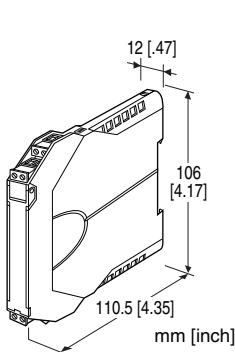


## Super-space-saving Signal Conditioners M3S-UNIT Series

### 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 of [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  $\Omega$ )

#### [1] OUTPUT

##### Current

A: 4 - 20 mA DC (Load resistance 550  $\Omega$  max.)

##### Voltage

4: 0 - 10 V DC (Load resistance 10 k $\Omega$  min.)

5: 0 - 5 V DC (Load resistance 5000  $\Omega$  min.)

6: 1 - 5 V DC (Load resistance 5000  $\Omega$  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 mm<sup>2</sup>, 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 indicator LED:** Green LED 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 (0.22 lb)

#### 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 $\Omega$  with 500 V DC

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

to power to ground)

## STANDARDS & APPROVALS

EU conformity:

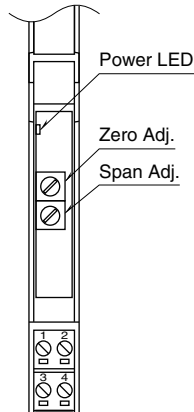
EMC Directive

EMI EN 61000-6-4

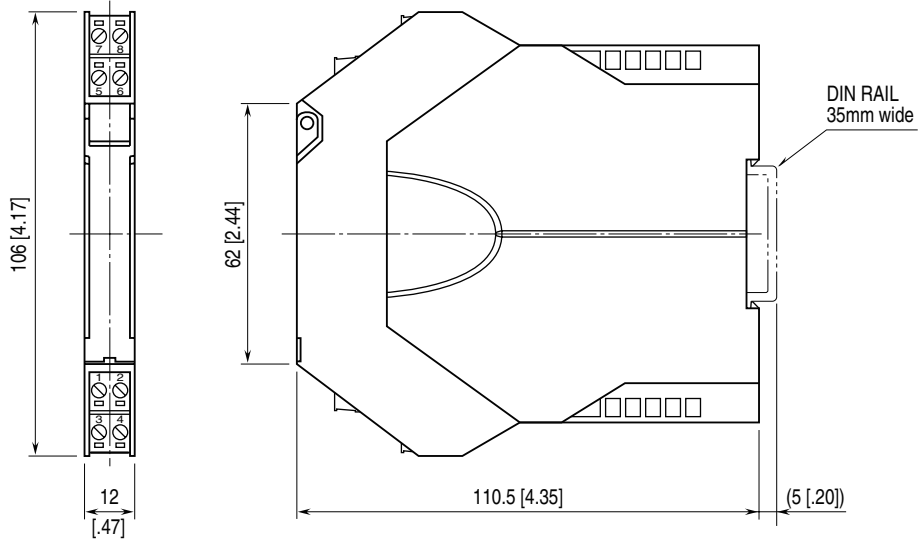
EMS EN 61000-6-2

RoHS Directive

## EXTERNAL VIEW

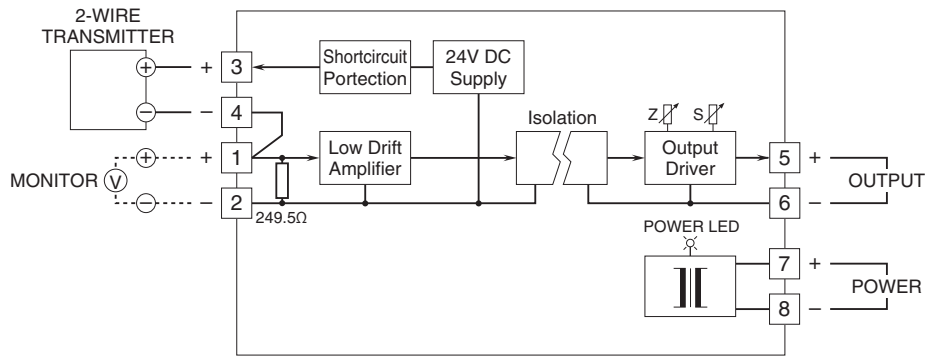


## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

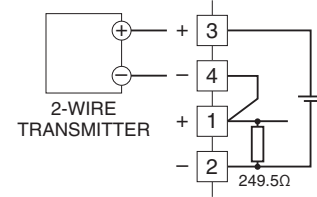


• When mounting, no extra space is needed between units.

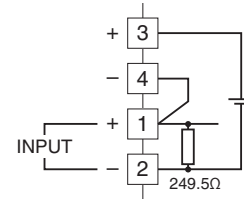
## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



### ■ When Used as DC Supply



### ■ When Used as Isolator



Specifications are subject to change without notice.