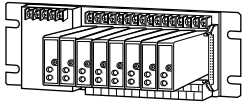


Dual Output Super-mini Signal Conditioners Pico-M Series

INSTALLATION BASE (8 positions)

Functions & Features

- Holding up to 8 modules of Pico-M series signal conditioners
- Power supplied through printed wiring on the base
- Saving wiring work within an instrumentation panel



MODEL: M8BS-8[1]-[2][3]

ORDERING INFORMATION

- Code number: M8BS-8[1]-[2][3]
Specify codes from below for each [1] trough [3].
(e.g. M8BS-8U1-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

[1] CONNECTION (output 1/output 2)

- U0:** Screw terminal block / Screw terminal block
- U1:** Fujitsu FCN type connector / Screw terminal block
- E1:** Toshiba DCS SAMP1 use / Screw terminal block
- E3:** Toshiba DCS SAIN1 use / Screw terminal block
- K3:** Yamatake DCS J-PIM00 module use / Screw terminal block

[2] POWER SUPPLY UNIT

AC Power

K: 85 - 132 V AC; single power source
(Operational voltage range 85 - 132 V, 47 - 63 Hz)

KK: 85 - 132 V AC; two independent power sources
(Operational voltage range 85 - 132 V, 47 - 63 Hz)

L: 170 - 264 V AC; single power source
(Operational voltage range 170 - 264 V, 47 - 63 Hz)

DC Power

R: 24 V DC; no power supply unit
(Operational voltage range 24 V \pm 10 %, ripple 10 %p-p max.)
Redundant power supplies are recommended for long time use without interruption.

[3] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

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

Only solder side of the main PWB is coated.

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

GENERAL SPECIFICATIONS

Capacity: 8 positions

Connection

Power input: M3.5 screw terminals (M3 screw terminals for AC power input) (torque 0.8 N·m)

Input and output: M3.5 screw terminals (torque 0.8 N·m)

Screw terminal: Nickel-plated steel

Isolation: Input to output 1 to output 2 to power to FG

Power indicator LED: ON with normal voltage level

INSTALLATION

Power Consumption

• **AC:** 130 VA min.

• **DC:** 0.7 A min.

Operating temperature: 0 to 55°C (32 to 131°F)

0 to 50°C (32 to 122°F) for AC power

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

Mounting: Surface

Weight:

0.8 kg (1.8 lbs) for power code K, L

0.9 kg (2.0 lbs) for power code KK

0.7 kg (1.5 lbs) for power code R

PERFORMANCE

Insulation resistance: \geq 100 M Ω with 500 V DC

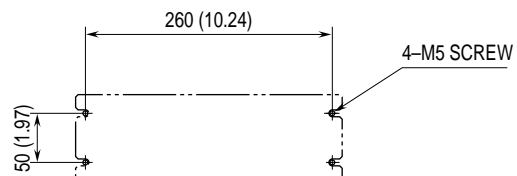
Dielectric strength:

1500 V AC @1 minute (input to output 1 or output 2 or power to FG)

500 V AC @1 minute (output 1 to output 2 to power)

500 V AC @1 minute (output 1 or output 2 to FG for AC power input)

MOUNTING REQUIREMENTS mm (inch)

