

DCS Input/Output Relay Card Series

STANDARD RACK

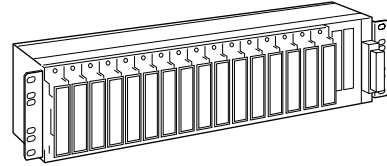
MODEL **38BXC**S

MODEL & SUFFIX CODE SELECTION

38BXC**S**-□□

MODEL _____
 CONNECTOR _____
Y1 : Yokogawa KS2 cable use
Y2 : Yokogawa KS9 cable use
Y6 : Yokogawa FA-M3/F3XD32-3N use
Y7 : Yokogawa FA-M3/F3YD32-1A use
U1 : Fujitsu FCN connector (16 points, 2 pcs.)
U2 : Fujitsu FCN connector (32 points, 1 pc.)
K1 : Yamatake DCS DI connector
K2 : Yamatake DCS DO connector
K3 : Yamatake DCS J-DIM00 DI connector
H1 : Hitachi DCS connector

OPTIONS _____
Mounting
 : Rack mounting, standard (blank)
/W : Surface mounting



Functions & Features

The 38B series I/O Relay Cards easily and quickly standardize and facilitate installation of the DCS relay board. The standard Rack (Nest) model 38BXC S can accept at the maximum of 32 points.

- 2 channels standard on each input or output card
- Test switch provided for checking the controller (DCS) operation
- Simple connection to the controller with connectors
- Input relay card is standard with two sets of a relay contact input and a re-transmitted output
- Output relay card is standard with two sets of two relay contact outputs

ORDERING INFORMATION

Specify code number. (e.g. 38BXC S-U1/W)

RELATED PRODUCTS

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

GENERAL SPECIFICATIONS

Construction: metal plates assembly; power terminal cover provided
Capacity: 16 positions
Connection: M4 screw terminals (torque 0.8 N·m)

INSTALLATION

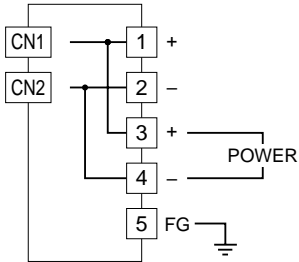
Power input: 24V DC ±10%, 2.5A minimum (ripple 10% p-p max.)
Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 30 to 90% RH (non-condensing)
Mounting: JIS or EIA standard rack or surface
Dimensions: W480×H110×D134 mm (18.90"×4.33"×5.28")
Weight: 1.7 kg (3.7 lbs)

PERFORMANCE

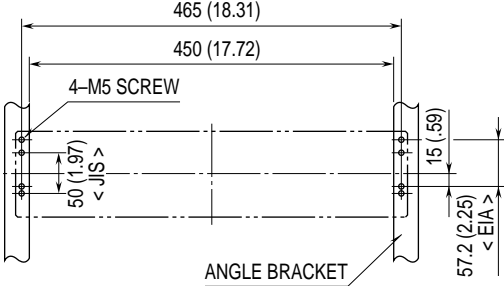
Current capacity at I/O signal lines: 0.3A max.
Insulation resistance: ≥100MΩ with 500V DC
Dielectric strength: 500V AC @1 minute (I/O connector to power)
 1000V AC @1 minute (I/O connector or power to FG)

TERMINAL CONNECTION

Remark: No.s of connectors may change with model suffix code.



MOUNTING REQUIREMENTS mm (inch)



Observe appropriate wiring space under the rack.

YOKOGAWA DCS

■38BXC-S-Y1: Yokogawa KS2 cable use

•Location

I/O connector: PS-40PE-D4LT1-PN1

CN1, CN2: ST2, ST3 and ST4 use*

CN1								CN2							
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO.															
2	4	6	8	10	12	14	16	2	4	6	8	10	12	14	16
1	3	5	7	9	11	13	15	1	3	5	7	9	11	13	15
ST CARD I/O NO.								ST CARD I/O NO.							

*ST2/ST3/ST4, using KS2 cable, are discrete I/O cards for Yokogawa DCS.

