

Plug-in Signal Conditioners M-UNIT

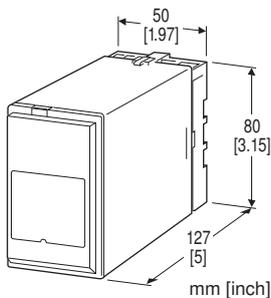
2-WIRE STRAIN GAUGE TRANSMITTER

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 our web site.)
- /C01: Silicone coating
 - /C02: Polyurethane coating

- /C03: Rubber coating
- TERMINAL SCREW MATERIAL
- /S01: Stainless steel

GENERAL SPECIFICATIONS

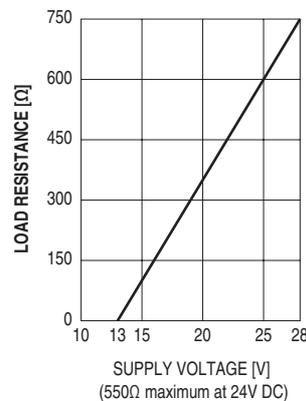
- Construction:** Plug-in
- Connection:** M3.5 screw terminals
- Screw terminal:** Chromated steel (standard) or stainless steel
- Housing material:** Flame-resistant resin (black)
- Zero adjustments (tare):** 0 - 80 % (front)
- Span adjustment (sensitivity):** 100 - 20% (front)

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)



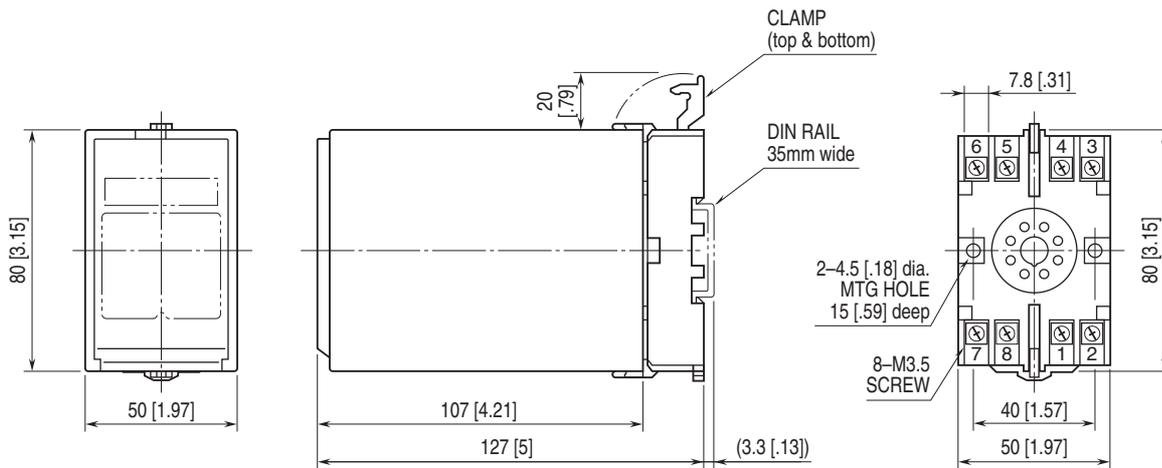
INSTALLATION

- 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

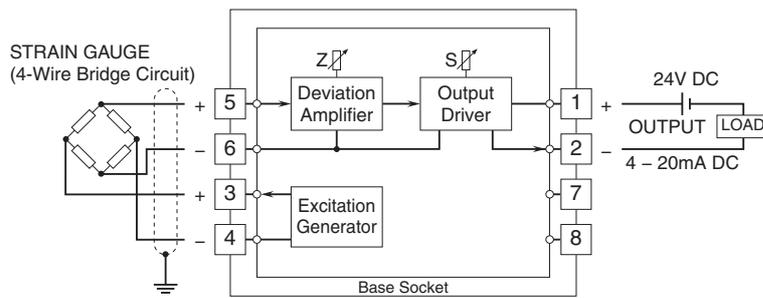
- Accuracy:** ±0.2 %
- Temp. coefficient:** ±0.02 %/°C (±0.01 %/°F)
- Response time:** ≤ 0.5 sec. (0 - 90 %)
- Dielectric strength:** 2000 V AC @1 minute (input or output to ground)

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.