

## Dual Output Super-mini Signal Conditioners Pico-M Series

/C02: Polyurethane coating

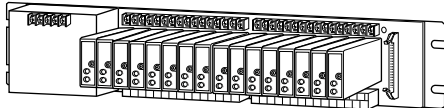
/C03: Rubber coating

### INSTALLATION BASE (16 positions)

(CE)

#### Functions & Features

- Holding up to 16 modules of Pico-M series signal conditioners
- Power for the I/O modules supplied via printed wiring on the base
- Wiring within the instrumentation panel is minimized through the collective power input terminal



### PACKAGE INCLUDES...

- Ferrite core (model: GRFC-10)(Kitagawa Industries): 1 pce. (Only for M2 power)

### GENERAL SPECIFICATIONS

**Capacity:** 16 positions

**Connection**

**Power input**

**M2:** M3 screw terminals (torque 0.8 N·m)

**R:** M3.5 screw terminals (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

(For AC power model, LED is on the AC power unit)

### MODEL: M8BS1-16[1]-[2][3]

### ORDERING INFORMATION

- Code number: M8BS1-16[1]-[2][3]

Specify a code from below for each of [1] through [3].

(e.g. M8BS1-16U0-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

**U3:** Omron MIL type connector / Screw terminal block

**Y1:** Yokogawa DCS VMx/PM1 card use / Screw terminal block

### [2] POWER INPUT

AC Power

**M2:** 100 - 240 V AC (Operational voltage range 85 - 264 V, 47 - 63 Hz)

DC Power

**R:** 24 V DC

(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

### [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

### 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)

30 to 85 %RH for AC power

**Atmosphere:** No corrosive gas or heavy dust

**Mounting:** Surface

**Weight**

**M8BS1-16U0:**

1.9 kg (4.2 lb) for power code M2

1.5 kg (3.3 lb) for power code R

**M8BS1-16U3, M8BS1-16Y1:**

1.7 kg (3.7 lb) for power code M2

1.3 kg (2.9 lb) for power code R

### PERFORMANCE

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength**

**DC power:**

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)

**AC power:**

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

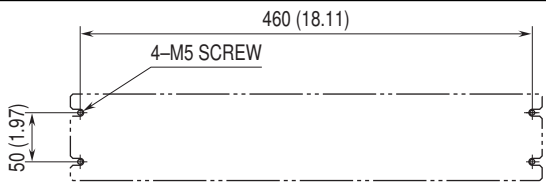
1500 V AC @1 minute (input to FG)

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

**STANDARDS & APPROVALS**

**EU conformity:**  
 EMC Directive  
 EMI EN 61000-6-4  
 EMS EN 61000-6-2  
 Low Voltage Directive  
 The AC power unit conforms with the following standards:  
 EN 50178  
 Installation Category II  
 Pollution Degree 2  
 Max. operating voltage 300 V  
 RoHS Directive

**MOUNTING REQUIREMENTS unit: mm (inch)**

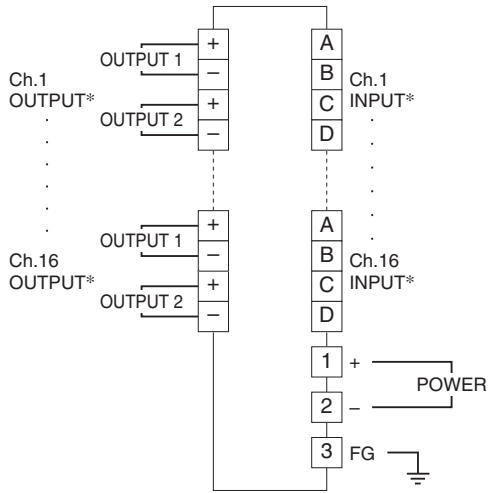


**CONNECTION DIAGRAM**

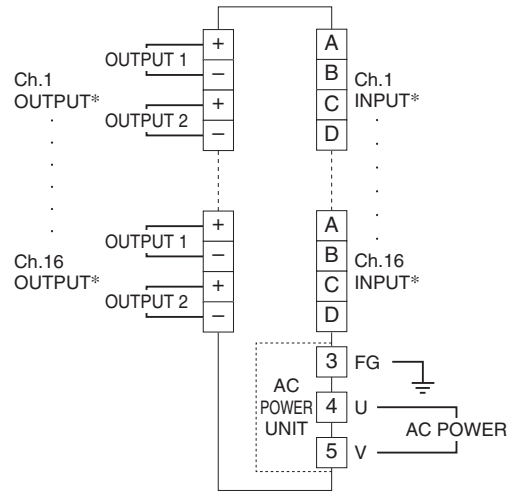
■ MODEL: M8BS1-16U0 (screw terminal block / screw terminal block)

