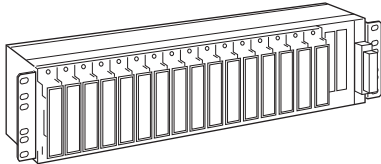


## Rack-mounted DCS Signal Conditioners 18-RACK

### STANDARD RACK

#### Functions & Features

- Standard 19" rack for 18-RACK signal conditioners
- Line power access at the terminal card, supplied via the rear rack bus
- Direct interface to various DCS with the rack side connector



### MODEL: 18BXC-1[1][2]

#### ORDERING INFORMATION

- Code number: 18BXC-1[1][2]

Specify a code from below for [1] and [2]  
(e.g. 18BXC-11/W)

#### FUNCTION

1: Power distribution

#### [1] CONNECTOR

- 1: Fujitsu FCN type I/O connector
  - 2: Yokogawa VMx / PM1 card use
  - 3: Yokogawa MAC2 / PAC card use
  - H1: Hitachi DCS EX connector
  - H2: Hitachi DCS EX-CDL cable connector
  - E5: Toshiba DCS VAIMX1 card use
  - E6: Toshiba DCS VAOPX1 card use
  - K1: Yamatake DCS AI connector
  - K2: Yamatake DCS AO connector
  - K5: Yamatake DCS PI connector
  - V1: Shimadzu DCS connector
- M-System guarantees the connecting section.

#### [2] OPTIONS

##### Mounting Bracket

- blank: Rack mounting, standard
- /W: Surface mounting

#### RELATED PRODUCTS

- Blank filler plate (model: P-181)
- Connector terminal block (model: CNT)
- Special cable with 40-pin connector (model: FCN)

#### GENERAL SPECIFICATIONS

**Construction:** Metal plates assembly

**Coating:** Colored Zn-Cr

**Capacity:** 16 positions

**Connection**

**Power input:** M4 screw terminals (torque 0.8 N·m)

**Screw terminal:** Nickel-plated brass

#### INSTALLATION

**Power input**

•DC: Operating voltage range 24 V DC  $\pm 10\%$ , 2.5 A minimum (ripple 10 % p-p max.)

**Operating temperature:** -5 to +55°C (23 to 131°F)

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

**Mounting:** JIS or EIA standard rack or surface

**Weight:** 1.7 kg (3.7 lbs)

#### PERFORMANCE

**Insulation resistance:**  $\geq 100\text{ M}\Omega$  with 500 V DC

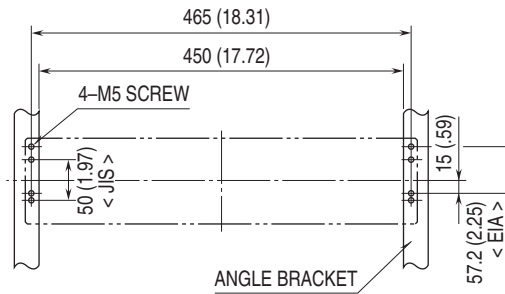
(I/O connector to power to FG)

**Dielectric strength:**

500 V AC @ 1 minute (I/O connector to power)

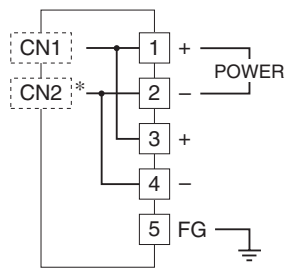
1000 V AC @ 1 minute (I/O connector or power to FG)

## MOUNTING REQUIREMENTS



Observe appropriate wiring space over and under the rack.

## CONNECTION DIAGRAM

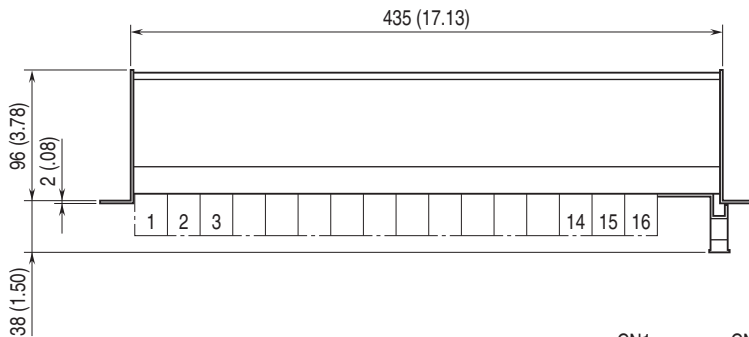


\* CN2 is connectable with:

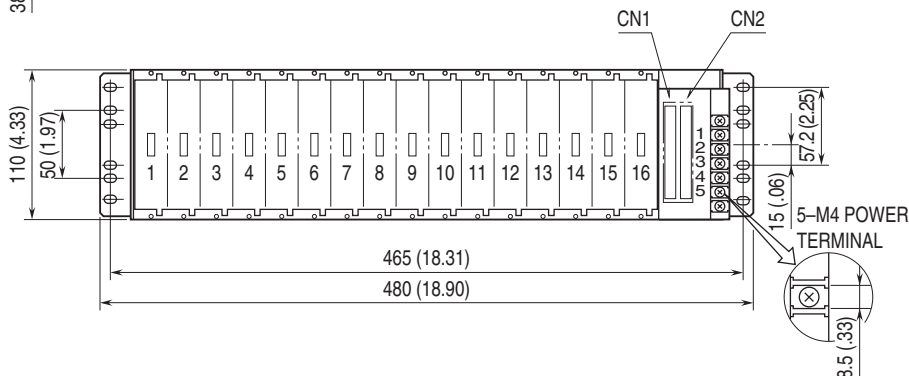
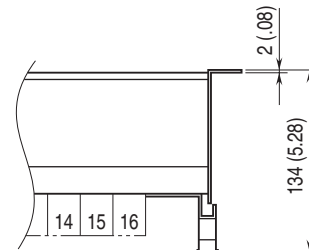
- Fujitsu FCN type I/O connector
- Yokogawa DCS MAC2/PAC card use
- Hitachi DCS EX connector
- Toshiba DCS VAOPX1 card use
- Yamatake DCS PI connector

