

General Specifications

Models FH2A, FH2V
Isolator (Free Range Type)

JUXTA

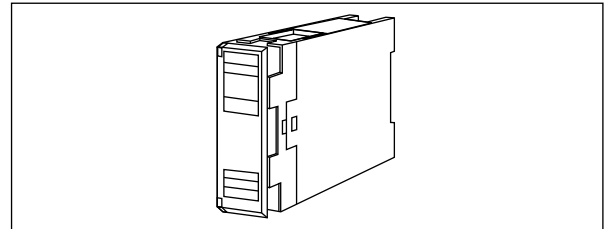
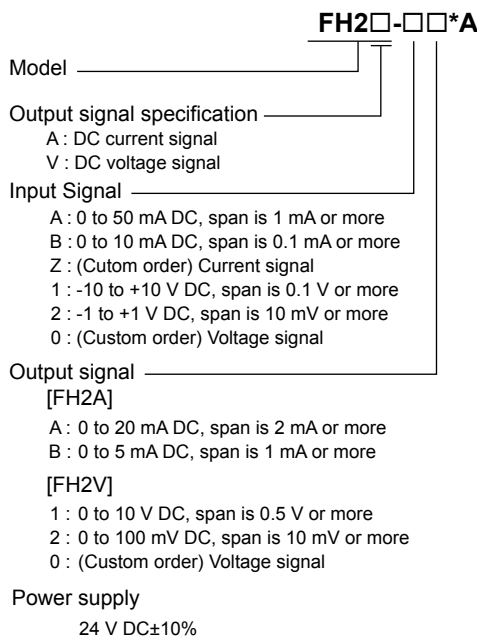
GS 77J08H02-01E

■ General

The FH2A/FH2V 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).

■ Model and Suffix Codes



Input resistance:
 Current input: 100 Ω
 Voltage input: 1 MΩ during power on, 100 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	15 V/100% output (A) Ω or less
B	0 to 5 mA, span is 1 mA	
1	0 to 10 V DC, span is 0.5 V	10 kΩ or more
2	0 to 100mV, span is 10 mV	250 kΩ or more

Input adjustment: ±1% (Zero/Span)
 Output adjustment: ±10% (Zero/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 according to input/output range setting. Either the input accuracy or output accuracy, the greater one is applied.

Input accuracy

Code	Setting range (DC)	Input accuracy (%)
A	Span: less than 10 mA Zero elevation: more than 50%	0.1 × 10/span (mA)
	Span: less than 10 mA Zero elevation: more than 50%	0.2 × 10/span (mA)
B	Span: less than 1 mA Zero elevation: more than 50%	0.1 × 1/span (mA)
	Span: less than 1 mA Zero elevation: more than 50%	0.2 × 1/span (mA)
1	Span: less than 1 V Zero elevation: more than 50%	0.1 × 1/span (V)
	Span: less than 1 V and zero elevation: more than 50%	0.2 × 1/span (V)
2	Span: less than 100 mV Zero elevation: more than 50%	0.1 × 100/span (mV)
	Span: less than 100 mV Zero elevation: more than 50%	0.2 × 100/span (mV)

■ Ordering Information

Specify the following when ordering.

- Model and suffix codes :e.g. FH2V-A1*A
- 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 10 mA, span is 0.1 mA or more
1	-10 to +10 V, span is 0.1 V or more
2	-1 to +1 V, span is 10mV or more

Output accuracy

Code	Setting range (DC)	Output accuracy (%)
A	Span is less than 8 mA	$0.1 \times 8/\text{span}$ (mA)
B	Span is less than 2 mA	$0.1 \times 2/\text{span}$ (mA)
1	$V_{100} \leq 5$ V Span is less than 2 V	$0.1 \times 2/\text{span}$ (V)
	$V_{100} > 5$ V Span is less than 4 V	$0.1 \times 4/\text{span}$ (V)
2	$V_{100} \leq 50$ mV Span is less than 20 mV	$0.1 \times 20/\text{span}$ (mV)
	$V_{100} > 50$ mV Span is less than 40 mV	$0.1 \times 40/\text{span}$ (mV)

V100: 100% output

Response speed: 200 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: 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% (percentage ripple is 5%p-p or less)

Effect of power supply voltage fluctuations: ±0.1% 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 90 mA (FH2A), 60 mA (FH2V)

Mounting and Dimensions

Material: ABS resin (Case body)
 Mounting method: Rack, Wall or DIN rail mounting
 Connection method: M4 screw terminals
 External dimensions: 72 × 24 × 127 mm (H x W x D)
 Weight: Approx. 130 g

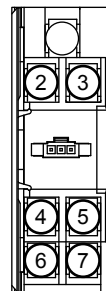
Standard Accessories

Tag number label: 1
 Range label: 1
 Mounting block: 2
 Mounting screws: M4 screw x 2

Custom Order Specifications

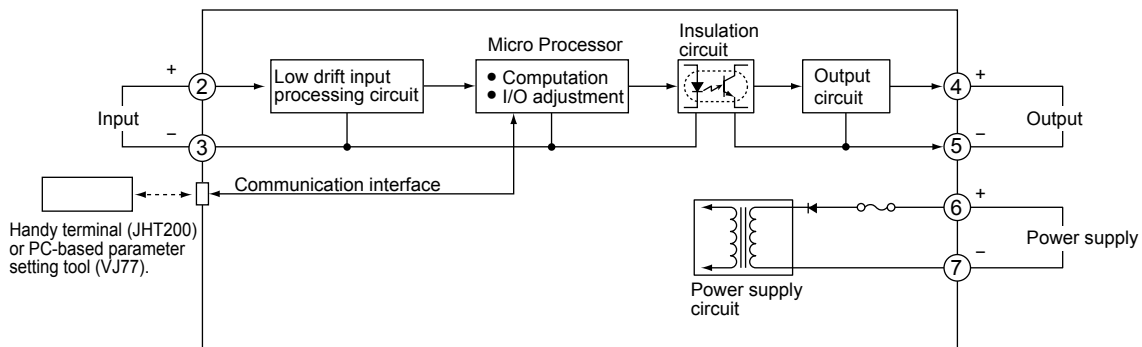
	Current signal	Voltage signal
Input range (DC)	0 to 100 mA	-30 to +30 V
Span (DC)	100μA to 100 mA	0.3 to 60 V
Zero elevation	0 to 50%	-50 to +50%
Output range (DC)	-----	-10 to +10 V
Span (DC)	-----	10 mV to 20 V
Zero elevation	-----	-100 to +200%

Terminal Assignments



2	Input	(+)
3	Input	(-)
4	Output	(+)
5	Output	(-)
6	Supply	(+)
7	Supply	(-)

Block Diagram



External Dimensions

