

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

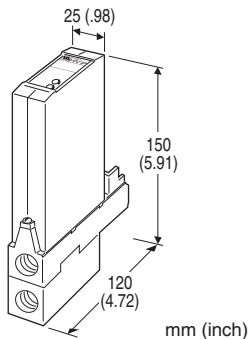
### LOOP POWERED I/P TRANSDUCER

#### Functions & Features

- Converting a DC input into a proportional standard pneumatic signal
- Loop powered
- Semiconductor pressure sensor in the feedback circuit
- High resolution
- No mounting position effect
- Highdensity mounting

#### Typical Applications

- Converting a 4 – 20 mA from a PID controller into a pneumatic signal



## MODEL: HVPN-[1]A[2]

### ORDERING INFORMATION

- Code number: HVPN-[1]A[2]

Specify a code from below for each [1] and [2].  
(e.g. HVPN-2A2S)

### [1] PNEUMATIC CONNECTION

- 2: Rc 1/4"
- 7: 1/4" NPT fitting

### INPUT

#### Current

A: 4 – 20 mA DC

### [2] OUTPUT

- 1S: 19.6 – 98.1 kPa
- 2S: 20 – 100 kPa
- 3S: 20.7 – 103.4 kPa
- 1: 0.2 – 1.0 kgf/cm<sup>2</sup>
- 2: 0.2 – 1.0 bar
- 3: 3 – 15 psig

### RELATED PRODUCTS

Mounting Block is required. See the data sheet for model MB.

- Code number of the Mounting Block (e.g. MB-08)

### GENERAL SPECIFICATIONS

**Construction:** Plug-in

#### Connection

**Input:** M3.5 screw terminals (torque 0.8 N·m)

**Pneumatic:** Rc 1/4" or 1/4" NPT female;  
(torque ≤ 12 N·m)

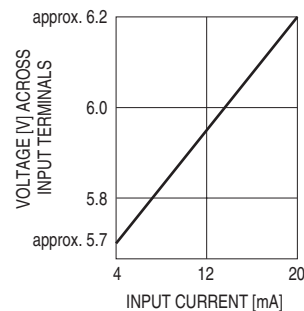
#### Material

- **Housing:** Flame-resistant resin (black)
- **Base socket:** Die cast aluminium
- **Valve section:** Die cast aluminium
- **Screw terminals:** Nickel-plated steel;
- Zero adjustment:** -5 to +5 % (front)
- Span adjustment:** 95 to 105 % (front)

### INPUT SPECIFICATIONS

**Equivalent input impedance:** Approx. 310 Ω at 20 mA

The voltage measure at the input terminals changes corresponding to the input signal as in the diagram below. Be sure that the device at the input side allows the load increase.



### OUTPUT SPECIFICATIONS

#### Output:

- 19.6 – 98.1 kPa, 0.2 – 1.0 kgf/cm<sup>2</sup>
- 20 – 100 kPa, 0.2 – 1.0 bar
- 20.7 – 103.4 kPa, 3 – 15 psig

The output goes below 0 % if the input loop is open.

**Maximum air delivery:** 60 NI/minute (2.1 SCFM)

**Maximum air exhaust:** 60 NI/minute (2.1 SCFM)

### INSTALLATION

**Supply pressure:** 140 kPa (1.4 kgf/cm<sup>2</sup>, 1.4 bar, 20 psig) ±10 %. Use dry air containing no carbon black or other foreign particles. To ensure reliability use an air filter (0.01 microns).

**Air consumption:** 6 NI/minute (0.21 SCFM)

**Operating temperature:** -5 to +55°C (23 to 131°F)  
**Operating humidity:** 30 to 90 %RH (non-condensing)  
**Mounting:** Surface; Standard Rack Mounting Frame (BX-16H) available  
**Weight:** 400 g (0.88 lb)

