Model MQ0 Analog/Pulse Transmitter receives DC voltage or current signal and converts it into isolated pulse train signal.
It outputs either one of open collector, voltage pulse, dry contact AC switch or relay contact.
● Function of low input cut (standard 1%) installed. Can set upto 1~10%.
(Available 2000V AC high voltage proof specifications upon request)

MQ0-□□-□*A

MODEL

INPUT

A: 4~20mA DC	1: 0~10mV DC
B: 2~10mA DC	2: 0~100mV DC
C: 1~5mA DC	3: 0~1V DC
D: 0~20mA DC	4: 0~10V DC
E: 0~16mA DC	5: 0~5V DC
F: 0~10mA DC	6: 1~5V DC
G: 0~1mA DC	7: -10~+10V DC
H: 10~50mA DC	0: (CUSTOM ORDER)
Z: (CUSTOM ORDER)	Voltage Signal
Current Signal	Refer Table 1
Refer Table 1	

OUTPUT
1: Open Collector
2: Counter (*1) driving pulse
(pulse width 50ms fixed only)
*1 YOKOGAWA Magnetic Counter (Type SICD)
3: Dry contact AC switch
4: Relay contact
(Output frequency less than 100Hz)
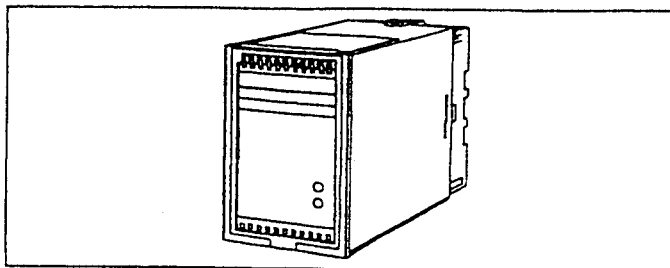
POWER SUPPLY
1: 12~48V DC
2: 85~264V AC

ORDERING INFORMATION
● Model Code : (Example) MQ0-61-2*A
● Output Frequency (Example) 0~50Hz
● Pulse Width : 10ms ON pulse
If pulse width is not specified, unit will be shipped at Duty 50%.
Counter driving pulse is 50ms ON pulse fixed.

Input & Output

Input signal	DC current or voltage signal
Input resistance	Voltage input : 1MΩ (100kΩ when power off) Current input : Receiving resistor value outset to socket

Input Range		Input Range	
4~20mA DC :	250Ω	0~16mA DC :	250Ω
2~10mA DC :	500Ω	0~10mA DC :	500Ω
1~5mA DC :	1kΩ	0~1mA DC :	1kΩ
0~20mA DC :	250Ω	10~50mA DC :	100Ω

Output signal	$0 \sim F_{100}$Hz (whereas $0.001Hz \leqq F_{100} \leqq 4000Hz$) F_{100} : 100% output frequency
Zero point adjust range	±1% of span
Span adjust range	±5% of span
Output format and Maximum permissible load	Open collector : 30V DC/200mA Voltage pulse : 24V DC/140mA Dry contact AC switch : 100V AC/200mA Relay contact (Note 1) : 100V AC/1A Life of Relay : 5000 million times Resistance load : 100V AC/1A, Below 100Hz (Note 1) In case over 0.1A resistance load, it is desirous to connect contact protect circuit (resistor and condensor) between output terminals.

Pulse width : Duty 50% or pulse width fixed (select from 8 points)

	Output pulse width	100% output frequency condition
	Duty 50% fixed	0.001Hz~4kHz
Pulse width fixed	100μs	Less than 4kHz
	500μs	Less than 1kHz
	1ms	Less than 500Hz
	5ms	Less than 100Hz
	10ms	Less than 50Hz
	50ms	Less than 10Hz
	100ms	Less than 5Hz
	500ms	Less than 1Hz

Standard Performance

Accuracy rating	±0.1% of span (In case of current input, outer set resistor accuracy of ±0.1% is not included)
Response speed	150ms (Span more than 100Hz) 1.5sec (Span less than 100Hz) 63% response (10~90%)
Insulation resistance	100MΩ/500V DC between input~output~power supply~ground
Withstand voltage	1500V AC/1 minute between input~output~power supply~ground
Temperature range	0~50°C
Humidity range	5~90%RH (no condensation)
Power supply voltage	85~264V AC, 47~63Hz or 12~48V DC
Effect of power supply voltage fluctuation	Less than ±0.1% of span for 85~264V AC or 12~48V DC
Effect of change in temperature	Less than ±0.2% of span for 10°C change
Current dissipation	24V DC 135mA
Power dissipation	100V AC 5VA, 200V AC 8VA

Mounting, Shape & Accessories

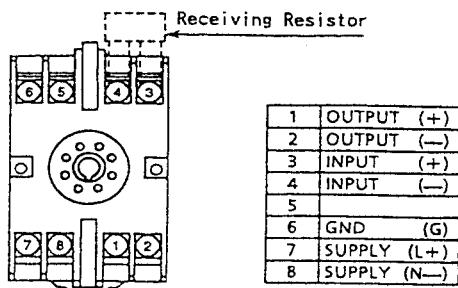|	
Material	Case: ABS plastic
Mounting method	Wall or DIN rail mounting (more than 5mm interval is required for access mounting)
Connecting method	M3.5 screw terminal
External dimension	85(H)x50(W)x123(D)mm (including socket)
Weight	Body : approx. 250g, Socket : approx. 60g
Accessories	Spacer : 1 (Use for DIN rail mounting)

