

Super-mini Signal Conditioners Mini-M Series

CURRENT LOOP SUPPLY

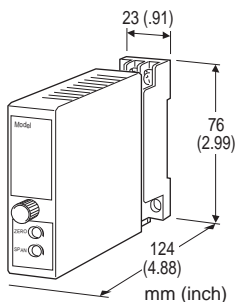
(10 - 50 mA loop)

Functions & Features

- Powering a 10 - 50 mA DC current loop
- Isolation
- Shortcircuit protection
- Universal power input
- High-density mounting

Typical Applications

- Various 2-wire transmitters



MODEL: M2DU-24-[1][2]

ORDERING INFORMATION

- Code number: M2DU-24-[1][2]
- Specify a code from below for [1] and [2].
(e.g. M2DU-24-M/Q)
- Specify the specification for option code /Q
(e.g. /C01/S01)

SUPPLY OUTPUT

24: 24 V DC

INPUT

Current

10 - 50 mA DC (Input resistance approx. 100 Ω)

OUTPUT

Voltage

1-5 V DC (Load resistance 50 kΩ min.)

[1] POWER INPUT

AC Power

M: 85 - 264 V AC (Operational voltage range 85 - 264 V,
47 - 66 Hz)

DC Power

R2: 11 - 27 V DC

(Operational voltage range 11 - 27 V, ripple 10 %p-p max.)

P: 110 V DC

(Operational voltage range 85 - 150 V, ripple 10 %p-p max.)

[2] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

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

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3 screw terminals (torque 0.8 N·m)

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

Overrange output: Approx. -10 to +120 % at 1 - 5 V

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

SUPPLY OUTPUT

Output voltage: 24 - 28 V DC with no load

Current rating: ≤ 55mA DC

- **Shortcircuit Protection**

Current limited: ≤ 65 mA

Protected time duration: No limit

INPUT SPECIFICATIONS

- **DC Current:** Input resistor incorporated

INSTALLATION

Power Consumption

- **AC Power input:** Approx. 5 VA

- **DC Power input:** Approx. 3 W

Operating temperature: -5 to +55°C (23 to 131°F)

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

Mounting: Surface or DIN rail

Weight: 150 g (0.33 lbs)

PERFORMANCE in percentage of span

Accuracy: ±0.1 %

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

Response time: ≤ 0.5 sec. (0 - 90 %)



Line voltage effect

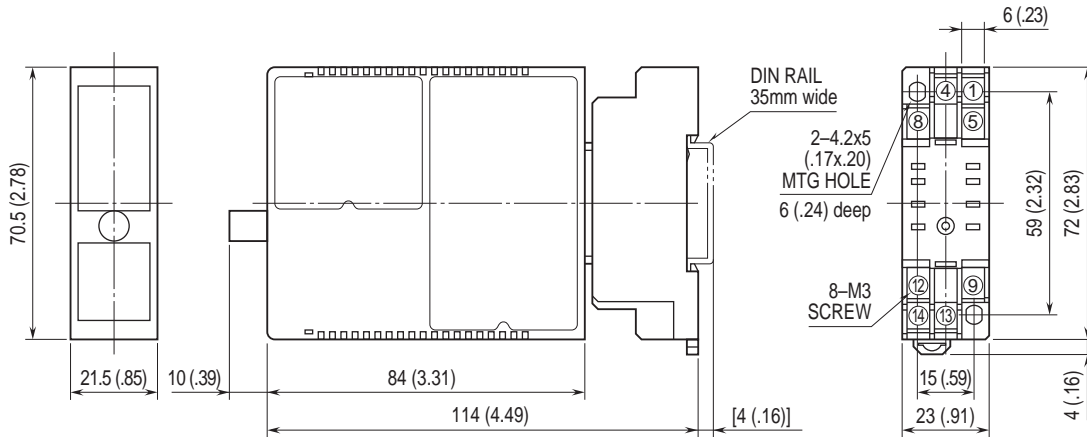
Supply output: $\pm 3\%$ over voltage range

Output signal: $\pm 0.1\%$ over voltage range

Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

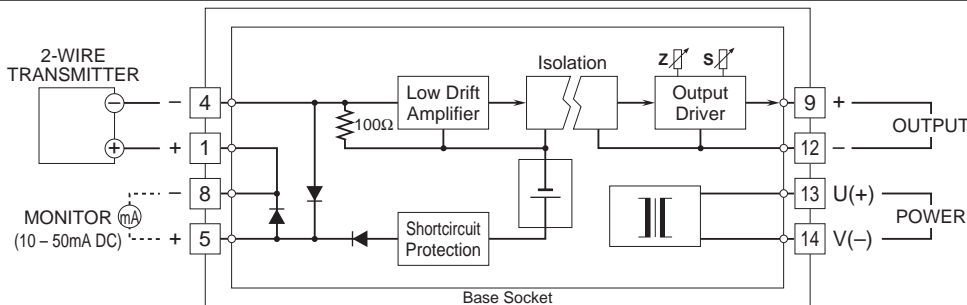
Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

DIMENSIONS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.