

# General Specifications

## MODEL MQO Analog/Pulse Transmitter

JUXTA

Model MQO 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)

MQO-□□-□\*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	Refer Table 1
	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		

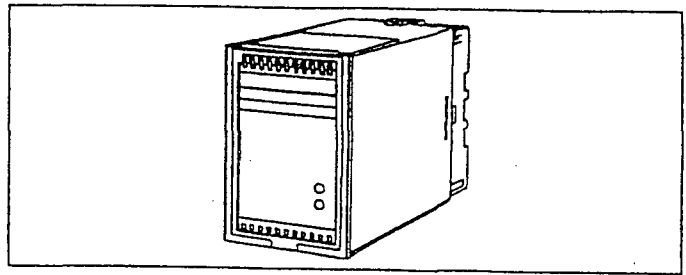
ORDERING INFORMATION	
● Model Code : (Example) MQO-61-2*A	
● Output Frequency (Example) 0~50Hz	
● Pulse Width : 10ms ON pulse	
If pulse width is not specified, unit will be shipped at Duty 50%.	
Counter driving pulse is 50ms ON pulse fixed.	

Input & Output																								
Input signal	DC current or voltage signal																							
Input resistance	Voltage input : 1M $\Omega$ (100k $\Omega$ when power off) Current input : Receiving resistor value outset to socket																							
	<table border="1"> <tr> <th>Input Range</th> <th>Input Range</th> </tr> <tr> <td>4~20mA DC : 250<math>\Omega</math></td> <td>0~16mA DC : 250<math>\Omega</math></td> </tr> <tr> <td>2~10mA DC : 500<math>\Omega</math></td> <td>0~10mA DC : 500<math>\Omega</math></td> </tr> <tr> <td>1~5mA DC : 1k<math>\Omega</math></td> <td>0~1mA DC : 1k<math>\Omega</math></td> </tr> <tr> <td>0~20mA DC : 250<math>\Omega</math></td> <td>10~50mA DC : 100<math>\Omega</math></td> </tr> </table>	Input Range	Input Range	4~20mA DC : 250 $\Omega$	0~16mA DC : 250 $\Omega$	2~10mA DC : 500 $\Omega$	0~10mA DC : 500 $\Omega$	1~5mA DC : 1k $\Omega$	0~1mA DC : 1k $\Omega$	0~20mA DC : 250 $\Omega$	10~50mA DC : 100 $\Omega$													
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Output signal	0~F <sub>max</sub> Hz (whereas 0.001Hz $\leq$ F <sub>max</sub> $\leq$ 4000Hz) F <sub>max</sub> : 100% output frequency																							
Zero point adjust range	$\pm$ 1% of span																							
Span adjust range	$\pm$ 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 desirable to connect contact protect circuit (resistor and condensor) between output terminals.																							
Pulse width : Duty 50% or pulse width fixed (select from 8 points)																								
	<table border="1"> <thead> <tr> <th colspan="2">Output pulse width</th> <th>100% output frequency condition</th> </tr> <tr> <th colspan="2">Duty 50% Fixed</th> <td>0.001Hz~4kHz</td> </tr> </thead> <tbody> <tr> <td rowspan="8">Pulse width fixed</td> <td>100<math>\mu</math>s</td> <td>Less than 4kHz</td> </tr> <tr> <td>500<math>\mu</math>s</td> <td>Less than 1kHz</td> </tr> <tr> <td>1ms</td> <td>Less than 500Hz</td> </tr> <tr> <td>5ms</td> <td>Less than 100Hz</td> </tr> <tr> <td>10ms</td> <td>Less than 50Hz</td> </tr> <tr> <td>50ms</td> <td>Less than 10Hz</td> </tr> <tr> <td>100ms</td> <td>Less than 5Hz</td> </tr> <tr> <td>500ms</td> <td>Less than 1Hz</td> </tr> </tbody> </table>	Output pulse width		100% output frequency condition	Duty 50% Fixed		0.001Hz~4kHz	Pulse width fixed	100 $\mu$ s	Less than 4kHz	500 $\mu$ s	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
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Standard Performance																								
Accuracy rating	$\pm$ 0.1% of span (In case of current input, outer set resistor accuracy of $\pm$ 0.1% is not included)																							
Response speed	150ms (Span more than 100Hz) 1.5sec (Span less than 100Hz)      63% response (10~90%)																							
Insulation resistance	100M $\Omega$ /500V DC between input~output~power supply~ground																							
Withstand voltage	1500V AC/1 minute between input~output~power supply~ground																							
Temperature range	0~50 $^{\circ}$ 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 $\pm$ 0.1% of span for 85~264V AC or 12~48V DC																							
Effect of change in temperature	Less than $\pm$ 0.2% of span for 10 $^{\circ}$ 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)																							

