

General Specifications

Model VJG1
PT Converter
(RMS)



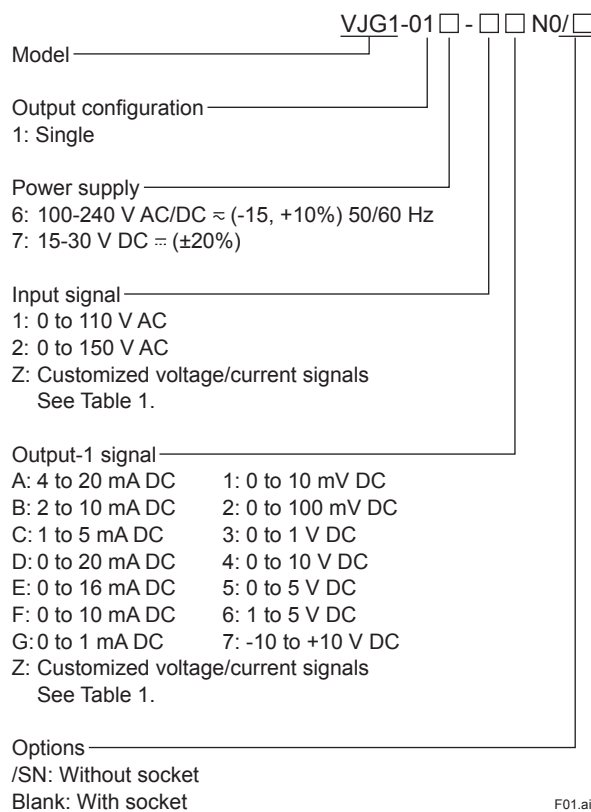
GS 77J01G01-01E

General

The VJG1 is a compact, plug-in PT converter that receives AC voltage signal from a potential transformer (PT) and converts it into isolated DC voltage or DC current signals.

- AC-to-DC conversion based on RMS rectification;
- A wide choice of output signal ranges;
- A withstanding voltage of 2000 V AC;
- A wide supply voltage range - supporting both 100 V and 200 V power lines of AC or DC; and
- Close side-by-side mounting.

Model and Suffix Codes



Items to be specified when ordering

- Model and Suffix Code: e.g. VJG1-016-1AN0

Input/Output Specifications

Input signal: AC voltage in the 0 to 110 V AC or 0 to 150 V AC range

Input loss: 0.5 VA maximum

Input frequency range: 40 Hz to 10 kHz

Maximum allowable overrange input: 120% (continuous); 200% (for one minute)

Output signal: DC voltage or DC current

Allowable load resistance:

Output Range	Allowable Load Resistance	Output Range	Allowable Load Resistance
4 to 20 mA DC	750 Ω maximum	0 to 10 mV DC	250 k Ω minimum
2 to 10 mA DC	1500 Ω maximum	0 to 100 mV DC	250 k Ω minimum
1 to 5 mA DC	3000 Ω maximum	0 to 1 V DC	2 k Ω minimum
0 to 20 mA DC	750 Ω maximum	0 to 10 V DC	10 k Ω minimum
0 to 16 mA DC	900 Ω maximum	0 to 5 V DC	2 k Ω minimum
0 to 10 mA DC	1500 Ω maximum	1 to 5 V DC	2 k Ω minimum
0 to 1 mA DC	15 k Ω maximum	-10 to +10 V DC	10 k Ω minimum

Zero and span adjustment: Within \pm 5% of span for both zero and span adjustment

Standard Performance

Accuracy rating: \pm 0.5% 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.

Response: 250 ms for a 63% response (10 to 90% change of range)

Insulation resistance: 100 M Ω minimum at 500 V DC between input, output, power supply and grounding terminals mutually

Withstanding voltage: 2000 V AC for one minute between input, output, power supply and grounding terminals mutually

Operating temperature range: 0 to 50°C

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

Supply voltage range: 100-240 V AC/DC \approx (-15, +10%) 50/60 Hz or 15-30 V DC \approx (\pm 20%)

Effects of power line regulation: Up to \pm 0.1% of span for a supply voltage range of 85 to 264 V AC (47 to 63 Hz), 85 to 264 V DC or 12 to 36 V DC

Effects of ambient temperature variations: Up to \pm 0.2% of span per 10°C

Current consumption: 90 mA at 24 V DC

Power consumption: 4.3 VA at 100 V AC; 6.1 VA at 200 V AC

■ Mounting and Appearance

Material: ABS resin (casing)

Mounting: Wall mounting, DIN rail mounting, or mounting on a side-by-side multiple mounting base

