

# General Specifications

GS 77J04H07-01E

Model MH7  
Isolator (Unified Signal Type)

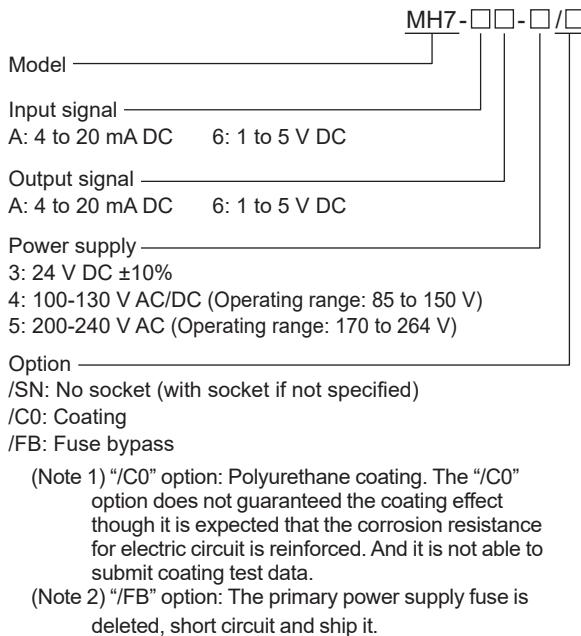
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## ■ General

The MH7 is a plug-in type isolator that receives 1 to 5 V DC voltage or 4 to 20 mA DC current signals to convert them into isolated 1 to 5 V DC voltage or 4 to 20 mA DC current signals.

- Provided with power indicator lamp (RDY).

## ■ Model and Suffix Codes



Effect of power supply voltage fluctuation: Within the accuracy range of span for power supply voltage fluctuation.

Effect of ambient temperature change: ±0.15 % of span for change of 10 °C

## ■ Power Supply and Isolation

Supply rated voltage range: 24 V DC ... ±10%  
100-130 V AC / DC ≈ 50/60Hz  
200-240 V AC ~ 50/60 Hz

Supply input voltage range: 24 V DC ... ±10%  
100-130 V AC / DC (±15%) 50/60Hz  
200-240 V AC (-15, +10%) 50/60 Hz

Power consumption: 1.2 W at 24 V DC; 1.1 W at 110 V DC; 2.5 VA at 100 V AC; 3.8 VA at 200 V AC

Insulation resistance: 100 MΩ 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

## ■ Environmental Conditions

Temperature: 0 to 50 °C (0 to 40 °C for multiple mounting)

Humidity: 5 to 90 % RH (no condensation)

Ambient Condition: Avoid installation in such environments as corrosive gas like sulfide hydrogen, dust, sea breeze and direct sunlight.

Magnetic field: 400 A/m or less.

Continuous vibration (at 5 to 9 Hz) Half amplitude of 3 mm or less (at 9 to 150 Hz) 4.9 m/s<sup>2</sup> or less, 1 oct/min for 90 minutes each in the 3-axis directions.

Impact: 98 m/s<sup>2</sup> or less, 11 msec, 3-axis 3 times each in 6 directions.

Altitude: 2000 m or less.

Warm-up time: At least 30 minutes after power on.

## ■ Transport and Storage Conditions

Ambient temperature: -25 to 70 °C

Temperature change rate: 20 °C per hour or less

Ambient humidity: 5 to 95 %RH (no condensation)

## ■ Ordering Information

- Model and Suffix Codes: e.g. MH7-66-3

## ■ Input/Output Specifications

Input signal: 4 to 20 mA DC or 1 to 5 V DC signal

Input resistance:

4 to 20 mA DC: 250 Ω (Attach an external resistor.)  
1 to 5 V DC: 1 MΩ

Output signal: 4 to 20 mA DC or 1 to 5 V DC signal

Allowable load resistance:

4 to 20 mA DC: 750 Ω maximum  
1 to 5 V DC: 2 kΩ minimum

Output resistance:

4 to 20 mA DC; 500 kΩ or more  
1 to 5 V DC; 1 Ω or less

Zero adjustment: -5 to +5%

Span adjustment: 95 to 105%

## ■ Standard Performance

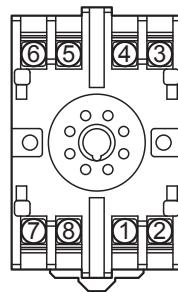
Accuracy rating: ±0.1% of span (aside from the ±0.1% accuracy of the external resistor for current input )

Response speed: 150 ms, 63% response (10 to 90%)

## ■ Mounting and Appearance

Construction: Compact plug-in type  
 Material: Modified polyphenylene oxide (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: 86.5 (H) x 51 (W) x 123 (D) mm (including a socket)  
 Weight: Main unit: 200 g or less  
 Socket: 60 g or less

