

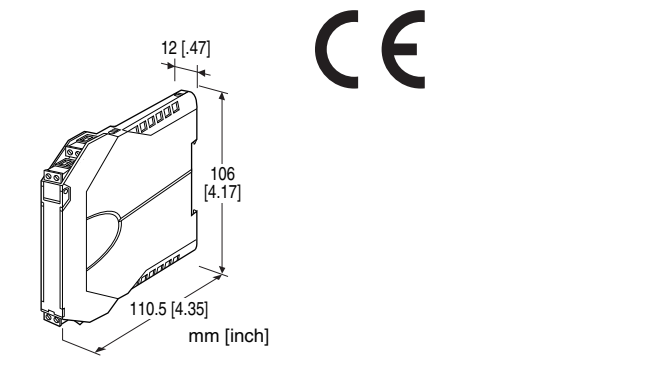
Super-space-saving Signal Conditioners M3S-UNIT Series

SIGNAL TRANSMITTER

(two isolated outputs)

Functions & Features

- Galvanically isolates process instrumentation signals
- Universal AC/DC power input
- High-density mounting
- Power indicator LED



MODEL: M3SWVS-[1][2][3]-[4][5]

ORDERING INFORMATION

- Code number: M3SWVS-[1][2][3]-[4][5]
- Specify a code from below for each of [1] through [5].
(e.g. M3SWVS-AAA-R/K/Q)
- Special input range (For codes Z & 0)
- Specify the specification for option code /Q
(e.g. /C01)

[1] INPUT

Current

- A: 4 - 20 mA DC (Input resistance 50 Ω)
- B: 2 - 10 mA DC (Input resistance 100 Ω)
- C: 1 - 5 mA DC (Input resistance 200 Ω)
- D: 0 - 20 mA DC (Input resistance 50 Ω)
- E: 0 - 16 mA DC (Input resistance 50 Ω)
- F: 0 - 10 mA DC (Input resistance 100 Ω)
- G: 0 - 1 mA DC (Input resistance 1000 Ω)
- H: 10 - 50 mA DC (Input resistance 20 Ω)
- Z: Specify current (See INPUT SPECIFICATIONS)

Voltage

- 3: 0 - 1 V DC (Input resistance 1 MΩ min.)
- 4: 0 - 10 V DC (Input resistance 1 MΩ min.)
- 5: 0 - 5 V DC (Input resistance 1 MΩ min.)
- 6: 1 - 5 V DC (Input resistance 1 MΩ min.)
- 4W: -10 - +10 V DC (Input resistance 1 MΩ min.)

- 5W: -5 - +5 V DC (Input resistance 1 MΩ min.)
- 0: Specify voltage (See INPUT SPECIFICATIONS)

[2] OUTPUT 1

Current

- A: 4 - 20 mA DC (Load resistance 280 Ω max.)
- D: 0 - 20 mA DC (Load resistance 280 Ω max.)

Voltage

- 5: 0 - 5 V DC (Load resistance 5000 Ω min.)
- 6: 1 - 5 V DC (Load resistance 5000 Ω min.)

[3] OUTPUT 2

- Same range availability as Output 1
- Y: None

[4] POWER INPUT

AC Power

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

DC Power

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

Universal

- AD: 100 - 240 V AC / 24 - 240 V DC (universal)
(Operational voltage range 90 - 264 V AC, 47 - 66 Hz / 21.6 - 264 V DC, ripple 10 %p-p max.)

[5] OPTIONS (multiple selections)

Response Time (0 - 90 %)

- blank: Standard (≤ 0.5 sec.)
- /K: Fast Response (Approx. 3.5 msec.)

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:** Small-sized front terminal structure
- Connection:** Euro type connector terminal
- Applicable wire size:** 0.2 to 2.5 mm², stripped length 8 mm
- Housing material:** Flame-resistant resin (gray)
- Isolation:** Input to output 1 to output 2 to power
- Zero adjustment:** -2 to +2 % (front)
- Span adjustment:** 98 to 102 % (front)
- Power indicator LED:** Green LED turns on when the power is

supplied.

INPUT SPECIFICATIONS

■ **DC Current:** Input resistor incorporated

Specify input resistance value among followings for code Z.

