

GS 77J1F01-01E

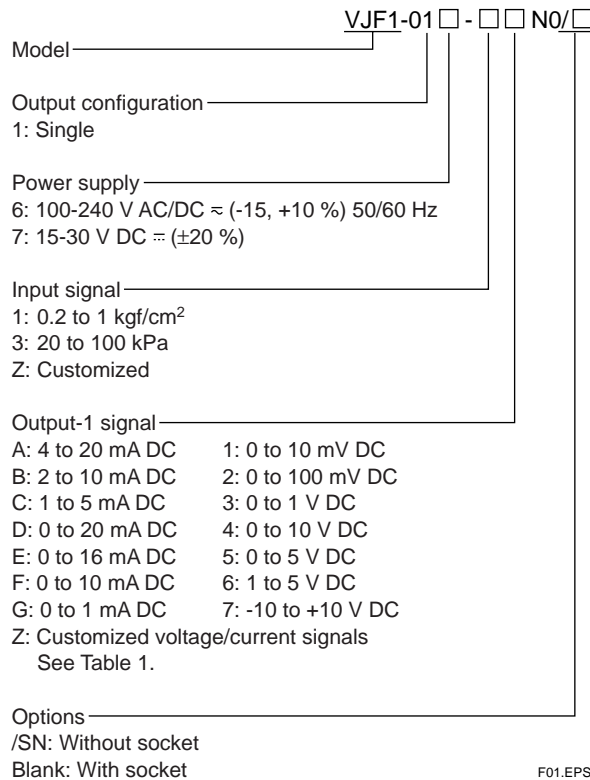
General

The VJF1 is a compact, plug-in pneumatic-to-electric (P/E) transmitter that converts pneumatic signal into DC voltage or DC current signals.

The VJF1 P/E transmitter features:

- a wide choice of input and 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. VJF1-016-3AN0

Input/Output Specifications

Type of input: 0.2 to 1 kgf/cm² or 20 to 100 kPa pneumatic signals generated by dry, non-corrosive gas
 Input signal coupling: One-touch fitting for tubing (ϕ 6)
 Maximum allowable input pressure: Twice the upper limit of the input range (i.e., up to approximately 200 kPa)

Output signal: DC voltage or DC current

Allowable load resistance:

Output Range	Output Range
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 0.2% of span (or \pm 0.5% of span when mounted on a side-by-side multiple mounting base); accuracy is not guaranteed for output level less than 0.5% of the span of a 0 to X mA output range type.

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

Withstanding voltage: 2000 V AC for one minute between 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 to +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 0.4% of span per 10°C

Current consumption: 100 mA at 24 V DC

Power consumption: 4.5 VA at 100 V AC; 6.4 VA at 200 V AC

■ Conformance to EMC Standards

Applicable EMC standard: EN55011: 1991 Class A Group 1 for EMI (emission) regulations
EN50082-2: 1995 for EMS (immunity) regulations
CE-certified models mean those which are CE certified on condition that they be operated over a supply voltage range of 15-30 V DC \pm (\pm 20%) only.

■ 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) \times 29.5 (W) \times 124.5 (D) mm
Weight: Main unit = approx. 148 g; socket = approx. 51 g

■ Accessories

Tag number label: One

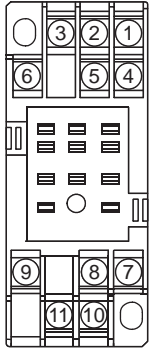
■ Customized Signal Specifications

Table 1 Manufacturable Ranges

	Current Signal	Voltage Signal
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%

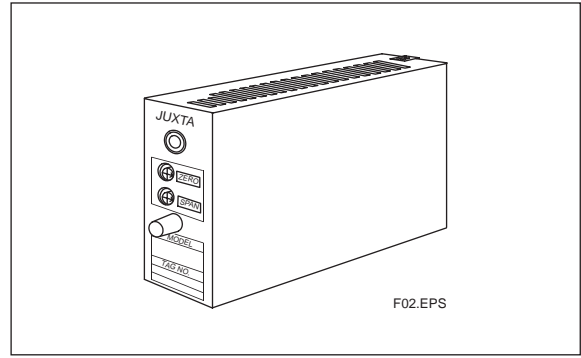
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Terminal Assignments