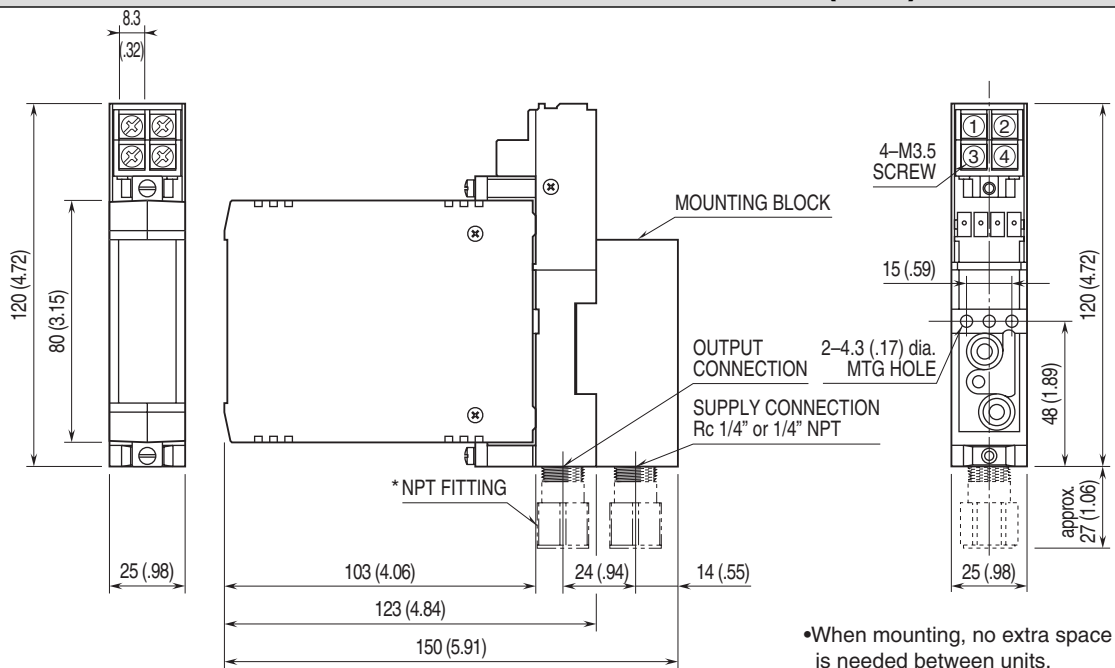
## PERFORMANCE in percentage of span

**Temp. coefficient:**  $\pm 0.05$  %/°C ( $\pm 0.03$  %/°F)  
**Accuracy:**  $\pm 0.3$  % including linearity and repeatability  
**Linearity:**  $\pm 0.2$  %  
**Repeatability:** 0.1 %  
**Response time:**  $\leq 3$  sec. (0 - 90 %)  
**Mounting position effect:**  $\pm 0.1$  % (all dimensions)  
**Dielectric strength:** 1500 V AC @ 1 minute  
 (input to housing)

## STANDARDS & APPROVALS

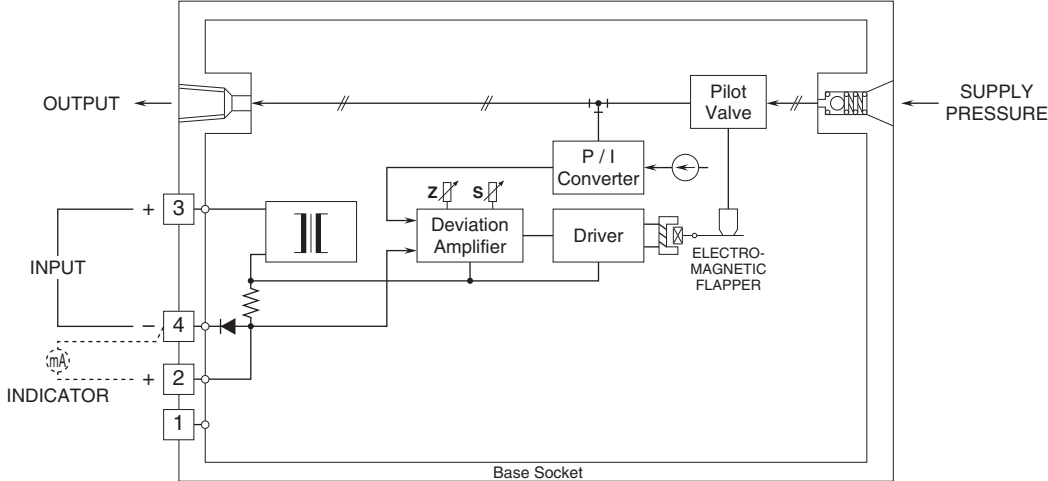
**EU conformity:**  
 EMC Directive  
 EMI EN 61000-6-4  
 EMS EN 61000-6-2  
 RoHS Directive  
 EN 50581

## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



\* Fitting is provided for 1/4" NPT connection.

**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Specifications are subject to change without notice.