

General Specifications

Models FHRA, FHRV
Isolator
(Reverse Output Type)

JUXTA

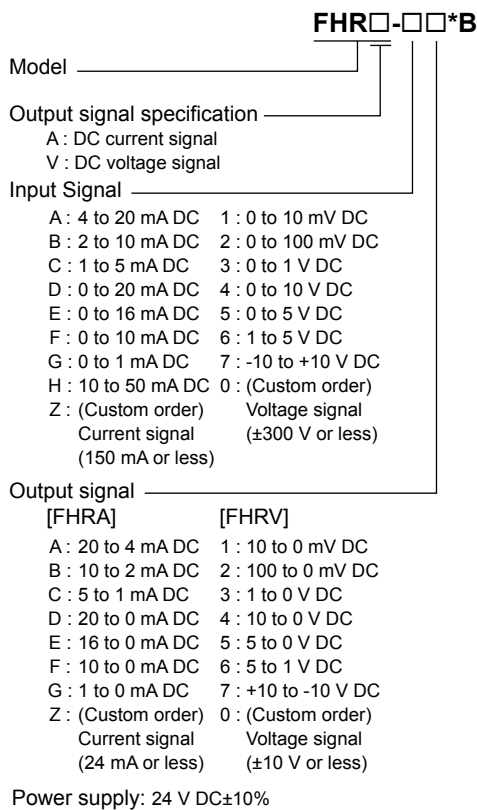
GS 77J08H12-01E

General

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

- 0 to 100% of the input signals are reversed and outputted.

Model and Suffix Codes



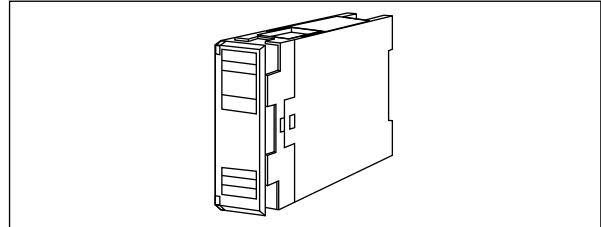
Ordering Information

Specify the following when ordering.

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

Input/Output Specifications

Input signal: DC current or DC voltage signal



Input resistance:

DC current input	Input resistance	DC voltage input	Input resistance
4 to 20 mA	250 Ω	0 to 10 mV	1 MΩ during 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: ±30 V DC or less

Current input: Any level that satisfies the following condition,

$$(\text{Input current})^2 \times \text{Input resistance} \leq 0.5 \text{ W}$$

Output signal: DC current or DC voltage signal

Allowable load resistance:

DC current output	Allowable load resistance	DC voltage output	Allowable load resistance
20 to 4 mA	750 Ω or less	10 to 0 mV	250 kΩ or more
10 to 2 mA	1500 Ω or less	100 to 0 mV	250 kΩ or more
5 to 1 mA	3000 Ω or less	1 to 0 V	2 kΩ or more
20 to 0 mA	750 Ω or less	10 to 0 V	10 kΩ or more
16 to 0 mA	900 Ω or less	5 to 0 V	2 kΩ or more
10 to 0 mA	1500 Ω or less	5 to 1 V	2 kΩ or more
1 to 0 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: ±0.1% of span

Accuracy is not guaranteed for output level more than 99.5% 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.

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%
 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 102 mA (FHRA), 80 mA (FHRV)

■ 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 × W × D)
 Weight: Approx. 130 g

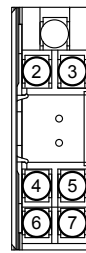
■ Standard Accessories

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

■ Custom Order Specifications

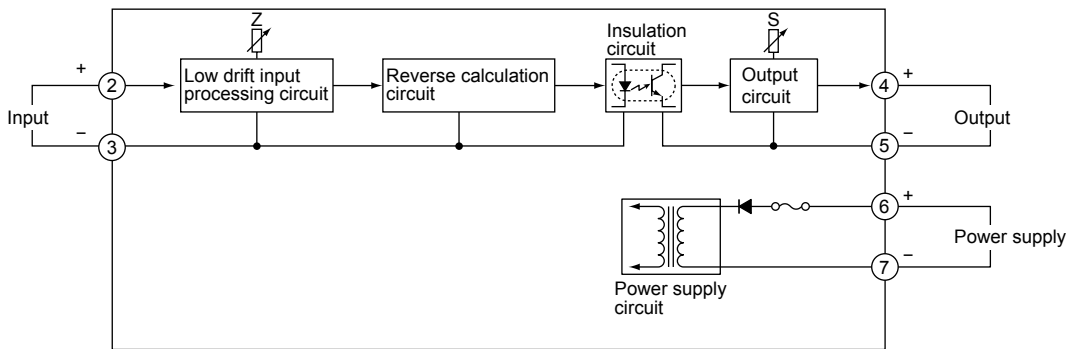
	Current signal	Voltage signal
Input range (DC)	0 to 150 mA	-300 to +300 V
Span (DC)	100 μA to 150 mA	10 mV to 600 V
Zero elevation	0 to 73%	-80 to +73%
Output range (DC)	0 to 24 mA	-10 to +10 V
Span (DC)	1 to 24 mA	10 mV to 20 V
Zero elevation	0 to 200%	-100 to +200%

■ Terminal Assignments



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

■ Block Diagram



■ External Dimensions

