

Super-mini Signal Conditioners Mini-M Series

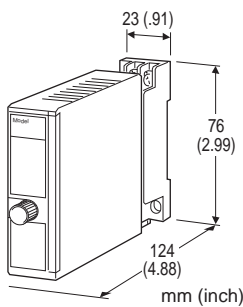
PARAMETER GENERATOR

Functions & Features

- Provides a constant DC signal
- Setpoint adjustable from -10.0 % to +105 %
- Easy setting with the front digital display
- CE marking

Typical Applications

- Various parameter settings for computers and DCS's



MODEL: M2MST-[1]-[2][3]

ORDERING INFORMATION

- Code number: M2MST-[1]-[2][3]
- Specify a code from below for each [1] through [3].
(e.g. M2MST-A-M2/CE/Q)
- Special output range (For codes Z & 0)
- Specify the specification for option code /Q
(e.g. /C01/S01)

[1] OUTPUT

Current

- A:** 4 - 20 mA DC (Load resistance 750 Ω max.)
- B:** 2 - 10 mA DC (Load resistance 1500 Ω max.)
- C:** 1 - 5 mA DC (Load resistance 3000 Ω max.)
- D:** 0 - 20 mA DC (Load resistance 750 Ω max.)
- E:** 0 - 16 mA DC (Load resistance 900 Ω max.)
- F:** 0 - 10 mA DC (Load resistance 1500 Ω max.)
- G:** 0 - 1 mA DC (Load resistance 15 kΩ max.)
- Z:** Specify current (See OUTPUT SPECIFICATIONS)

Voltage

- 1:** 0 - 10 mV DC (Load resistance 10 kΩ min.)
- 2:** 0 - 100 mV DC (Load resistance 100 kΩ min.)
- 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 10 kΩ min.)

5W: -5 - +5 V DC (Load resistance 5000 Ω min.)

0: Specify voltage (See OUTPUT SPECIFICATIONS)

[2] POWER INPUT

AC Power

M2: 100 - 240 V AC (Operational voltage range 85 - 264 V, 47 - 66 Hz)

DC Power

R: 24 V DC

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

R2: 11 - 27 V DC

(Operational voltage range 11 - 27 V, ripple 10 %p-p max.)

(Select 'N' for 'Standards & Approvals' code.)

P: 110 V DC

(Operational voltage range 85 - 150 V, ripple 10 %p-p max.)

[3] OPTIONS (multiple selections)

STANDARDS & APPROVALS (must be specified)

/N: Without CE

/CE: CE marking

OTHER OPTIONS

blank: none

/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

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

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3 screw terminals (torque 0.8 N·m)

Housing material: Flame-resistant resin (black)

Isolation: Output to power

Overrange output: Approx. -10 to +105 % at 1 - 5 V
Output is factory set to 0%.

Zero adjustment: -5 to +5 % (front)

Span adjustment: 95 to 105 % (front)

Setpoint adjustment: -10.0 - +105 %;
0.1 % increments (1 % increments over 100 %)

Display selector: Double-throw SW (front)

UP/DOWN control: Double-throw, momentary SW (front)

INDICATORS

Setpoint display: Red LED; 6.4 mm (.25") 7 segment, 3 digits

Polarity indicator: Dual color (red/green) LED; Red with a

positive set value; Green with a negative set value.

Power saving mode: Indicators turn off when the switches are left untouched for 1 minute, or when the display selector is set to the bottom position.

OUTPUT SPECIFICATIONS

• **DC Current:** 0 – 20 mA DC

Minimum span: 1 mA

Offset: Max. 1.5 times span

Load resistance: Output drive 15 V max.

