

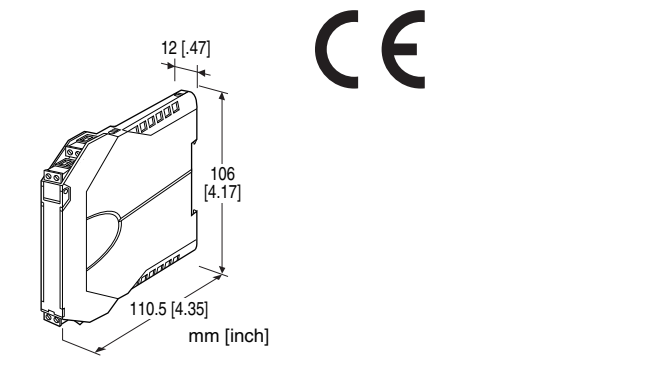
## Super-space-saving Signal Conditioners M3S-UNIT Series

### 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 our 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 mm<sup>2</sup>, 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

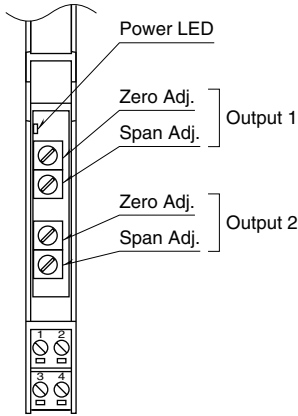
Pollution Degree 2

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

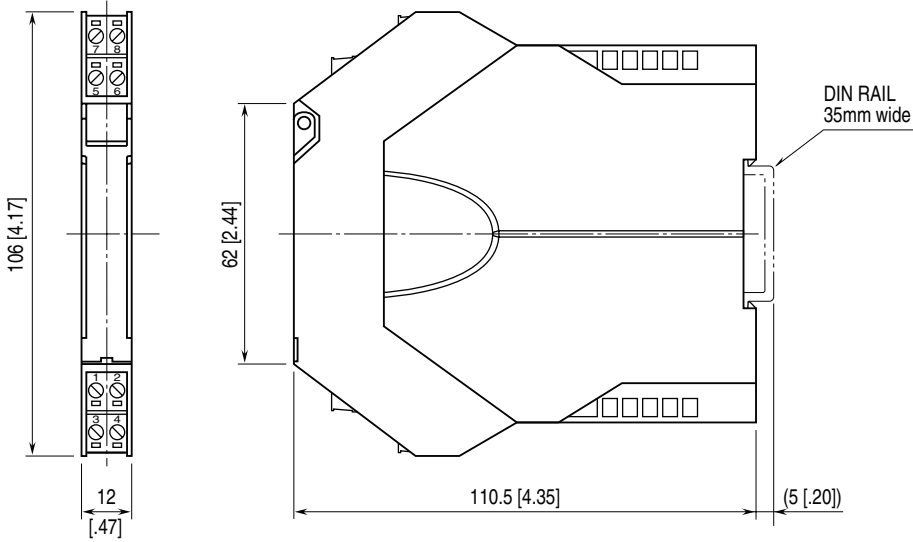
Input to output: Basic insulation (300 V)

RoHS Directive

**EXTERNAL VIEW**

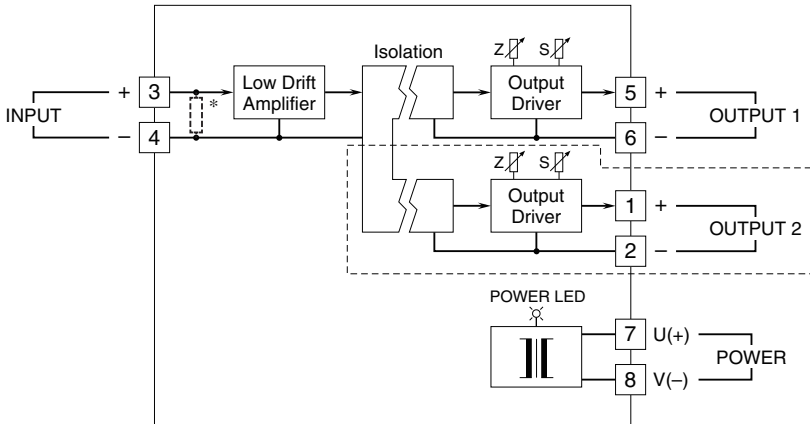


**EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]**



• 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.