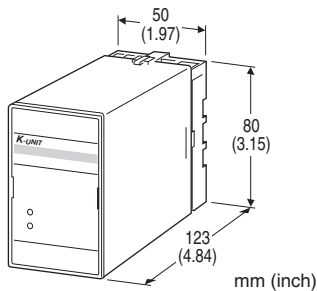


Plug-in Signal Conditioners K-UNIT

CONTACT ISOLATOR

Functions & Features

- Accepting one contact signal and providing two outputs
- Input circuit containing a constant current source allows large leadwire resistance up to 3 kΩ
- Relay contact or open collector outputs
- High-density mounting



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

ORDERING INFORMATION

- Code number: KMT-[1]-[2][3]
- Specify a code from below for each of [1] through [3].
(e.g. KMT-1-B/Q)
- Specify the specification for option code /Q
(e.g. /C01/S01)

INPUT

Dry contact

[1] OUTPUT

- 1: Relay contact
- 2: Open collector

[2] POWER INPUT

- AC Power
- B: 100 V AC
 - C: 110 V AC
 - D: 115 V AC
 - F: 120 V AC
 - G: 200 V AC
 - H: 220 V AC
 - J: 240 V AC
- DC Power
- S: 12 V DC
 - R: 24 V DC

[3] 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)
- Isolation: Input to output 1 to output 2 to power
- Front LEDs: Red LED turns on when the output ON.
Green LED turns on when the output OFF.

INPUT SPECIFICATIONS

- Dry contact
- Sensing: Approx. 28 V DC @5 mA
- ON/OFF level: ≤ 3 kΩ for ON; ≥ 30 kΩ for OFF

OUTPUT SPECIFICATIONS

- Open Collector: 24 V DC @100 mA
- Maximum frequency: 40 Hz
- Saturation voltage: 1.8 V DC
- Relay Contact:
- 100 V AC @5 A (cos φ = 1)
- 24 V DC @5 A (resistive load)
- Electrical life: 10⁵ cycles (rate 30 cycles/min.)
- Maximum switching voltage: 380 V AC or 125 V DC
- Maximum switching power: 500 VA or 120 W
- Minimum load: 5 V DC @10 mA
- Mechanical life: 5 × 10⁷ cycles
- Maximum frequency: 1 Hz

INSTALLATION

Power input

- AC: Operational voltage range: rating ±10 %, 50/60 ±2 Hz, approx. 2 VA
- DC: Operational voltage range: rating ±10 % ripple 10 %p-p max., approx. 1.5 W (60 mA at 24 V)
- Operating temperature: -5 to +55°C (23 to 131°F)
- Operating humidity: 30 to 90 %RH (non-condensing)
- Mounting: Surface or DIN rail

Weight: 400 g (0.88 lb)

PERFORMANCE

Response time

Relay contact: ≤ 10 msec.

Open collector: ≤ 10 msec.

Insulation resistance: ≥ 100 MΩ with 500 V DC

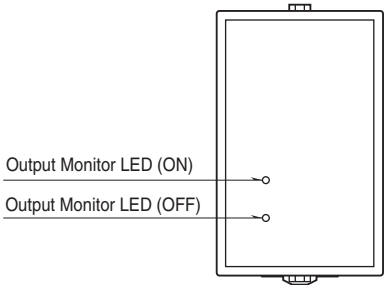
Dielectric strength: 1000 V AC @1 minute

(input to output 1 to output 2 to power)

