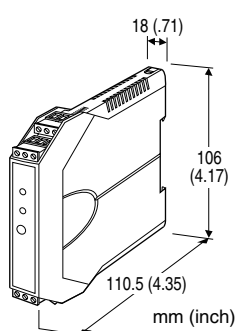


Space-saving Signal Conditioners M3-UNIT Series

CURRENT LOOP SUPPLY

Functions & Features

- Powers a two-wire transmitter with 4-20 mA DC output and galvanically isolates its output signal
- High-density mounting available
- Power indicator LED
- Smart transmitter available
- CE marking



MODEL: M3DY-[1]-[2]

ORDERING INFORMATION

- Code number: M3DY-[1]-[2]
- Specify a code from below for [1] and [2].
(e.g. M3DY-A-R)

INPUT

Current

4 - 20 mA DC (Input resistance approx. 250 Ω)

[1] OUTPUT

Current

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

Voltage

4: 0 - 10 V DC (Load resistance 10 kΩ min.)

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

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

[2] POWER INPUT

DC Power

R: 24 V DC

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

Universal

AD: 100 - 240 V AC / 24 - 240 V DC (universal)

(Operational voltage range 90 - 264 V AC, 47 - 66 Hz /

21.6 - 264 V DC, 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 mm²

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 4 - 5)

Output voltage: 24 - 28 V DC with no load

18 V DC min. at 20 mA

Current rating: ≤ 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

- AC Power input:

Approx. 3 VA at 100 V

Approx. 4 VA at 200 V

Approx. 5 VA at 264 V

- DC power input: Approx. 2 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: ±0.1 %

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

Response time: ≤ 100 msec. (0 - 90 %)

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

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

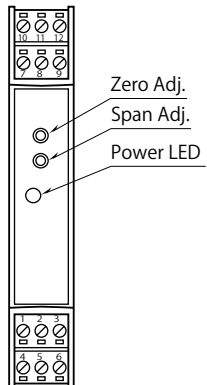
EMS EN 61000-6-2: 2005

Low Voltage Directive (2006/95/EC)

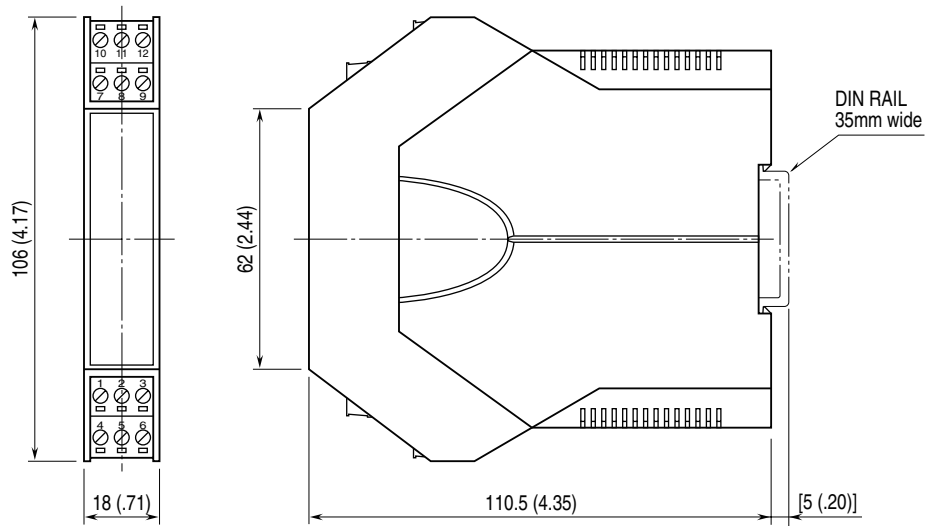
EN 61010-1: 2001

Installation Category II
 Pollution Degree 2
 Input or output to power: Reinforced insulation (300 V)
 Input to output: Basic insulation (300 V)

EXTERNAL VIEW

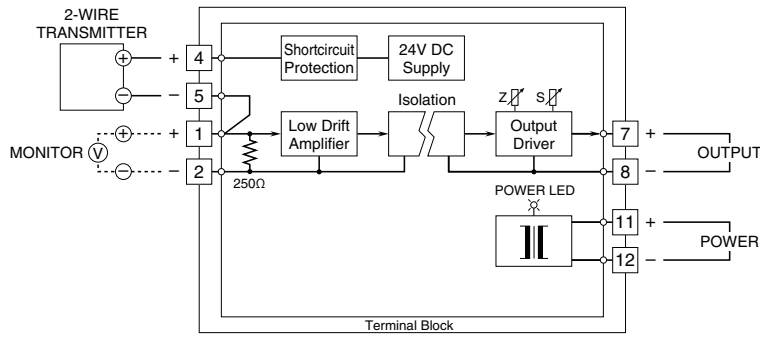


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

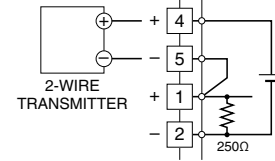


• When mounting, no extra space is needed between units.

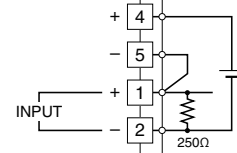
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ When Used as DC Supply



■ When Used as Isolator



Specifications are subject to change without notice.