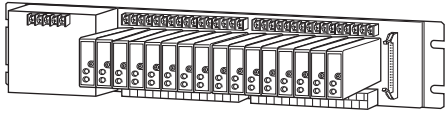


Dual Output Super-mini Signal Conditioners Pico-M Series

INSTALLATION BASE (16 positions)

Functions & Features

- Holding up to 16 modules of Pico-M series signal conditioners
- Power supplied through printed wiring on the base
- Saving wiring work within an instrumentational panel



MODEL: M8BS-16[1]-[2][3]

ORDERING INFORMATION

- Code number: M8BS-16[1]-[2][3]
- Specify a code from below for each of [1] through [3].
(e.g. M8BS-16U1-KK/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
U2: Fujitsu FCN type connector / Fujitsu FCN type connector
U5: DDK connector / Screw terminal block
K1: Azbil DCS J-HAM50/J-HMM00 module use
 / Screw terminal block
K2: Azbil DCS J-AOM10 module use
 / Screw terminal block
K3: Azbil DCS J-HAM50/J-HMM00 module use
 / Azbil DCS J-HAM50/J-HMM00 module use
Y1: Yokogawa DCS VMx/PM1 card use / Screw terminal block
Y2: Yokogawa DCS MAC2/PAC card 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 our web site.)
 Only solder side of the main PWB is coated.
- /C01:** Silicone coating
- /C02:** Polyurethane coating
- /C03:** Rubber coating

GENERAL SPECIFICATIONS

- Capacity:** 16 positions
- Connection**
- Power input:** M3.5 screw terminals (M4 for power codes KK and L) (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

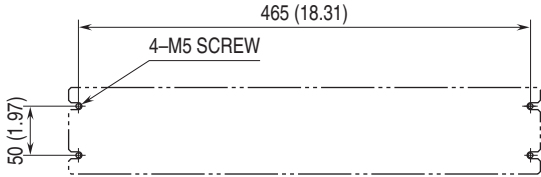
- Power Consumption**
- **AC:** 130 VA min.
 - **DC:** 2.5 A min.
- Operating temperature:** 0 to 55°C (32 to 131°F)
 0 to 50°C (32 to 122°F) for AC power
- Operating humidity:** 30 to 90 %RH (non-condensing)
- Mounting:** Surface
- Weight**
- M8BS-16U0:**
- 1.8 kg (4.0 lb) for power code K, L
 - 2.4 kg (5.3 lb) for power code KK
 - 1.5 kg (3.3 lb) for power code R
- M8BS-16U1, U5, K1, K2, Y1, Y2:**
- 1.6 kg (3.5 lb) for power code K, L
 - 2.2 kg (4.9 lb) for power code KK
 - 1.3 kg (2.9 lb) for power code R
- M8BS-16U2, K3:**
- 1.4 kg (3.1 lb) for power code K, L
 - 2.0 kg (4.4 lb) for power code KK
 - 1.1 kg (2.4 lb) 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 unit: mm (inch)

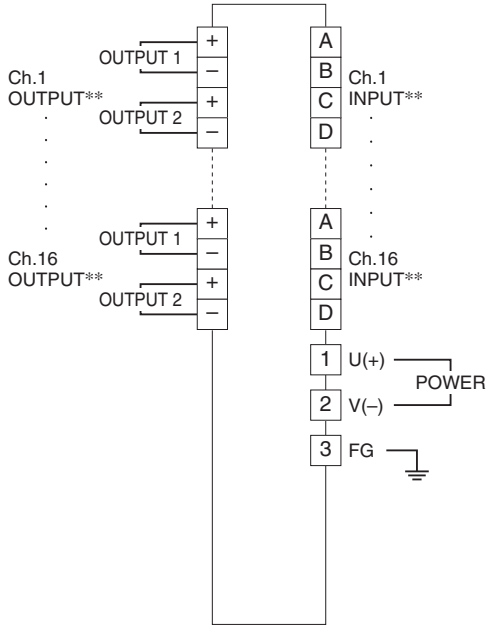


CONNECTION DIAGRAM

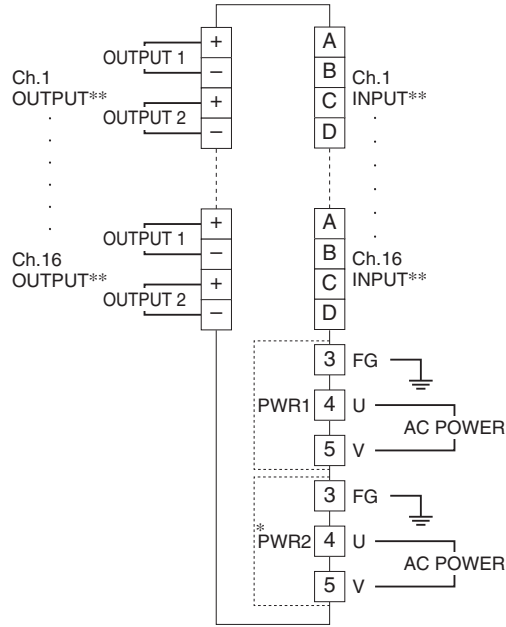
■ MODEL: M8BS-16U0 (screw terminal block / screw terminal block)

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L



* For power supply unit code KK only.
 ** The input and output terminals are reversed for model M8YSx, M8YCx.
 Use either Output 1 or Output 2 terminal for the input.

