

General Specifications

Model DCP
Nest for I/O cards
(E/P Mixed Mounting Type)

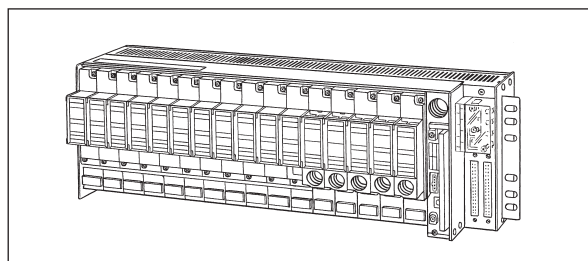
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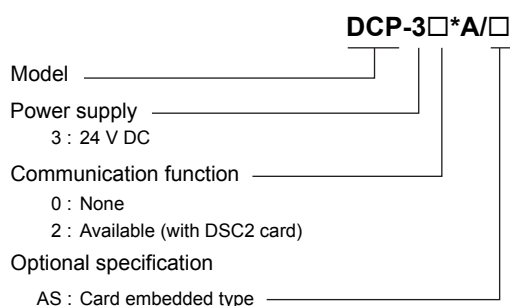
General

The DCP is a connector-connection type 16-unit mounting nest. It is available for mixed mounting of electronic and pneumatic signal conditioners, and connection with DCS I/O modules for CENTUM series of Yokogawa Electric Corporation.

- Ranges and parameters can be set using DSC2 or the VJ77 Parameters Setting Tool. (The availability depends on the model of signal conditioners.)



Model and Suffix Codes



Withstand voltage: 1500 V AC/min. between input and (power supply and ground and CN1-CN2).
500 V AC/min. between power supply and ground, ground and CN1-CN2, and power supply and CN1-CN2.

Operating temperature range: 0 to 50°C
Operating humidity range: 5 to 90% RH (no condensation)

Ordering Information

Specify the following when ordering.

- Model and suffix codes: e.g. DCP-32*A

Standard Performance

Insulation resistance: 100 MΩ or more at 500 V DC between input and power supply, input and ground, input and CN1-CN2, power supply and ground, power supply and CN1-CN2, and ground and CN1-CN2.

Mounting and Dimensions

Connection cable: KS2 (CN1, CN2)

I/O signal connection: M4 screw terminals

Power supply and ground connection:

M4 screws terminals

I/O cable shield connection: M3 screw terminal

Air inlet hole: Rc 3/8 female screw x 2

Mounting method: Rack or Wall mounting (horizontal mounting)

Nest mounting screw: M5 screws

Color: Black

Weight: Approx. 5 kg

Standard Accessories

Plate: Installed on the empty slot when shipping

Mounting bracket: 1 pair

Tag number label: 16

DCS Connection Modules and Signal Conditioners

Modules connectable with CN1		Equipments connectable with CN2	Signal conditioners mountable for each slot	
			Slot	Models
Analog input: 16 points		Indicators, recorders, and alarm setters etc. through terminal blocks.	1 to 16	DA1, DA2, DA5, DH1, DH2, DH5, DM1, DT5, DR5, DRU, DS1, DP3, DF1, DB1, DG1, DD1, DSK (Note1), DX1, DA7 (Note3)
Analog I/O: 16 points	Input: 8 points		1 to 8	DA1, DA2, DA5, DH1, DH2, DH5, DM1, DT5, DR5, DRU, DS1, DP3, DF1, DB1, DG1, DD1, DSK (Note1), DX1, DA7 (Note3)
	Output: 8 points	_____	9 to 16	DA0, DH0, DQ0, DF0, DSK (Note1), DX1 (Note2)
Analog output: 16 points		_____	1 to 16	DA0, DH0, DQ0, DF0, DSK (Note1), DX1 (Note2)
Pulse train input: 16 points		Pulse counters etc. through terminal blocks.	1 to 16	DP1, DSK (Note1), DX1 (Note2)

*1: FIO module of CENTUM VP/CS3000, *2: RIO module of CENTUM CS3000/CS1000, *3: I/O card of CENTUM XL/XL/V

Note1: DSK is not connectable to DCS. DSK mounted to the slot can not send or receive signals through CN1/CN2.

Note2: DX1-21N*A and DX1-31N*A (when 250Ω is selected) can not be mounted to this nest.

Note3: Only the AAB141/K4A00 and AAB842/V4A00 modules can be connected to this nest.

■ Assignment of Input/Output Terminals

I/O screw terminal: M4 x 0.7, I/O signal piping: Rc1/4 female screw, Supply side piping: Rc3/8 female screw

