

General Specifications

Model DA1
Distributor

JUXTA

GS 77J05A01-01E

■ General

The DA1 is a nest-mounting type DCS-supported distributor, is used in combination with a two-wire transmitter, and converts 4 to 20 mA DC signals into isolated DC current or DC voltage signals.

- Available for use with safety barriers.

■ Model and Suffix Codes

DA1-A6□*B

Model _____
Input Signal _____
 A : 4 to 20 mA DC
 (Transmitter power supply: 25 to 28 V DC)
Output 1 Signal _____
 6 : 1 to 5 V DC
Output 2 signal _____
 A : 4 to 20 mA DC 1 : 0 to 10 mV DC
 B : 2 to 10 mA DC 2 : 0 to 100 mV DC
 C : 1 to 5 mA DC 3 : 0 to 1 V DC
 D : 0 to 20 mA DC 4 : 0 to 10 V DC
 E : 0 to 16 mA DC 5 : 0 to 5 V DC
 F : 0 to 10 mA DC 6 : 1 to 5 V DC
 G : 0 to 1 mA DC 7 : -10 to +10 V DC
 Z : (Custom order) 0 : (Custom order)
 Current signal Voltage signal
 (24 mA or less) (±10 V or less)
Power supply
 24 V DC±10%

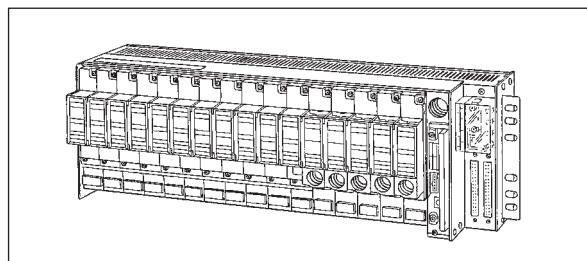
■ Ordering Information

Specify the following when ordering.

- Model and suffix codes: e.g. DA1-A6A*B

■ Input/Output Specifications

Input signal: 4 to 20 mA DC signal from two-wire transmitter
Input resistance: 250 Ω
Maximum allowable input: 40 mA DC
Transmitter power supply: 26.5±1.5 V DC
 (With a current limiting circuit to keep the current between 25 and 35 mA)
Allowable conductor resistance (RL):
 Up to [(20 –transmitter's minimum operating voltage) V/0.02 A] Ω
Output 1 signal: 1 to 5 V DC
Output 2 signal: DC current or DC voltage signal
 (DC current can be outputted from either the front terminals 3-4 or the connector.)



Allowable load resistance:

DC current output	Allowable load resistance	DC voltage output	Allowable load resistance
4 to 20 mA	750 Ω or less	0 to 10 mV	250 k Ω or more
2 to 10 mA	1500 Ω or less	0 to 100 mV	250 k Ω or more
1 to 5 mA	3000 Ω or less	0 to 1 V	2 k Ω or more
0 to 20 mA	750 Ω or less	0 to 10 V	10 k Ω or more
0 to 16 mA	900 Ω or less	0 to 5 V	2 k Ω or more
0 to 10 mA	1500 Ω or less	1 to 5 V	2 k Ω or more
0 to 1 mA	15 k Ω or less	-10 to +10 V	10 k Ω or more

Zero adjustment: -1 to +1%

Span adjustment: 95 to 105%

■ Standard Performance

Accuracy rating:

Output 1: ±0.1% of span

Output 2: Relative error between output 1 and 2 is within ±0.2%.

Accuracy is not guaranteed for output level less than 0.5% of the span of a 0 to X mA output range type.

Response speed: 150 ms, 63% response (10 to 90%)

Insulation resistance: 100 M Ω or more at 500 V DC between input and output, input and power supply, and output and power supply.

Withstand voltage: 1500 V AC/min. between input and (output and power supply.)
500 V AC/min. between output 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 110 mA (4 to 20 mA), 80 mA (1 to 5 V)

■ Mounting and Dimensions

Mounting method: Nest-mounting (Signals and power supply are connected through back board and connector)

Connection method: Connection to M4 screw terminals of the exclusive nest

External dimensions: 130.6(H)×23.6(W)×126(D) mm

Weight: Approx. 120 g

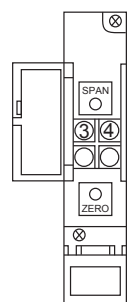
■ Standard Accessories

Tag number label: 1

■ Custom Order Specifications

	Current signal	Voltage signal
Output range (DC)	0 to 24 mA	-10 to +10 V
Span (DC)	1 to 24 mA	10 mV to 20 V
Zero elevation	0 to 200%	-100 to +200%