## ■ Terminal Assignments

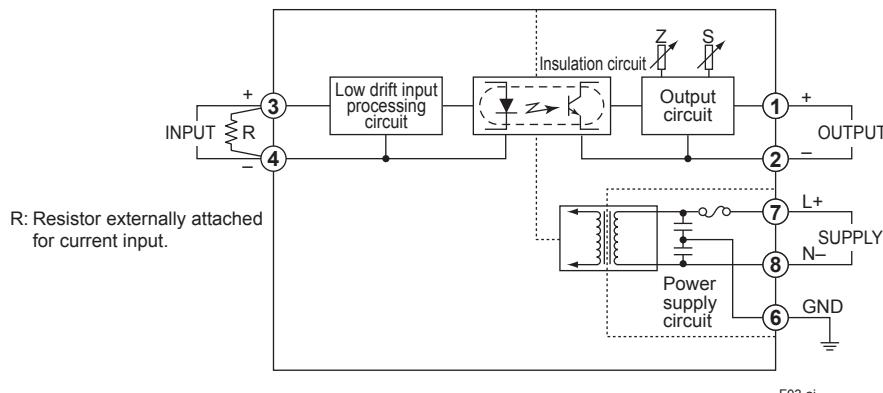


1	Output	(+)
2	Output	(-)
3	Input	(+)
4	Input	(-)
5	Do not use	
6	GND	
7	Supply	(L+)
8	Supply	(N-)

## ■ Accessories

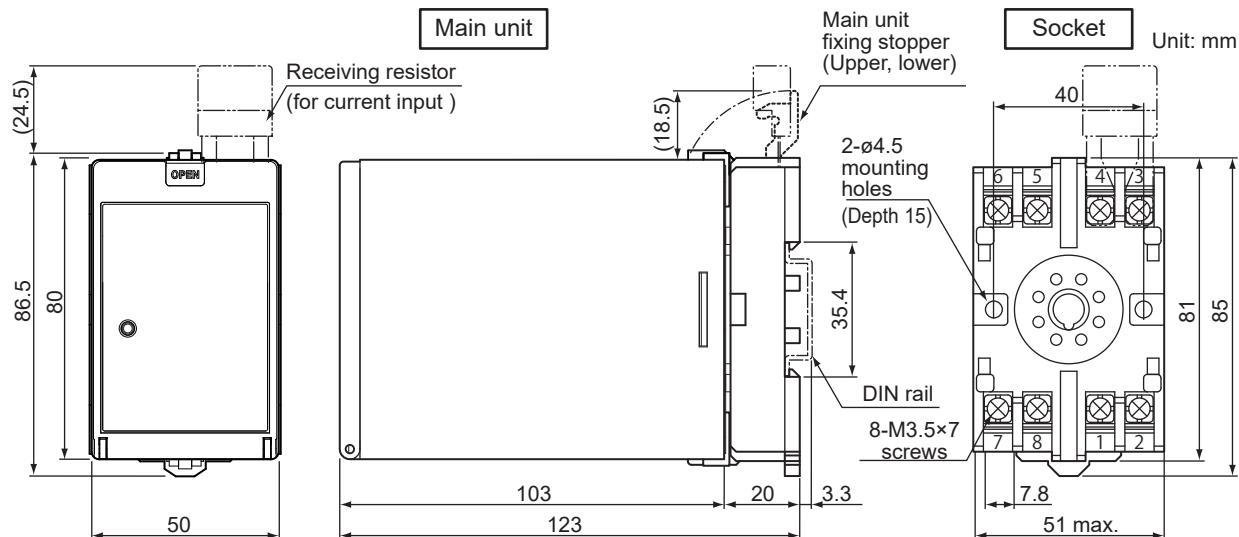
Spacer: One (used for DIN rail mounting)  
 Resistor: One (attached for current input)

## ■ Block Diagrams

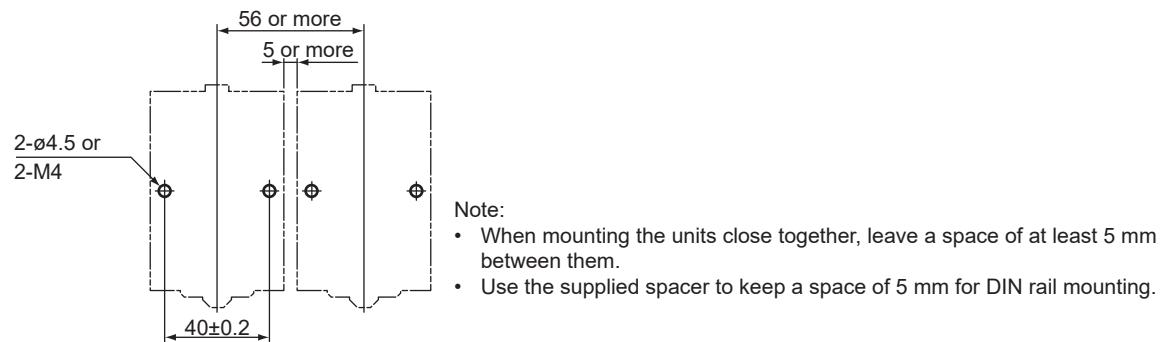


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## ■ External Dimensions



## &lt;Mounting Dimensions&gt;



Normal Allowable Deviation=  $\pm$  (Value of JIS B 0401-1998 tolerance grade IT18) / 2