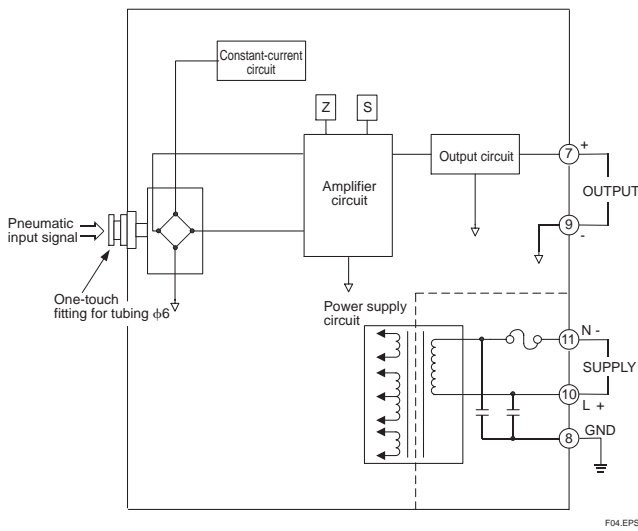


1	N.C.
2	N.C.
3	N.C.
4	N.C.
5	N.C.
6	N.C.
7	OUTPUT (+)
8	GND
9	OUTPUT (-)
10	SUPPLY (L+)
11	SUPPLY (N-)

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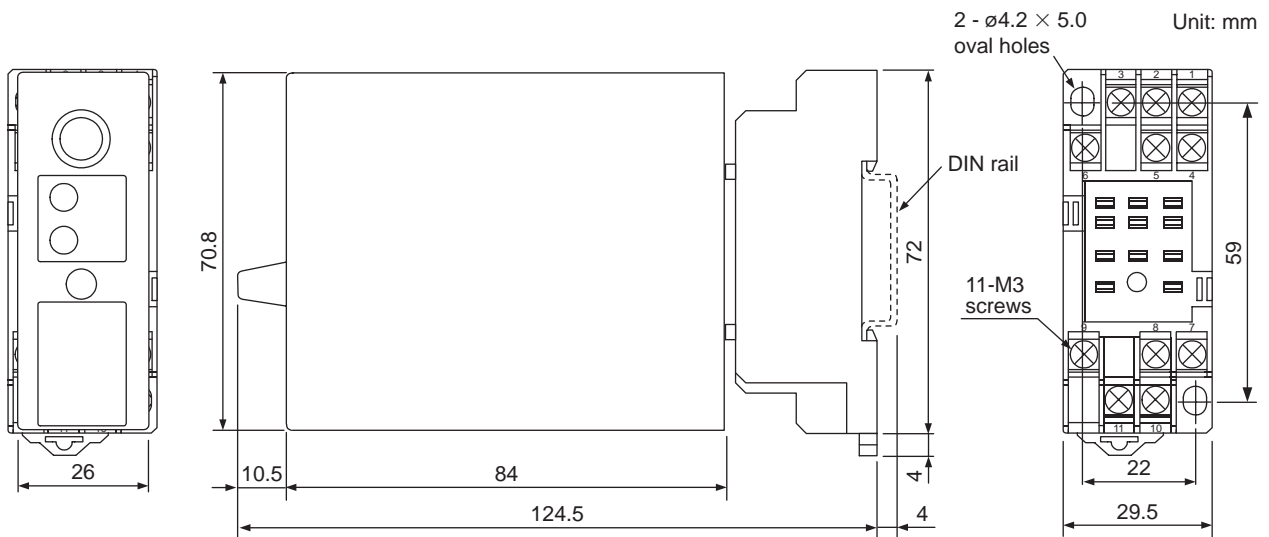


Block Diagram



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External Dimensions



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• The information covered in this document is subject to change without notice for reasons of improvements in quality and/or performance.