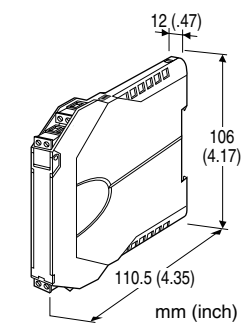


## Super-space-saving Signal Conditioners M3S-UNIT Series

### CURRENT LOOP SUPPLY

#### Functions & Features

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



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

#### ORDERING INFORMATION

- Code number: M3SDY-[1]-R

Specify a code from below for [1]

(e.g. M3SDY-A-R)

#### 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.)

#### GENERAL SPECIFICATIONS

**Construction:** Small-sized front terminal structure

**Connection:** Removable terminal block

**Applicable wire size:** 0.2 to 2.5 mm<sup>2</sup>

**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 $\Omega$  with 500 V DC

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

#### STANDARDS & APPROVALS

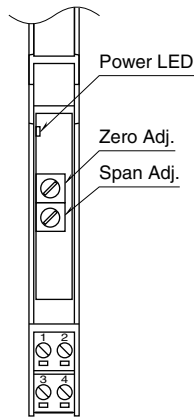
##### CE conformity:

EMC Directive (2004/108/EC)

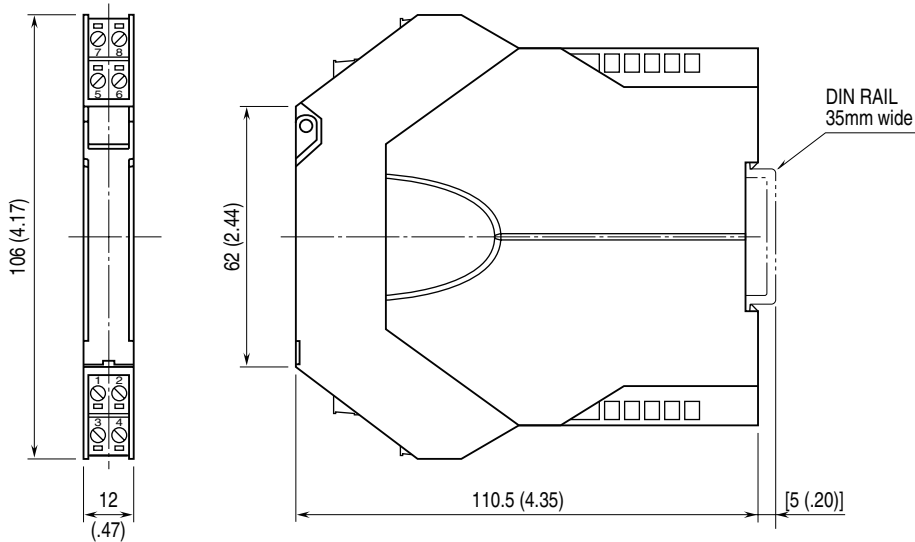
EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

## EXTERNAL VIEW

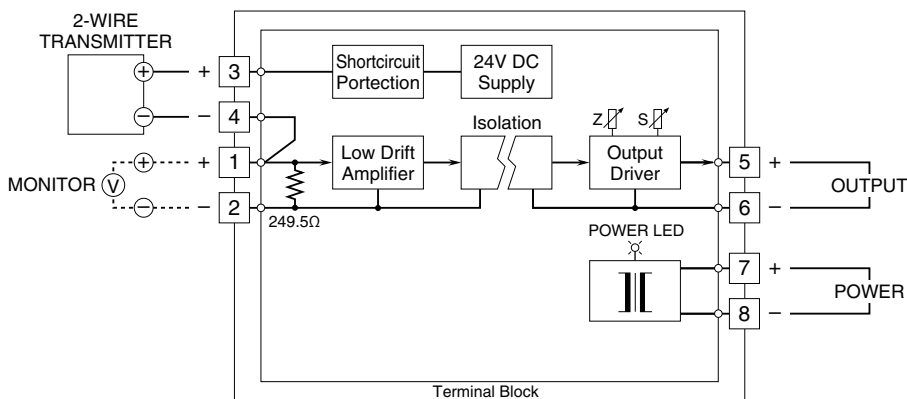


## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

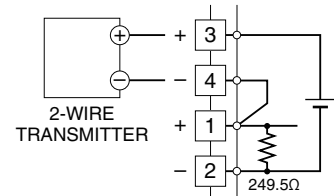


• When mounting, no extra space is needed between units.

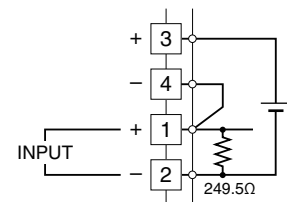
## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



### ■ When Used as DC Supply



### ■ When Used as Isolator





Specifications are subject to change without notice.