■ MODEL: M8BS-16U1 (Fujitsu FCN type connector, screw terminal block)

• Connector Pin Assignment

I/O Connector: OTAX N364P040AU

(Fujitsu FCN-364P040-AU...discontinued)

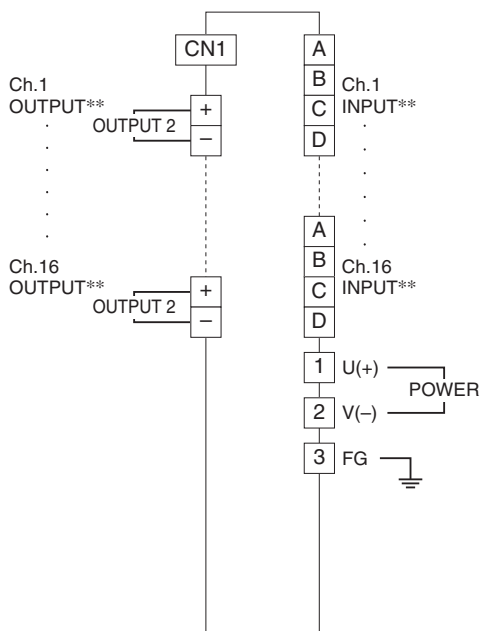
CN1: Output 1 or input

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	ch.9 +	B9	ch.9 -
A10	ch.10 +	B10	ch.10 -
A11	ch.11 +	B11	ch.11 -
A12	ch.12 +	B12	ch.12 -
A13	ch.13 +	B13	ch.13 -
A14	ch.14 +	B14	ch.14 -
A15	ch.15 +	B15	ch.15 -
A16	ch.16 +	B16	ch.16 -

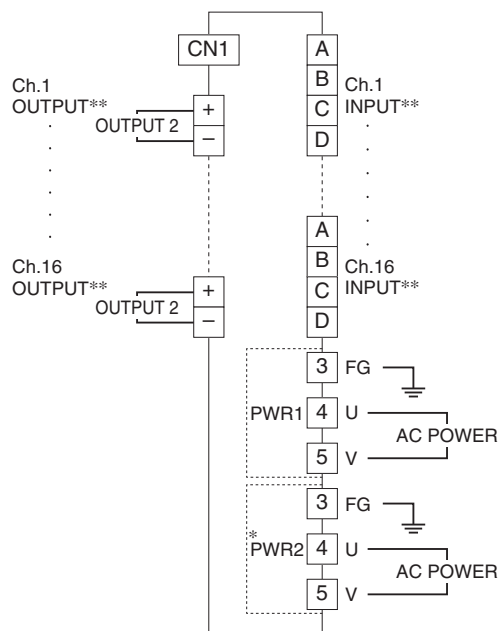
A17 – A20, B17 – B20: Unused

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L



* For power supply unit code KK only.

** 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-16U2 (Fujitsu FCN type connector)

Connector Pin Assignment

I/O Connector: OTAX N364P040AU

(Fujitsu FCN-364P040-AU...discontinued)

CN1: Output 1 or input

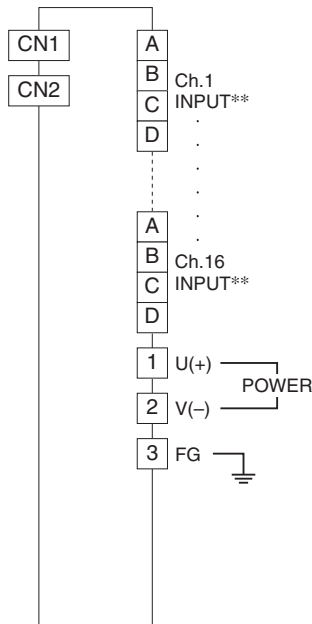
CN2: Output 2 or input

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	ch.9 +	B9	ch.9 -
A10	ch.10 +	B10	ch.10 -
A11	ch.11 +	B11	ch.11 -
A12	ch.12 +	B12	ch.12 -
A13	ch.13 +	B13	ch.13 -
A14	ch.14 +	B14	ch.14 -
A15	ch.15 +	B15	ch.15 -
A16	ch.16 +	B16	ch.16 -

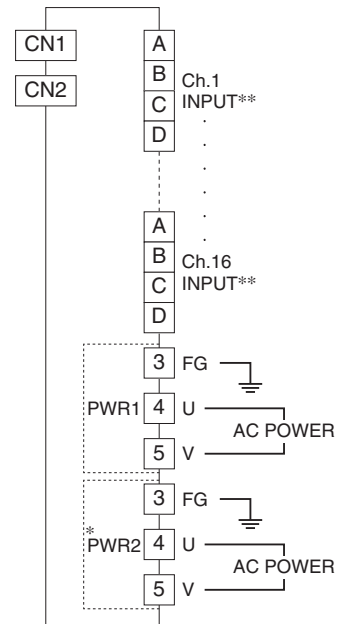
A17 – A20, B17 – B20: Unused

CONNECTION DIAGRAM

Power Supply Unit Code R, K



Power Supply Unit Code KK, L



* For power supply unit code KK only.

