

General Specifications

Model DB1
CT Converter (RMS)

JUXTA

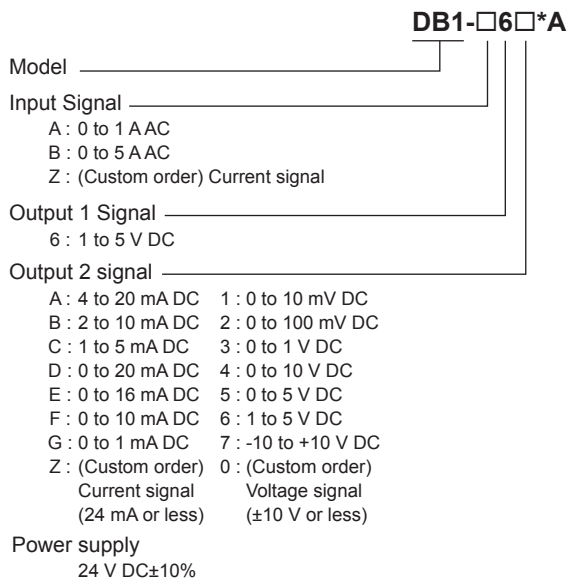
GS 77J05B01-01E

General

The DB1 is a nest-mounting type DCS-supported CT converter that converts AC current signals into isolated DC current or DC voltage signals.

- AC/DC conversion is made by root mean square value

Model and Suffix Codes



Ordering Information

Specify the following when ordering.

- Model and suffix codes: e.g. DB1-B6A*A

Input/Output Specifications

Input signal: 0 to 1 AAC or 0 to 5 AAC
Input loss: 0.5 VA or less
Input frequency range: 40 Hz to 10 kHz
Maximum allowable input:

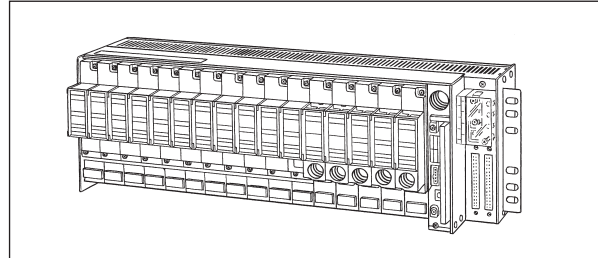
200% (continuous); 500% (one minute)

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: ±0.5% 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: 250 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: 2600 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 95 mA (4 to 20 mA), 60 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

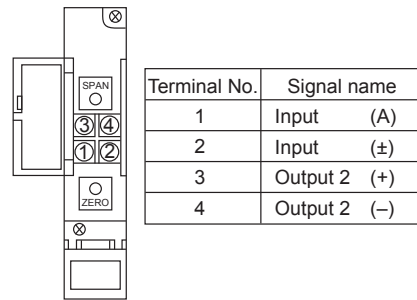
Standard Accessories

Tag number label: 1

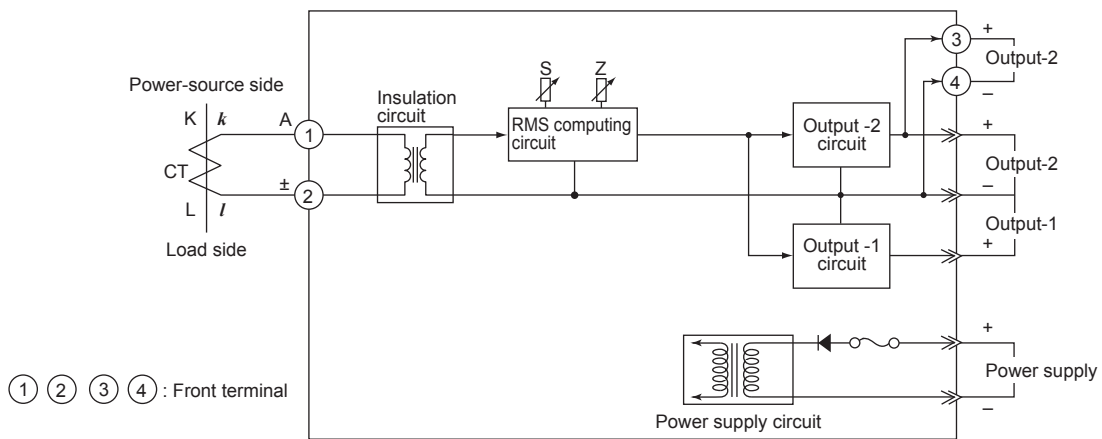
■ Custom Order Specifications

	Current signal	Voltage signal
Input range (AC)	0 to 5 A	-----
Span (AC)	0.1 to 5 A	-----
Zero elevation	0%	-----
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



■ Block Diagram



Note: Connect the input signal line to converter-front terminals 1 and 2.
An incorrect connection may cause overheating or burning of the nest.

■ External Dimensions