■ CONNECTION DIAGRAM

■ DC Power Supply



■ AC Power Supply



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

■ MODEL: M8BS1-16U3 (Omron MIL type connector, XG4A-3431 / screw terminal block)

· Connector Pin Assignment

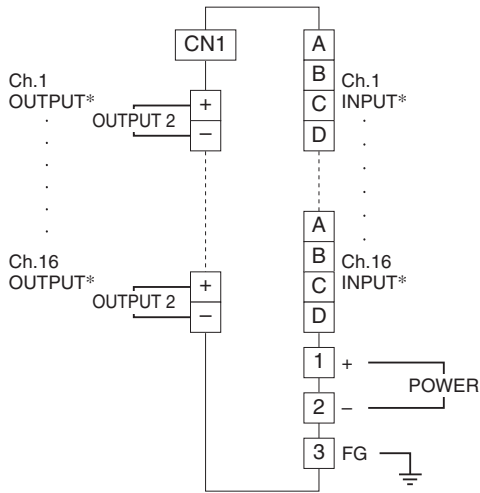
CN1:

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

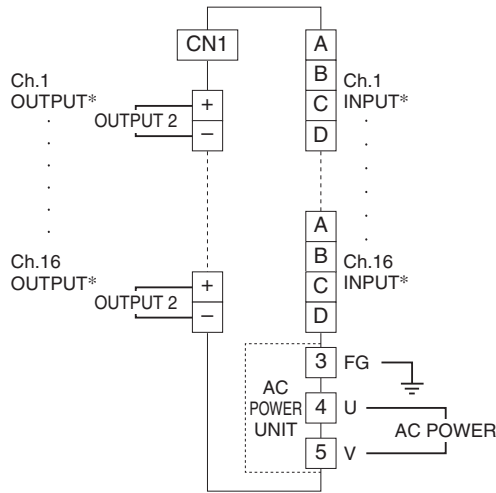
33, 34: Unused

■ CONNECTION DIAGRAM

■ DC Power Supply



■ AC Power Supply



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

■ MODEL: M8BS1-16Y1 (Yokogawa DCS VMx/PM1 card use (PS-40PE-D4T1-PN1) / 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

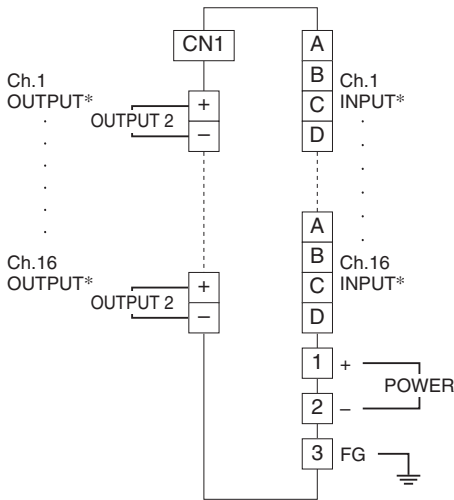
VM2: analog input 8 points / analog output 8 points

