

General Specifications

Models WB1A, WB1V
CT Converter (RMS)

JUXTA

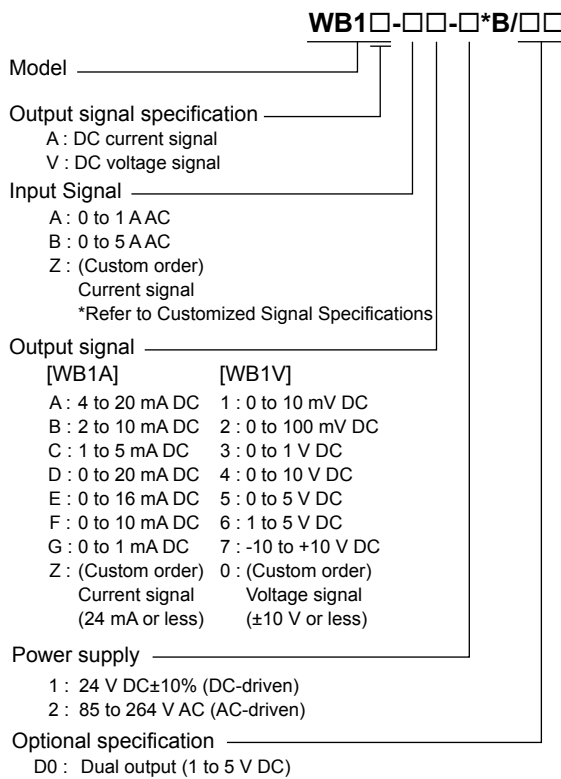
GS 77J09B01-01E

General

The WB1A/WB1V is a compact, front terminal connection type 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.
- Dual output specifications are available upon requests

Model and Suffix Codes



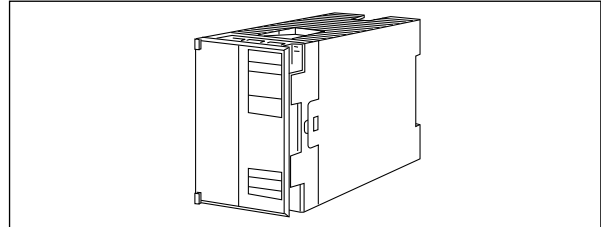
Ordering Information

Specify the following when ordering.

- Model and suffix codes :e.g. WB1V-A6-2*B

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 signal: DC current or DC voltage signal



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: ±0.2% of span

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

Dual output (optional): Relative error between output -1 and 2 is within ±0.2%. These outputs are not insulated.

Response speed: 170 ms, 63% response (10 to 90%)

Insulation resistance: 100 MΩ or more at 500 V

DC between input and output, input and power supply, input and ground, output and power supply, output and ground, and power supply and ground.

Withstand voltage:

DC drive 2600 V AC/min. between input and (output and power supply).

500 V AC/min. between output and power supply.

AC drive 2600 V AC/min. between input and (output, power supply and ground).

1500 V AC/min. between output and power supply, power supply and ground, and output and ground.

Environmental Conditions

Operating temperature range: 0 to 50°C

Operating humidity range: 5 to 90% RH (no condensation)

Power supply voltage: 85 to 264 V AC, 47 to 63Hz or 24 V DC±10%

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 90 mA (WB1A), 60 mA (WB1V)
 Power consumption:
 100 V AC 7 VA (WB1A), 6 VA (WB1V)

■ Mounting and Dimensions

Material: ABS resin (Case body)
 Mounting method: Rack, Wall or DIN rail mounting
 Connection method: M4 screw terminals
 External dimensions: 72 (H) × 48 (W) × 127 (D) mm
 Weight: DC; Approx. 150g, AC; Approx. 300g

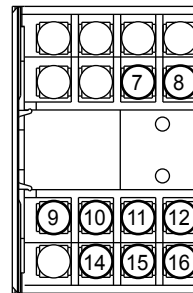
■ Standard Accessories

Tag number label: 1
 Mounting block: 2
 Mounting screw: M4 screw x 4

■ Custom Order Specifications

	Current signal	Voltage signal
Input range (AC)	0 to 5 AAC (where, the value of "5/100 [100=current for 100% input]" equals a integer)	-----
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

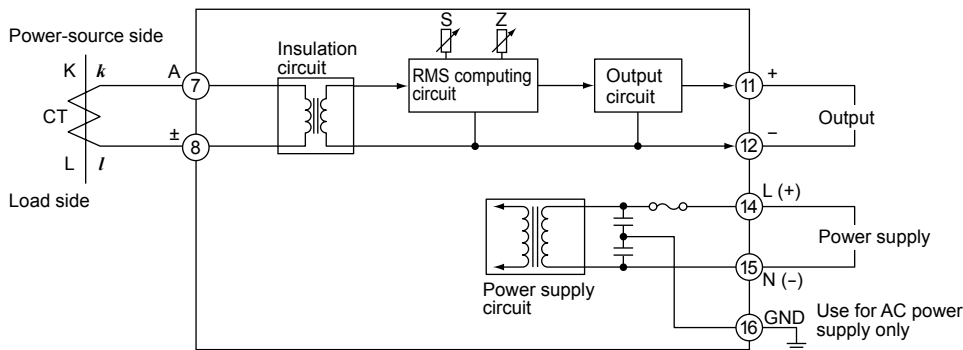


7	Input	(A)
8	Input	(±)
9	Output 2	(+)
10	Output 2	(-)
11	Output 1	(+)
12	Output 1	(-)
14	Supply	(L+)
15	Supply	(N-)
16	Ground	(GND)*

* Use for AC power supply only.

Terminal ⑨-⑩ are used for output 2 in case dual output is specified.

■ Block Diagram



■ External Dimensions