YOKOGAWA ◆

Table 1 Manufacturable Range

	Current Signal	Voltage Signal
Input Range	0~150mA DC	-10~+10V DC
Span	100μA~150mA DC	10mV~600V DC
Zero Elevation	0~73%	-80~+73%
Output Range	0~4000Hz	
Span	0.001~4000Hz	
Zero Elevation	0% Only	

TERMINAL ARRANGEMENT

Receiving Resistor

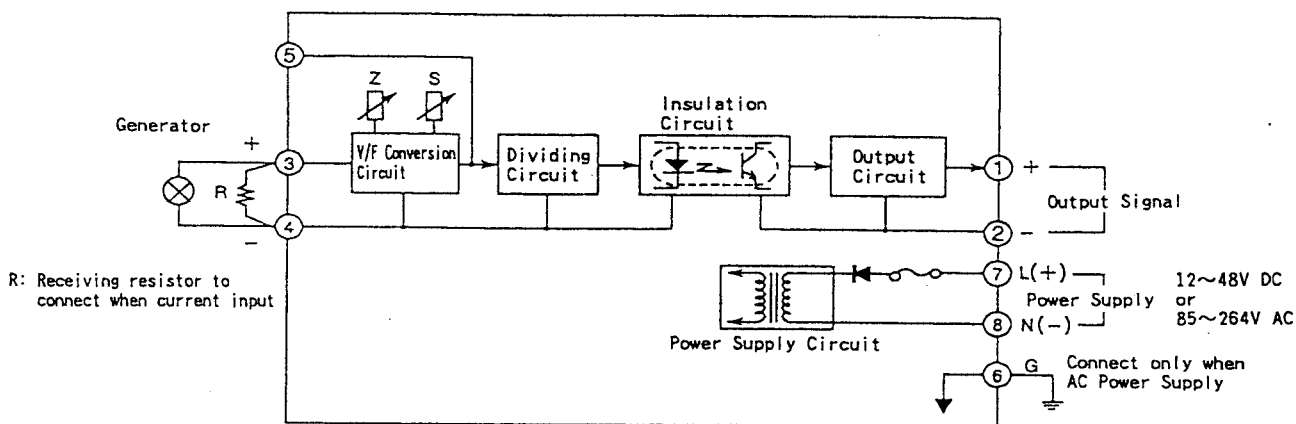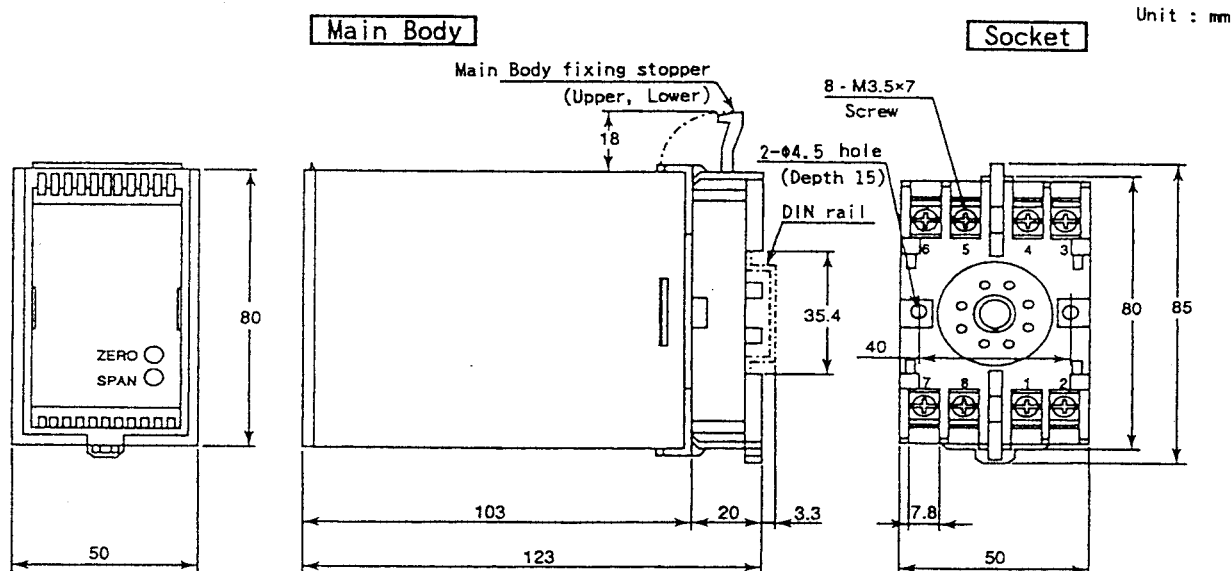| 1	OUTPUT	(+)
2	OUTPUT	(−)
3	INPUT	(+)
4	INPUT	(−)
5		
6	GND	(G)
7	SUPPLY	(L+)
8	SUPPLY	(N−)

Note: When power of MQ0 is turned on/off, one pulse may be counted by the pulse input device which connects to the MQ0.

BLOCK DIAGRAM

Generator

R: Receiving resistor to connect when current input

Insulation Circuit

Output Signal

L(+) — Power Supply — 12~48V DC or 85~264V AC
N(−) —

G Connect only when AC Power Supply

EXTERNAL DIMENSION

Unit : mm

Main Body   Socket

Subject to change without notice for grade up quality and performance