

## Space-saving Plug-in Signal Conditioners H-UNIT

### CURRENT LOOP SUPPLY

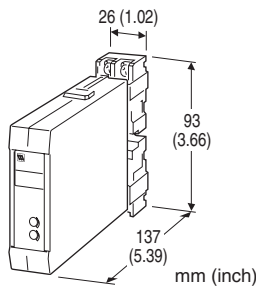
(10 – 50 mA loop)

#### 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 our web site.)

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

#### GENERAL SPECIFICATIONS

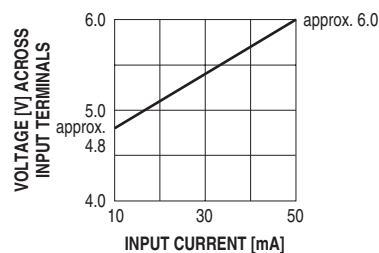
Construction: Plug-in  
Connection: M3.5 screw terminals (torque 0.8 N·m)  
Screw terminal: Nickel-plated steel (standard) or stainless steel  
Housing material: Flame-resistant resin (black)  
Isolation: Input to output to power  
Overrange output: Approx. -10 to +120 % at 1 – 5 V  
Zero adjustment: -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

Current 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 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:  $\leq 0.5$  sec. (0 - 90 %)

Line voltage effect

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

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

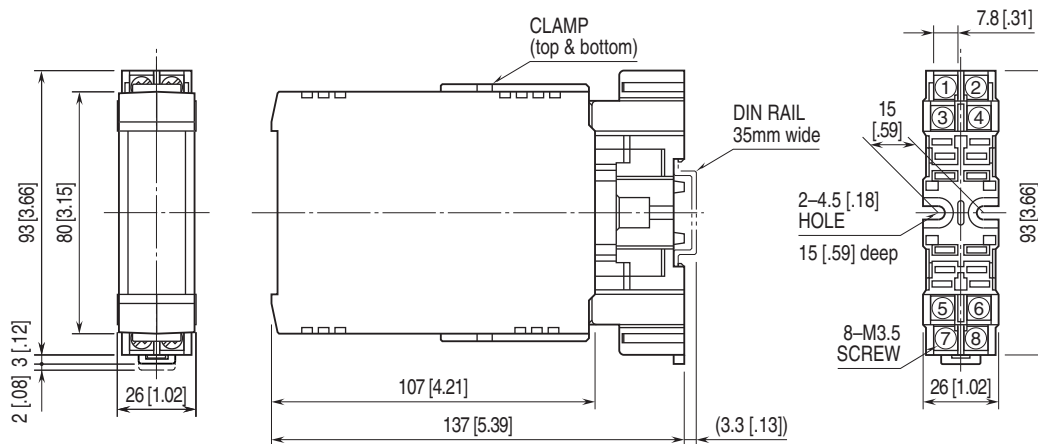
Insulation resistance:  $\geq 100\ \text{M}\Omega$  with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

(input to output to power)

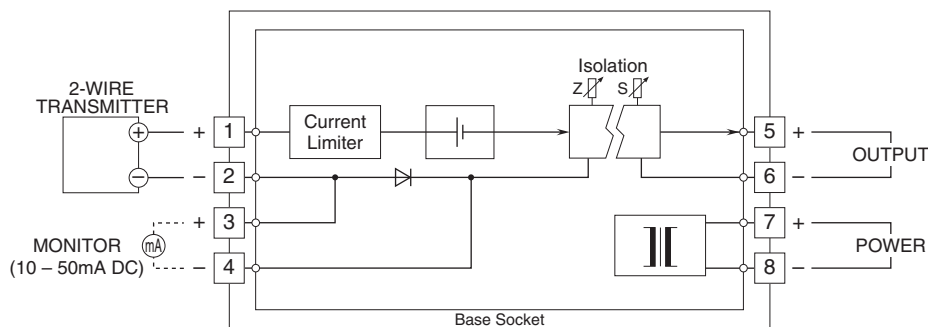
1500 V AC @ 1 minute (input or output or power to ground)

## 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.