General Specifications

Model DH1
Isolator

JUXTA

GS 77J05H01-01E

■ General

The DH1 is a nest-mounting type DCS-supported isolator that converts DC current or DC voltage signals into isolated DC current or DC voltage signals.

- Output 1 (the first output) is 1 to 5 V and connectable with the host control system.
- Output 2 (the second output) follows the output 1. It can be connected to a recorder or an indicator, without any disturbances to the control system.

■ Model and Suffix Codes

DH1-☐6☐*B

Model

Input 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
H : 10 to 50 mA DC	0 : (Custom order) Voltage signal (±300 V or less)
Z : (Custom order) Current signal (150 mA or less)	

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) Current signal (24 mA or less)	0 : (Custom order) Voltage signal (±10 V or less)

Power supply: 24 V DC±10%

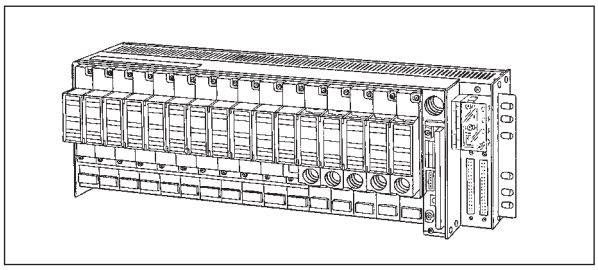
■ Ordering Information

Specify the following when ordering.

- Model and suffix codes: e.g. DH1-A6A*B

■ Input/Output Specifications

Input signal: DC current or DC voltage signal
Measuring span: -10 to +10 V DC
Zero elevation: within ±50% of span



Input resistance:

DC current input	Input resistance	DC voltage input	Input resistance
4 to 20 mA	250 Ω	0 to 10 mV	1 MΩ durning power on 100 kΩ during power off
2 to 10 mA	500 Ω	0 to 100 mV	
1 to 5 mA	1 kΩ	0 to 1 V	
0 to 20 mA	250 Ω	0 to 10 V	
0 to 16 mA	250 Ω	0 to 5 V	
0 to 10 mA	500 Ω	1 to 5 V	
0 to 1 mA	1 kΩ	-10 to 10 V	
10 to 50 mA	100 Ω		

Maximum allowable input:
Voltage input: Within ±30 V DC
Current input: Any level that satisfies the following condition,
(Input current)^2 x Input resistance ≤ 0.5 W
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 Ω 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: -5 to +5%
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, output and power supply, and input and power supply.

YOKOGAWA

Yokogawa Electric Corporation
2-9-32, Nakacho, Musashino-shi, Tokyo, 180-8750 Japan
Tel.: 81-422-52-7179 Fax.: 81-422-52-6619

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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 the 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 85 mA (4 to 20 mA), 55 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:
External wiring; connection to M4 screw terminals of the dedicated nest
Connection to I/O card; via dedicated cable (connector)
External dimensions: 130.6(H)×23.6(W)×126(D) mm
Weight: Approx. 120 g

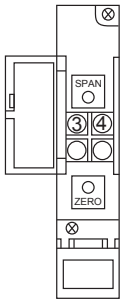
■ Standard Accessories

Tag number label: 1

■ Custom Order Specifications

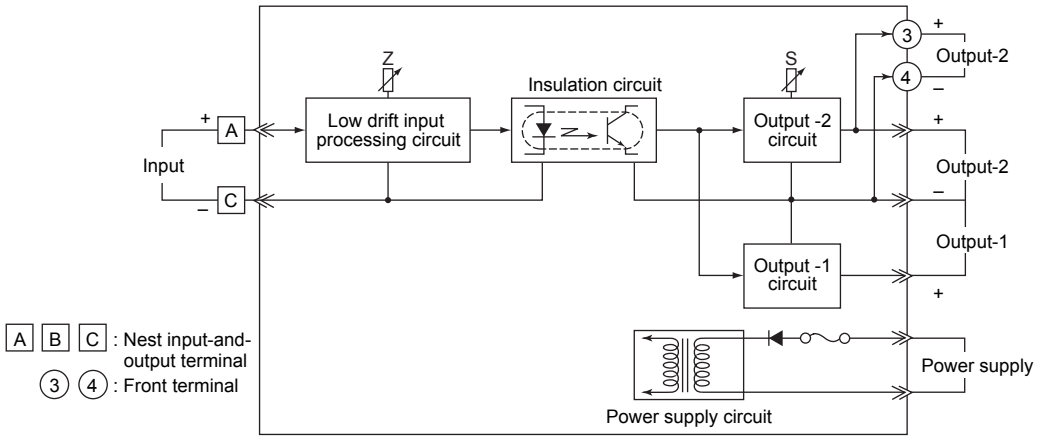
	Current signal	Voltage signal
Input range (DC)	0 to 150 mA	-300 to +300 V
Span (DC)	100 µA to 150 mA	10 mV to 600 V
Zero elevation	0 to 73%	-80 to 73%
Output range (DC)	0 to 24 mA	-10 to +10 V
Span (DC)	1 to 24 mA	10 mV to 20 V
Zero elevation	0 to 200%	-100 to +200%

■ Terminal Assignments



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

■ Block Diagram



Note: If the input signal is customized for more than ±30 V DC, the signal connection will be 1 and 2 of the front terminals.

■ External Dimensions

Unit : mm