VM4: analog output 16 points

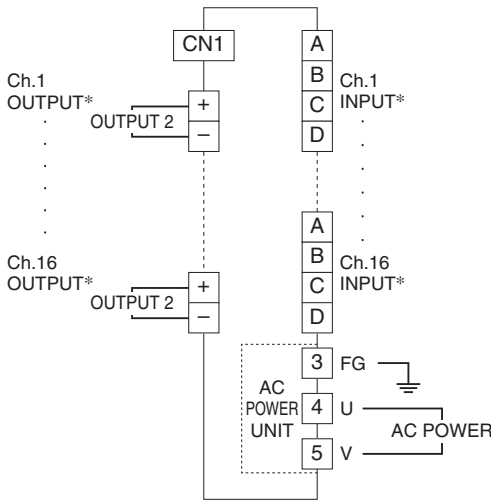
PM1: pulse input 16 points

■ CONNECTION DIAGRAM

■ DC Power Supply



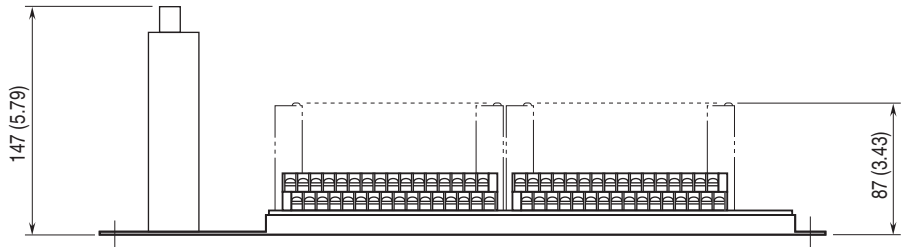
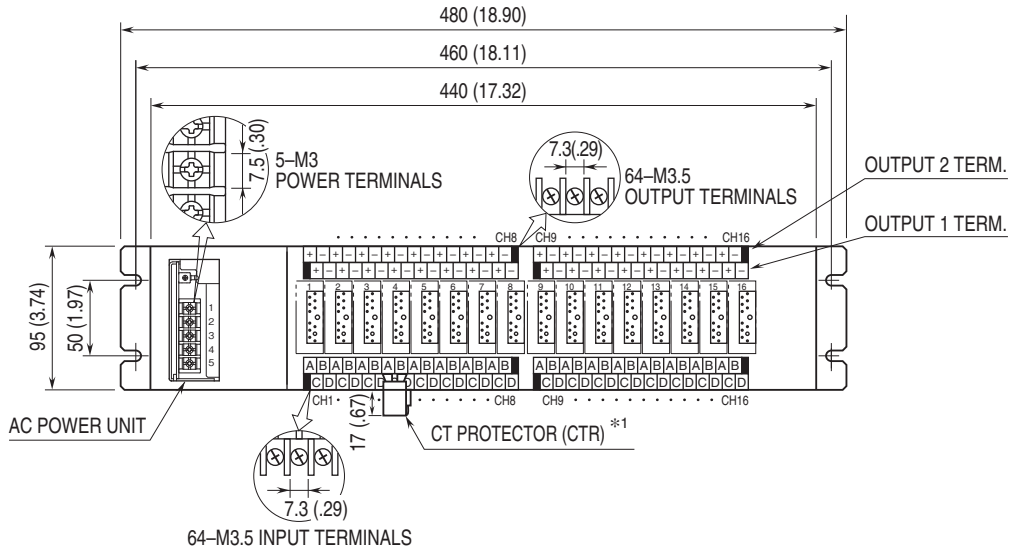
■ AC Power Supply



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

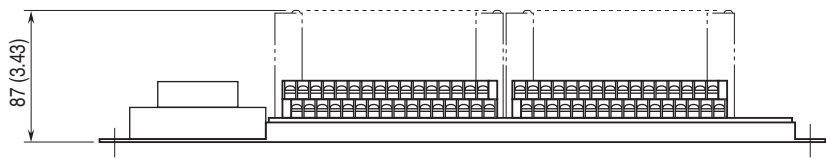
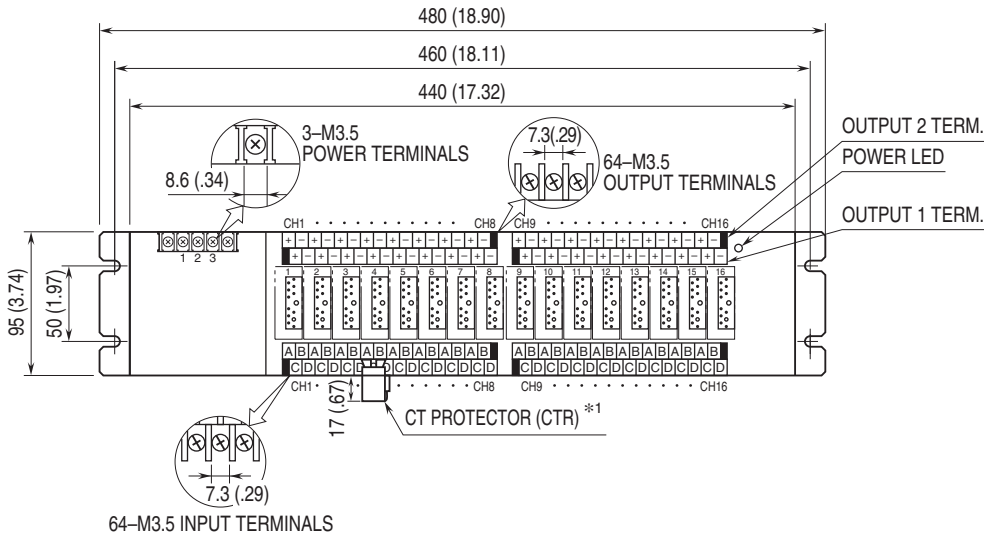
**EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS** unit: mm [inch]