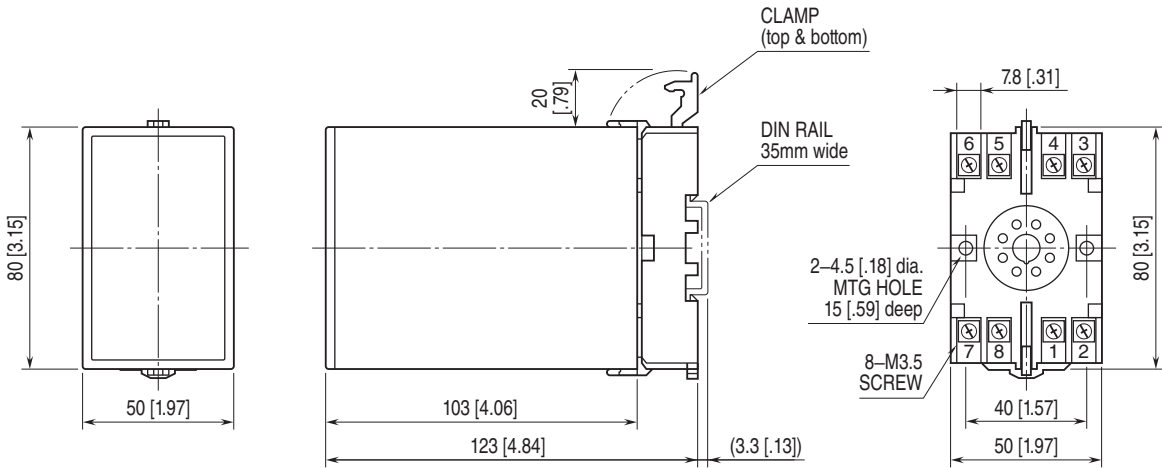
2000 V AC @1 minute

(input or output 1 or output 2 or power to ground)

EXTERNAL VIEW



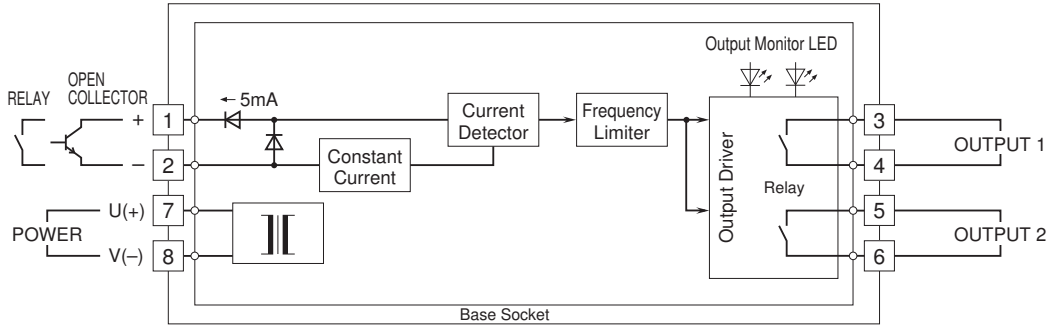
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



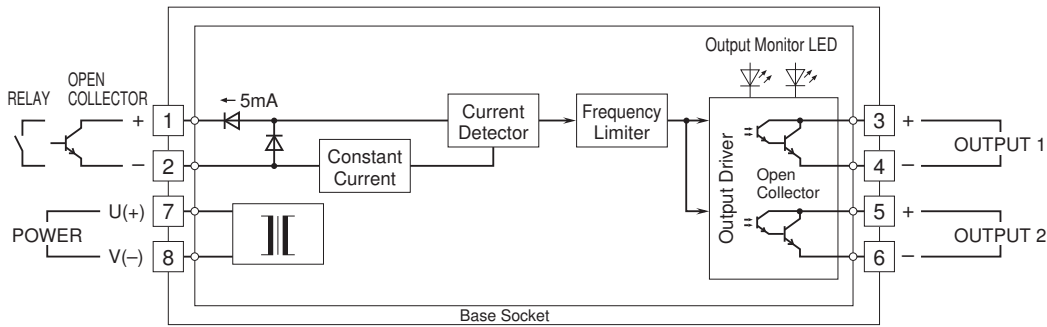
• When mounting, no extra space is needed between units.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

■ KMT-1 (relay contact)

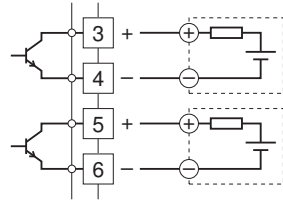


■ KMT-2 (open collector)



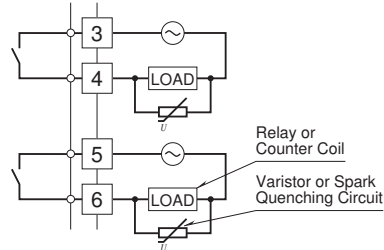
Output Connection Examples

■ Open Collector

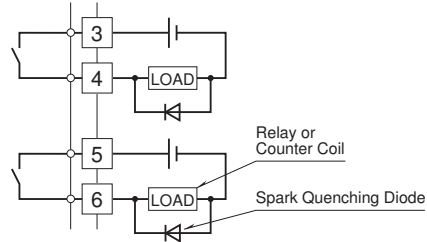


■ Relay Contact

•AC Powered



•DC Powered



Specifications are subject to change without notice.