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

■ MODEL: M8BS-16U5 (DDK connector, screw terminal block)

• Connector Pin Assignment

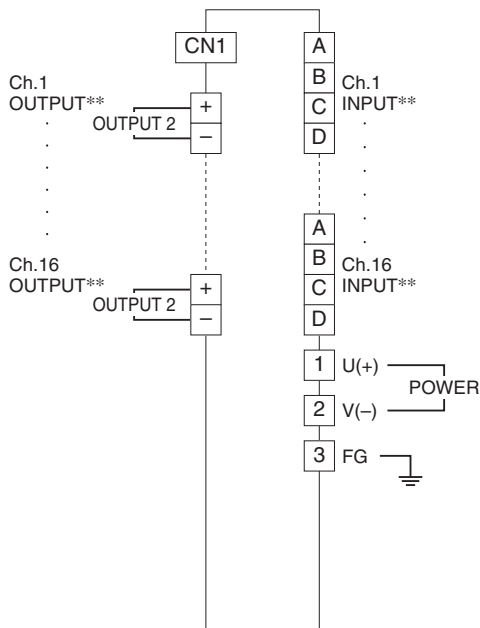
I/O Connector: DDK connector, 17JE-13370-37 [D16B]

CN1: Output 1 or input

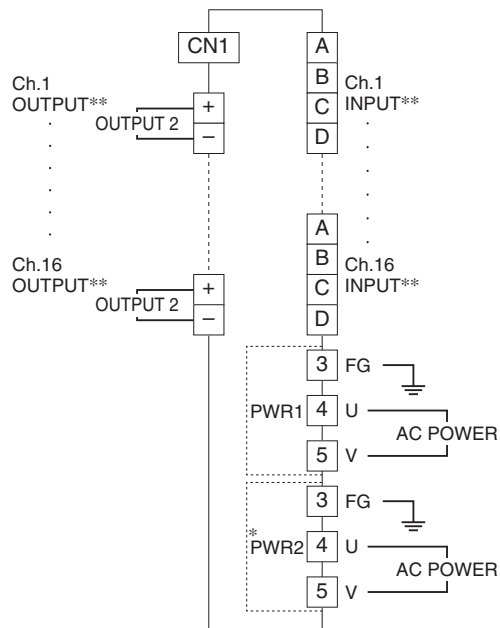
PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1	ch.1 +	20	ch.1 -
2	ch.2 +	21	ch.2 -
3	ch.3 +	22	ch.3 -
4	ch.4 +	23	ch.4 -
5	ch.5 +	24	ch.5 -
6	ch.6 +	25	ch.6 -
7	ch.7 +	26	ch.7 -
8	ch.8 +	27	ch.8 -
9	ch.9 +	28	ch.9 -
10	ch.10 +	29	ch.10 -
11	ch.11 +	30	ch.11 -
12	ch.12 +	31	ch.12 -
13	ch.13 +	32	ch.13 -
14	ch.14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

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L



* For power supply unit code KK only.

** 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-16K1 (Azbil DCS J-HAM50/J-HMM00 module use / screw terminal block)

I/O cable: J-RSL / J-RSK
J-RRL / J-RRK

• Location

Input connector: 57GE-40500-751

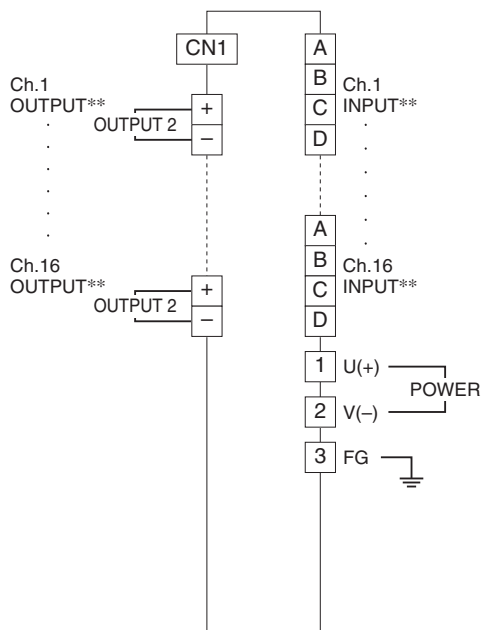
CN1: J-HAM50 / J-HMM00 module use

The output 1 is connected to the connector.

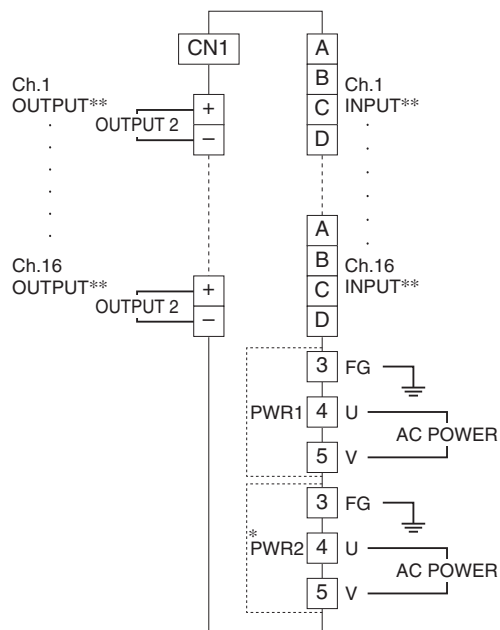
Pico-M LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AZBIL DCS AI CONNECTOR															

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L



* For power supply unit code KK only.

