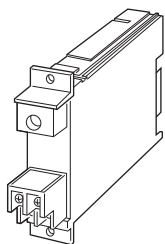


High-density Signal Conditioners 10-RACK**P/I TRANSDUCER****Functions & Features**

- Converting a standard pneumatic signal into a proportional DC output
- Optional second channel output available at the front terminals and at the Standard Rack connector

Typical Applications

- Converting a pneumatic system into a 4 – 20 mA for indicating and controlling in DCS system

**MODEL: 10PV-[1][2][3]-R[4]****ORDERING INFORMATION**

- Code number: 10PV-[1][2][3]-R[4]
Specify a code from below for each [1] through [4].
(e.g. 10PV-2A6-R/A2S/Q)
- Specify the specification for option code /Q
(e.g. /C01)

[1] PNEUMATIC CONNECTION

- 2: Rc 1/4"
5: Rc 1/8" fitting
7: 1/4" NPT fitting

[2] OUTPUT 1**Current**

- A: 4 – 20 mA DC (Load resistance 600 Ω max.)
B: 2 – 10 mA DC (Load resistance 1200 Ω max.)
C: 1 – 5 mA DC (Load resistance 2400 Ω max.)
D: 0 – 20 mA DC (Load resistance 600 Ω max.)
E: 0 – 16 mA DC (Load resistance 750 Ω max.)
F: 0 – 10 mA DC (Load resistance 1200 Ω max.)
G: 0 – 1 mA DC (Load resistance 12 k Ω max.)

Voltage

- 1: 0 – 10 mV DC (Load resistance 10 k Ω min.)
2: 0 – 100 mV DC (Load resistance 100 k Ω min.)
3: 0 – 1 V DC (Load resistance 100 Ω min.)
4: 0 – 10 V DC (Load resistance 1000 Ω min.)

5: 0 – 5 V DC (Load resistance 500 Ω min.)

6: 1 – 5 V DC (Load resistance 500 Ω min.)

[3] OUTPUT 2

0: None

Voltage

6: 1 – 5 V DC (Load resistance 5000 Ω min.)

POWER INPUT**DC Power**

R: 24 V DC

(Operational voltage range 24 V $\pm$ 10 %, ripple 10 %p-p max.)

[4] OPTIONS (multiple selections)**Pressure Range**

blank: 0.2 – 1.0 kgf/cm²

/A1S: 19.6 – 98.1 kPa

/A2S: 20 – 100 kPa

/A3S: 20.7 – 103.4 kPa

/A2: 0.2 – 1.0 bar

/A3: 3 – 15 psig

Other Options

blank: none

/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q**COATING (For the detail, refer to M-System's web site.)**

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

GENERAL SPECIFICATIONS

Construction: Rack-mounted; terminal access via screw terminals at the front and via card-edge connector at the rear

Connection

Output: M3.5 screw terminals (torque 0.8 N·m) and card-edge connector

Pneumatic: Rc 1/4", Rc 1/8" or 1/4" NPT female (torque $\leq$ 12 N·m)

Power input: Supplied from card-edge connector

Material

Housing: Flame-resistant resin (black)

