

**Space-saving Dual Output Signal Conditioners
Mini-MW Series**

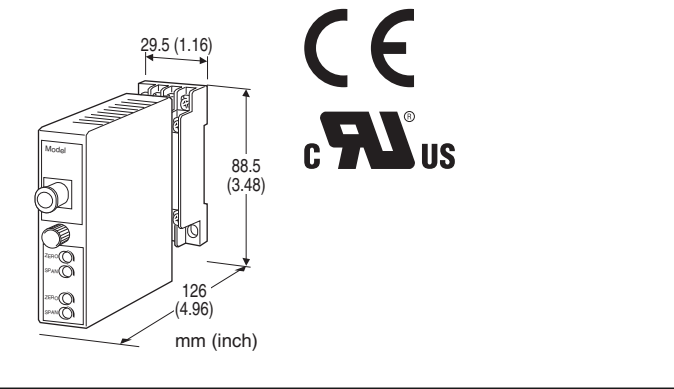
P/I TRANSDUCER

Functions & Features

- Converts a standard pneumatic signal into a proportional DC output

Typical Applications

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



MODEL: W2PV-C[1][2][3]-[4][5]

ORDERING INFORMATION

- Code number: W2PV-C[1][2][3]-[4][5]
- Specify a code from below for each [1] through [5]. (e.g. W2PV-C2SAA-M2/CE/Q)
- Special output ranges (For codes Z & 0)
- Specify the specification for option code 'Q.' (e.g. /C01/S01)

Note: If one of the outputs should be a current range, specify it for the Output 1 to allow a greater load.

PNEUMATIC CONNECTION

C: 6 mm dia. (.24")

[1] INPUT

- 1S: 19.6 - 98.1 kPa
- 2S: 20 - 100 kPa
- 3S: 20.7 - 103.4 kPa
- 1: 0.2 - 1.0 kgf/cm²
- 2: 0.2 - 1.0 bar
- 3: 3 - 15 psig

[2] OUTPUT 1

Current

- A: 4 - 20 mA DC (Load resistance 750 Ω max.)
- B: 2 - 10 mA DC (Load resistance 1500 Ω max.)
- C: 1 - 5 mA DC (Load resistance 3000 Ω max.)
- D: 0 - 20 mA DC (Load resistance 750 Ω max.)
- E: 0 - 16 mA DC (Load resistance 900 Ω max.)
- F: 0 - 10 mA DC (Load resistance 1500 Ω max.)
- G: 0 - 1 mA DC (Load resistance 15 kΩ max.)
- Z: Specify current (See OUTPUT SPECIFICATIONS)

Voltage

- 1: 0 - 10 mV DC (Load resistance 10 kΩ min.)
- 2: 0 - 100 mV DC (Load resistance 100 kΩ min.)
- 3: 0 - 1 V DC (Load resistance 1000 Ω min.)
- 4: 0 - 10 V DC (Load resistance 10 kΩ min.)
- 5: 0 - 5 V DC (Load resistance 5000 Ω min.)
- 6: 1 - 5 V DC (Load resistance 5000 Ω min.)
- 0: Specify voltage (See OUTPUT SPECIFICATIONS)

[3] OUTPUT 2

Y: None

Current

- A: 4 - 20 mA DC (Load resistance 350 Ω max.)
- B: 2 - 10 mA DC (Load resistance 700 Ω max.)
- C: 1 - 5 mA DC (Load resistance 1400 Ω max.)
- D: 0 - 20 mA DC (Load resistance 350 Ω max.)
- E: 0 - 16 mA DC (Load resistance 430 Ω max.)
- F: 0 - 10 mA DC (Load resistance 700 Ω max.)
- G: 0 - 1 mA DC (Load resistance 7000 Ω max.)
- Z: Specify current (See OUTPUT SPECIFICATIONS)

Voltage

Same range availability as Output 1

[4] POWER INPUT

AC Power

- M2: 100 - 240 V AC (Operational voltage range 85 - 264 V, 47 - 66 Hz)
- (90 - 264 V for UL)

DC Power

- R: 24 V DC (Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)
- R2: 11 - 27 V DC (Operational voltage range 11 - 27 V, ripple 10 %p-p max.) (Select '/N' for 'Standards & Approvals' code.)
- P: 110 V DC (Operational voltage range 85 - 150 V, ripple 10 %p-p max.) (110 V ±10 % for UL)

[5] OPTIONS (multiple selections)

Standards & Approvals (must be specified)

/N: Without CE or UL



/CE: CE marking

/UL: UL approval, CE marking

Other Options

blank: none

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

(UL not available)

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

Output & power input: M3 screw terminals (torque 0.8 N·m)

Pneumatic: 6 mm dia (.24") tube

Screw terminal: Chromated steel (standard) or stainless steel

Housing material: Flame-resistant resin (black)

