

General Specifications

Models FB3A, FB3V
AC Current Converter (RMS)

JUXTA

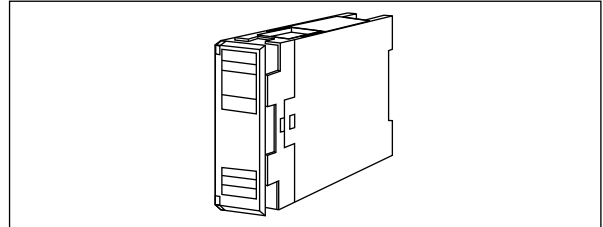
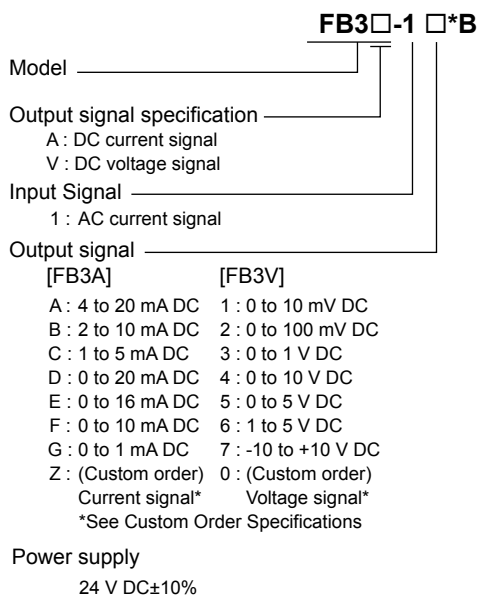
GS 77J08B03-01E

■ General

The FB3A/FB3V is a compact, front terminal connection type AC current converter that converts AC current signals into isolated DC current or DC voltage signals.

- AC/DC conversion is made by root mean square value.

■ Model and Suffix Codes



■ Input/Output Specifications

Input signal: 0 to I_{100} mA AC
 $4 \leq I_{100} \leq 1000$ mA AC
 (I_{100} =100% input current)

Input resistance: $4 \leq I_{100} < 10$ mA AC; 25 Ω or less
 $10 \leq I_{100} < 100$ mA AC; 10 Ω or less
 $100 \leq I_{100} < 1000$ mA AC; 1 Ω or less

Input frequency range: 40 Hz to 10 kHz
 Maximum allowable input: 120% (continuous);
 200% (one minute)

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 k Ω or more |
| 2 to 10 mA | 1500 Ω or less | 0 to 100 mV | 250 k Ω or more |
| 1 to 5 mA | 3000 Ω or less | 0 to 1 V | 2 k Ω or more |
| 0 to 20 mA | 750 Ω or less | 0 to 10 V | 10 k Ω or more |
| 0 to 16 mA | 900 Ω or less | 0 to 5 V | 2 k Ω or more |
| 0 to 10 mA | 1500 Ω or less | 1 to 5 V | 2 k Ω or more |
| 0 to 1 mA | 15 k Ω or less | -10 to +10 V | 10 k Ω or more |

Zero adjustment: -5 to +5%
 Span adjustment: 95 to 105%

■ Standard Performance

Accuracy rating: $\pm 0.3\%$ 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 speed: 300 ms, 63% response (10 to 90%)
 Insulation resistance: 100 M Ω 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.

■ Ordering Information

Specify the following when ordering.

- Model and suffix codes :e.g. FB3V-16*B
- Input range :e.g. 0 to 100 mA AC

■ 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% (percentage ripple is 5%p-p or less)
 Effect of power supply voltage fluctuations: ±0.1% of span or less for the 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 90 mA (FB3A), 60 mA (FB3V)

■ 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 x W x D)
 Weight: Approx. 130g

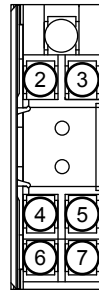
■ Standard Accessories

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

■ Custom Order Specifications

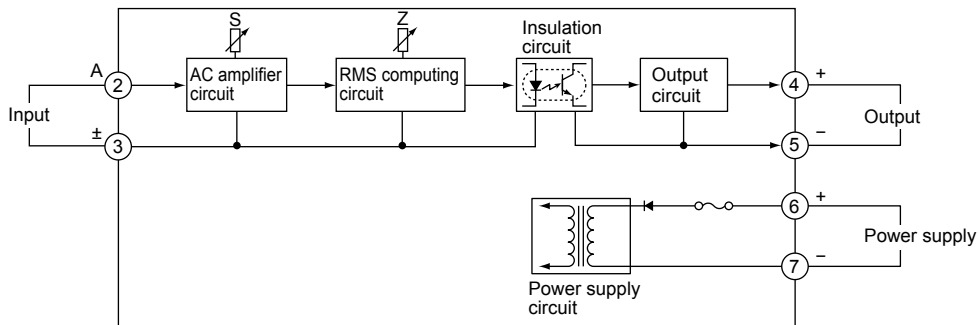
| | Current signal | Voltage signal |
|-------------------|----------------|----------------|
| Input range (AC) | 0 to 1000 mAAC | ----- |
| Span (AC) | 4 to 1000 mAAC | ----- |
| Zero elevation | 0% only | ----- |
| Output range (DC) | 0 to 24 mA | -10 to +10 V |
| Span (DC) | 1 to 24 mA | 10 mV to 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