- ST2:** contact input 16 points,
contact output 16 points
- ST3:** contact input 16 points, 2 pcs. (32 points)
- ST4:** contact output 16 points, 2 pcs. (32 points)

■38BXC-S-Y6: Yokogawa FA-M3/F3XD32-3N use

•Location

CN1: Fujitsu FCN-365P040-AU

CN1 (32 points)															
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD OUTPUT NO.***															

***Use the 38-Rack Input Relay Cards.

•Connector Pin Assignments (CN1)

LOCATION No.	CH. No.	PIN No.	LOCATION No.	CH. No.	PIN No.
No. 1	ch. 1	A1	No. 9	ch.17	B1
	ch. 2	A2		ch.18	B2
No. 2	ch. 3	A3	No.10	ch.19	B3
	ch. 4	A4		ch.20	B4
No. 3	ch. 5	A5	No.11	ch.21	B5
	ch. 6	A6		ch.22	B6
No. 4	ch. 7	A7	No.12	ch.23	B7
	ch. 8	A8		ch.24	B8
No. 5	ch. 9	A10	No.13	ch.25	B10
	ch.10	A11		ch.26	B11
No. 6	ch.11	A12	No.14	ch.27	B12
	ch.12	A13		ch.28	B13
No. 7	ch.13	A14	No.15	ch.29	B14
	ch.14	A15		ch.30	B15
No. 8	ch.15	A16	No.16	ch.31	B16
	ch.16	A17		ch.32	B17

ch.1 through ch.32

Negative common A9, A18, B9, B18

■38BXC-S-Y2: Yokogawa KS9 cable use

•Location

I/O connector: PS-50PE-D4LT1-PN1

CN1: ST5, ST6 and ST7 use**

CN1															
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO.															
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
ST CARD I/O NO.															

**ST5/ST6/ST7, using KS9 cable, are discrete I/O cards for Yokogawa DCS.

- ST5:** contact input 32 points,
contact output 32 points
- ST6:** contact input 32 points, 2 pcs. (64 points)
- ST7:** contact output 32 points, 2 pcs. (64 points)

■38BXC-S-Y7: Yokogawa FA-M3/F3YD32-1A use

•Location

CN1: Fujitsu FCN-365P040-AU

CN1 (32 points)															
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD INPUT NO.****															

****Use the 38-Rack Output Relay Cards.

•Connector Pin Assignments (CN1)

LOCATION No.	CH. No.	PIN No.	LOCATION No.	CH. No.	PIN No.
No. 1	ch. 1	A1	No. 9	ch.17	B1
	ch. 2	A2		ch.18	B2
No. 2	ch. 3	A3	No.10	ch.19	B3
	ch. 4	A4		ch.20	B4
No. 3	ch. 5	A5	No.11	ch.21	B5
	ch. 6	A6		ch.22	B6
No. 4	ch. 7	A7	No.12	ch.23	B7
	ch. 8	A8		ch.24	B8
No. 5	ch. 9	A11	No.13	ch.25	B11
	ch.10	A12		ch.26	B12
No. 6	ch.11	A13	No.14	ch.27	B13
	ch.12	A14		ch.28	B14
No. 7	ch.13	A15	No.15	ch.29	B15
	ch.14	A16		ch.30	B16
No. 8	ch.15	A17	No.16	ch.31	B17
	ch.16	A18		ch.32	B18

ch.1 through ch.32

Negative common A9, A19, B9, B19

FUJITSU FCN CONNECTOR

■**38BXCS-U1:** Fujitsu FCN connector
(16 points, 2 pcs.)

• **Location**

CN1, CN2: Fujitsu FCN-365P040-AU

CN1 (16 points)								CN2 (16 points)							
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO.															

