

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

### CURRENT LOOP SUPPLY

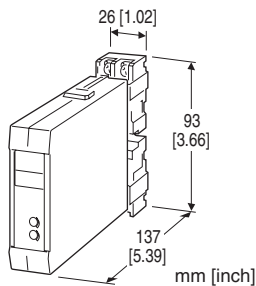
(10 – 50 mA loop)

#### 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  $\pm$ 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:  $\leq$  55mA DC

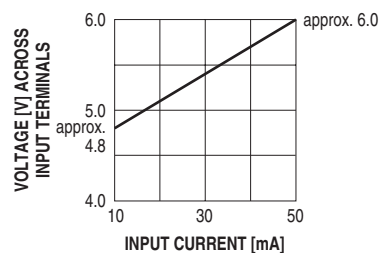
- Shortcircuit Protection

Current limited: Approx. 65 mA

Protected time duration: No limit

### INPUT SPECIFICATIONS

Equivalent input impedance: Approx. 100  $\Omega$  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:  $\leq 0.5 \text{ sec.}$  (0 – 90 %)

Line voltage effect

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

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

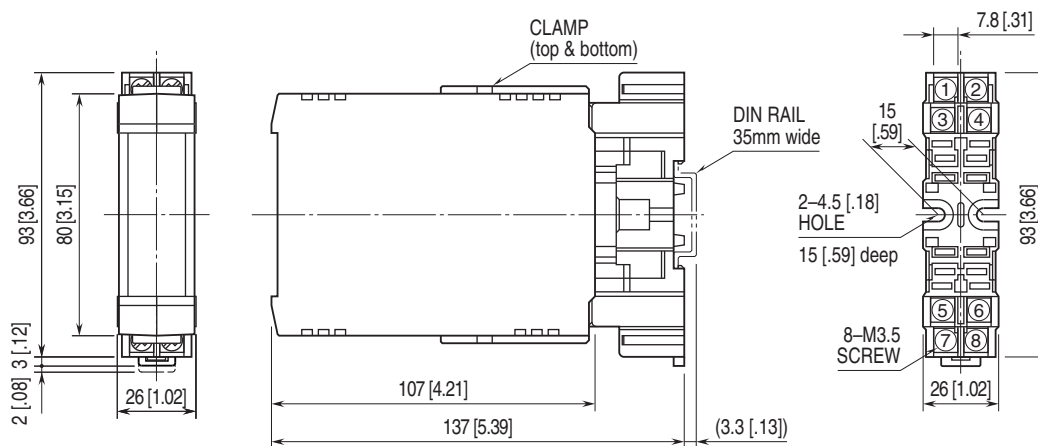
Insulation resistance:  $\geq 100 \text{ M}\Omega$  with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

(input to output to power)

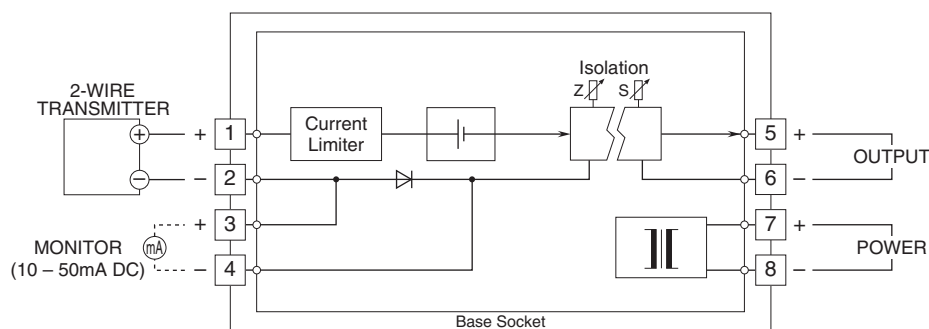
1500 V AC @ 1 minute (input or output or power to ground)

## 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.