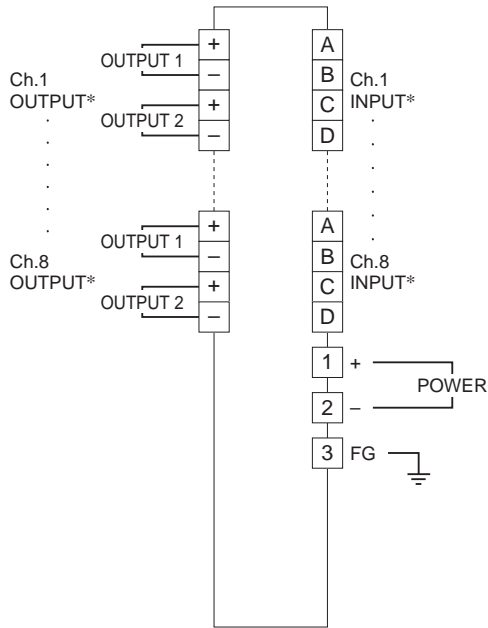


CONNECTION DIAGRAM

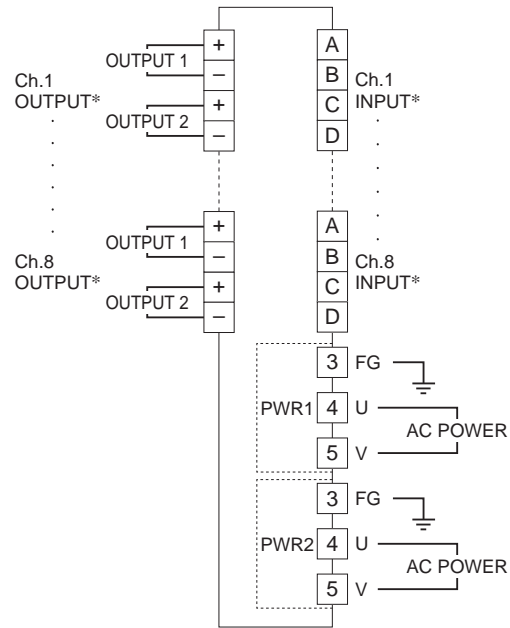
■ MODEL: M8BS-8U0 (screw terminal block / screw terminal block)

■ CONNECTION DIAGRAM

■ DC Power Supply



■ Single Power Supply, Two Independent Power Sources



PWR2 provided only for two independent power sources.

*The input and output terminals are reversed for model M8YSx, M8YCx.
Use either Output 1 or Output 2 terminal for the input.



■ MODEL: M8BS-8U1 (Fujitsu FCN type connector, FCN-364P040-AU / screw terminal block)

• Connector Pin Assignment

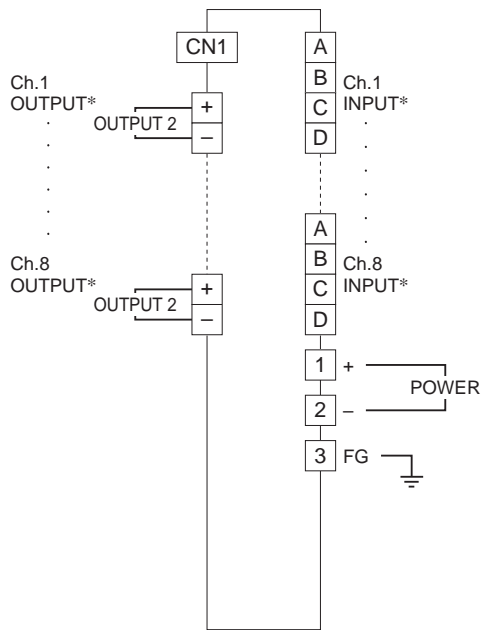
CN1: Output 1 or input

| PIN NO. | ASSIGNMENT | PIN NO. | ASSIGNMENT |
|---------|------------|---------|------------|
| A1 | ch.1 + | B1 | ch.1 - |
| A2 | ch.2 + | B2 | ch.2 - |
| A3 | ch.3 + | B3 | ch.3 - |
| A4 | ch.4 + | B4 | ch.4 - |
| A5 | ch.5 + | B5 | ch.5 - |
| A6 | ch.6 + | B6 | ch.6 - |
| A7 | ch.7 + | B7 | ch.7 - |
| A8 | ch.8 + | B8 | ch.8 - |

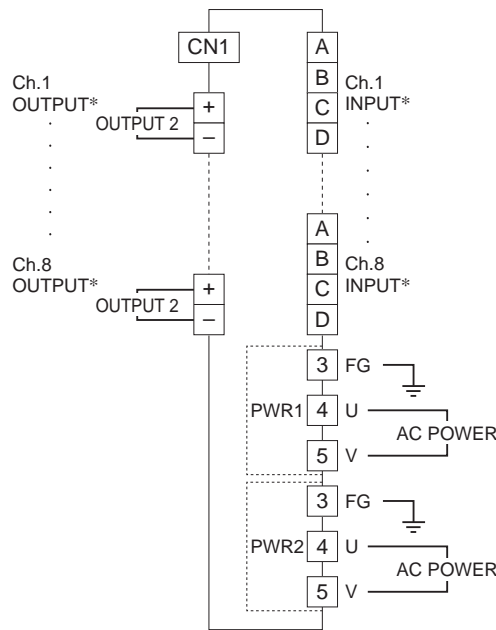
A9 – A20, B9 – B20: Unused

■ CONNECTION DIAGRAM

■DC Power Supply



■Single Power Supply, Two Independent Power Sources



PWR2 provided only for two independent power sources.