** 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-16K2 (Azbil DCS J-AOM10 module use / screw terminal block)

I/O cable: J-RSL / J-RSK
J-RRL / J-RRK

• Location

Output connector: 57GE-40500-751

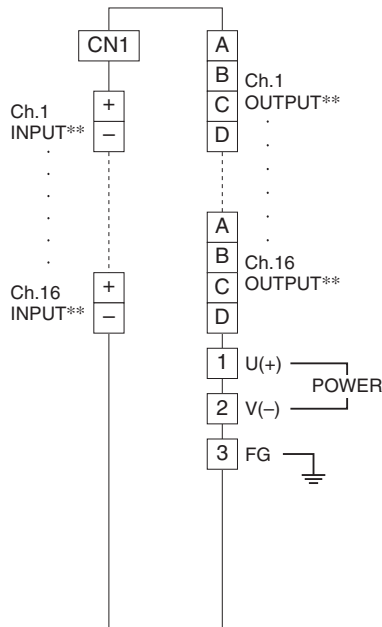
CN1: J-AOM10 module use

The input is connected to the connector. Install the Extender Module (model: M8BWx) to unused channels in order to close the circuit.

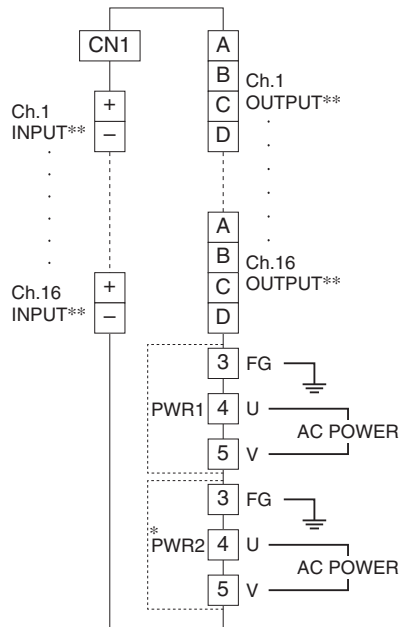
Pico-M LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AZBIL DCS AO CONNECTOR															

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L



* For power supply unit code KK only.

** The input terminals are not usable for J-AOM10 module.

The input and output terminals are reversed for models other than the M8YSx, M8YCx.

MODEL: M8BS-16

■ MODEL: M8BS-16K3 (Azbil DCS J-HAM50/J-HMM00 module use / Azbil DCS J-HAM50/JHMM00 module use)

I/O cable: J-RSL / J-RSK
J-RRL / J-RRK

• Location

Input connector: 57GE-40500-751

CN1: J-HAM50 / J-HMM00 module use
(output 1)

CN2: J-HAM50 / J-HMM00 module use
(output 2)

Pico-M LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AZBIL DCS AI CONNECTOR															

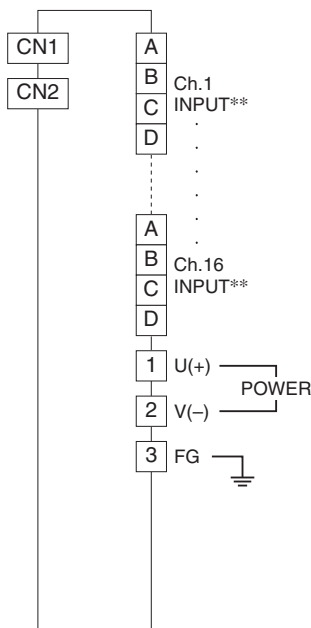
• Connector Pin Assignment (CN1, CN2)

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
3	ch.1 +	4	ch.1 -
5	ch.2 +	6	ch.2 -
7	ch.3 +	8	ch.3 -
9	ch.4 +	10	ch.4 -
27	ch.5 +	26	ch.5 -
29	ch.6 +	28	ch.6 -
31	ch.7 +	30	ch.7 -
33	ch.8 +	32	ch.8 -
11	ch.9 +	12	ch.9 -
13	ch.10 +	14	ch.10 -
15	ch.11 +	16	ch.11 -
17	ch.12 +	18	ch.12 -
19	ch.13 +	20	ch.13 -
21	ch.14 +	22	ch.14 -
23	ch.15 +	24	ch.15 -
25	ch.16 +	50	ch.16 -
34 - 47: Unused			

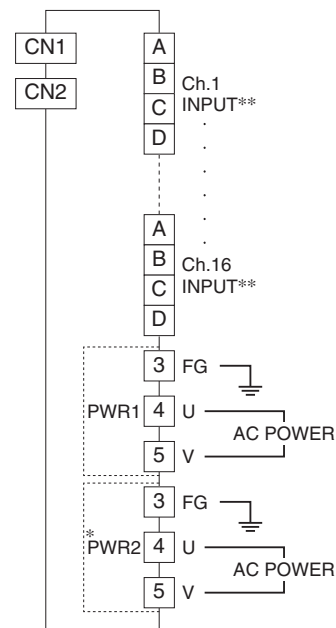
1 - 2, 48 - 49 are connected.

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L



* For power supply unit code KK only.
** The input and output terminals are reversed for model M8YSx, M8YCx.
Use either Output 1 or Output 2 connector for the input.

■ MODEL: M8BS-16Y1 (Yokogawa DCS VMx/PM1 card use / screw terminal block)

• Location

I/O Connector: PS-40PE-D4T1-PN1

CN1: VMx / PM1 card use*

The input or output 1 is connected to the connector.

