MODEL: M6NWVS

Screw Terminal Ultra-Slim Signal Conditioners M6 Series

SIGNAL TRANSMITTER
(two isolated outputs)

Functions & Features
• 7.5-mm wide ultra-slim design
• Low profile allows the M6N module mounted in a 120-mm deep panel
• Galvanically isolates process instrumentation signals
• High-density mounting
• Power indicator LED

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: M3 screw terminal (torque 0.5 N·m)
Power input: Via the Installation Base (model: M6NBS) or M3 screw terminal (torque 0.5 N·m)
Recommended solderless terminal: Max. 5.8 mm (0.23") wide; Ones with insulation sleeve do not fit.
Applicable wire size: 0.2 – 2.5 mm²
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.

MODEL: M6NWVS-[1][2][3]-R[4]

ORDERING INFORMATION
• Code number: M6NWVS-[1][2][3]-R[4]
Specify a code from below for each [1] through [4]. (e.g. M6NWVS-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.)
■Recommended solderless terminal (unit: mm (inch))

<table>
<thead>
<tr>
<th>Dia. (Unit: mm)</th>
<th>3.2 (.13)</th>
<th>4 min. (.16)</th>
<th>5.8 max. (.23)</th>
<th>5.5 max. (.22)</th>
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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: M6NBS) 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)
EXTERIAL VIEW
(With the cover open)

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

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

- DIN RAIL HOOK: 102 (4.02)
- DIN RAIL: 35mm wide
- SCREW TERMINAL: 8–M3
- SCREWDRIVER INSERTION ANGLE:
  - WIRE INSERTION ANGLE: approx. 25°
  - SCREWDRIVER INSERTION ANGLE: approx. 40°

* Screwdriver stem diameter: 6 mm (.24") or less
* When mounting, no extra space is needed between units.
Specifications are subject to change without notice.