20Ω, 50Ω, 100Ω, 200Ω, 249Ω, 1000Ω

($0.125 \text{ W} \geq [\text{Input current}]^2 \times R$)

■ **DC Voltage:** -30 – +30 V DC

Minimum span: 100 mV

Offset: Max. 1.5 times span

Input resistance: 1 MΩ min. (10 kΩ min. with no power supplied)

INSTALLATION

Power consumption

• **AC:**

Approx. 2 VA at 100 V

Approx. 3 VA at 200 V

Approx. 4 VA at 264 V

• **DC:**

R: Approx. 0.6 W

AD: Approx. 1 W

Operating temperature: -20 to +55°C (-4 to +131°F)

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

Mounting: DIN rail

Weight: 100 g (0.22 lb)

PERFORMANCE in percentage of span

Accuracy: ±0.1 %

Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)

Line voltage effect: ±0.1 % over voltage range

Insulation resistance: ≥ 100 MΩ with 500 V DC

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

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

Low Voltage Directive

EN 61010-1

Installation Category II

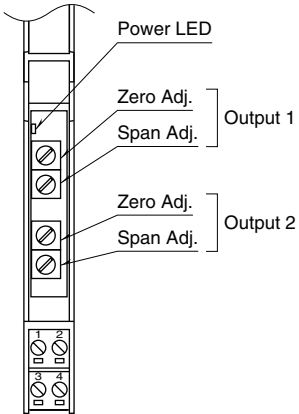
Pollution Degree 2

Input or output to power: Reinforced insulation (300 V)

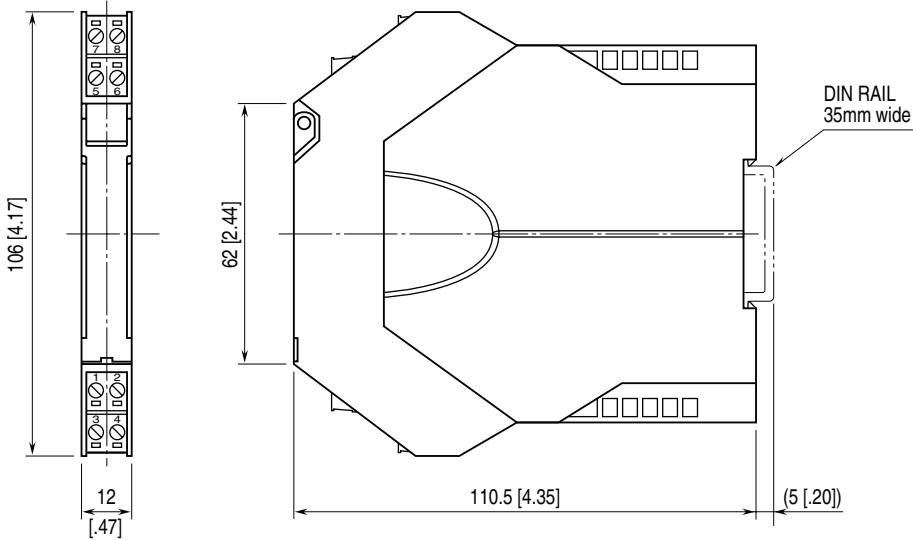
Input to output: Basic insulation (300 V)

RoHS Directive

EXTERNAL VIEW

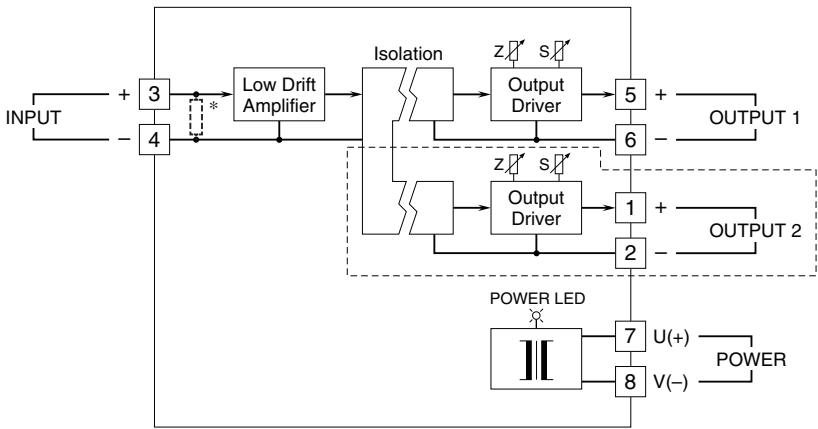


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor incorporated for current input.
 Remark: The section enclosed by broken line is only with 2nd output option.



Specifications are subject to change without notice.