Pico-M LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VM1/PM1/VM4 CARD INPUT or OUTPUT															
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
VM2 CARD INPUT NO.								VM2 CARD OUTPUT NO.							

*VMx / PM1 card (uses KS2 cable)

VM1: analog input 16 points

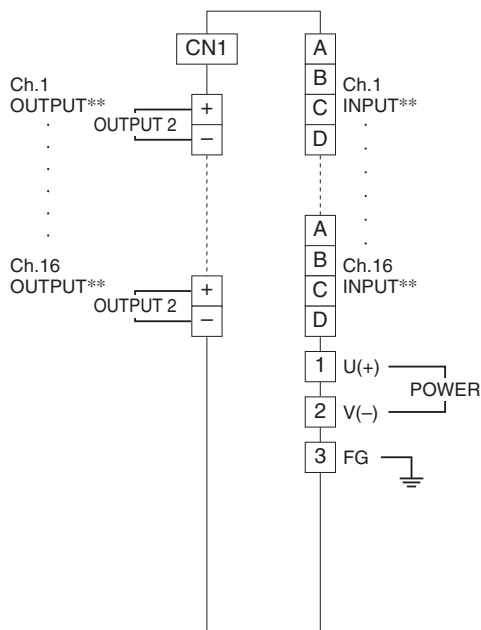
VM2: analog input 8 points / analog output 8 points

VM4: analog output 16 points

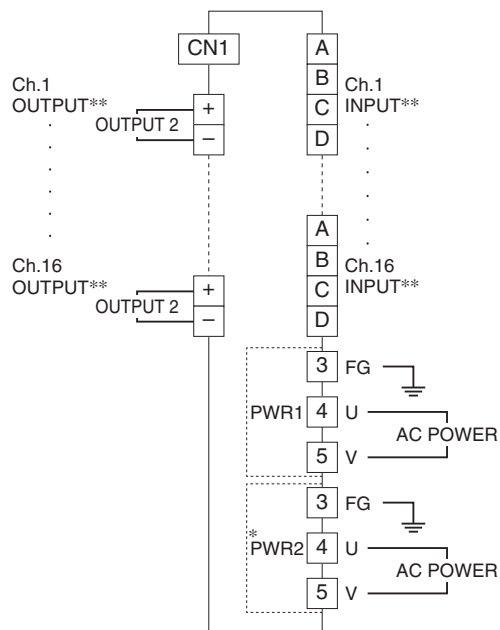
PM1: pulse input 16 points

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L



* For power supply unit code KK only.

** 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-16Y2 (Yokogawa DCS MAC2/PAC card use (PS-40PE-D4T1-PN1) / screw terminal block)

• Location

I/O Connector: PS-40PE-D4T1-PN1

CN1: MAC2 / PAC card use*

CN2: MAC2 / PAC card use* (dual redundancy)

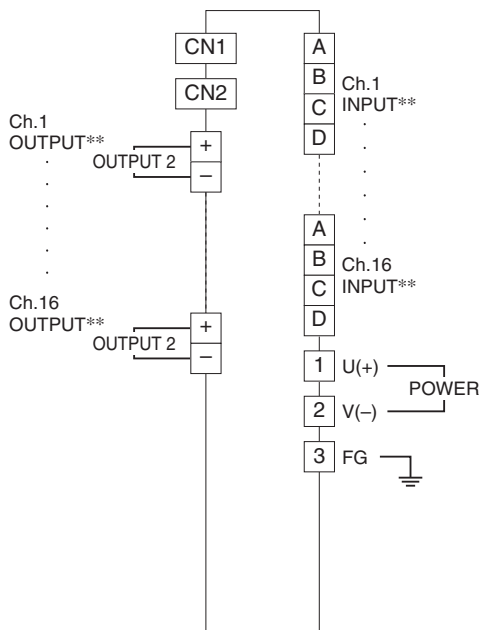
The input or output 1 is connected to the connector.

Pico-M LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
i	o	i	o	i	o	i	o	i	o	i	o	i	o	i	o
MAC2/PAC CARD INPUT (i) or OUTPUT (o)															

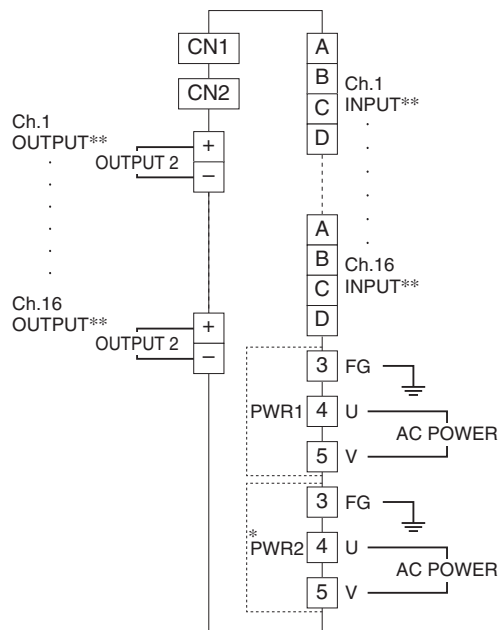
*The MAC2 card (uses KS1 cable) is used to control I/O in Yokogawa DCS. Input and output, each 8 points, are paired and located as shown above. The PAC card I/O allocation is the same as that for the MAC2 card, except that pulse input modules are used.

