: Q

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

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

GENERAL SPECIFICATIONS

Construction: Small-sized front terminal structure

Connection: Euro type connector terminal

Applicable wire size: 0.2 to 2.5 mm², stripped length 8 mm

Housing material: Flame-resistant resin (gray)

Isolation: Input to output to power

Zero adjustment: -2 to +2 % (front)

Span adjustment: 98 to 102 % (front)

Power LED: Green light turns on when the power is supplied.

SUPPLY OUTPUT

(across the terminals 3 – 4)

Output voltage: 24 – 28 V DC with no load

18 V DC min. at 20 mA

Current rating: $\leq$ 22 mA DC

• **Shortcircuit Protection**

Current limited: 45 mA max.

Protected time duration: No limit

INPUT SPECIFICATIONS

■ **DC Current:** Input resistor incorporated

INSTALLATION

Power consumption

• **DC:** Approx. 1 W

Operating temperature: -20 to +55°C (-4 to +131°F)

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

Mounting: DIN rail

Weight: 100 g (3.53 oz)

PERFORMANCE in percentage of span

Accuracy: $\pm$ 0.1 %

Temp. coefficient: $\pm$ 0.015 %/°C ($\pm$ 0.008 %/°F)

Response time: $\leq$ 100 msec. (0 – 90 %)

Line voltage effect: $\pm$ 0.1 % over voltage range

Insulation resistance: $\geq$ 100 M Ω with 500 V DC

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

STANDARDS & APPROVALS

EU conformity:

EMC Directive

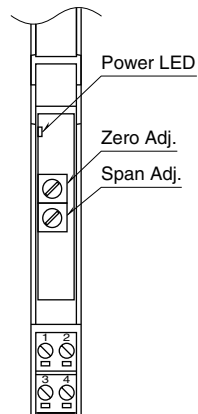
EMI EN 61000-6-4

EMS EN 61000-6-2

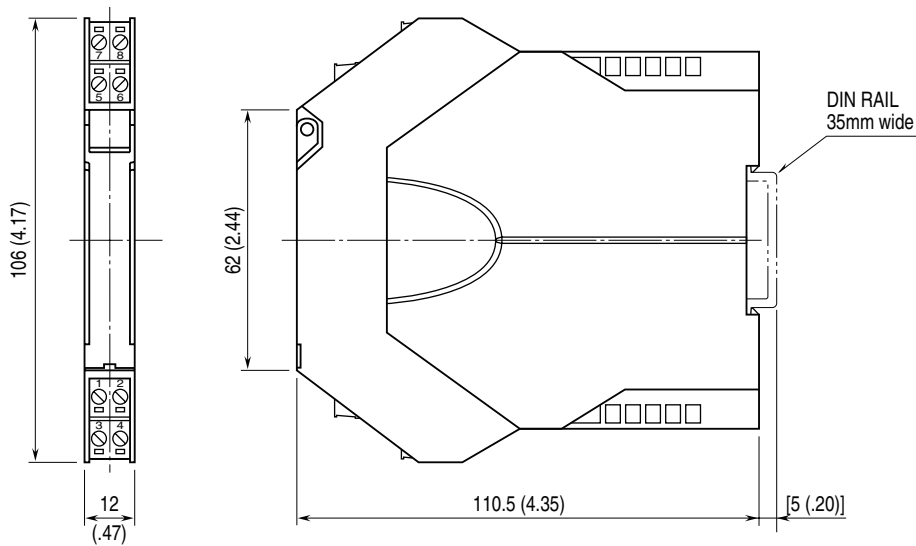
RoHS Directive

EN 50581

EXTERNAL VIEW

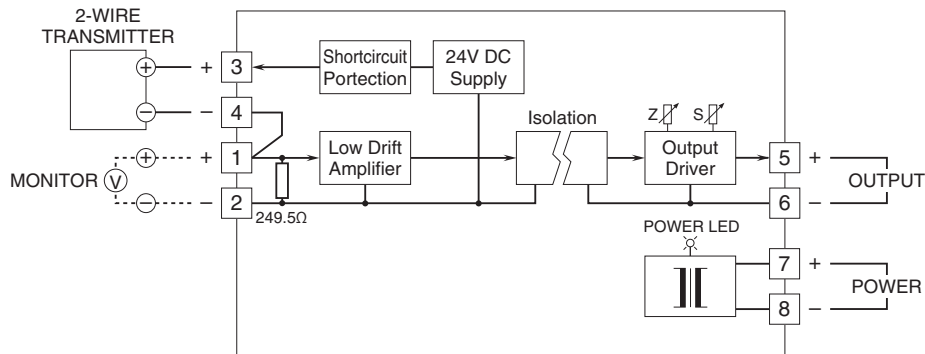


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

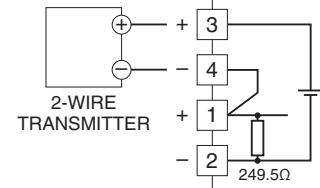


• When mounting, no extra space is needed between units.

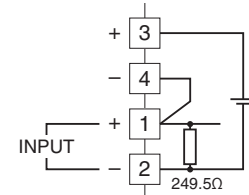
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ When Used as DC Supply



■ When Used as Isolator



Specifications are subject to change without notice.