GS 77J04A07-01E

# General Specifications

Model MA7 Distributor (Unified Signal Type)

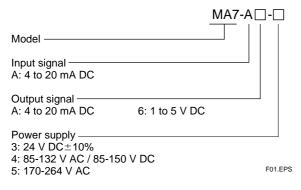


General

The MA7 is a plug-in type distributor that is used in combination with a two-wire type transmitter to convert the transmitter's 4 to 20 mA DC signals into isolated 4 to 20 mA DC current or 1 to 5 V DC voltage signals.

- Supports BARD-800.
- · Provided with Power indicator lamp

## Model and Suffix Codes

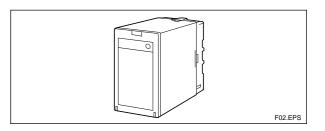


#### Items to be specified when ordering

• Model and Suffix Codes: e.g. MA7-A6-3

#### Input/Output Specifications

Input signal: 4 to 20 mA DC signal from two-wire type transmitter Input resistance: 250  $\Omega$ Transmitter power supply: 25.25±0.25 V DC (provided with a current limiter to keep the current between 25 and 35 mA) Allowable conductor resistance (RL): Up to [(20 transmitter's minimum operating voltage) V/0.02 Al Ω Maximum allowable input current: 40 mA DC Output signal: 1 to 5 V DC voltage or 4 to 20 mA DC current signal Allowable load resistance: 4 to 20 mA DC: 750  $\Omega$  maximum 1 to 5 V DC: 2 k $\Omega$  minimum Zero adjustment: -5 to +5% Span adjustment: 95 to 105%



### Standard Performance

Accuracy rating: ±0.1% of span Response speed: 150 ms, 63% response (10 to 90%) Insulation resistance: 100 M $\Omega$  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: 24 V DC±10%, 85-150 V DC, 85-132 V AC, 170-264 V AC (47-63 Hz) Effects of power line regulation: Up to  $\pm 0.1\%$  of span for the regulation within allowable range of each supply voltage range Effects of ambient temperature variations: Up to  $\pm 0.15\%$  of span per 10°C Power consumption: 2 W at 24 V DC; 1.8 W at 110 V DC; 3.9 VA at 100 V AC; 5.2 VA at 200 V AC

#### Mounting and Appearance

Material: ABS resin (casing)
Mounting method: Wall or DIN rail mounting More than 5 mm interval is required for side-by-side close mounting.
Connection method: M3.5 screw terminals
External dimensions: 85 (H)×51 (W)×123 (D) mm (including a socket)
Weight: Approx. 250 g (main unit), approx. 60 g (socket)

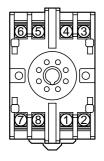
#### Accessories

Spacer: One (used for DIN rail mounting)



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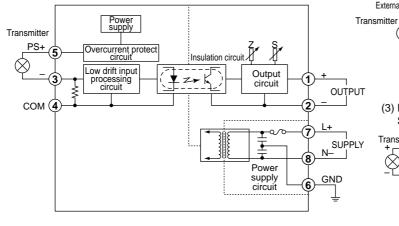
#### Terminal Assignments

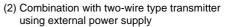


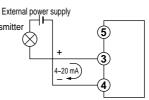
1	OUTPUT	(+)
2	OUTPUT	(-)
3	INPUT	(-)
4	INPUT	(COM)
5	INPUT	(PS+)
6	GND	
7	SUPPLY	(L+)
8	SUPPLY	(N–)
		F03.EPS

#### Block Diagrams

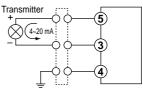
(1) Combination with two-wire type transmitter using internal power supply





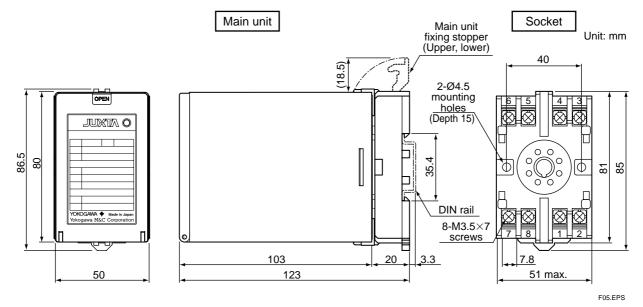


(3) Example to construct Intrinsically Safe System using Zener Barrier



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#### **External Dimensions**



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

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