

General Specifications

Model VJA4
Distributor (Non-isolated)



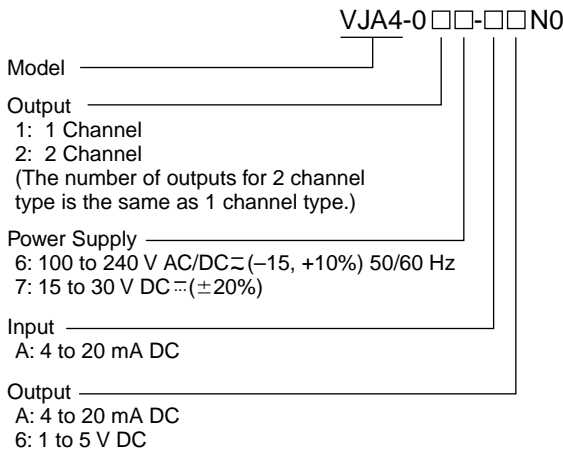
GS 77J01A04-01E

General

This plug-in type distributor is used in combination with 2-wire type transmitters and converts 4 to 20 mA DC signals into DC current or DC voltage signals. The input/output signal is non-isolated.

- One-channel or two-channel type can be selected.

Model and Suffix Codes



Input

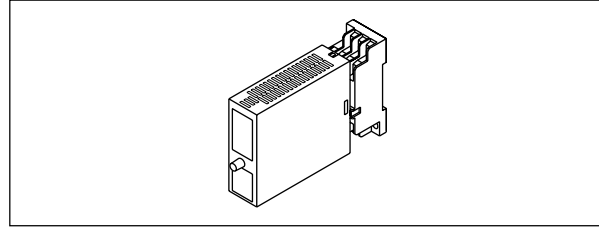
Input Signal: 4 to 20 mA DC from 2-wire transmitter, 1 point
Input Resistance: 250 Ω (for voltage output)
Transmitter Power Supply: 24 to 28 V DC
(with current limit circuit at 25 to 35 mA)
Permissible Conductor Resistance: $RL \leq (20 - \text{transmitter minimum operating voltage}) / 0.02 \text{ A} (\Omega)$
Permissible Input Current: 40 mA or less

Output

Output signal: 4 to 20 mA DC or 1 to 5 V DC
Permissible load resistance:
For 4 to 20 mA DC output:
[(24 V – Transmitter’s minimum operating voltage)/20 mA] – Input wiring resistance
For 1 to 5 V DC output: 250 k Ω or more

Standard Performance

Accuracy rating: $\pm 0.1\%$ of span (for voltage output)
Effect of Power Supply Voltage Fluctuation: $\pm 0.1\%$ or less of span for power supply voltage fluctuation of 85 to 264 V AC (47 to 63 Hz)/DC and 12 to 36 V DC
Effect of Ambient Temperature Change: $\pm 0.2\%$ or less of span for change of 10 $^{\circ}\text{C}$

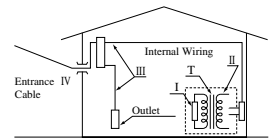


Safety and EMC Standards

The followings will be acquired.

Safety: approved by CSA1010, approved by UL3121-1.
Installation category: CAT. II (CSA1010)
Pollution degree: 2 (CSA1010)
As for the apparatus authorized, power supply voltage is limited to 15V-30VDC, and the circuit to connect is limited to a class 2. (UL3121-1)

Category	Description	Remarks
CAT. I	For measurements performed on circuits not directly connected to MAINS.	
CAT. II	For measurements performed on circuits directly connected to the low voltage installation.	Appliances, portable equipments, etc.
CAT. III	For measurements performed in the building installation.	Distribution board, circuit breaker, etc.
CAT. IV	For measurements performed at the source of the low-voltage installation.	Overhead wire, cable systems, etc.



EMC standards: Complies with EN61326.

The above conformed instrument is only for voltage of 15 to 30 V DC $\pm(\pm 20\%)$.

Environmental Conditions

Temperature: 0 to 50 $^{\circ}\text{C}$
Humidity: 5 to 90% RH (no condensation)
Ambient Condition: Avoid installation in such environments as corrosive gas like hydrogen sulfide, dust, sea breeze and direct sunlight.
Installation altitude 2000 m or less above sea level.