*The input and output terminals are reversed for model M8YSx, M8YCx.
Use either Output 1 (connector) or Output 2 terminal for the input.



■ MODEL: M8BS-8E1 (Toshiba DCS SAMP1 use / screw terminal block)
• Connector Pin Assignment
Output connector: AXM240001

CN1: SAMP1

The input or output 1 is connected to the connector.

| PIN NO. | ASSIGNMENT | PIN NO. | ASSIGNMENT |
|---------|------------|---------|------------|
| 1 | NC | 21 | NC |
| 2 | NC | 22 | NC |
| 3 | NC | 23 | ch.5 + |
| 4 | NC | 24 | ch.5 - |
| 5 | NC | 25 | NC |
| 6 | NC | 26 | NC |
| 7 | NC | 27 | ch.4 + |
| 8 | NC | 28 | ch.4 - |
| 9 | NC | 29 | NC |
| 10 | NC | 30 | NC |
| 11 | ch.8 + | 31 | ch.3 + |
| 12 | ch.8 - | 32 | ch.3 - |
| 13 | NC | 33 | NC |
| 14 | NC | 34 | NC |
| 15 | ch.7 + | 35 | ch.2 + |
| 16 | ch.7 - | 36 | ch.2 - |
| 17 | NC | 37 | NC |
| 18 | NC | 38 | NC |
| 19 | ch.6 + | 39 | ch.1 + |
| 20 | ch.6 - | 40 | ch.1 - |

■ MODEL: M8BS-8E3 (Toshiba DCS SAIN1 use / screw terminal block)
• Connector Pin Assignment
Output connector: AXM220001

CN1: SAIN1

CN2: SAIN1 for redundancy

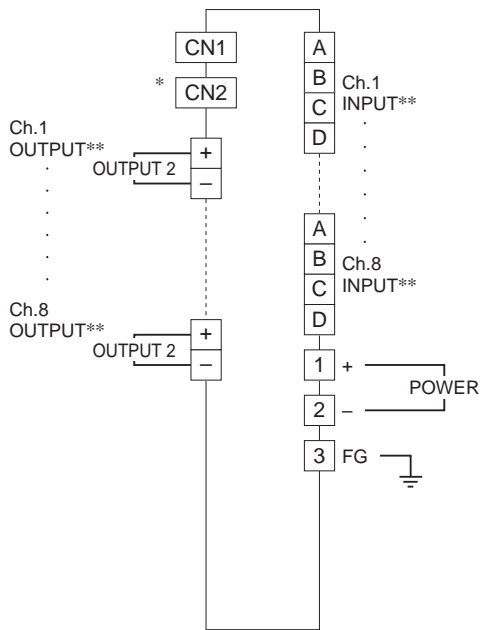
The input or output 1 is connected to the connector.

| PIN NO. | ASSIGNMENT | PIN NO. | ASSIGNMENT |
|---------|------------|---------|------------|
| 1 | NC | 11 | ch.5 - |
| 2 | NC | 12 | ch.5 + |
| 3 | NC | 13 | ch.4 - |
| 4 | NC | 14 | ch.4 + |
| 5 | ch.8 - | 15 | ch.3 - |
| 6 | ch.8 + | 16 | ch.3 + |
| 7 | ch.7 - | 17 | ch.2 - |
| 8 | ch.7 + | 18 | ch.2 + |
| 9 | ch.6 - | 19 | ch.1 - |
| 10 | ch.6 + | 20 | ch.1 + |