## DIMENSIONS unit: mm (inch)

■ RACK (standard)



■ SURFACE (option /W)



**I/O CONNECTOR PIN ASSIGNMENT**

•Fujitsu FCN type I/O connector

(Fujitsu FCN-365P040-AU)

**Connector Pin Assignment**

**CN1:** output 1 or input

**CN2:** output 2

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
A 1	ch. 1 +	B 1	ch. 1 -
A 2	ch. 2 +	B 2	ch. 2 -
A 3	ch. 3 +	B 3	ch. 3 -
A 4	ch. 4 +	B 4	ch. 4 -
A 5	ch. 5 +	B 5	ch. 5 -
A 6	ch. 6 +	B 6	ch. 6 -
A 7	ch. 7 +	B 7	ch. 7 -
A 8	ch. 8 +	B 8	ch. 8 -
A 9	ch. 9 +	B 9	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

Pin assignment is common to both CN1 and CN2.

•Yokogawa DCS VM □ / PM1 card use

(PS-40PE-D4LT1-PN1)

**Location**

**CN1:** VM□ / PM1 card use\*

The input or output 1 is connected to the connector.

18-RACK 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.							

\*VM□ / 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

•Yokogawa DCS MAC2 / PAC card use

(PS-40PE-D4LT1-PN1)

**Location**

**CN1:** MAC2 / PAC card use\*

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

The input or output 1 is connected to the connector.

18-RACK 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 I/O (i = input, o = output)															

\*MAC2 card (uses KS1 cable)

I/O card used for control I/O. Composed of 8 inputs and 8 outputs. Input and output are paired. (Replace with pulse inputs for PAC card.)

Specifications subject to change without notice.

•Hitachi DCS EX connector (DN10-36S)

**Connector Pin Assignment**

**CN1:** output 1

**CN2:** output 2

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

Pin assignment is common to both CN1 and CN2.

• **Hitachi DCS EX-CDL cable connector**  
(57LE-40360-7700 [D34])

**Connector Pin Assignment**

CN1: output 1

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

• **Toshiba DCS VAIMX1 card use** (57LE-40360-7700)

**Connector Pin Assignment**

CN1: output 1

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

• **Toshiba DCS VAOPX1 card use**  
(57LE-40360-7700)

**Connector Pin Assignment**

CN1, CN2: input

CN1 PIN NO.	ASSIGNMENT	CN2 PIN NO.	ASSIGNMENT
1	ch. 1 +	1	ch. 9 +
19	ch. 1 -	19	ch. 9 -
3	ch. 2 +	3	ch.10 +
21	ch. 2 -	21	ch.10 -
5	ch. 3 +	5	ch.11 +
23	ch. 3 -	23	ch.11 -
7	ch. 4 +	7	ch.12 +
25	ch. 4 -	25	ch.12 -
9	ch. 5 +	9	ch.13 +
27	ch. 5 -	27	ch.13 -
11	ch. 6 +	11	ch.14 +
29	ch. 6 -	29	ch.14 -
13	ch. 7 +	13	ch.15 +
31	ch. 7 -	31	ch.15 -
15	ch. 8 +	15	ch.16 +
33	ch. 8 -	33	ch.16 -

• **Yamatake DCS AI connector**

**Location**

**Input connector:** 57LE-40500-7300

CN1: AI use

18-RACK 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
YAMATAKE DCS AI CARD (J-HAM50/HMM00) INPUT															

• **Yamatake DCS AO connector**

**Location**

**Output connector:** 57LE-40500-7300

CN1: AO use

18-RACK 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
YAMATAKE DCS AO CARD (J-AOM10) OUTPUT															

• **Yamatake DCS PI connector**

**Location**

**Output connector:** 57LE-40500-7300

CN1: PI use

18-RACK 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	1	2	3	4	5	6	7	8
YAMATAKE DCS PI CARD (J-PIM00) INPUT NO.								YAMATAKE DCS PI CARD (J-PIM00) INPUT NO.							

• **Shimadzu DCS connector**

(HIF3BA-20PA-2.54DS)

**Connector Pin Assignment**

CN1: output 1

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
A1	----	B1	ch.1 thr. 16 -
A2	ch. 1 +	B2	ch. 2 +
A3	ch. 3 +	B3	ch. 4 +
A4	ch. 5 +	B4	ch. 6 +
A5	ch. 7 +	B5	ch. 8 +
A6	ch. 9 +	B6	ch.10 +
A7	ch.11 +	B7	ch.12 +
A8	ch.13 +	B8	ch.14 +
A9	ch.15 +	B9	ch.16 +
A10	ch.1 thr. 16 -	B10	----

A1 and B10 are shortcircuited.



Specifications are subject to change without notice.