■ CONNECTION DIAGRAM

■ Power Supply Unit Code R, K



■ Power Supply Unit Code KK, L

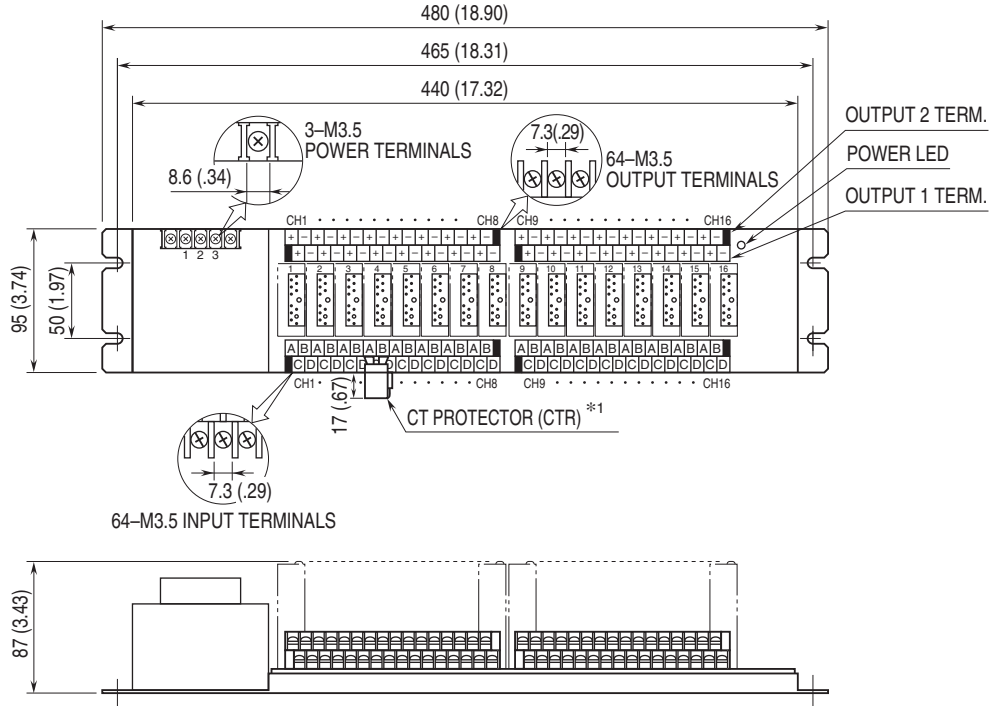


* For power supply unit code KK only.

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

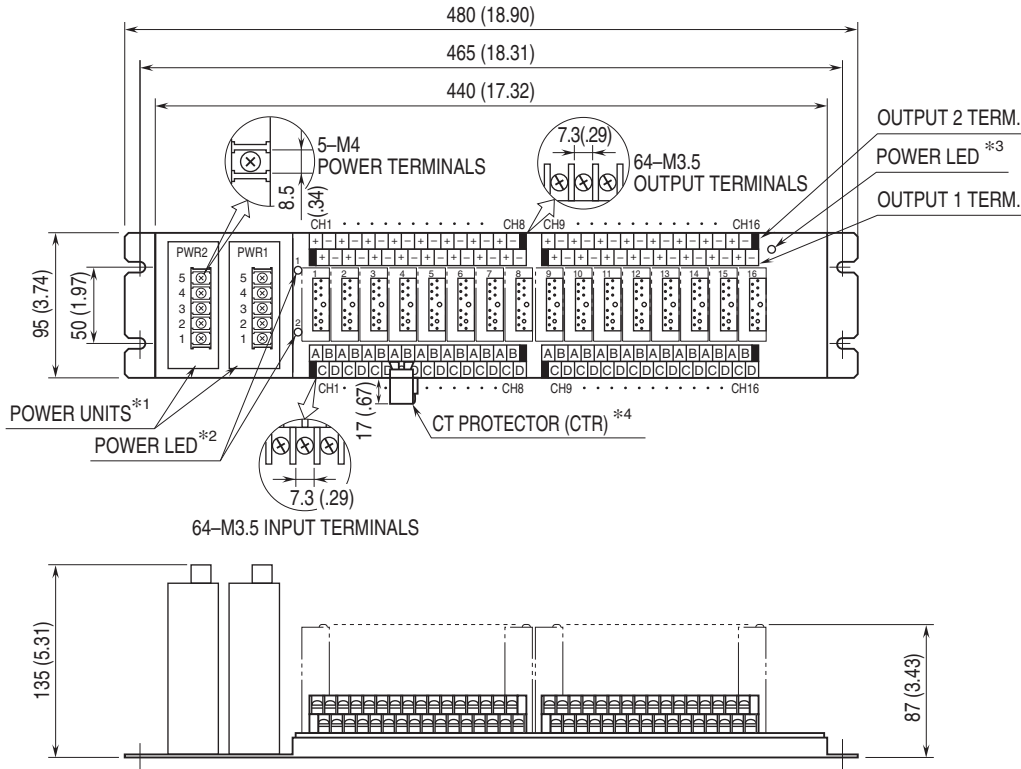
EXTERNAL DIMENSIONS unit: mm [inch]

■ M8BS-16U0-K, R



*1. Included with M8CTx.

