

## Plug-in Signal Conditioners M-UNIT

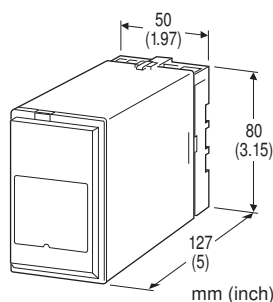
### 2-WIRE STRAIN GAUGE TRANSMITTER

#### 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

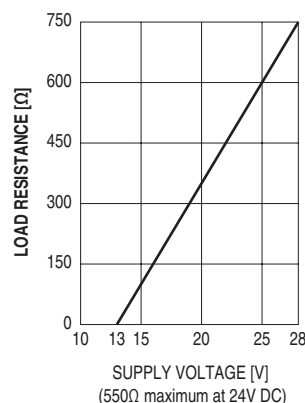
**Excitation:** 5 V voltage pulse

### OUTPUT SPECIFICATIONS

**Output:** 4 - 20 mA DC

**Load resistance vs. supply voltage:** Load Resistance (Ω) =  

$$(\text{Supply Voltage (V)} - 13 \text{ (V)}) \div 0.02 \text{ (A)}$$
 (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

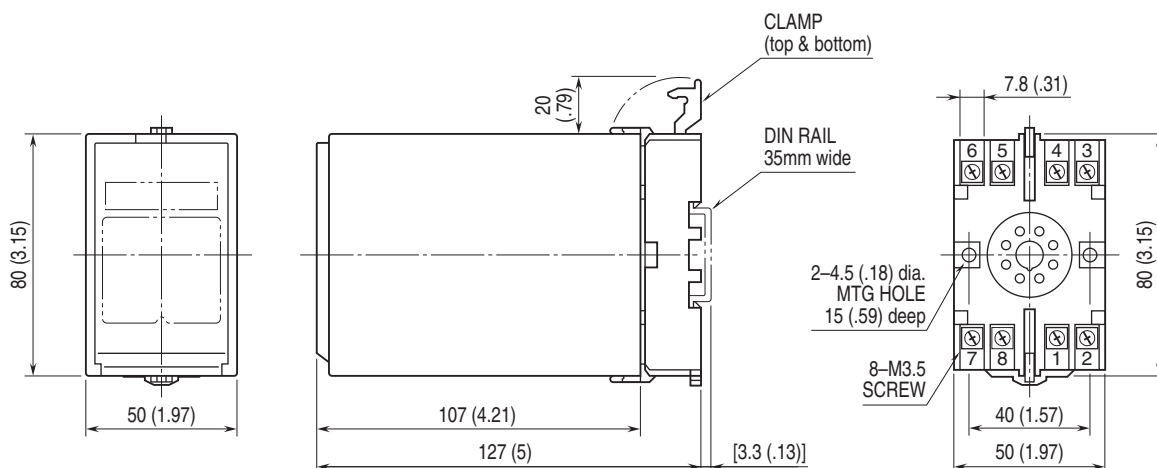
**Accuracy:** ±0.2 %

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

**Response time:** ≤ 0.5 sec. (0 - 90 %)

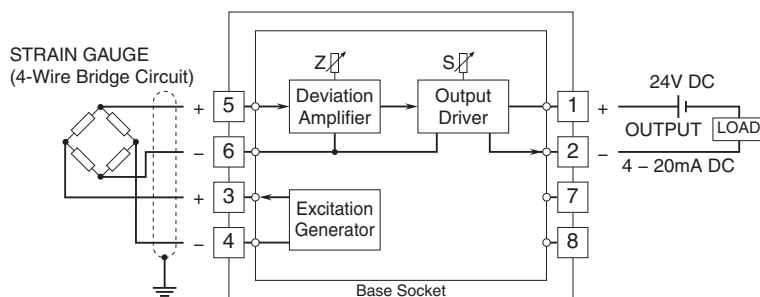
**Dielectric strength:** 2000 V AC @1 minute (input or output to ground)

## 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.