

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

### SQUARE ROOT EXTRACTOR

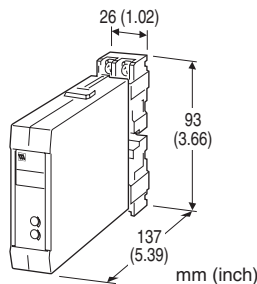
(non-isolated)

#### Functions & Features

- Providing a DC output proportional to the root of input signal
- Low-end cutout
- High-density mounting

#### Typical Applications

- Converting differential pressure to flow



## MODEL: HN-[1]6-R[2]

### ORDERING INFORMATION

- Code number: HN-[1]6-R[2]
- Specify a code from below for each [1] and [2].  
(e.g. HN-66-R/Q)
- Specify the specification for option code /Q  
(e.g. /C01/S01)

### [1] INPUT

#### Current

- A: 4 - 20 mA DC (Input resistance 250 Ω)
- B: 2 - 10 mA DC (Input resistance 500 Ω)
- C: 1 - 5 mA DC (Input resistance 1000 Ω)
- H: 10 - 50 mA DC (Input resistance 100 Ω)

#### Voltage

- 6: 1 - 5 V DC (Input resistance 100 kΩ min.)

### OUTPUT

#### Voltage

- 6: 1 - 5 V DC (Load resistance 10 kΩ min.)

### POWER INPUT

#### DC Power

- R: 24 V DC  
(Operational voltage range 24 V ±10 %, 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.)

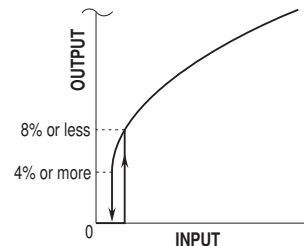
- /C01: Silicone coating
- /C02: Polyurethane coating
- /C03: Rubber coating

#### TERMINAL SCREW MATERIAL

- /S01: Stainless steel

### GENERAL SPECIFICATIONS

- Construction: Plug-in
- Connection: M3.5 screw terminals (torque 0.8 N·m)
- Screw terminal: Nickel-plated steel (standard) or stainless steel
- Housing material: Flame-resistant resin (black)
- Isolation: Input or output to power
- Overrange output: 0 - 105 % at 1 - 5 V
- Zero adjustment: -5 to +5 % (front)
- Span adjustment: 95 to 105 % (front)
- Low-end cutout: Approx. 4 - 8 % (output)



### INPUT SPECIFICATIONS

- DC Current:  
Shunt resistor attached to the input terminals (0.5 W)

### INSTALLATION

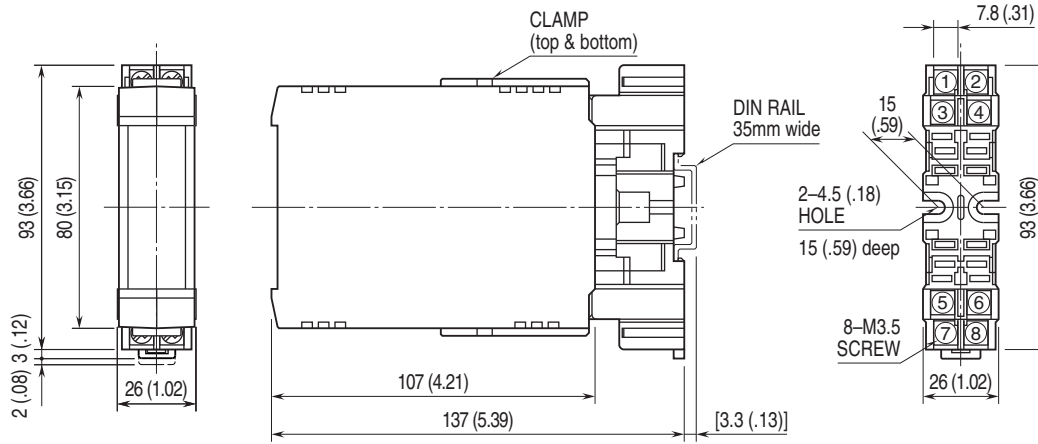
- Current consumption: Approx. 60 mA
- Operating temperature: -5 to +55°C (23 to 131°F)
- Operating humidity: 30 to 90 %RH (non-condensing)
- Mounting: Surface or DIN rail; Standard Rack Mounting  
Frame BX-16H available
- Weight: 200 g (0.44 lb)

### PERFORMANCE in percentage of span

- Accuracy: ± 0.1 % (input 1 - 100 %)
- Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
- Response time: ≤ 0.5 sec. (0 - 90 %)
- Line voltage effect: ±0.1 % over voltage range
- Insulation resistance: ≥ 100 MΩ with 500 V DC

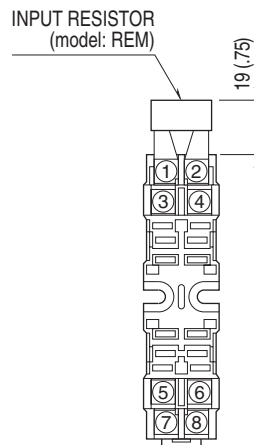
Dielectric strength: 500 V AC @ 1 minute (input or output to power)  
 1500 V AC @ 1 minute (input or output or power to ground)

## EXTERNAL DIMENSIONS unit: mm (inch)



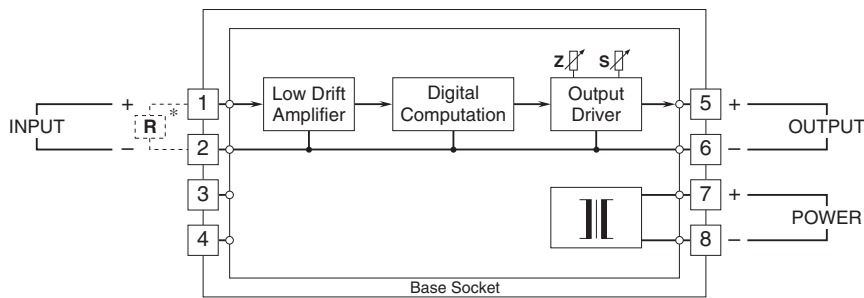
•When mounting, no extra space is needed between units.

## TERMINAL ASSIGNMENTS unit: mm (inch)



Input shunt resistor attached for current input.

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



\*Input shunt resistor attached for current input.



Specifications are subject to change without notice.