Base: Die cast aluminium

Screw terminals: Nickel-plated steel

Isolation: Output 1 to output 2 to power

Overrange output: Approx. -10 to +120 % at 1 – 5 V

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

INPUT SPECIFICATIONS**■ Input**19.6 – 98.1 kPa, 0.2 – 1.0 kgf/cm²

20 – 100 kPa, 0.2 – 1.0 bar

20.7 – 103.4 kPa, 3 – 15 psig

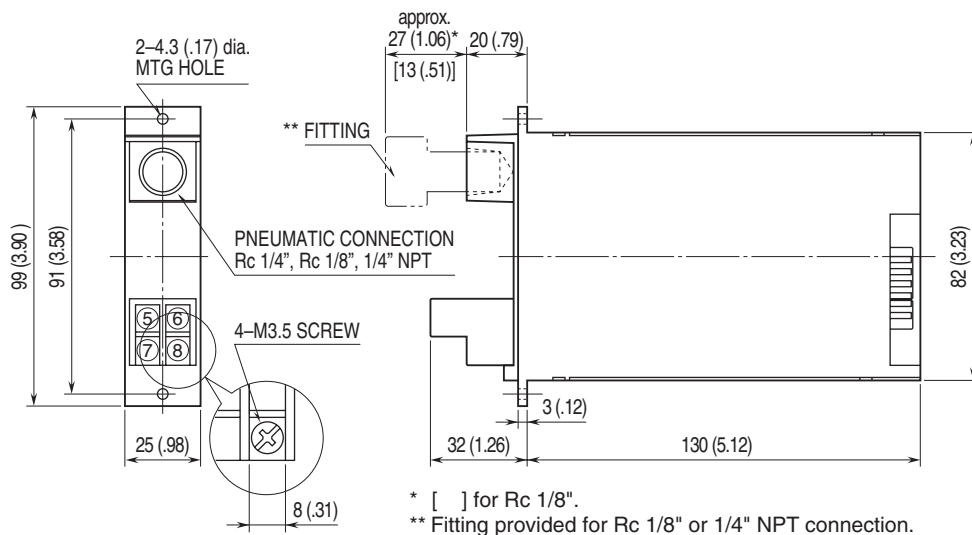
INSTALLATION**Current consumption:** Approx. 35 mA with voltage output 1

Approx. 55 mA with current output 1

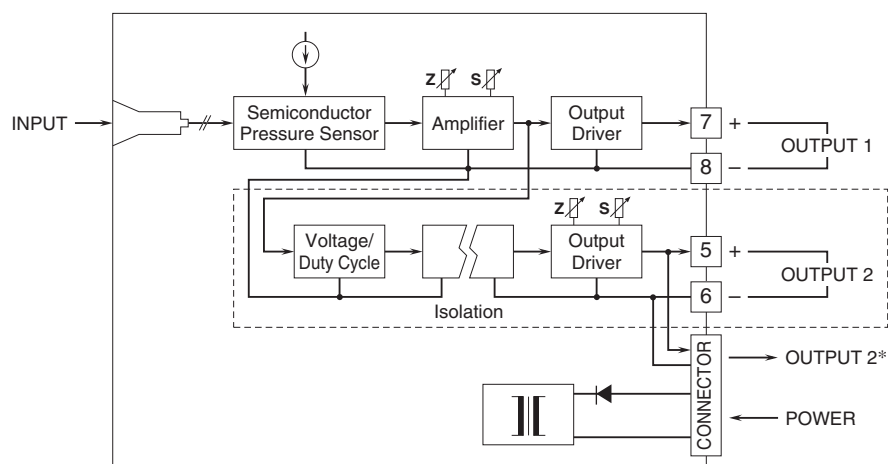
Operating temperature: -5 to +55°C (23 to 131°F)**Operating humidity:** 30 to 90 %RH (non-condensing)**Mounting:** Standard Rack 10BXx**Weight:** 200 g (0.44 lb)**PERFORMANCE in percentage of span****Accuracy:** ±0.2 %**Temp. coefficient:** ±0.03 %/°C (±0.02 %/°F)**Response time:** ≤ 0.5 sec. (0 – 90 %)**Permissible overrange:** 196 kPa (2.0 kgf/cm², 1.96 bar, 28 psig)**Line voltage effect:** ±0.1 % over voltage range**Insulation resistance:** ≥ 100 MΩ with 500 V DC**Dielectric strength:** 500 V AC @ 1 minute

(output 1 to output 2 to power)

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

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1 output type has the output 1 connected to the card-edge connector in parallel.
 Remark 1) The section enclosed by broken line is only for 2nd output channel.



Specifications are subject to change without notice.