

General Specifications

Model DCE
Nest for I/O cards

JUXTA

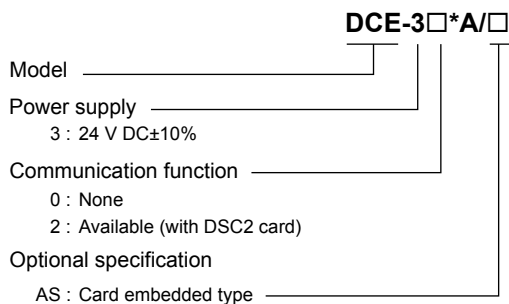
GS 77J05Y51-01E

General

The DCE is a connector-connection type 16-unit mounting nest. It is available for connection with DCS I/O modules for the CENTUM series of Yokogawa Electric Corporation.

- Ranges and parameters can be set using DSC2 or the JHT200, Yokogawa handy terminal. (The availability depends on the model of signal conditioners.)

Model and Suffix Codes



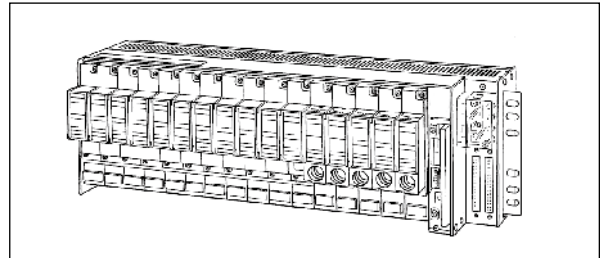
Ordering Information

Specify the following when ordering.

- Model and suffix codes: e.g. DCE-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.



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)

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
Mounting method: Rack or Wall mounting (horizontal mounting)
Nest mounting screw: M5 screws
Color: Black
Weight: Approx. 3.8 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 | | AAV141/K4A00 ⁽¹⁾ AMM12C ⁽²⁾ VM1 ⁽³⁾ | 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 |
| Analog I/O: 16 points | Input: 8 points | AAB841/V4A00 ⁽¹⁾ VM2 ⁽³⁾ | Indicators, recorders, and alarm setters etc. through terminal blocks. | 1 to 8 | DA1, DA2, DA5, DH1, DH2, DH5, DM1, DT5, DR5, DRU, DS1, DP3, DF1, DB1, DG1, DD1, DSK ^(Note1) , DX1 |
| | Output: 8 points | | | 9 to 16 | DA0, DH0, DQ0, DSK ^(Note1) , DX1 ^(Note2) |
| Analog output: 16 points | | AAV542/K4A00 ⁽¹⁾ VM4 ⁽³⁾ | _____ | 1 to 16 | DA0, DH0, DQ0, DSK ^(Note1) , DX1 ^(Note2) |
| Pulse train input: 16 points | | AAP149 ⁽¹⁾ PM1 ⁽³⁾ | Pulse counters etc. through terminal blocks. | 1 to 16 | DP1, DSK ^(Note1) , DX1 ^(Note2) |

⁽¹⁾: FIO module of CENTUM 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.

■ Assignment of Input/Output Terminals

I/O screw terminal: M4 x 0.7, I/O signal piping: Rc1/4 female screw

| Signal Conditioners | Field side I/O terminal | | | Front terminal of the signal conditioner | | | | AIR |
|---------------------|-----------------------------------------------------------------|--------------|---|------------------------------------------|-----|----------|-----|-----|
| | A | B | C | 1 | 2 | 3 | 4 | |
| DM1 | + | | - | | | + | - | |
| | | | | For Output 2 | | | | |
| DT5 | | | | | | + | - | |
| | | | | For Output 2 | | | | |
| DR5 | | | | | | + | - | |
| | Wiring resistance of A and B should be equal | | | For Output 2 | | | | |
| DRU | | | | | | + | - | |
| | | | | For Output 2 | | | | |
| DS1 | | | | | | + | - | |
| | Wiring resistance of A and C should be equal | | | For Output 2 | | | | |
| DP1 DP3 | 2-wire type (Voltage contact) | | | | | | | |
| | + | | - | | | + | - | |
| | Internal power supply 2-wire type | | | For Output 2 | | | | |
| | Signal | Power supply | | | | | | |
| | Internal power supply 3-wire type | | | For Output 2 | | | | |
| | + | Power supply | - | | | | | |
| DH1, DH2, DH5 | + | | - | | | + | - | |
| | | | | For Output 2 | | | | |
| DA1, DA2, DA5 | Available for the combination with BARD | | | | | + | - | |
| | For 2-wire transmitter In case power supply is not necessary | | | For Output 2 | | | | |
| DH0, DA0, DQ0 | + | | - | | | | | |
| DX1 | + | | - | | | | | |
| DG1 | | | | | | + | - | |
| | | | | For Output 2 | | | | |
| DB1 | | | | | | + | - | |
| | | | | For Output 2 | | | | |
| DD1 | | | | | | + | - | |
| | | | | For Output 2 | | | | |
| DF1 | | | | + | - | | | |
| | | | | For Output 2 | | | | |
| DSK | + | | - | 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".