Signal Conditioners		Field side I/O terminal			Front terminal of the signal conditioner				AIR
		A	B	C	1	2	3	4	
DM1		+	Not Connected	—	Not Connected	Not Connected	+	—	
DT5					Not Connected	Not Connected	+	—	
DR5					Not Connected	Not Connected	+	—	
		Wiring resistance of A and B should be equal					For Output 2		
DRU							+	—	
		Wiring resistance of A and B should be equal					For Output 2		
DS1					Not Connected	Not Connected	+	—	
		Wiring resistance of A and C should be equal					For Output 2		
DP1 DP3	2-wire type (Voltage contact)	+	Not Connected	—	Not Connected	Not Connected	Not Connected		
	Internal power supply 2-wire type	Signal	Power supply	Not Connected			+	—	
	Internal power supply 3-wire type	+	Power supply	—			Not Connected		
DH1, DH2, DH5		+	Not Connected	—	Not Connected	Not Connected	+	—	
							For Output 2		
DA1, DA2, DA5		Available for the combination with BARD			Not Connected	Not Connected	For Output 2		
DA7		For 2-wire transmitter In case power supply is not necessary					Not Connected		
DH0, DA0, DQ0		+	Not Connected	—	Not Connected	Not Connected	Not Connected		
DX1		+	Not Connected	—	Not Connected	Not Connected	Not Connected		
DG1		Not Connected	Not Connected	Not Connected			+	—	
							For Output 2		
DB1		Not Connected	Not Connected	Not Connected			+	—	
							For Output 2		
DD1		Not Connected	Not Connected	Not Connected			+	—	
							For Output 2		
DF1		Not Connected	Not Connected	Not Connected	+	—	Not Connected		
					For Output 2				
DF0		Not Connected	Not Connected	Not Connected	+	—	Not Connected		
					For output signal check				
DSK		+	Not Connected	—	NO/NC	COM	NO/NC	COM	
					Output 1		Output 2		

• In case the Output 2 signal is DC current, it can be outputted from either "CN2" or "front terminals of the signal conditioner".

Note: When a number of DF0s are stored to the same nest, use two connecting holes for air supply to the nest.

(The maximum air supply of DF0 is 60NL/min., so as a criterion, this refers to the case of storing 9 units or more to the same nest.)

System side connecting cable

Connector No.	Signal	Cable model
CN1	System side connection signal	KS2
CN2	Output 2 connection signal	KS2

CN1/CN2

40	39
38	37
36	35
34	33
32	31
30	29
28	27
26	25
24	23
22	21
20	19
18	17
16	15
14	13
12	11
10	09
08	07
06	05
04	03
02	01

CN1/CN2 connector pin assignment

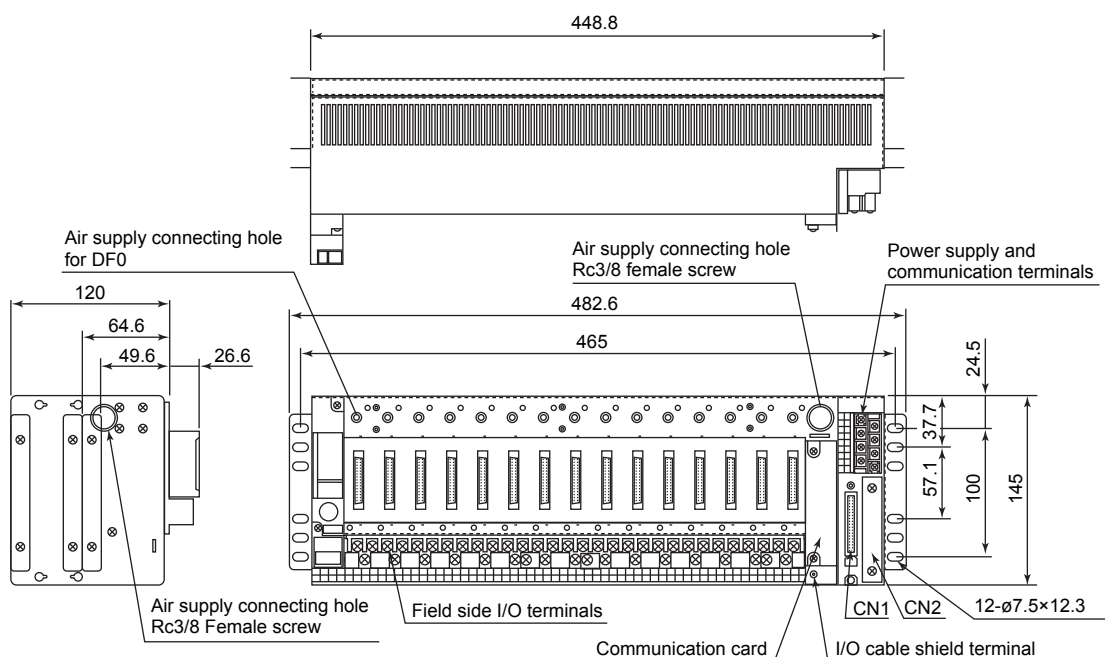
CN1/CN2 Pin No.	Slot No.		CN1/CN2 Pin No.	Slot No.
40	1	+	20	+
39		—	19	—
38	2	+	18	+
37		—	17	—
36	3	+	16	+
35		—	15	—
34	4	+	14	+
33		—	13	—
32	5	+	12	+
31		—	11	—
30	6	+	10	+
29		—	09	—
28	7	+	08	
27		—	07	
26	8	+	06	
25		—	05	
24	9	+	04	
23		—	03	
22	10	+	02	
21		—	01	

■ Assignment of Power Supply and Communication Terminals

Terminal number	DCP-30*A		DCP-32*A	
1	+	24 V DC	+	24 V DC
2	-		-	
3	GND		GND	
4			A(-)	RS-485
5			B(+)	
6			SG	

■ External Dimensions

Unit: mm



Note A mounting method is limited to horizontal installation in 19 inch rack of the EIA/JIS-standard.

■ Basic Conditions and Individual Contracts at the Time of Purchase

The warranty for this product is defined in the basic conditions and individual contracts at the time of purchase. The individual conditions are as follows.

• Handling of non-conforming products

If Yokogawa verifies a non-conformity of the product that is attributable to Yokogawa within the warranty period, we will deliver an equivalent product.

Yokogawa can not provide a free evaluation of non-conforming products. The investigation of the non-conforming products will be performed at the expense of the customer.