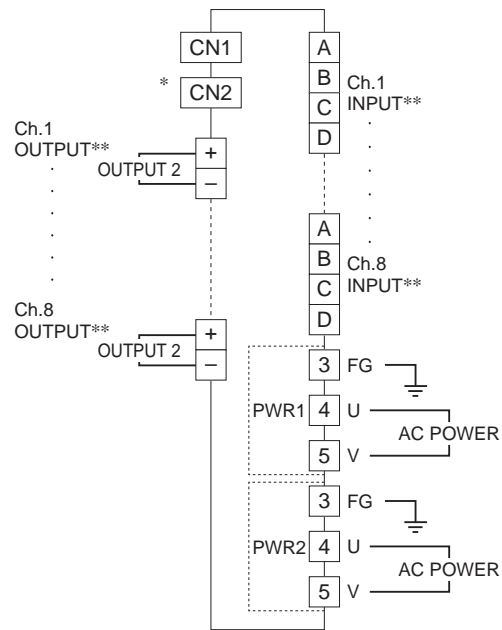


■ CONNECTION DIAGRAM

■DC Power Supply



■Single Power Supply, Two Independent Power Sources



PWR2 provided only for two independent power sources.

* For model M8BS-8E3.

**The input and output terminals are reversed for model M8YSx, M8YCx.
Use either Output 1 (connector) or Output 2 terminal for the input.



■ MODEL: M8BS-8K3 (Yamatate DCS J-PIM00 module use / screw terminal block)

I/O cable: J-SSL / J-SSK
J-SRL / J-SRK

• Location

Output connector: 57GE-40500-751

CN1: J-PIM00 module use

The input or output 1 is connected to the connector.

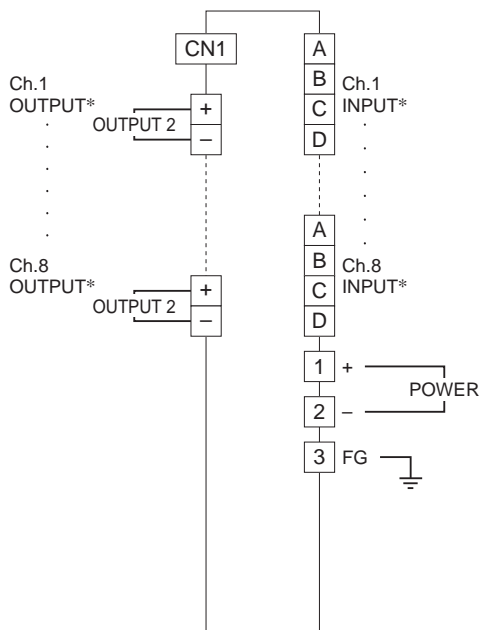
| Pico-M LOCATION NO. | | | | | | | |
|---------------------|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

YAMATAKE DCS PI CONNECTOR

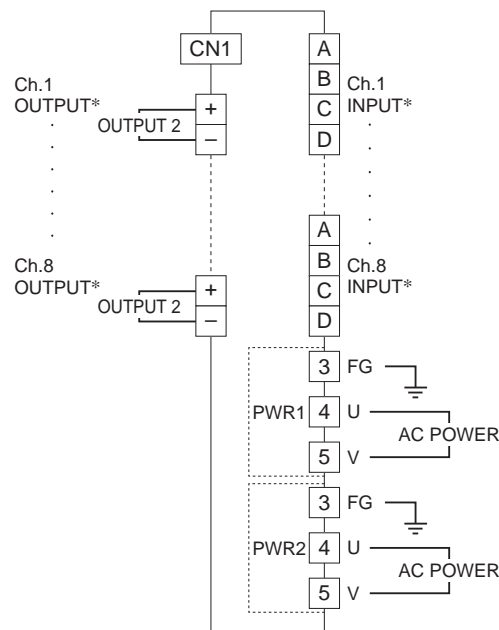
The internal power supply is used for excitation of the pulse input module.