• **DC Voltage:** -10 – +12 V DC

Minimum span: 5 mV

Offset: Max. 1.5 times span

Load resistance: Output drive 1 mA max.; at ≥ 0.5 V

INSTALLATION

Power Consumption

• **AC Power input:**

Approx. 3 VA at 100 V

Approx. 4 VA at 200 V

Approx. 5 VA at 264 V

• **DC Power input:** Approx. 3 W

Operating temperature: -5 to +55°C (23 to 131°F)

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

Mounting: Surface or DIN rail

Weight: 150 g (0.33 lbs)

PERFORMANCE in percentage of span

Setting accuracy: ± 0.1 %

Temp. coefficient: ± 0.015 %/°C (± 0.008 %/°F)

Line voltage effect: ± 0.1 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 2000 V AC @1 minute (output to power to ground)

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EN 61000-6-4 (EMI)

EN 61000-6-2 (EMS)

Low Voltage Directive (2006/95/EC)

EN 61010-1

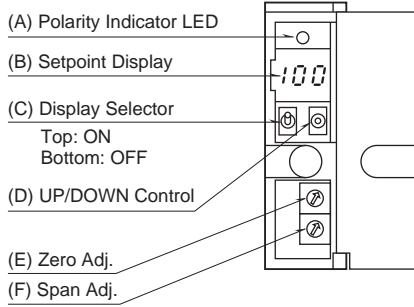
Installation Category II

Pollution Degree 2

Max. operating voltage 300 V

Output to power: Reinforced insulation

EXTERNAL VIEW

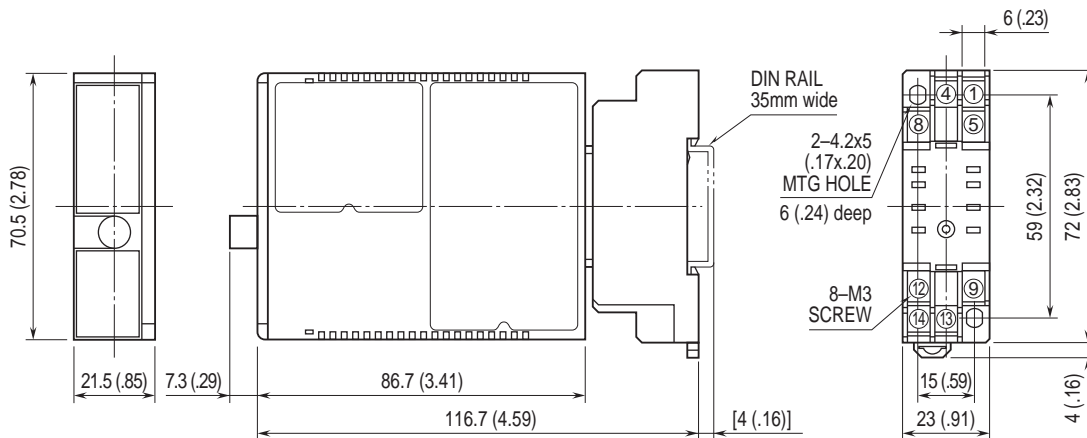


The front cover cannot be turned open by 180 deg. when there is no extra space between units.

• How to Set an Output

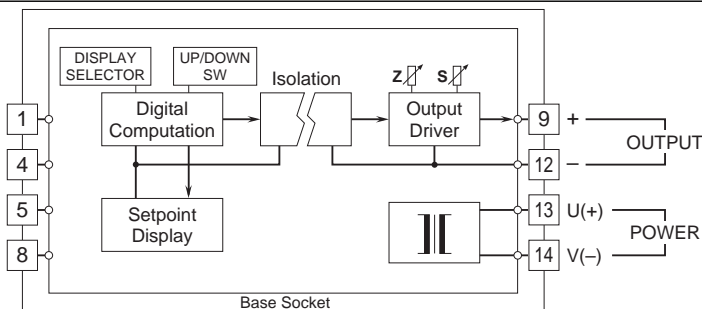
Turn the Display Selector (C) to the top position.
 The Setpoint Display (B) shows the current setpoint (-10.0 - +105 %). Press UP/DOWN Control (D) until the display shows a desired set value.
 The Polarity Indicator LED (A) is red when the set value is in positive range, green when in negative range.
 The output is factory set to 0 %.

DIMENSIONS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Specifications are subject to change without notice.