

Plug-in Signal Conditioners M-UNIT

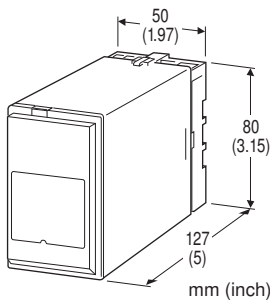
2-WIRE STRAIN GAUGE TRANSMITTER

Functions & Features

- Used in conjunction with bridge type strain gauges utilized in load cells, pressure transducers, etc.
- Excitation in pulses enables use with strain gauges of the bridge resistance 350 Ω
- Non-isolated
- Zero adjustment range: 0 to 80 %, span adjustment range 100 to 20 %
- High-density mounting

Typical Applications

- Weighing system for tanks, hoppers, silos
- Weighing system using cranes
- Float level meter utilizing strain gauges



MODEL: MTL-[1][2]

ORDERING INFORMATION

- Code number: MTL-[1][2]
- Specify a code from below for each of [1] and [2].
(e.g. MTL-2/Q)
- Specify the specification for option code /Q
(e.g. /C01/S01)

[1] INPUT STRAIN GAUGE

- 2: 2 mV/V
- 0: Specify

[2] OPTIONS

- blank: none
- /Q: With options (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: M3.5 screw terminals

Screw terminal: Chromated steel (standard) or stainless steel

Housing material: Flame-resistant resin (black)

Zero adjustments (tare): 0 - 80 % (front)

Span adjustment (sensitivity): 100 - 20% (front)

INPUT SPECIFICATIONS

Input: Bridge voltage from load cells

Rated output from strain gauge: 2 mV/V

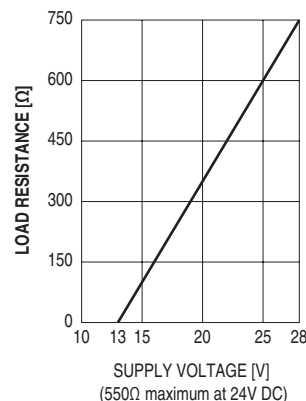
Nominal bridge resistance: 350 Ω minimum

Excitation: 5 V voltage pulse

OUTPUT SPECIFICATIONS

Output: 4 - 20 mA DC

Load resistance vs. supply voltage: Load Resistance (Ω) =
(Supply Voltage (V) - 13 (V)) ÷ 0.02 (A)
(including leadwire resistance)



INSTALLATION

Supply voltage: 13 - 28 V DC

Operating temperature: -5 to +60°C (23 to 140°F)

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

Mounting: Surface or DIN rail

Weight: 200 g (0.44 lb)

PERFORMANCE in percentage of span

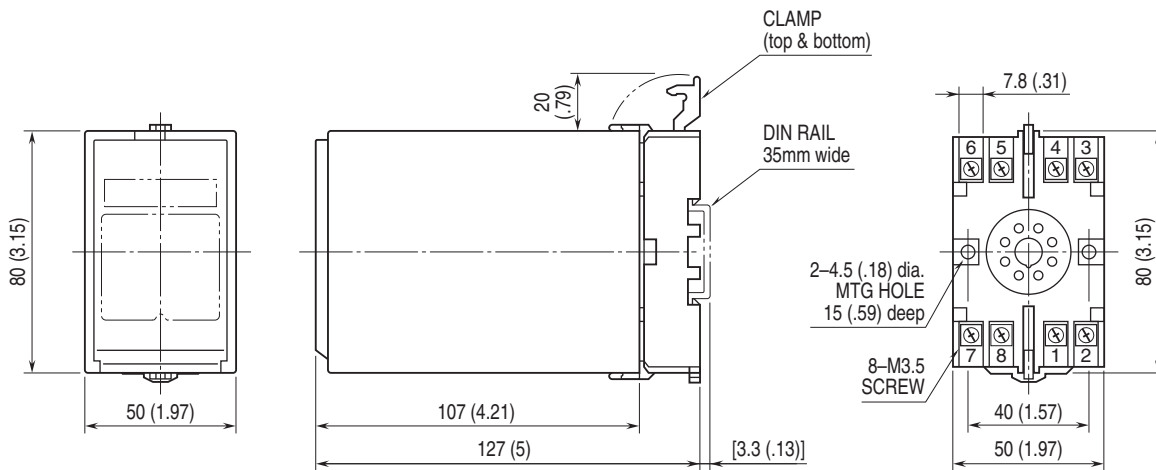
Accuracy: ±0.2 %

Temp. coefficient: ±0.02 %/°C (±0.01 %/°F)

Response time: ≤ 0.5 sec. (0 - 90 %)

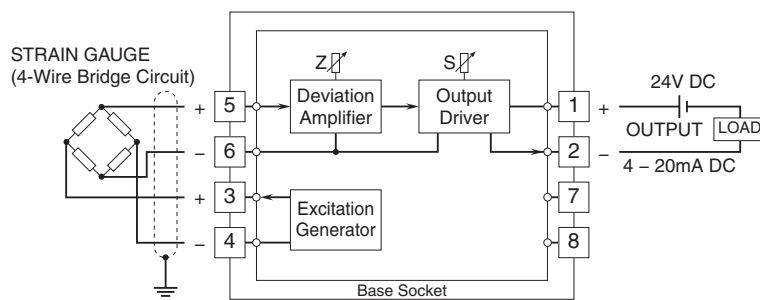
Dielectric strength: 2000 V AC @1 minute (input or output to ground)

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.