Power Supply and Isolation

Power supply voltage:
100 to 240 V AC/DC $\pm(-15, +10\%)$ 50/60 Hz
15 to 30 V DC $\pm(\pm 20\%)$

Power dissipation:
24 V DC 2.5 W, 110 V DC 2.5 W
100 V AC 4.8 V A, 200 V AC 5.3 V A

Insulation resistance:
100 M Ω /500 V DC between channel 1, channel 2, power supply, and ground mutually

Withstand voltage:
2000 V AC/minute between (channel 1, channel 2), power supply, and ground mutually
1000 V AC/minute between channel 1 and channel 2

■ Mounting and Appearance

Construction: Compact plug-in type
 Material: Modified Polyphenylene Oxide (Case body)
 Mounting Method: Wall, DIN rail, or dedicated VJ mounting base mountings
 Connection Method: M3 screw terminal
 External Dimension: 29.5 (W)×76 (H)×124.5 (D) mm
 Weight: Approx. 170 g

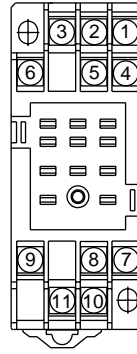
■ Standard Accessories

Tag number label: 1

■ Items to Specify When Ordering

- Model and suffix codes

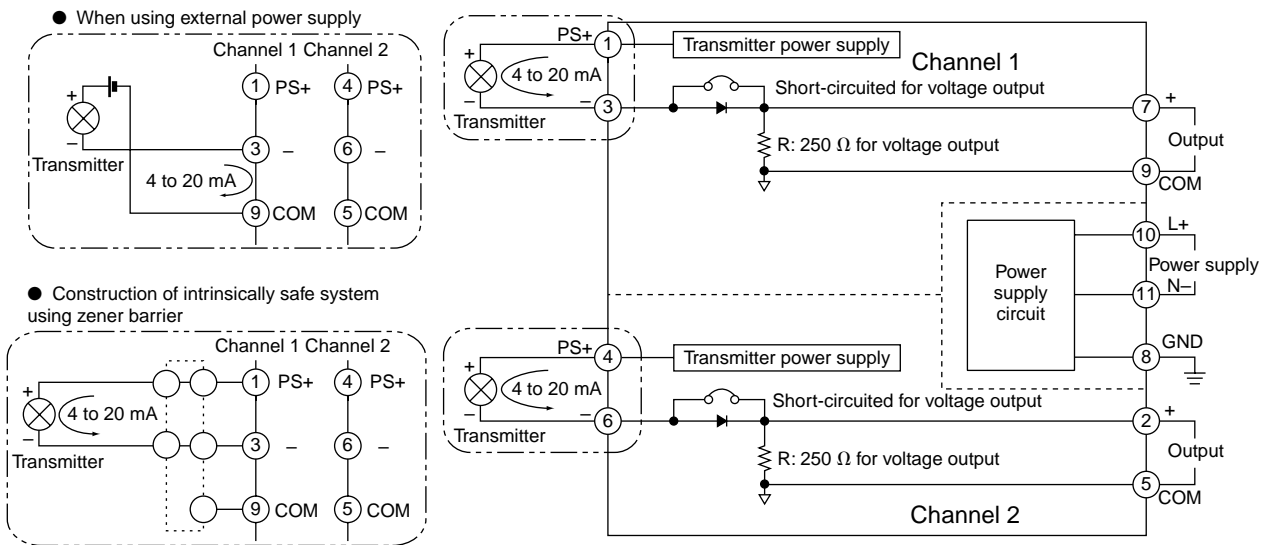
■ Terminal Arrangement



Terminal No.	Signal
1	Input (PS+) for channel 1
2	Output (+) for channel 2
3	Input (-) for channel 1
4	Input (PS+) for channel 2
5	COM for channel 2
6	Input (-) for channel 2
7	Output (+) for channel 1
8	GND
9	COM for channel 1
10	Power supply (L+)
11	Power supply (N-)

Note 1: With channel 1 type, terminals for channel 2 are not connected.

■ Block Diagram



■ External Dimensions