■ CONNECTION DIAGRAM

■DC Power Supply



■Single Power Supply, Two Independent Power Sources



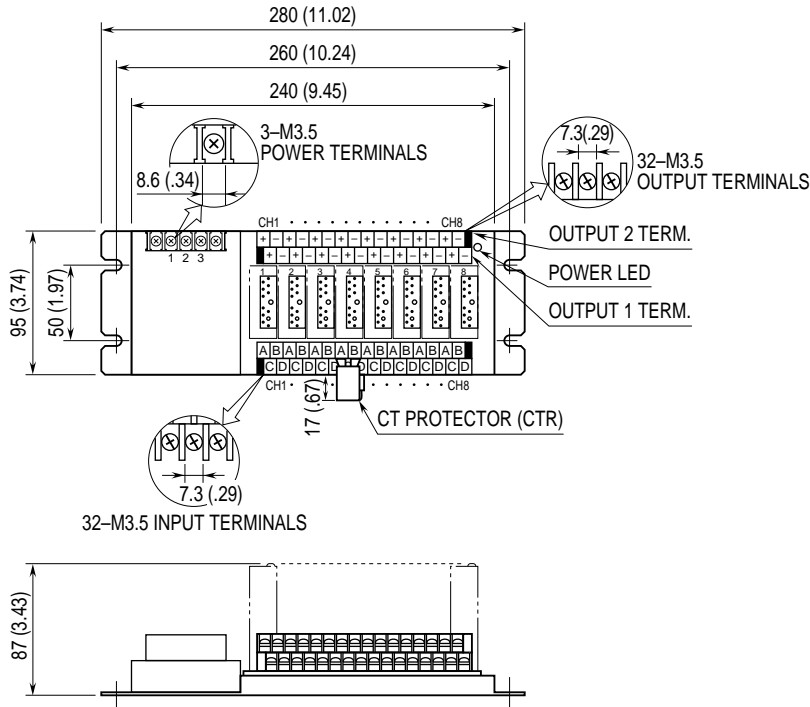
PWR2 provided only for two independent power sources.

*The input and output terminals are reversed for model M8YSx, M8YCx.
Use either Output 1 (connector) or Output 2 terminal for the input.

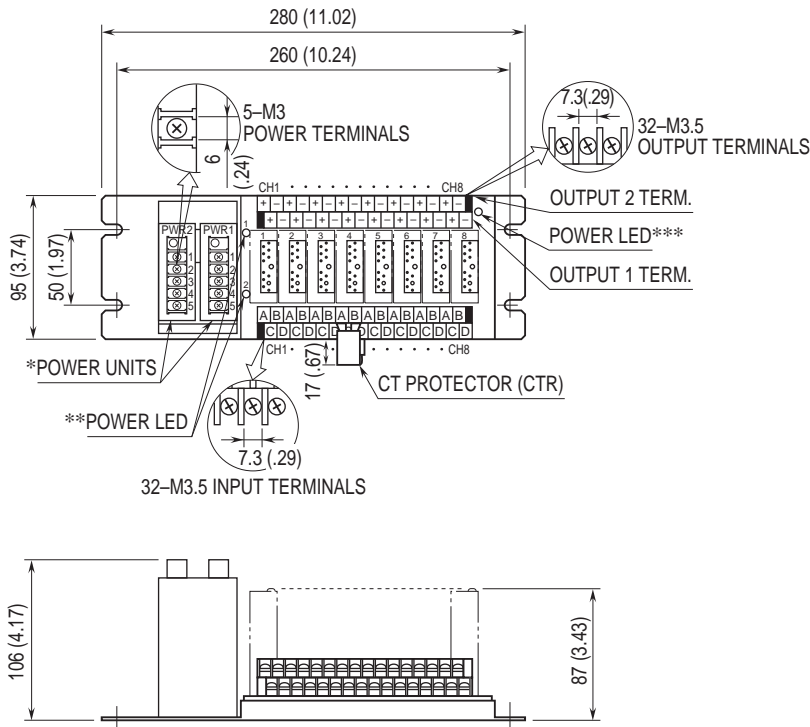


DIMENSIONS unit: mm (inch)