Connection: Terminals with M3 size screws

External dimensions: 76 (H) × 29.5 (W) × 124.5 (D) mm

Weight: Main unit = approx. 122 g; socket = approx. 51 g

■ Accessories

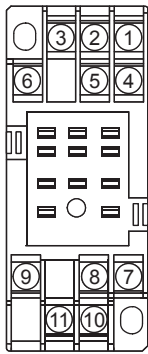
Tag number label: One

■ Customized Signal Specifications

Table 1 Manufacturable Ranges

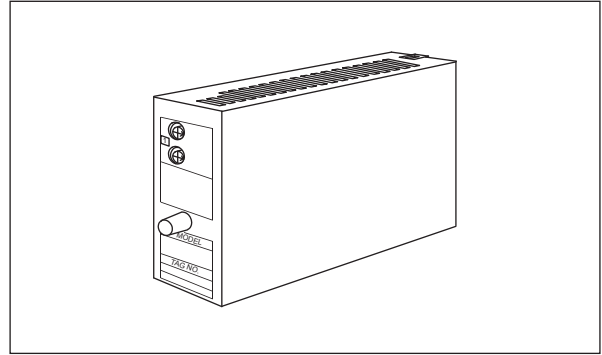
	Current Signal	Voltage Signal
Input range	—	0 to 300 V AC
Span	—	30 to 300 V AC
Zero elevation	—	0% only
Output range	0 to 24 mA DC	-10 to +10 V DC
Span	1 to 24 mA DC	10 mV to 20 V DC
Zero elevation	0 to 200%	-100% to +200%

Terminal Assignments

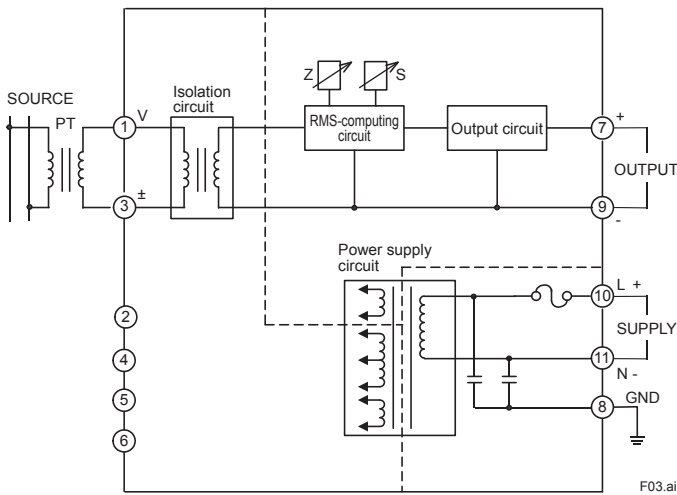


1	INPUT	(V)
2	N.C.	
3	INPUT	(±)
4	N.C.	
5	N.C.	
6	N.C.	
7	OUTPUT	(+)
8	GND	
9	OUTPUT	(-)
10	SUPPLY	(L+)
11	SUPPLY	(N-)

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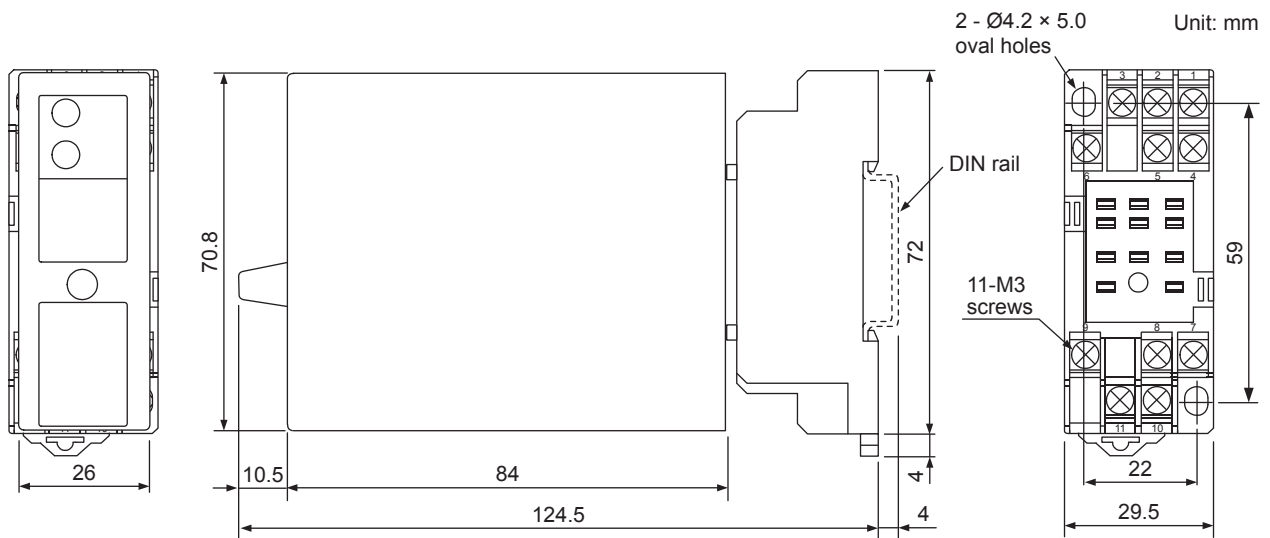


Block Diagram



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External Dimensions



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