System side connecting cable

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

CN1/CN2

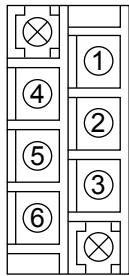
| | |
|----|----|
| 40 | 39 |
| 38 | 37 |
| 36 | 35 |
| 34 | 33 |
| 32 | 31 |
| 30 | 29 |
| 28 | 27 |
| 26 | 25 |
| 24 | 23 |
| 22 | 21 |
| 20 | 19 |
| 18 | 17 |
| 16 | 15 |
| 14 | 13 |
| 12 | 11 |
| 10 | 09 |
| 08 | 07 |
| 06 | 05 |
| 04 | 03 |
| 02 | 01 |

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 | - |

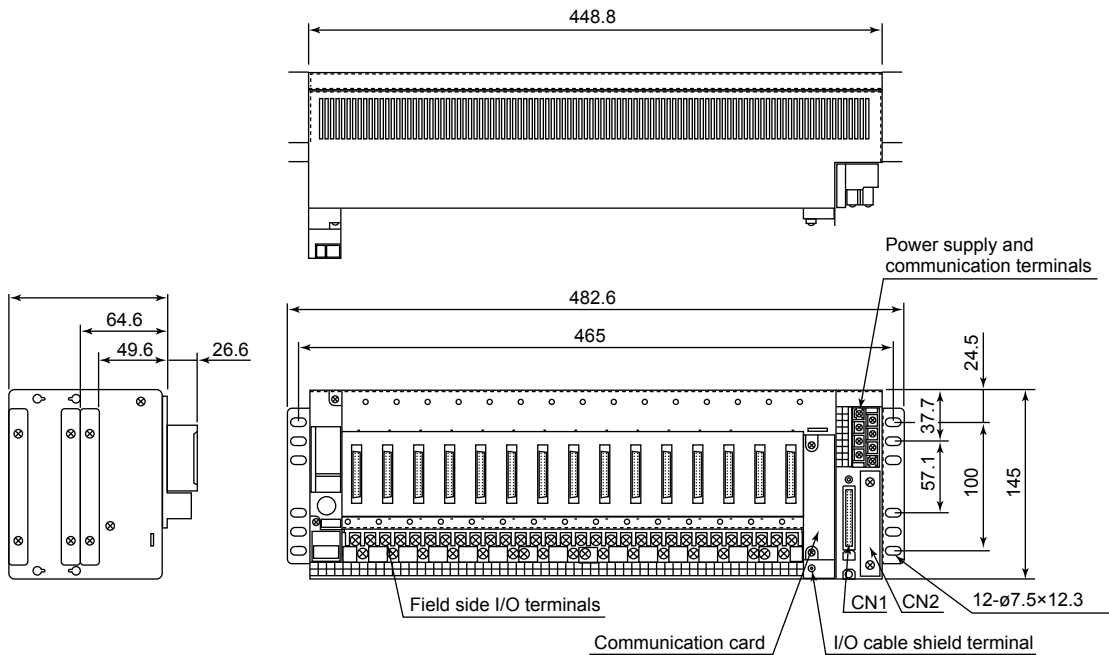
■ Assignment of Power Supply and Communication Terminals

| Terminal number | DCE-30*A | | DCE-32*A | |
|-----------------|----------|---|----------|--------|
| | 1 | + | 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.