■ M8BS-8U0-R

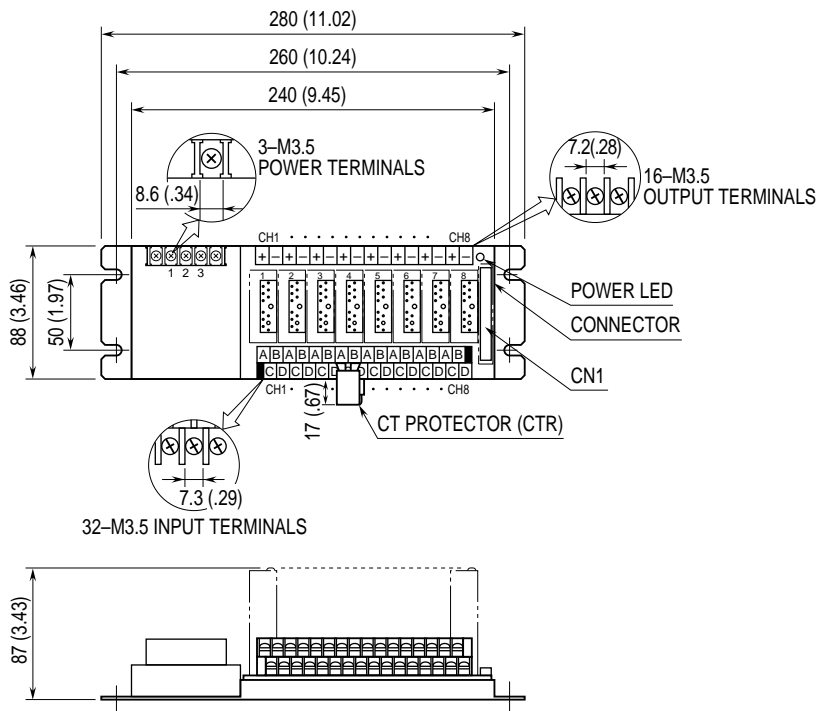


■ M8BS-8U0-K, KK, L

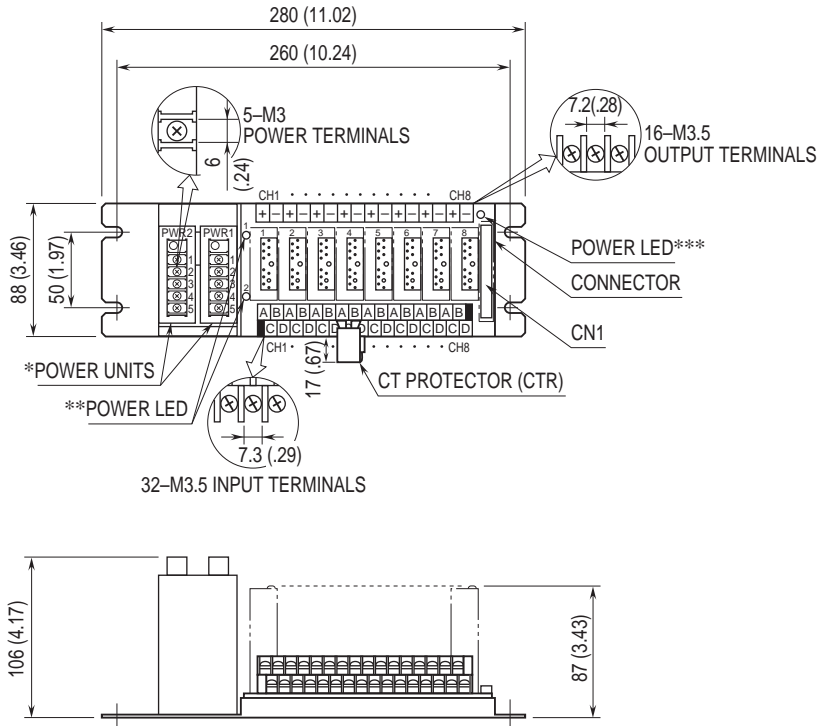


- * PWR2 provided only for two independent power sources.
- ** Provided only for two independent power sources.
- *** Provided only for single power source.