■ M8BS1-16U0-M2



\*1. Included with M8CTx.

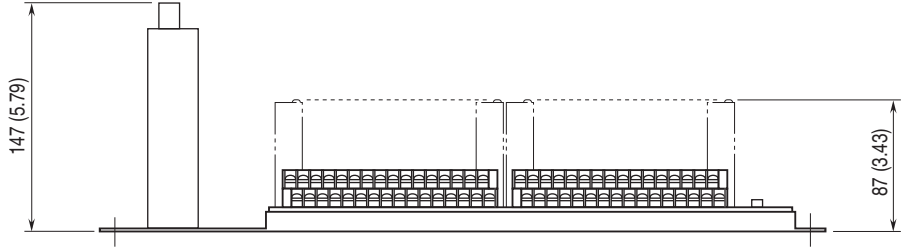
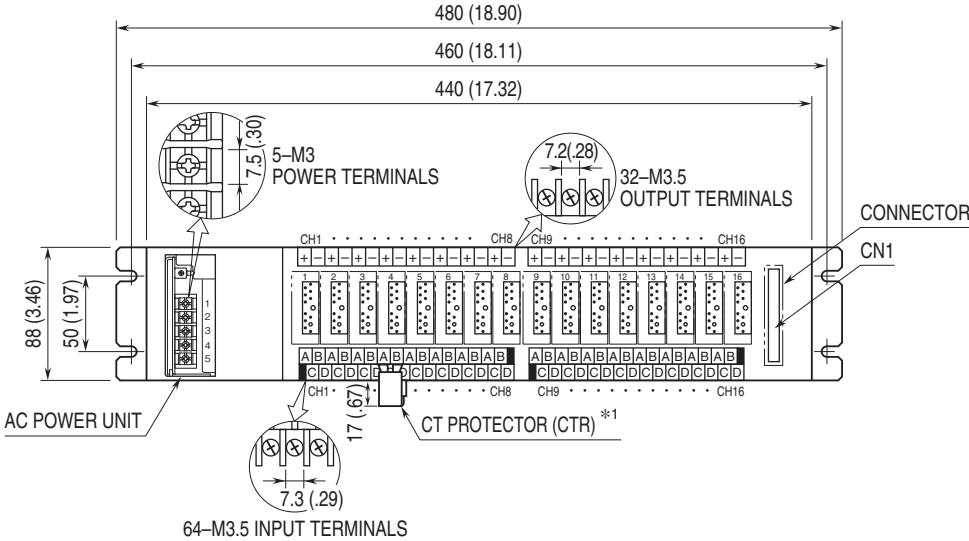
■ M8BS1-16U0-R



\*1. Included with M8CTx.