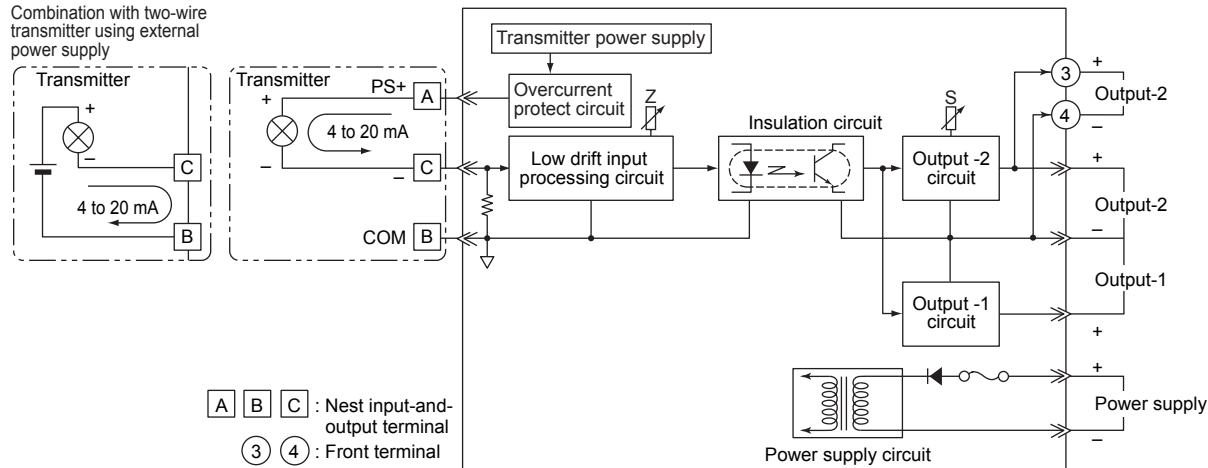
■ Terminal Assignments



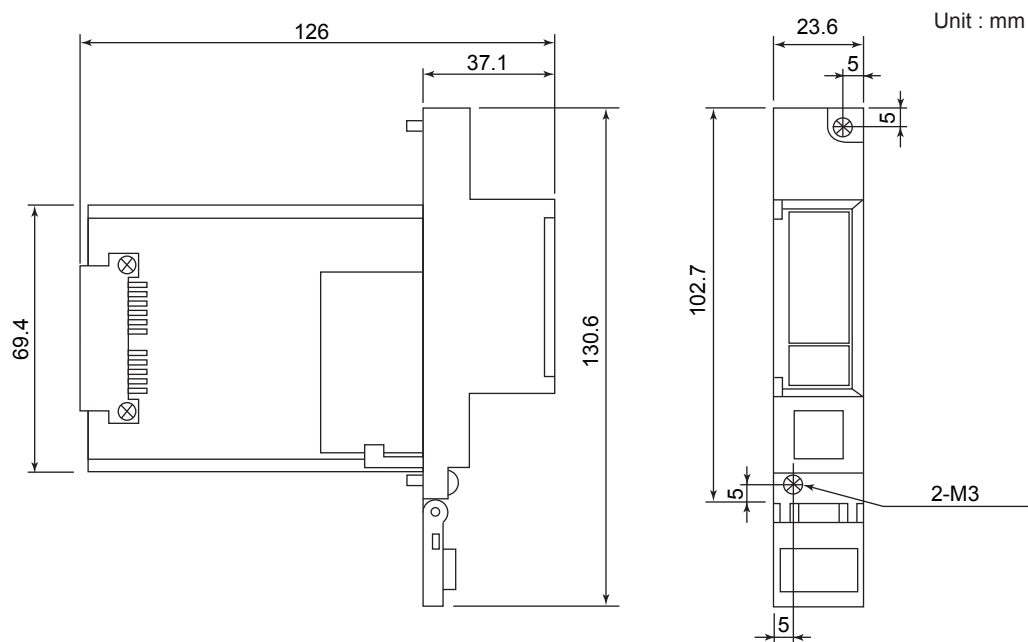
Terminal No.	Signal name
1	Do not use
2	Do not use
3	Output 2 (+)
4	Output 2 (-)

■ Block Diagram

Combination with two-wire transmitter using external power supply



■ 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.

- **Firmware warranty conditions**

The warranty conditions for the firmware installed in this products are same as that of the hardware.

- **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.