• **Connector Pin Assignments (CN1, CN2)**

CN1				CN2			
LOCATION No.	CH. No.	PIN No.		LOCATION No.	CH. No.	PIN No.	
		+	-			+	-
No. 1	ch. 1	A1	B1	No. 9	ch.17	A1	B1
	ch. 2	A2	B2		ch.18	A2	B2
No. 2	ch. 3	A3	B3	No.10	ch.19	A3	B3
	ch. 4	A4	B4		ch.20	A4	B4
No. 3	ch. 5	A5	B5	No.11	ch.21	A5	B5
	ch. 6	A6	B6		ch.22	A6	B6
No. 4	ch. 7	A7	B7	No.12	ch.23	A7	B7
	ch. 8	A8	B8		ch.24	A8	B8
No. 5	ch. 9	A9	B9	No.13	ch.25	A9	B9
	ch.10	A10	B10		ch.26	A10	B10
No. 6	ch.11	A11	B11	No.14	ch.27	A11	B11
	ch.12	A12	B12		ch.28	A12	B12
No. 7	ch.13	A13	B13	No.15	ch.29	A13	B13
	ch.14	A14	B14		ch.30	A14	B14
No. 8	ch.15	A15	B15	No.16	ch.31	A15	B15
	ch.16	A16	B16		ch.32	A16	B16
Unused		A17 – A20 B17 – B20		Unused		A17 – A20 B17 – B20	

■**38BXCS-U2:** Fujitsu FCN connector
(32 points, 1 pc.)

• **Location**

CN1: Fujitsu FCN-365P040-AU

CN1 (32 points)															
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO.															

• **Connector Pin Assignments (CN1)**

LOCATION No.	CH. No.	PIN No.	LOCATION No.	CH. No.	PIN No.
No. 1	ch. 1	A1	No. 9	ch.17	B1
	ch. 2	A2		ch.18	B2
No. 2	ch. 3	A3	No.10	ch.19	B3
	ch. 4	A4		ch.20	B4
No. 3	ch. 5	A5	No.11	ch.21	B5
	ch. 6	A6		ch.22	B6
No. 4	ch. 7	A7	No.12	ch.23	B7
	ch. 8	A8		ch.24	B8
No. 5	ch. 9	A9	No.13	ch.25	B9
	ch.10	A10		ch.26	B10
No. 6	ch.11	A11	No.14	ch.27	B11
	ch.12	A12		ch.28	B12
No. 7	ch.13	A13	No.15	ch.29	B13
	ch.14	A14		ch.30	B14
No. 8	ch.15	A15	No.16	ch.31	B15
	ch.16	A16		ch.32	B16
ch.1 – ch.16		com. negative A17 – A20	ch.17 – ch.32		com. negative B17 – B20

YAMATAKE DCS

■38BXCS-K1: Yamatake DCS DI cable use

•Location

Output connector: 57LE-40500-7300

32-point DI card

CN1 (32 points)															
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO. (DCS INPUT NO.)															

16-point DI card

CN1 (16 points)								CN2 (16 points)							
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO.															
2 4 6 8 10 12 14 16								2 4 6 8 10 12 14 16							
1 3 5 7 9 11 13 15								1 3 5 7 9 11 13 15							
INPUT NO.								INPUT NO.							

■38BXCS-K3: Yamatake DCS DIM00 DI cable use

•Location

Output connector: 57LE-40500-7300

CN1 (16 points)															
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO. (DCS INPUT NO.)															

•Connector Pin Assignments (CN1)

LOCATION No.	CH. No.	PIN No. +	LOCATION No.	CH. No.	PIN No. +
No. 1	ch. 1	3	No. 9	ch.17	11
	ch. 2	4		ch.18	12
No. 2	ch. 3	5	No.10	ch.19	13
	ch. 4	6		ch.20	14
No. 3	ch. 5	7	No.11	ch.21	15
	ch. 6	8		ch.22	16
No. 4	ch. 7	9	No.12	ch.23	17
	ch. 8	10		ch.24	18
No. 5	ch. 9	27	No.13	ch.25	19
	ch.10	26		ch.26	20
No. 6	ch.11	29	No.14	ch.27	21
	ch.12	28		ch.28	22
No. 7	ch.13	31	No.15	ch.29	23
	ch.14	30		ch.30	24
No. 8	ch.15	33	No.16	ch.31	25
	ch.16	32		ch.32	50
EXSNS		1, 38, 41 42, 45, 48	EXCOM		2, 34, 35 36, 37, 39 40, 43, 44 46, 47, 49

■38BXCS-K2: Yamatake DCS DO cable use

•Location

Input connector: 57LE-40500-7300

32-point DO card

CN1 (32 points)															
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO. (DCS OUTPUT NO.)															

