

General Specifications

Models WH2A, WH2V
Isolator (Free Range Type)

JUXTA

GS 77J09H02-01E

■ General

The WH2A/WH2V is a compact, front terminal connection type isolator that converts DC current or DC voltage signals into isolated DC current or DC voltage signals.

- I/O range setting, zero/span adjustment, I/O monitoring, etc. can be made using the optional Parameter Setting Tool (VJ77) or Handy Terminal (JHT200).
- Dual output and 2000 V AC withstand voltage specifications are available upon requests.

■ Model and Suffix Codes

WH2□-□□-□*C/□□

Model

Output signal specification

A : DC current signal

V : DC voltage signal

Input Signal

- A : 0 to 50 mA DC, span is 1 mA or more
B : 0 to 20 mA DC, span is 0.1 mA or more
Z : (Custom order) Current signal
1 : -10 to +10 V DC, span is 0.1 V or more
2 : -2 to +2 V DC, span is 10 mV or more
0 : (Custom order) Voltage signal

Output signal

[WH2A]

- A : 0 to 20 mA DC, span is 2 mA or more
B : 0 to 5 mA DC, span is 1 mA or more

[WH2V]

- 1 : 0 to 10 V DC, span is 0.5 V or more
2 : 0 to 100 mV DC, span is 10 mV or more
0 : (Custom order) Voltage signal

Power supply

- 1 : 24 V DC±10% (DC drive)
2 : 100 to 240 V AC (-15%, +10%)

Optional specification

D0 : Dual output (1 to 5 V DC)

■ Ordering Information

Specify the following when ordering.

- Model and suffix codes :e.g. WH2V-B1-2*C
- Input range :e.g. 4 to 20 mA DC
- Output range :e.g. 1 to 5 V DC

■ Input/Output Specifications

Input signal: DC current or DC voltage

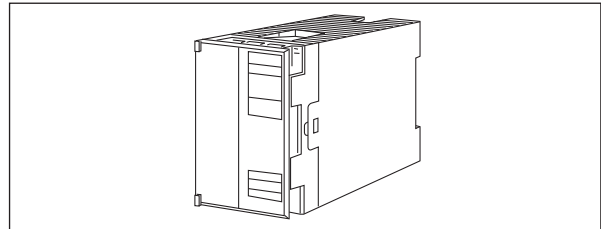
Code	Setting range (DC)
A	0 to 50 mA, span is 1 mA or more
B	0 to 20 mA, span is 0.1 mA or more
1	-10 to +10 V, span is 0.1 V or more
2	-2 to +2 V, span is 10mV or more

Input resistance: Input signal code

A, B: 100 Ω

1: 1 MΩ during power on, 800 kΩ during power off

2: 1 MΩ during power on, 10 kΩ during power off



Maximum allowable input:

Current input: 70 mA DC or less

Voltage input: Within ±15 V DC

Output signal: DC current or DC voltage signal

Output signal setting range and allowable load resistance:

Code	Setting range (DC)	Allowable Load Resistance
A	0 to 20 mA, span is 2 mA or more	15 V/100% output (A) Ω or less
B	0 to 5 mA, span is 1 mA or more	
1	0 to 10 V DC, span is 0.5 V or more	10 kΩ or more
2	0 to 100mV, span is 10 mV or more	250 kΩ or more

Input adjustment: ±1% (Zero/Span)

Output adjustment: ±10% (Zero/Span)

In the case of 5V or more for output span it is ±5% of span.

■ Standard Performance

Accuracy rating: ±0.1% 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.

The accuracy is limited by the input/output range setting.

In case where both settings are limited, the greater value calculated by the following formula is the accuracy.

Accuracy=±0.1% × a/b

(If the obtained value is less than ±0.1%, ±0.1% is the accuracy.)

Use the following formula if the elevation of an input exceeds ±50%, or if the elevation of an output exceeds 150%.

Accuracy=±0.2% × a/b

(If the obtained value is less than ±0.2%, ±0.2% is the accuracy.)

Input signal		a	b
A	0 to 50 mA DC	16 (mA)	Input span
B	0 to 20 mA DC	4 (mA)	
1	-10 to +10 V DC	2 (mA)	
2	-2 to +2 V DC	0.4 (V)	

Output signal		a	b
A	0 to 20 mA DC	8 (mA)	Output span
B	0 to 5 mA DC	5 (mA)	
1	0 to 10 V DC	2 (V)	
2	0 to 100 mV DC	20 (mV)	

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

Response speed: 200 ms, 63% response (10 to 90%)

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

Withstanding voltage:

DC drive 1500 V AC/min. between input and (out-
put and power supply). 500 V AC/min.
between output and power supply.

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

■ Environmental Conditions

Operating temperature range: 0 to 50°C

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

Power supply voltage: 100 to 240 V AC (-15%, +10%)
50/60 Hz or 24 V DC $\pm 10\%$

Effect of power supply voltage fluctuations: $\pm 0.1\%$ or less
for fluctuation within the operating range of
power supply voltage specification.

Effect of ambient temperature change: $\pm 0.2\%$ of span
or less for a temperature change of 10°C.

Current consumption: 24 V DC 70 mA (WH2A),
50 mA (WH2V)

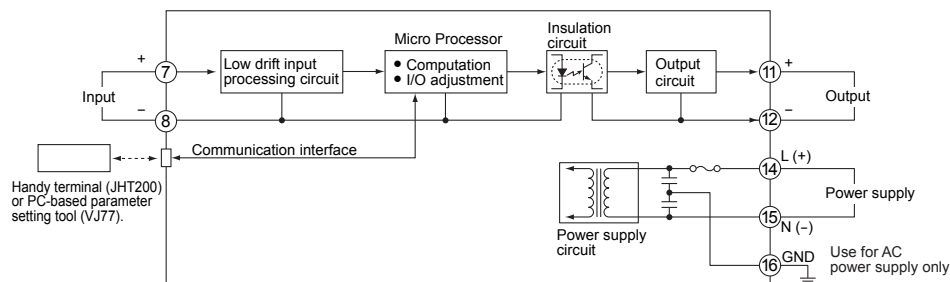
Power consumption: 100 V AC 4 VA (WH2A),
3 VA (WH2V)
200 V AC 5.5 VA (WH2A), 4.5 VA (WH2V)

■ Mounting and Dimensions

Material: ABS resin (Case body)

Mounting method: Rack, Wall or DIN rail mounting

■ Block Diagram



Connection method: M4 screw terminals
External dimensions: 72 × 48 × 127 mm (H × W × D)
Weight: DC; Approx. 150 g, AC; Approx. 300g

■ Standard Accessories

Tag number label: 1

Range label: 1

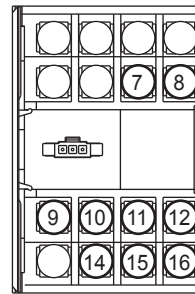
Mounting block: 2

Mounting screws: M4 screw x 4

■ Custom Order Specifications

	Current signal	Voltage signal
Input range (DC)	0 to 100 mA	-30 to +30 V
Span (DC)	100 μ A to 100 mA	0.3 to 60 V
Zero elevation	0 to 50%	-50 to +50%
Output range (DC)	-----	-10 to +10 V
Span (DC)	-----	10 mV to 20 V
Zero elevation	-----	-100 to +200%

■ Terminal Assignments



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

Terminals ⑨—⑩ are used for Output 2
in case dual output is specified.

*: Use for AC power supply only

■ External Dimensions

