### INSTRUCTION MANUAL

# INSTALLATION BASE

(16 positions, Yokogawa DCS MAC2 / PAC card use / M3.5 screw terminal)

MODEL M8BS-16Y2

### BEFORE USE ....

Thank you for choosing us. Before use, please check contents of the package you received as outlined below. If you have any problems or questions with the product, please contact our sales office or representatives.

#### **■ PACKAGE INCLUDES:**

Installation base.....(1)

#### ■ MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

#### **■INSTRUCTION MANUAL**

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

### **POINTS OF CAUTION**

#### **■ POWER INPUT RATING & OPERATIONAL RANGE**

• Locate the power input rating marked on the product and confirm its operational range as indicated below: 85 - 132V AC rating: 85 - 132V, 47 - 63 Hz,  $\ge 130V$ A 170 - 264V AC rating: 170 - 264V, 47 - 63Hz,  $\ge 130$ VA 24V DC rating: 24V  $\pm 10\%$ , ≥ 2.5A

#### **■ GENERAL PRECAUTIONS**

• Before you remove the unit from the base or mount it, turn off the power supply and input signal for safety.

### **■** ENVIRONMENT

- Indoor use.
- When heavy dust or metal particles are present in the air, install the installation base inside proper housing and ventilate it.
- Do not install the base where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within 0 to 55°C or 32 to  $131^{\circ}F$  (0 to  $50^{\circ}C$  or 32 to  $122^{\circ}F$  for AC power) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.
- Be sure that the ventilation slits are not covered with cables, etc.

#### **■** WIRING

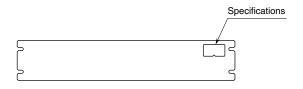
- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.
- Be sure to close the terminal cover for safety.

#### ■ AND ....

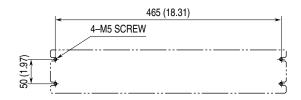
• The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

# **COMPONENT IDENTIFICATION**

#### **■ REAR VIEW**



# MOUNTING REQUIREMENTS unit: mm (inch)

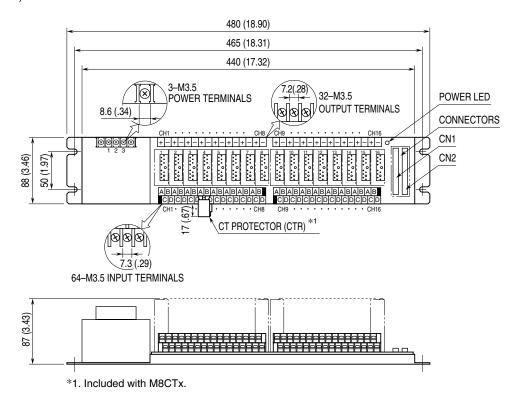


## **TERMINAL CONNECTIONS**

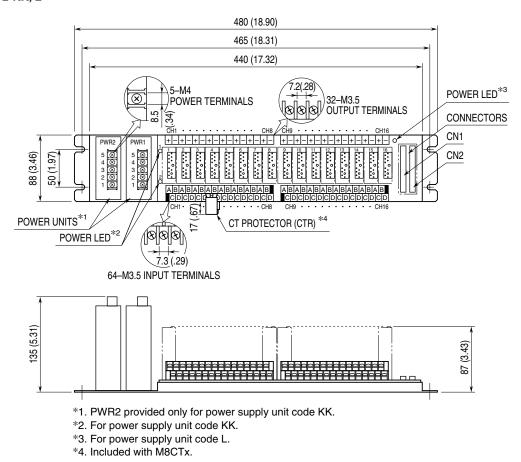
Connect the unit as in the diagram below.

### **■ EXTERNAL DIMENSIONS** unit: mm (inch)

#### • M8BS-16Y2-K, R



#### • M8BS-16Y2-KK, L



#### **■ CONNECTOR PIN ASSIGNMENT**

Connector type: Yokogawa DCS MAC2 / PAC card use (PS-40PE-D4T1-PN1)

CN1: MAC2 / PAC card use\*

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

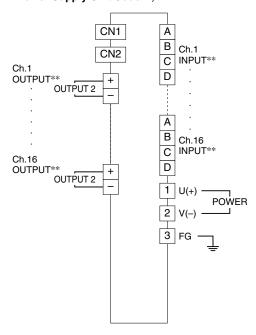
The input or output 1 is connected to the connector.

