MODEL: M6SWVS

Tension-Clamp Ultra-Slim Signal Conditioners M6S Series

SIGNAL TRANSMITTER
(two isolated outputs)

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
• High-density mounting
• Power indicator LED

ORDERING INFORMATION
• Code number: M6SWVS-[1][2][3]-R[4]
  Specify a code from below for each [1] through [4]. (e.g. M6SWVS-AAA-R/K/UL/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

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

[4] OPTIONS (multiple selections)
Response Time (0 - 90 %)
blank: Standard (≤ 0.5 sec.)
/K: Fast Response (Approx. 3.5 msec.)
Standards & Approvals
blank: CE marking
/UL: UL approval, CE marking
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

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 1 to output 2 to power
Zero adjustment: -2 to +2 % (front)
Span adjustment: 98 to 102 % (front)
Power LED: Green light 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 W ≥ [Input current]² × 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**: 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**: ±0.1 %
**Temp. coefficient**: ±0.01 %/°C (±0.006 %/°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

**RoHS Directive**: EN 50581

**Approval**: UL/C-UL nonincendive Class I, Division 2, Groups A, B, C, and D hazardous locations
(ANSI/ISA-12.12.01, CAN/CSA-C22.2 No.213)
UL/C-UL general safety requirements
(UL 61010-1, CAN/CSA-C22.2 No.61010-1)
EXTERNAL VIEW
(With the cover open)

NEWADJ
Power LED
Zero Adj.
Span Adj.
Output 1
Zero Adj.
Span Adj.
Output 2

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 CIRCUITY & 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.