

Super-mini Signal Conditioners Mini-M Series

CURRENT LOOP SUPPLY

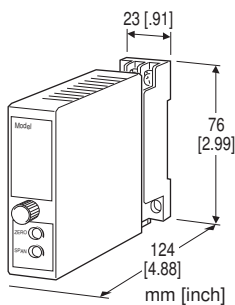
(10 – 50 mA loop)

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 each of [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 our web site.)

- /C01: Silicone coating
 - /C02: Polyurethane coating
 - /C03: Rubber coating
 - /C04: Polyolefin coating
- TERMINAL SCREW MATERIAL
- /S01: Stainless steel

GENERAL SPECIFICATIONS

Construction: Plug-in
Connection: M3 screw terminals (torque 0.8 N·m)
Screw terminal: Chromated steel (standard) or stainless steel
Housing material: Flame-resistant resin (black)
Isolation: Input to output to power
Overrange output: Approx. -10 to +120 %
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: Approx. 5 VA
• DC: 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 lb)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.1\%$

Temp. coefficient: $\pm 0.015\%/^{\circ}\text{C}$ ($\pm 0.008\%/^{\circ}\text{F}$)

Response time: ≤ 0.5 sec. (0 - 90 %)

Line voltage effect

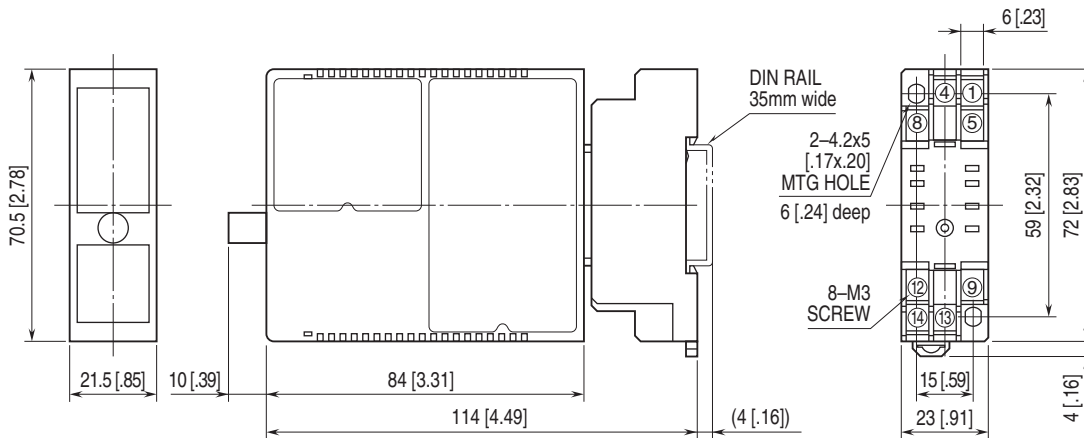
Supply output: $\pm 3\%$ over voltage range

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

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

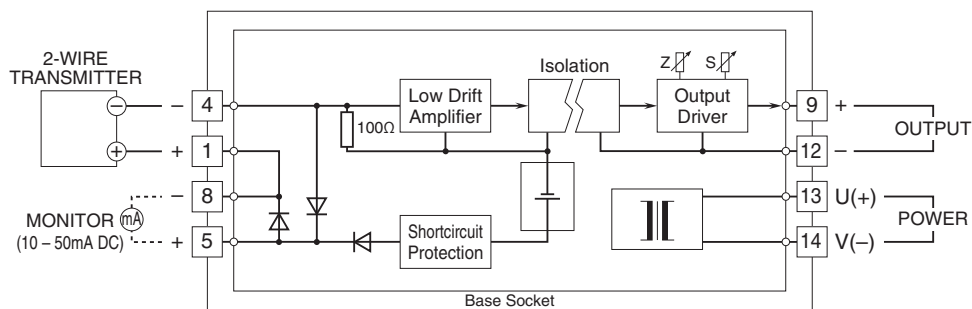
Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.