

Tension-Clamp Ultra-Slim Signal Conditioners M6S Series

SIGNAL TRANSMITTER

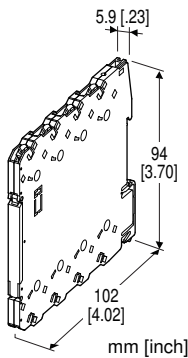
(high-accuracy, ultra-high speed response 30 μsec.)

Functions & Features

- Maintenance-free tension clamp connection
- 5.9-mm wide ultra-slim design
- Low profile allows the M6S module mounted in a 120-mm deep panel
- Galvanically isolates process instrumentation signals
- 30-microsecond response
- Frequency characteristics 12 kHz (-3 dB)
- High-density mounting
- Power indicator LED

Typical Applications

- Isolation for a vibration analyzing system
- Isolation for Discharge/Charge tester



MODEL: M6SVF-[1]4W-R[2]

ORDERING INFORMATION

- Code number: M6SVF-[1]4W-R[2]
- Specify a code from below for each of [1] and [2].
(e.g. M6SVF-04W-R/Q)
- Special input range (For code 0: e.g. -164 - +164 mV DC)
 - Specify the specification for option code /Q
(e.g. /C01)

[1] INPUT

Voltage

2W: -100 - +100 mV 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.)

8W: -20 - +20 V DC (Input resistance 1 MΩ min.)

0: Specify voltage

(Select input range as indicated below. Input resistance 1 MΩ min.)

-20 - +20 mV DC

- 24 - +24 mV DC
- 40 - +40 mV DC
- 85 - +85 mV DC
- 164 - +164 mV DC
- 200 - +200 mV DC
- 15 - +15 V DC
- 25 - +25 V DC
- 55 - +55 V DC
- 60 - +60 V DC

OUTPUT

Voltage

4W: -10 - +10 V DC (Load resistance 2000 Ω min.)

POWER INPUT

DC Power

R: 24 V DC

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

[2] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating

/C02: Polyurethane coating

GENERAL SPECIFICATIONS

Connection

Input and output: Tension clamp

Power input: Via the Installation Base (model: M6SBS)

or Tension clamp

Applicable wire size: 0.2 to 2.5 mm², stripped length 8 mm

Housing material: Flame-resistant resin (black)

Isolation: Input to output to power

Overrange input: -5 to +105 %

Zero adjustment: -1 to +1 % (front)

Span adjustment: 99 to 101 % (front)

Power indicator LED: Green LED turns on when the power is supplied.

INPUT SPECIFICATIONS

Input resistance: 1 MΩ min. (3 kΩ min. at power loss)

OUTPUT SPECIFICATIONS

Parallel load capacitance: Max. 2000 pF

INSTALLATION

Power consumption: Approx. 0.6 W
Operating temperature: -20 to +55°C (-4 to +131°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Mounting: Installation Base (model: M6SBS) or DIN rail
Weight: 60 g (2.1 oz)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.01\%$
Temp. coefficient: $\pm 0.005\%/^{\circ}\text{C}$ ($\pm 0.003\%/^{\circ}\text{F}$)
Frequency characteristics: 12 kHz, -3 dB
Response time: $\leq 30\ \mu\text{sec}$. (0 - 90 %)
Line voltage effect: $\pm 0.01\%$ over voltage range
Insulation resistance: $\geq 100\ \text{M}\Omega$ with 500 V DC
Dielectric strength: 2000 V AC @1 minute (input to output to power to ground)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

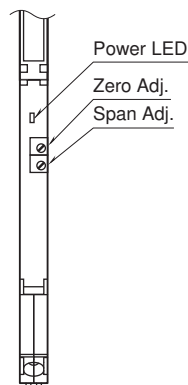
EMI EN 61000-6-4

EMS EN 61000-6-2

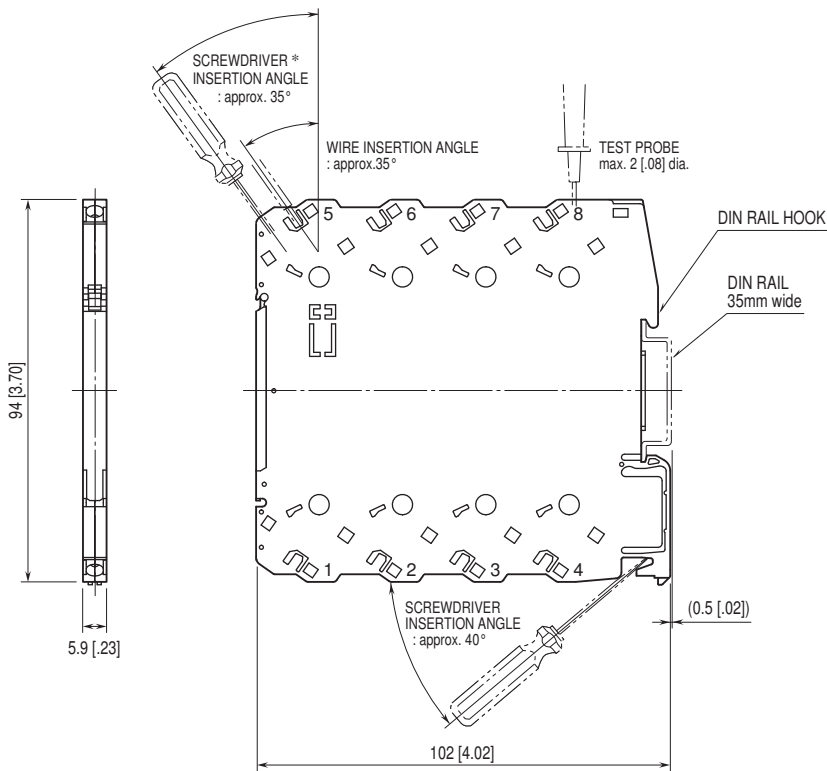
RoHS Directive

EXTERNAL VIEW

(With the cover open)



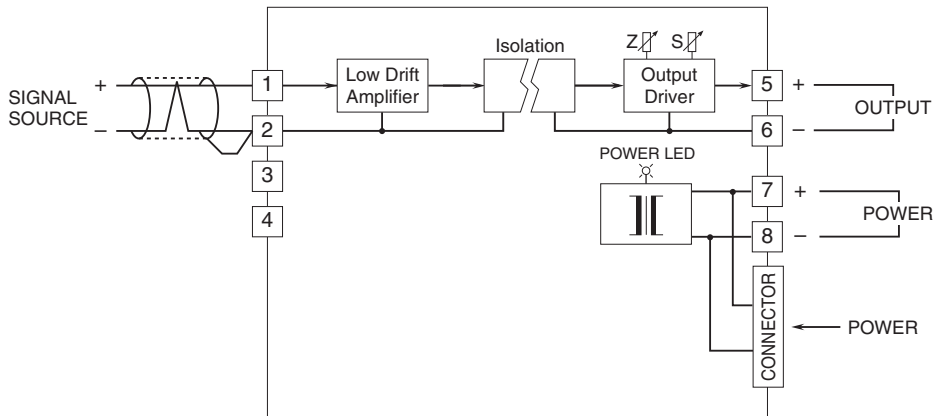
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



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

*Use a minus screwdriver: tip width 3.8 mm max., tip thickness 0.5 to 0.6 mm

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



This unit, by its fast-response feature, is not designed to eliminate noise present in the input signal. Use a shielded twisted-pair cable to prevent noise from entering through the input wiring.



Specifications are subject to change without notice.