	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	0	i	0	i	0	i	0	i	0	i	0	i	0	i	0
	MAC2 / PAC CARD INPUT (i) or OUTPUT (o)														

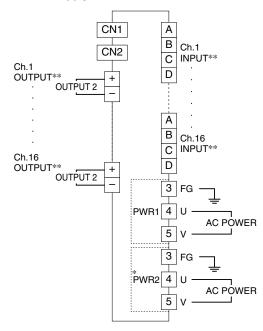
<sup>\*</sup> The MAC2 card (uses KS1 cable) is used to control I/O in Yokogawa DCS. Input and output, each 8 points, are paired and located as shown above. The PAC card I/O allocation is the same as that for the MAC2 card, except that pulse input modules are used.

#### **■ 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.

### WIRING INSTRUCTIONS

■ M3.5 Screw (I/O, power supply unit code: K, R)

Torque: 0.8 N·m

■ M4 Screw (power supply unit code: KK, L)

Torque: 0.8 N·m

### **CHECKING**

- 1) Terminal wiring: Check that all cables are correctly connected according to the connection diagram.
- 2) Power input voltage: Check voltage across the power terminals.
- 3) Installation & environment

### **MAINTENANCE**

For maintaining AC power supply types, Power Supply Units are available as follows:

- $\bullet$  85 132V AC single power supply: HDC6-1
- $\bullet$  85 132V AC two independent power sources: HDC4-K-R
- 170 264V AC single power supply: HDC4-L-R

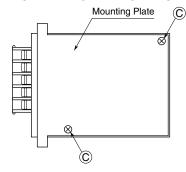
Power units' standard life is expected for 10 years with average ambient temperature 35°C (95°F) and 1.0A load. Contact us for use in extremely different conditions.

### ■ HOW TO REPLACE THE POWER UNIT (power supply unit code: KK, L)

- 1) Prepare Power Unit (switching regulator) model HDC4-K-R or HDC4-L-R.
- 2) Turn off the power supply connected to the Power Unit.
- 3) Remove the wire binding and wiring connected to the terminal 1-2 and 4-5.
- 4) Loosen and remove the mounting screws A (4 places). Remove also the screws **B** behind the base plate, fixing the unit to be replaced.
- 5) Detach the Power Unit from the Installation Base.
- 6) Remove the mounting screws C (2 places) from the new Power Unit.
- 7) Separate the new Power Unit from the mounting plate.
- 8) Attach the new Power Unit to the Installation Base and tighten the screws in reverse order as explained above.

# **■ FRONT VIEW ■ REAR VIEW** A (3) (3) (3) 3 (B)

#### ■ SIDE VIEW OF THE POWER UNIT

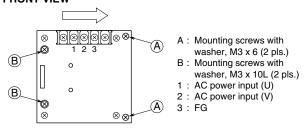


- A: Mounting screws with washer, M3 x 6 (4 pls.)
- Mounting screws with washer. M3 x 5 (2 pls. per unit)
- Flat-head mounting screws, M3 x 4 (+) (2 pls.)
- 24V DC (+)
- 2 : 24V DC (-) 3 : FG
- : AC power input (U)
- : AC power input (V)

#### ■ HOW TO REPLACE THE POWER UNIT (power supply unit code: K)

- 1) Prepare Power Unit (switching regulator) model HDC6-
- 2) Turn off the power supply connected to the Power Unit.
- 3) Remove the wiring connected to the terminals 1-2 and
- 4) Loosen and remove the mounting screws A (2 places). Loosen the mounting screws **B** (2 places) and pull out the Power Unit in sliding it to the direction pointed by the arrow in the figure below.
- 5) Disconnect the connectors of the Power Unit.
- 6) Place the new Power Unit in reverse order as explained above.

#### **■ FRONT VIEW**



Note: Check that the internal wiring does not get caught between other objects when assembling.

# **LIGHTNING SURGE PROTECTION**

We offer a series of lightning surge protector for protection against induced lightning surges. Please contact us to choose appropriate models.