

General Specifications

Model DC7
Output Isolator (Current I/O Type)
(with HART Communication)

JUXTA

GS 77J05C17-01E

■ General

The DC7, a nest-mounting type DCS-supported isolator, receives 4 to 20 mA DC signals from DCS, and converts them into 4 to 20 mA DC current signals

- Bi-directional relay of HART communication signals is possible while the DCS and the field devices are isolated from each other
- When a load circuit opens, input resistance increases rapidly to 48 kΩ or more to detect the open state through the input device.
- Recommended arrester: AR-SA or AR2-SA

■ Model and Suffix Codes

DC7-AAN

Model _____
Input Signal _____
 A : 4 to 20 mA DC
Output signal _____
 A : 4 to 20 mA DC

Power supply: 24 V DC±10%

■ Ordering Information

Specify the following when ordering.

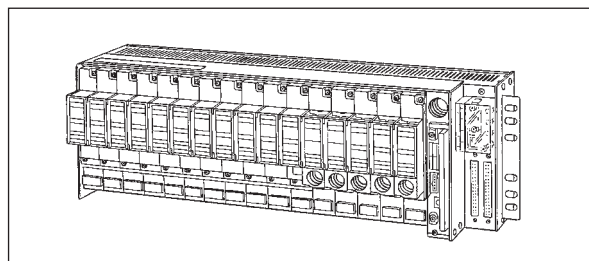
- Model and suffix codes: e.g. DC7-AAN

■ Input/Output Specifications

Input signal: 4 to 20mA DC
Internal voltage drop: 5 V DC or less
Maximum allowable input: 40 mA or less
Output signal: 4 to 20mA DC
Allowable load resistance: 750Ω or less
Zero adjustment: -1 to +1%
Span adjustment: 95 to 105%
Corresponding communication:
 HART communication

■ Standard Performance

Accuracy rating: ±0.1% of span
Response speed: 25 ms, 63% response (10 to 90%)
Insulation resistance: 100 MΩ or more at 500 V DC
 between input and output, output and
 power supply, and input and power supply.
Withstand voltage: 1500 V AC/min. between output
 and (input and power supply).
 500 V AC/min. between input and power
 supply.



■ Environmental Conditions

Operating temperature range: 0 to 50°C
Operating humidity range:
 5 to 90% RH (no condensation)
Power supply voltage: 24 V DC±10%
 (ripple content 5% p-p or less)
Effect of power supply voltage fluctuations: ±0.1%
 of span or less for fluctuation within the
 operating range of power supply voltage
 specification.
Effect of ambient temperature change: ±0.2% of span
 or less for a temperature change of 10°C.
Current consumption: 24 V DC 60 mA

■ Mounting and Dimensions

Mounting method: Nest-mounting to the DME, DMP
 (Signals and power supply are connected
 through back board and connector)

Note: DC7 cannot be mounted to DCE and DCP which
 are dedicated nests for I/O.

Connection method:

External wiring; connection to M4 screw terminals
 of the dedicated nest

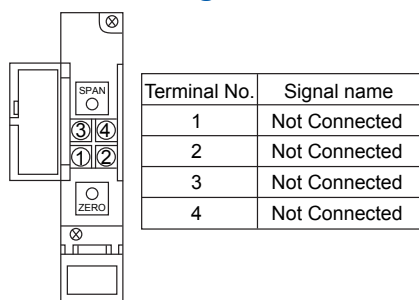
Connection to I/O card; via dedicated cable (con-
 nector)

External dimensions: 130.6(H)×23.6(W)×126(D) mm
Weight: Approx. 120 g

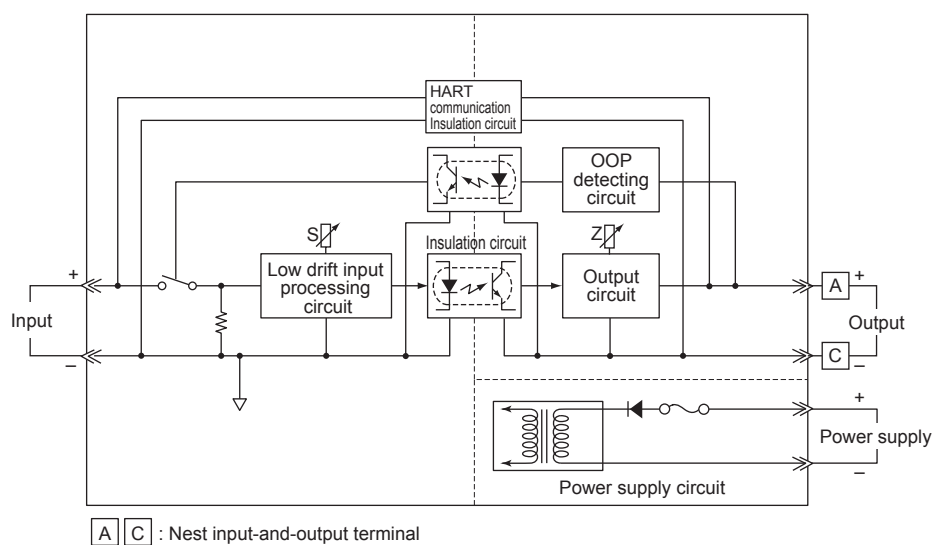
■ Standard Accessories

Tag number label: 1

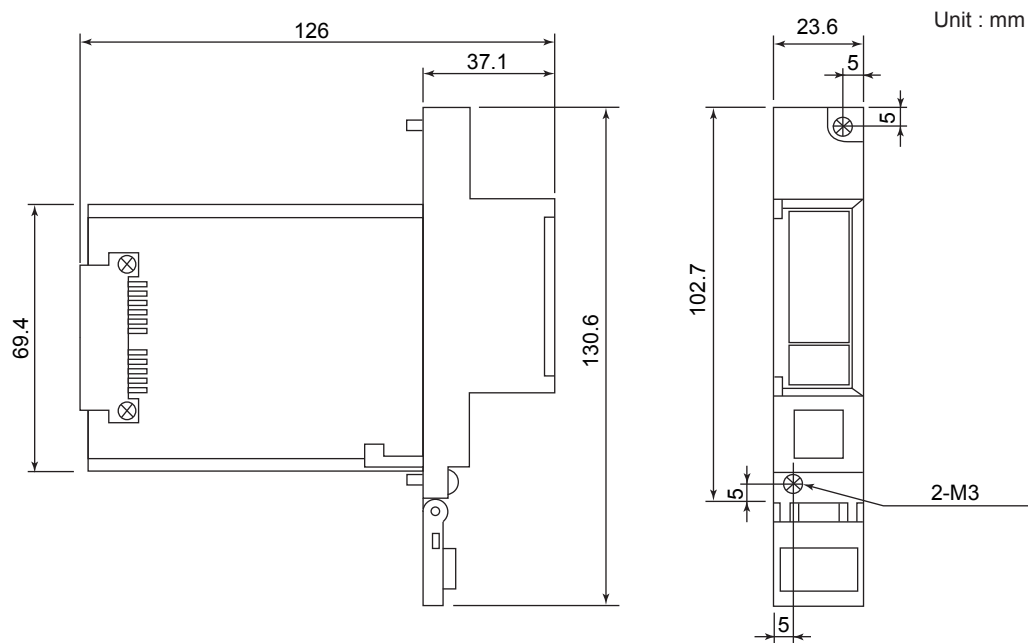
■ Terminal Assignments



■ Block Diagram



■ External Dimensions



■ 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.