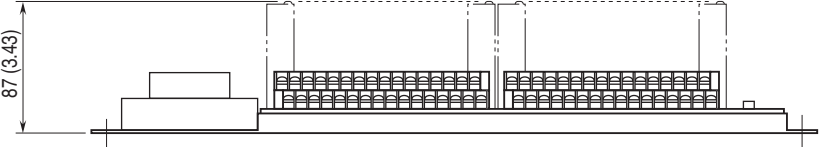
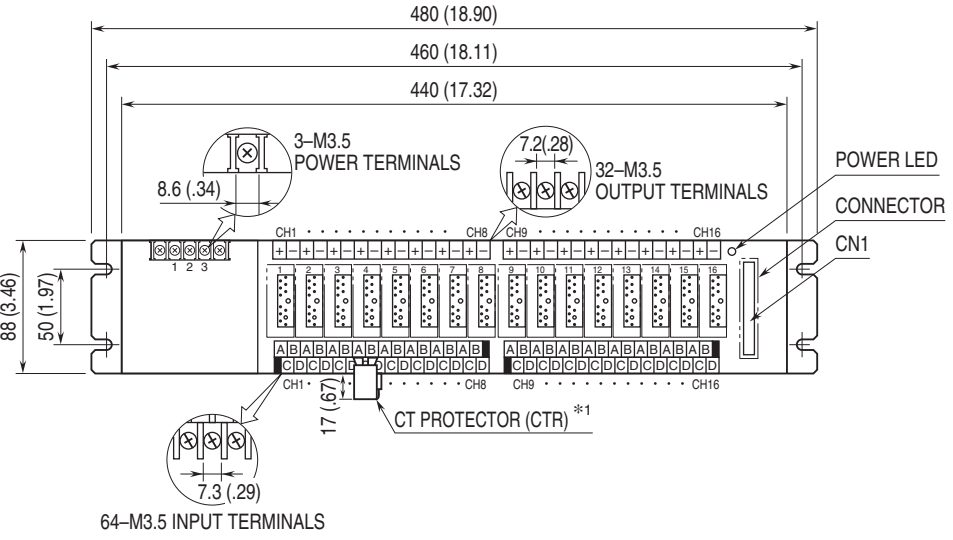
# MODEL: M8BS1-16

■ M8BS1-16U3-M2, M8BS1-16Y1-M2



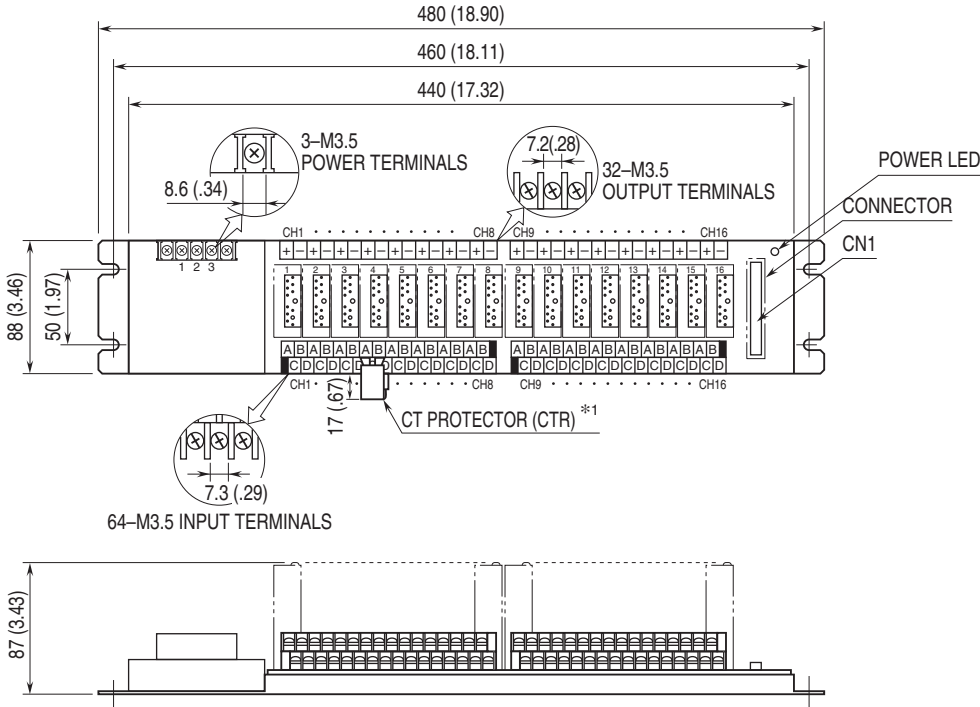
\*1. Included with M8CTx.

■ M8BS1-16U3-R




\*1. Included with M8CTx.

■ M8BS1-16Y1-R



\*1. Included with M8CTx.

 Specifications are subject to change without notice.