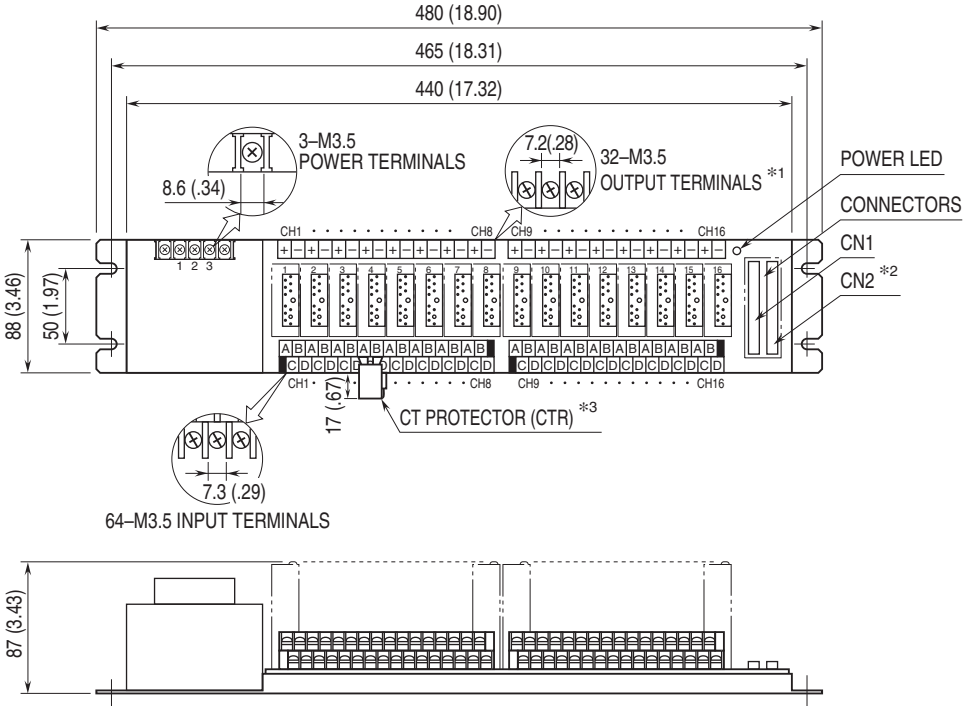
■ M8BS-16U0-KK, L



- *1. PWR2 provided only for power supply unit code KK.
- *2. For power supply unit code KK.
- *3. For power supply unit code L.
- *4. Included with M8CTx.

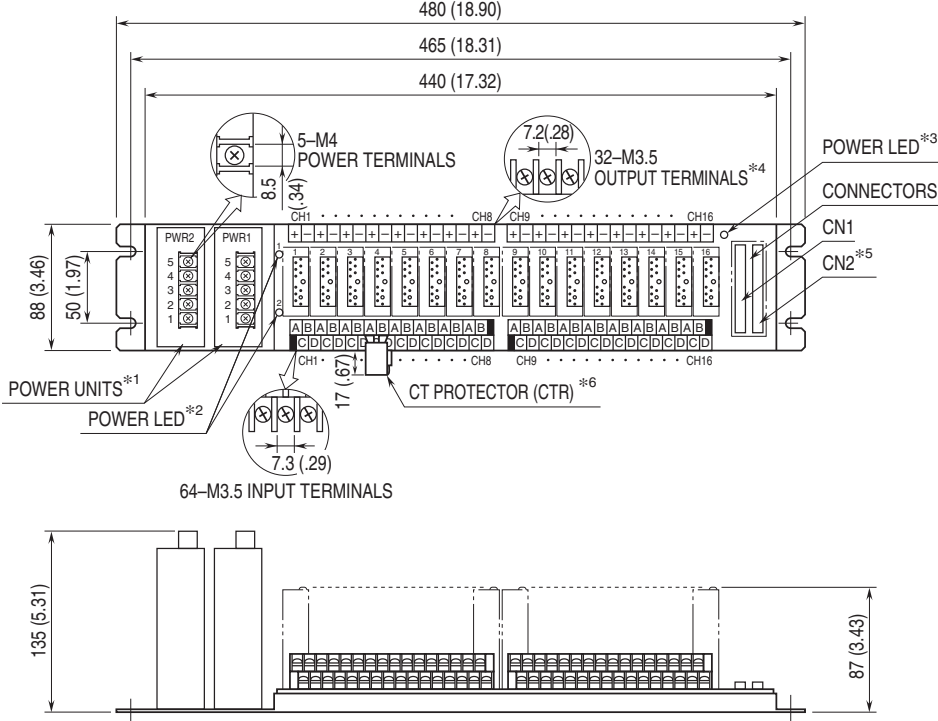
MODEL: M8BS-16

■ M8BS-16U1, U2, U5, K1, K2, K3, Y2-K, R



- *1. Not provided for M8BS-16U2 or K3.
- *2. For M8BS-16U2, K3 or Y2 only.
- *3. Included with M8CTx.