16-point DO card

CN1 (16 points)								CN2 (16 points)							
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO.															
2 4 6 8 10 12 14 16								2 4 6 8 10 12 14 16							
1 3 5 7 9 11 13 15								1 3 5 7 9 11 13 15							
OUTPUT NO.								OUTPUT NO.							

HITACHI DCS

■38BXCS-H1: Hitachi DCS connector

•Location

CN1, CN2: DN10-36S (Hirose)

CN1								CN2							
38-RACK CARD LOCATION NO.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31
38-RACK CARD CHANNEL NO.															

•CN1 Connector Pin Assignment

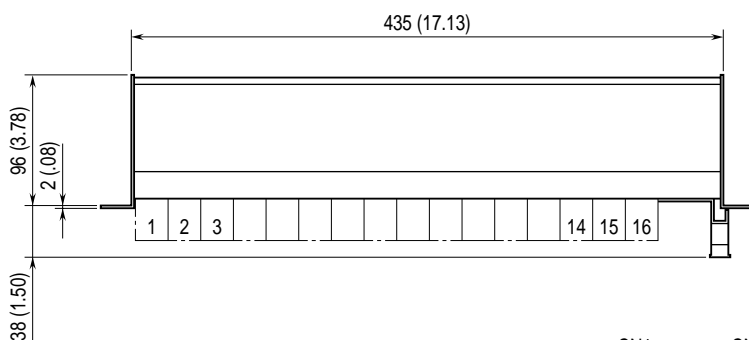
PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1	ch. 1 +	9	ch. 9 +
19	ch. 1 -	27	ch. 9 -
2	ch. 2 +	10	ch.10 +
20	ch. 2 -	28	ch.10 -
3	ch. 3 +	11	ch.11 +
21	ch. 3 -	29	ch.11 -
4	ch. 4 +	12	ch.12 +
22	ch. 4 -	30	ch.12 -
5	ch. 5 +	13	ch.13 +
23	ch. 5 -	31	ch.13 -
6	ch. 6 +	14	ch.14 +
24	ch. 6 -	32	ch.14 -
7	ch.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

•CN2 Connector Pin Assignment

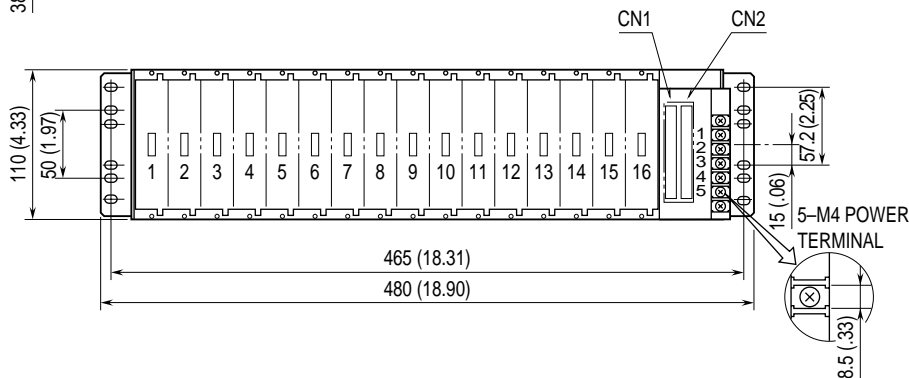
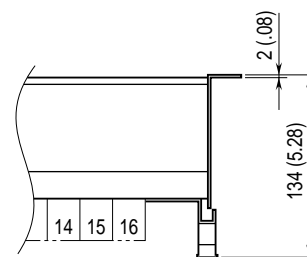
PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1	ch.17 +	9	ch.25 +
19	ch.17 -	27	ch.25 -
2	ch.18 +	10	ch.26 +
20	ch.18 -	28	ch.26 -
3	ch.19 +	11	ch.27 +
21	ch.19 -	29	ch.27 -
4	ch.20 +	12	ch.28 +
22	ch.20 -	30	ch.28 -
5	ch.21 +	13	ch.29 +
23	ch.21 -	31	ch.29 -
6	ch.22 +	14	ch.30 +
24	ch.22 -	32	ch.30 -
7	ch.23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

EXTERNAL DIMENSIONS mm (inch)

■RACK (standard)



■SURFACE (option /W)



Specifications subject to change without notice.