■ M8BS-8U1, 8E1, 8K3-R



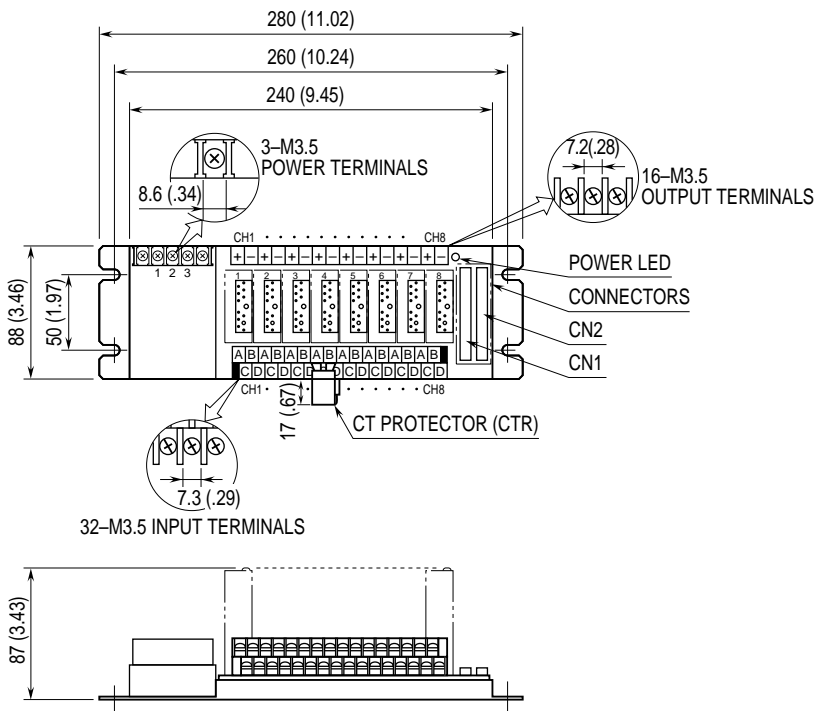
■ M8BS-8U1, 8E1, 8K3-K, KK, L



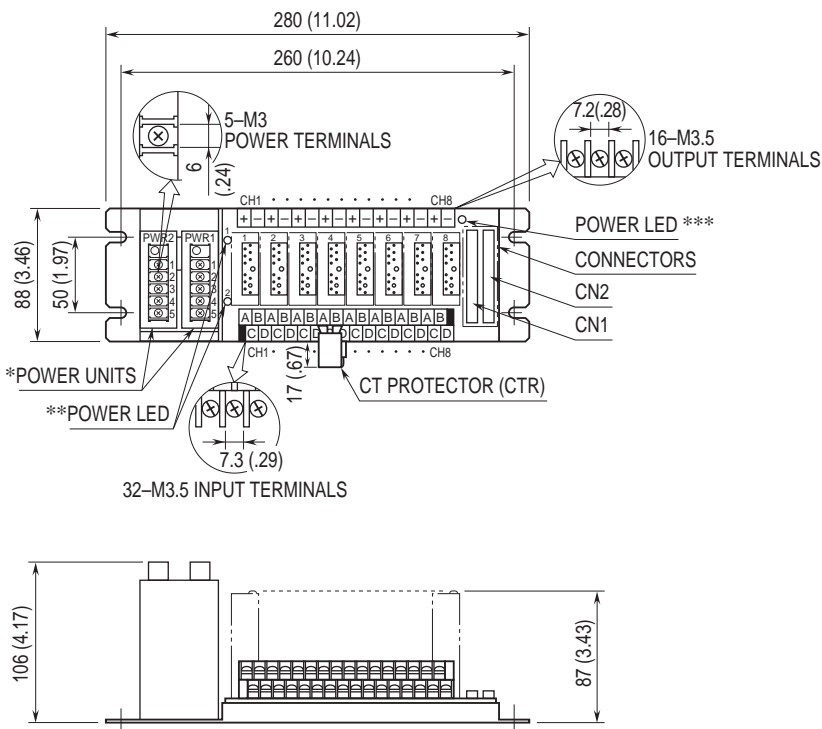
- * PWR2 provided only for two independent power sources.
- ** Provided only for two independent power sources.
- *** Provided only for single power source.



■ M8BS-8E3-R



■ M8BS-8E3-K, KK, L



- * PWR2 provided only for two independent power sources.
- ** Provided only for two independent power sources.
- *** Provided only for single power source.



Specifications are subject to change without notice.