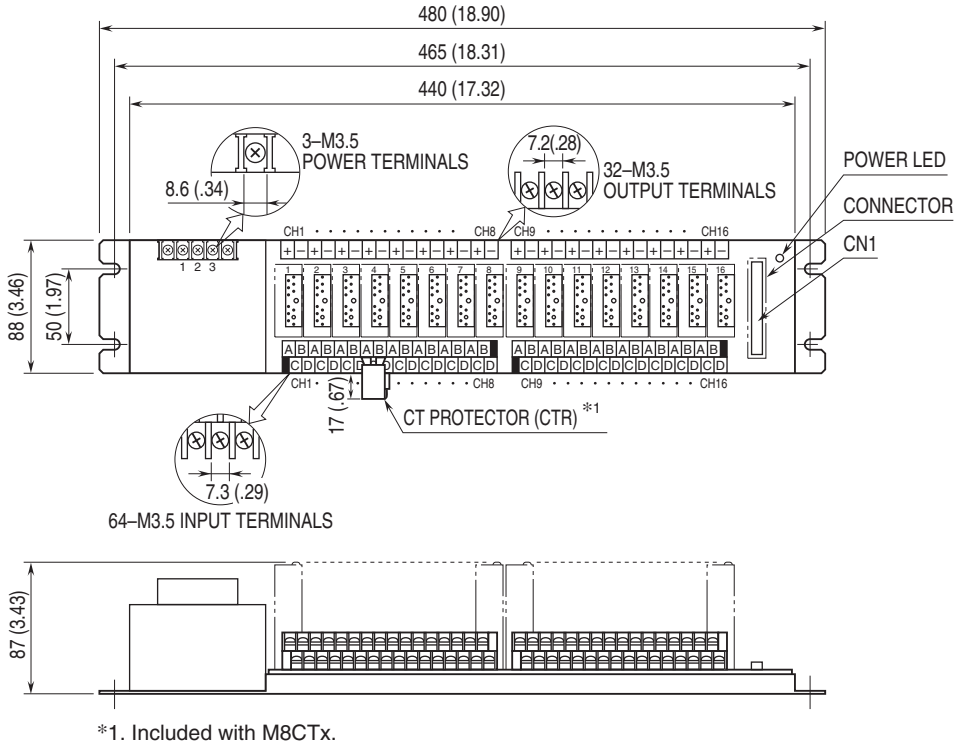
■ M8BS-16U1, U2, U5, K1, K2, K3, Y2-KK, L



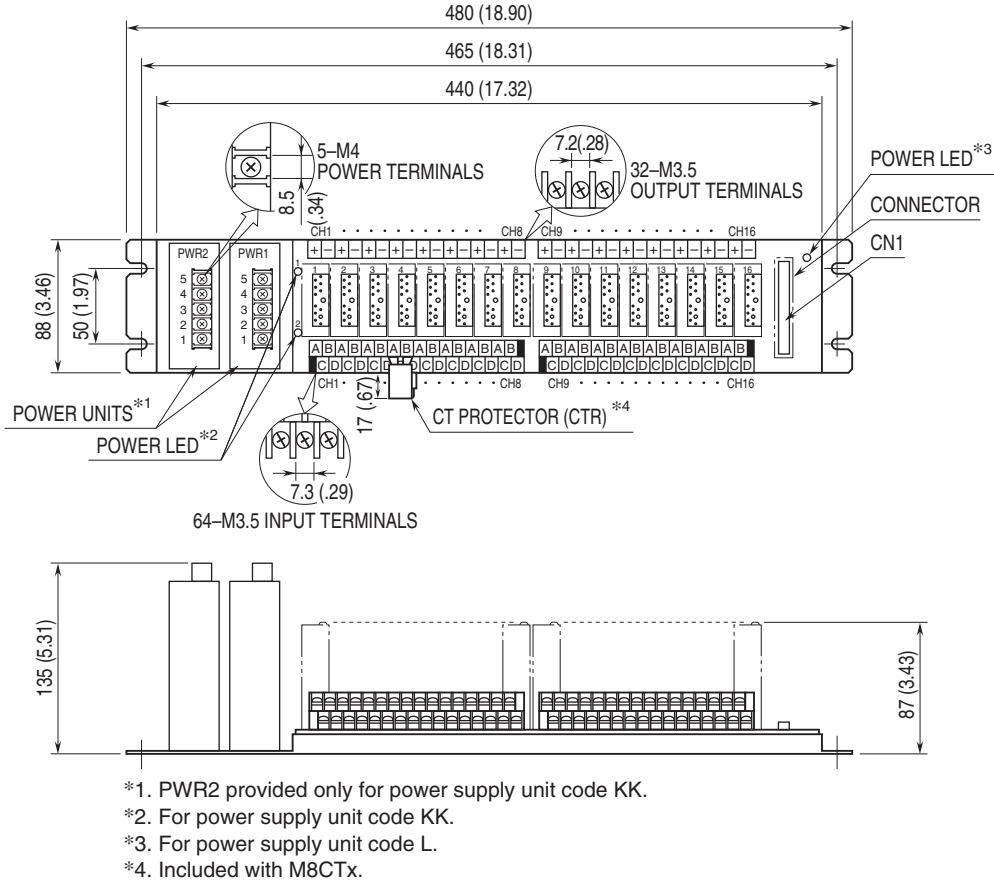
- *1. PWR2 provided only for power supply unit code KK.
- *2. For power supply unit code KK.
- *3. For power supply unit code L.
- *4. Not provided for M8BS-16U2 or K3.
- *5. For M8BS-16U2, K3 or Y2 only.
- *6. Included with M8CTx.

MODEL: M8BS-16

■ M8BS-16Y1-K, R



■ M8BS-16Y1-KK, L



- *1. PWR2 provided only for power supply unit code KK.
- *2. For power supply unit code KK.
- *3. For power supply unit code L.
- *4. Included with M8CTx.



Specifications are subject to change without notice.