General Specifications

Model DA1 Distributor

NTXUL

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

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 B: 2 to 10 mA DC 2: 0 to 100 mV DC C: 1 to 5 mA DC 3: 0 to 1 V DC

A: 4 to 20 mA DC
B: 2 to 10 mA DC
C: 1 to 5 mA DC
D: 0 to 20 mA DC
E: 0 to 16 mA DC
F: 0 to 10 mA DC
C: 10 to 10 mA DC
C: 10 to 10 mA DC
C: 0 to 10 mA DC
C: 10 to 1 mA DC
C: (Custom order)
Current signal
(24 mA or less)

1: 0 to 10 mV DC
4: 0 to 10 V DC
5: 0 to 5 V DC
7: -10 to +10 V DC
0: (Custom order)
Voltage signal
(±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*A

■ 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

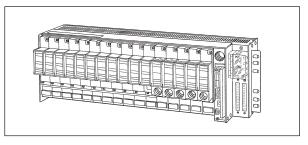
(With a current limiting circuit to keep the current between 25 and 35 mA)

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 kΩ or more
2 to 10 mA	1500 Ω or less	0 to 100 mV	250 kΩ or more
1 to 5 mA	$3000~\Omega$ or less	0 to 1 V	2 kΩ or more
0 to 20 mA	750 Ω or less	0 to 10 V	10 kΩ or more
0 to 16 mA	900 Ω or less	0 to 5 V	2 kΩ or more
0 to 10 mA	1500 Ω or less	1 to 5 V	2 kΩ or more
0 to 1 mA	15 kΩ or less	-10 to +10 V	10 kΩ 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 MΩ 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

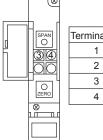
■ Standard Accessories

Tag number label: 1

■ Custom Order Specifications

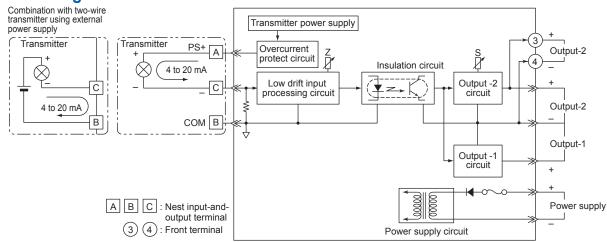
	Current signal	Voltage signal
Output range (DC)	0 to 24 mA	-10 to +10 V
Span (DC)	1 to 24 mA	10 mV to 20 V
Zero elevation	0 to 200%	-100 to +200%

■ Terminal Assignments



Terminal No.	Signal name
1	
2	
3	Output 2 (+)
4	Output 2 (-)

■ Block Diagram



■ External Dimensions