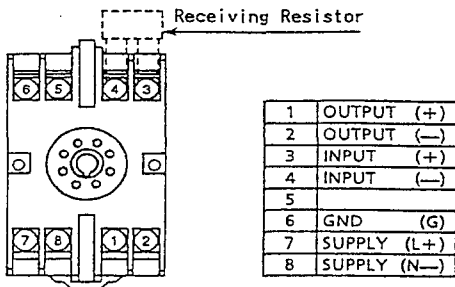
SPECIFICATIONS FOR CUSTOM ORDER

Table 1 Manufacturable Range

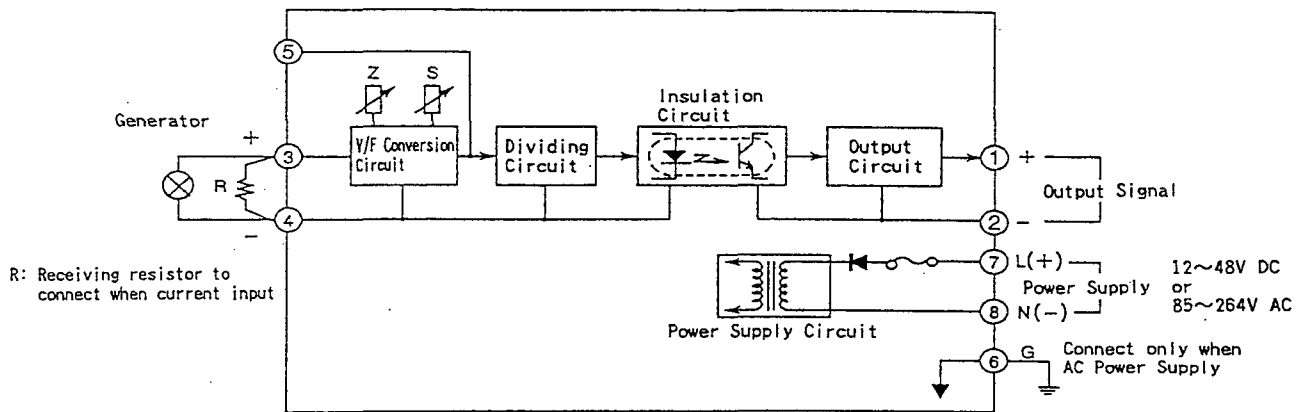
	Current Signal	Voltage Signal
Input Range	0~150mA DC	-10~+10V DC
Span	100 $\mu$ A~150mA DC	10mV~600V DC
Zero Elevation	0~73%	-80~+73%
Output Range	0~4000Hz	
Span	0.001~4000Hz	
Zero Elevation	0% Only	



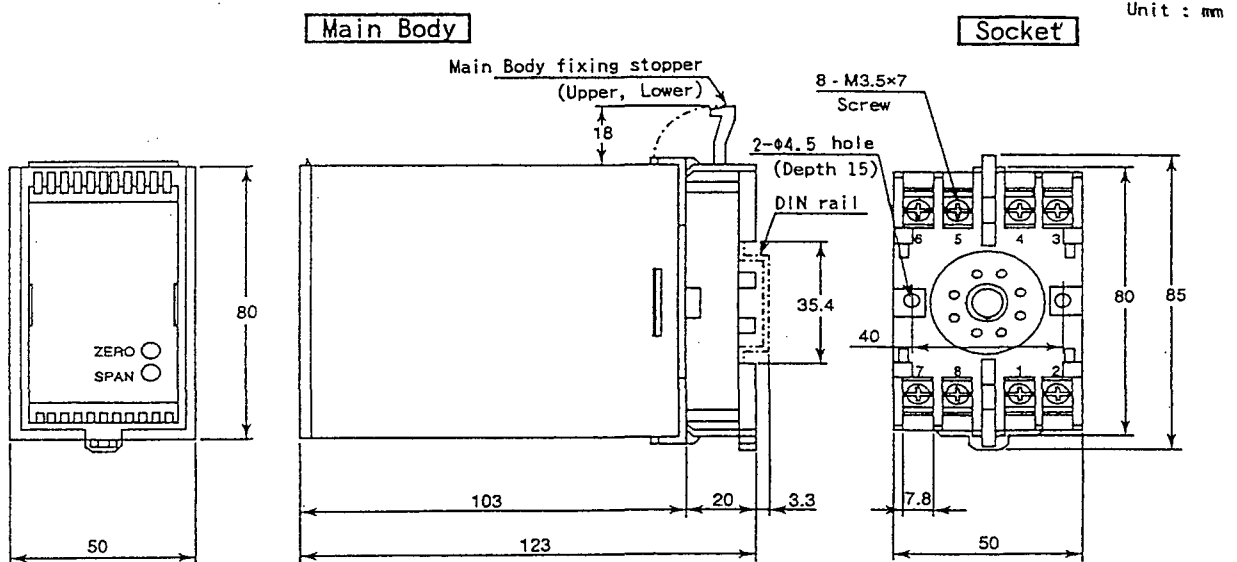
TERMINAL ARRANGEMENT



BLOCK DIAGRAM



EXTERNAL DIMENSION



Subject to change without notice for grade up quality and performance