

## Plug-in Signal Conditioners M-UNIT

### CURRENT LOOP SUPPLY

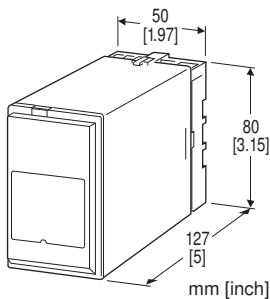
(CE, non-isolated)

#### Functions & Features

- Powering a 4 – 20 mA DC current loop
- Output voltage 24 V or 42 V
- Electrically isolating output signal from power input
- Shortcircuit protection
- Applicable to smart transmitters
- High-density mounting

#### Typical Applications

- Various 2-wire transmitters
- 42 V output provides increased loop drive



### MODEL: DS-[1]-[2][3]

#### ORDERING INFORMATION

- Code number: DS-[1]-[2][3]
- Specify a code from below for each of [1] through [3].  
(e.g. DS-24-B/CE/Q)
- Specify the specification for option code /Q  
(e.g. /C01/S01)

#### [1] SUPPLY OUTPUT

24: 24 V DC

42: 42 V DC

#### INPUT

Current

4 – 20 mA DC

#### OUTPUT

Current

4 – 20 mA DC

#### [2] POWER INPUT

AC Power

B: 100 V AC

C: 110 V AC

D: 115 V AC

F: 120 V AC

G: 200 V AC

H: 220 V AC

J: 240 V AC

#### [3] OPTIONS (multiple selections)

Standards & Approvals (must be specified)

/CE: CE marking

Other Options

blank: none

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

#### SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

#### RELATED PRODUCTS

- Resistor module (model: REM-250)

#### 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 or output to power

#### SUPPLY OUTPUT

Output voltage (with no load):

24 V use: 24 – 28 V DC

42 V use: 39 – 43 V DC

Current rating: ≤ 22 mA DC

- Shortcircuit Protection

Current limited: 40 mA max.

Protected time duration: No limit

#### INSTALLATION

Power input

Operational voltage range: Rating ±10 %

50/60 ±2 Hz

Approx. 2 VA (DS-24)

Approx. 3.2 VA (DS-42)

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

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

**Mounting:** Surface or DIN rail

**Weight:** 300 g (0.66 lb)

## PERFORMANCE in percentage of span

### Line voltage effect

**DS-24:** ±0.5 % over voltage range

**DS-42:** ±1 % over voltage range

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 2300 V AC @1 minute

(input or 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

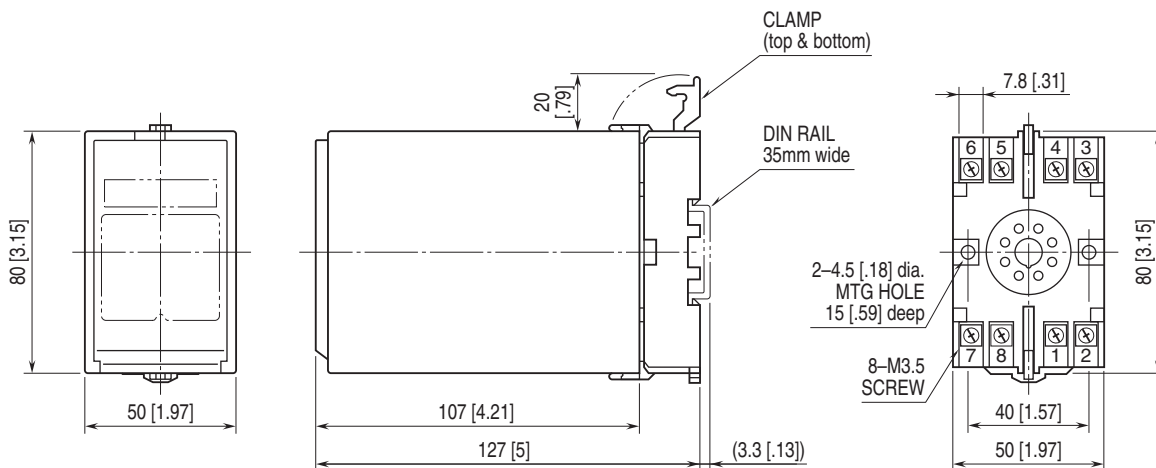
Installation Category II

Pollution Degree 2

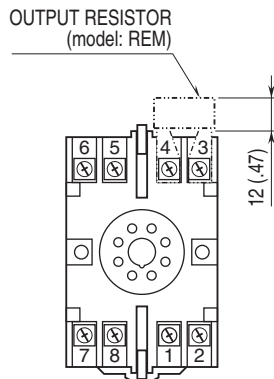
Input or output to power: Reinforced insulation (300 V)

RoHS Directive

## EXTERNAL DIMENSIONS unit: mm [inch]

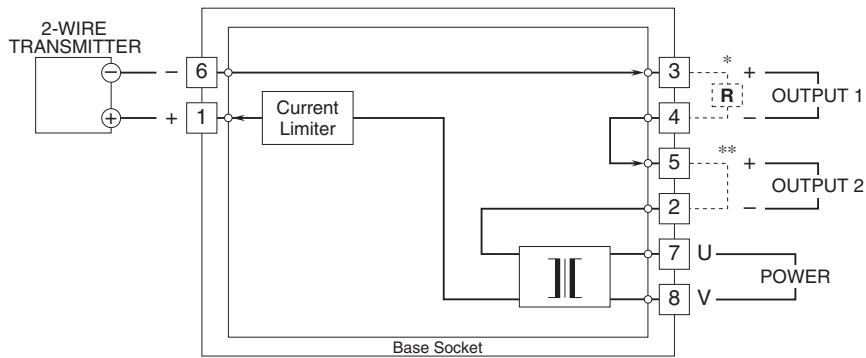


**TERMINAL ASSIGNMENTS unit: mm [inch]**



Use output shunt resistor for voltage output.

**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



\* Use output shunt resistor for voltage output.

\*\*Be sure to short-circuit if not using output 2.

Note: Use 250Ω load resistance when combined with a smart transmitter.



Specifications are subject to change without notice.