

Space-saving Plug-in Signal Conditioners H-UNIT

CURRENT LOOP SUPPLY

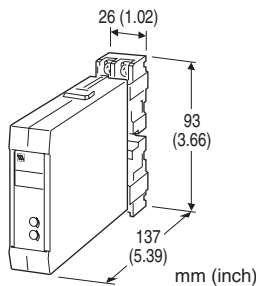
(10 - 50 mA loop)

Functions & Features

- Powering a 10 - 50 mA DC current loop
- Isolation
- Shortcircuit protection
- Applicable to smart transmitters
- High-density mounting

Typical Applications

- Various 2-wire transmitters



MODEL: HDU-24-R[1]

ORDERING INFORMATION

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

SUPPLY OUTPUT

24: 24 V DC

INPUT

Current

10 - 50 mA DC

OUTPUT

Voltage

1-5 V DC (Load resistance 50 kΩ min.)

POWER INPUT

DC Power

R: 24 V DC

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

[1] 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: M3.5 screw terminals (torque 0.8 N·m)

Screw terminal: Nickel-plated steel

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

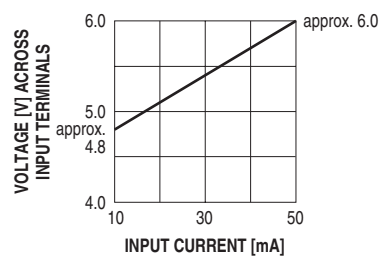
- Shortcircuit Protection

Current limited: Approx. 65 mA

Protected time duration: No limit

INPUT SPECIFICATIONS

Equivalent input impedance: Approx. 100 Ω at 50 mA



INSTALLATION

Power consumption: approx. 100 mA

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

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

Mounting: Surface or DIN rail; Standard Rack Mounting

Frame BX-16H available

Weight: 200 g (0.44 lbs)



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

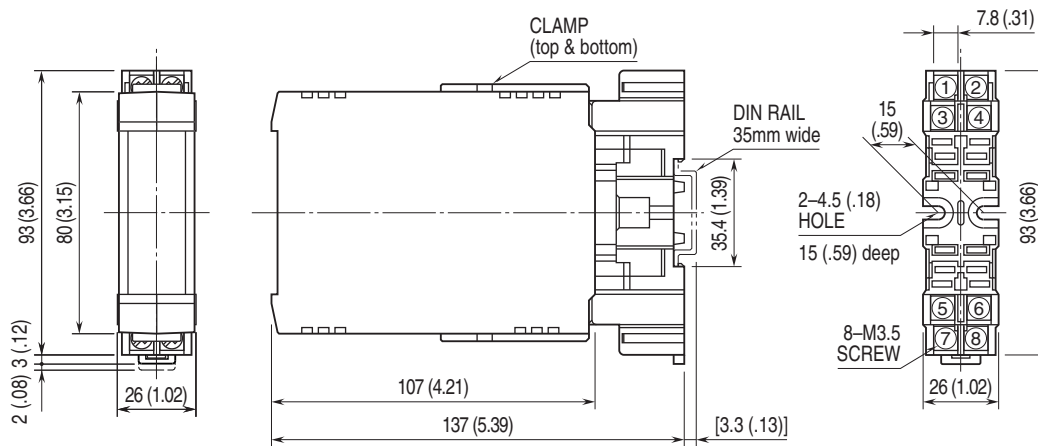
Insulation resistance: $\geq 100\ \text{M}\Omega$ with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

(input to output to power)

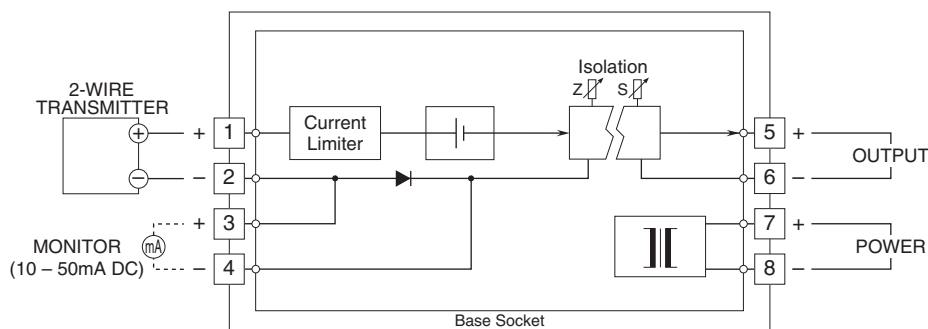
1500 V AC @ 1 minute (input or output or power to ground)

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.