Euro Terminal Ultra-Slim Signal Conditioners M6D Series

SIGNAL TRANSMITTER

Functions & Features
• 5.9-mm wide ultra-slim design
• Low profile allows the M6D module mounted in a 120-mm deep panel
• Galvanically isolates process instrumentation signals
• High-density mounting
• Power indicator LED

MODEL: M6DVS-[1][2]-[3][4]

ORDERING INFORMATION
• Code number: M6DVS-[1][2]-[3][4]
Specify a code from below for each [1] through [4].
(e.g. M6DVS-4W4W-R/K/UL/Q)
• Special input and output ranges (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.)

[2] OUTPUT
Current
A: 4 - 20 mA DC (Load resistance 550 Ω max.)
D: 0 - 20 mA DC (Load resistance 550 Ω max.)
G: 0 - 1 mA DC (Load resistance 11 kΩ max.)
Z: Specify current (See OUTPUT SPECIFICATIONS)
Voltage
3: 0 - 1 V DC (Load resistance 1000 Ω min.)
4: 0 - 10 V DC (Load resistance 10 kΩ min.)
5: 0 - 5 V DC (Load resistance 5000 Ω min.)
6: 1 - 5 V DC (Load resistance 5000 Ω min.)
4W: -10 - +10 V DC (Load resistance 20 kΩ min.)
5W: -5 - +5 V DC (Load resistance 10 kΩ min.)
0: Specify voltage (See OUTPUT SPECIFICATIONS)

[3] POWER INPUT
AC Power
M2: 100 – 240 V AC (Operational voltage range 90 – 264 V, 47 – 66 Hz)
(UL not available)
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. voltage output; Approx. 25 msec. current output)
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: Euro terminal (torque 0.3 N·m)
Power input: Via the Installation Base (model: M6DBS)
### INPUT SPECIFICATIONS

- **DC Current**: Input resistor incorporated
  - Specify input resistance value among followings for code Z.
    - 20Ω, 50Ω, 100Ω, 200Ω, 249Ω, 1000Ω
    - \(0.125 \text{ W} \geq \left[ \text{Input current} \right] \times R\)
  
- **DC Voltage**: -30 to +30 V DC
  
- **Minimum span**: 100 mV
  
- **Offset**: Max. 1.5 times span

#### OUTPUT SPECIFICATIONS

- **DC Current**: 0 – 20 mA DC
  - **Minimum span**: 1 mA
  - **Offset**: Max. 1.5 times span
  - **Load resistance**: Output drive 11 V max.

- **DC Voltage**: 0 – 10 V DC
  - **Minimum span**: 1 V
  - **Offset**: Max. 1.5 times span
  - **Load resistance**: Output drive 1 mA max.; at \(\geq 1 \text{ V}\)

### INSTALLATION

- **Power Consumption**
  - **AC**: Max. 2 VA
  - **DC**: Approx. 0.5 W

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

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

- **Mounting**: Installation Base (model: M6DBS) 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 to power to ground)
MODEL: M6DVS

EXTERNAL VIEW
(With the cover open)

Power LED
Zero Adj.
Span Adj.

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

8-M3
EURO TERMINAL

DIN RAIL HOOK
DIN RAIL
35mm wide

WIRE INSERTION ANGLE: approx. 7°

SCREWDRIVER
INSERTION ANGLE:
approx. 40°

• When mounting, no extra space is needed between units.
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

* Input shunt resistor incorporated for current input.
** Available only for DC power input type

⚠️ Specifications are subject to change without notice.