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

OUTPUT SPECIFICATIONS

■ **DC Current:** 0 - 20 mA DC

Minimum span: 1 mA

Offset: Max. 1.5 times span

Load resistance: Output drive 15 V max. for Output 1;
7 V max. for Output 2

■ **DC Voltage:** 0 - 12 V DC (up to 10 V for Output 2)

Minimum span: 5 mV

Offset: ≤ 1.5 times span

Load resistance: Output drive 1 mA max.; at ≥0.5 V

INSTALLATION

Power Consumption

•AC:

Approx. 4 VA at 100 V

Approx. 5 VA at 200 V

Approx. 6 VA at 240 V

•DC: Approx. 3 W

Operating temperature: -5 to +55°C (23 to 131°F)

Operating humidity: 30 to 90 %RH (non-condensing)

Mounting: Surface or DIN rail

Weight: 200 g (0.44 lb)

PERFORMANCE in percentage of span

Accuracy: ±0.3 %

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: 2000 V AC @1 minute (output 1 to output 2 to power to ground)

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

Low Voltage Directive (2006/95/EC)

EN 61010-1: 2001

Installation Category II

Pollution Degree 2

output 1 or output 2 to power input:

Reinforced insulation (300 V)

output 1 to output 2: Basic insulation (300 V)

Approval:

UL/C-UL nonincendive Class I, Division 2,

Groups A, B, C, and D

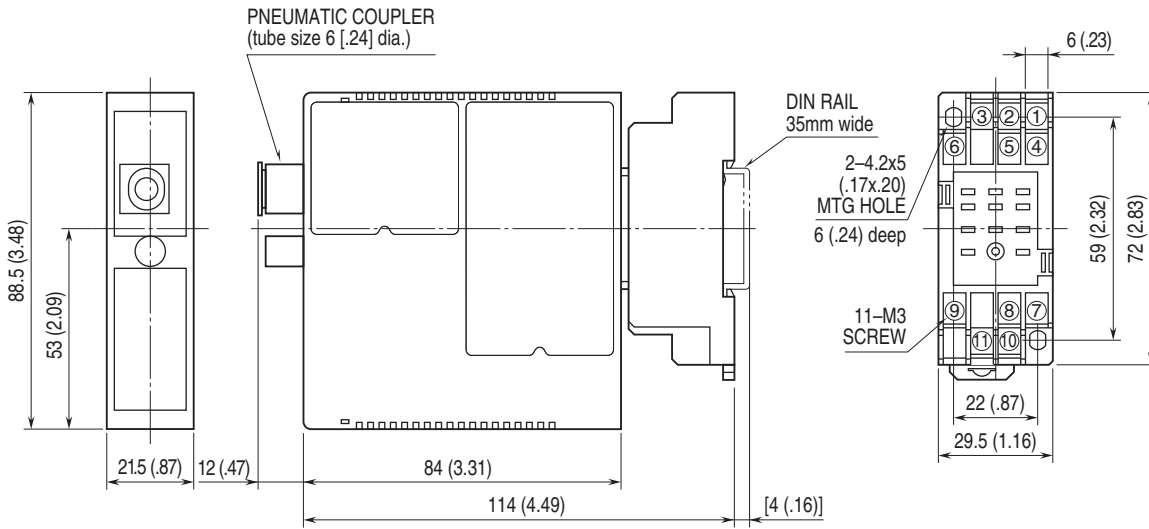
(ANSI/ISA-12.12.01:2011, CAN/CSA-C22.2 No.213:1987)

UL/C-UL general safety requirements

(UL 61010B-1:2003, CAN/CSA-C22.2 No.61010-1:1992)

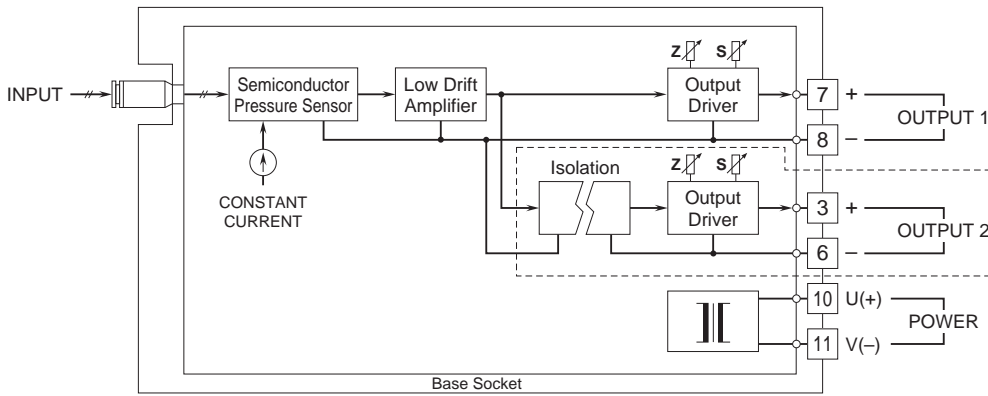


DIMENSIONS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Remark: The section enclosed by broken line is only with 2nd output option.



Specifications are subject to change without notice.

