

General Specifications

Models WM1A, WM1V
Isolator
(mV DC Input, Free Range Type)

JUXTA

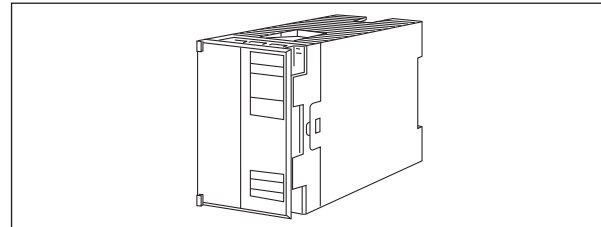
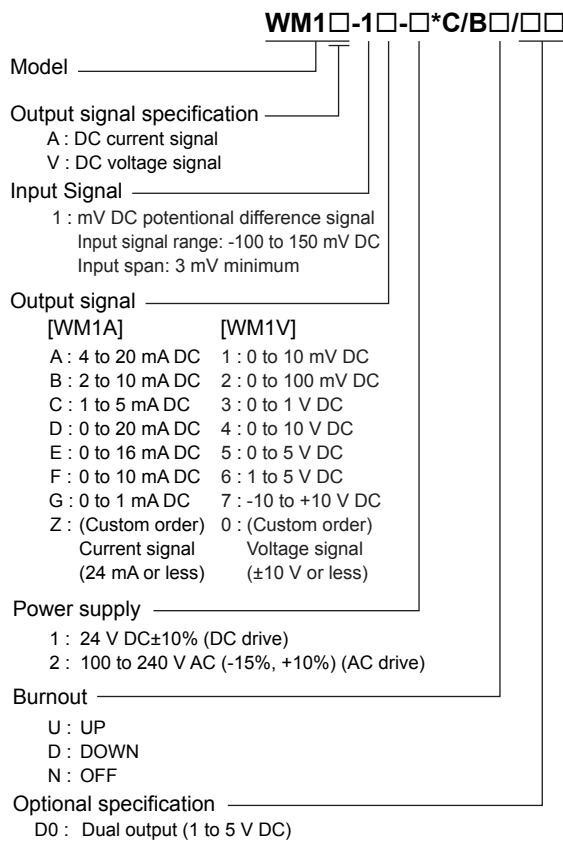
GS 77J09M01-01E

General

The WM1A/WM1V is a compact, front terminal connection type isolator that converts DC mV signals into isolated DC current or DC voltage signals.

- I/O range setting, zero/span adjustment, burnout setting and I/O monitoring 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



Zero elevation: Within ±300% of the measuring span
 Burnout detection current: 0.1 μA
 Input resistance: 1 MΩ during power on 10 kΩ during power off

Maximum allowable input: -0.5 to +4.0 V DC
 Allowable leadwire resistance: 1 kΩ or less
 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

Input adjustment: ±1% (Zero/Span)
 Output adjustment: ±10% (Zero/Span)
 In the case of the output specification code 7 it is ±5% of span.

Standard Performance

Accuracy rating: ±0.1% of span or 10 μV, whichever is greater.
 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: 200 ms, 63% response (10 to 90%)

Burnout: Up, Down or Off ; burnout time is 60 sec. or less.

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 1500 V AC/min. between input and (output and power supply).
 500 V AC/min. between output and power supply.

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

Ordering Information

Specify the following when ordering.

- Model and suffix codes :e.g. WM1V-16-2*C/BU
- Input range :e.g. 0 to 100 mV DC

When the burnout is not specified, the product is manufactured as /BU.

Input/Output Specifications

Input signal: mV DC potential difference
 Measuring range: -100 to +150 mV DC
 Measuring span: 3 mV DC or more (Note that the accuracy is not guaranteed if the span is less than 10mV.)

■ 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±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 65 mA (WM1A), 50 mA (WM1V)
 Power consumption:
 100 V AC 4 VA (WM1A), 3 VA (WM1V)
 200 V AC 5.5 VA (WM1A), 4.5 VA (WM1V)

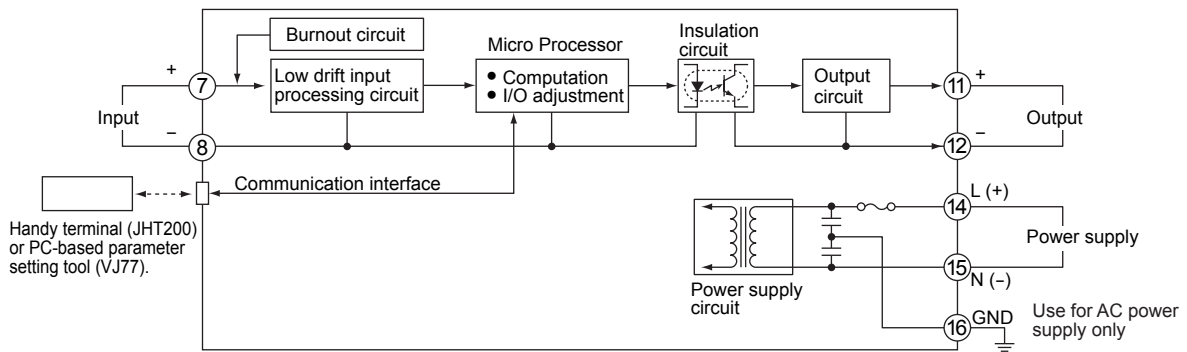
■ Mounting and Dimensions

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
 Range label: 1
 Mounting block: 2

■ Block Diagram

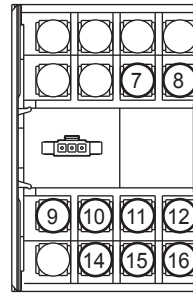


Mounting screw: M4 screw x 4

■ Custom Order Specifications

	Current signal	Voltage signal
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 (+)
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 only when the dual output is specified.

*: Use for AC power supply only

■ External Dimensions

