



Overview

MS3007 is a terminal block type distributer with an isolated single output to supply power to 2-wire transmitters and convert 4~20mA signals of feedback loop to various DC signals as selected. It can also be used as an isolator.

Ordering Format

MS3007 - □

Type _____

Power Supply
DC 24V

Input Signal
4~20mA DC from 2-wire transmitters.

Output Signal _____

A : 4 ~ 20mA DC	1 : 0 ~ 10mV DC
D : 0 ~ 20mA DC	2 : 0 ~ 100mV DC
Z : Designated DC	3 : 0 ~ 1V DC
	4 : 0 ~ 10V DC
	5 : 0 ~ 5V DC
	6 : 1 ~ 5V DC
	0 : Designated VDC

Option _____

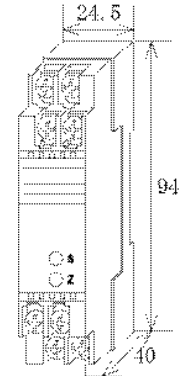
No entry: None.
 /K : Fast Response (Faster than 10msec: 0~90%)
 /X : Custom Order.

*Contact us for custom-order requirement.

Please specify upon ordering

•Product Model Number
 (Example) MS3007-A

- Other items to be specified:
- For output "0": MS3007-0 (Output 2~5V)
 - For option "X": MS3007-A/X (Response Frequency 50Hz)
 - For more than one option: Enter Option Codes in succession (/KX)



Specifications

●Power Supply Section

Range of Allowable Voltages	DC24V ± 10%
Power Sensitivity	Within ±0.1% of Span for power Supply voltage of DC24V ± 10%
Power Supply Fuse	250mA Fuse

Maximum Power Consumption

Current Output	75mA max.
Voltage Output	45mA max.

*The above values apply when the rated supply voltage is used.

●Input Section

Input Signal	4~20mA DC from 2-wire transmitters.
Input Resistance	250 Ω
Power Supply for Transmitter	Output voltage: 25V (TYP) / No load ~ 18V (TYP) / Input 100% Max. current : 25mA (TYP)
Limited Current for Short Circuit Protection	26mA (TYP) *With short circuit detection circuit
Allowable short circuit time	Without any limitation.

●Output Section

Maximum Output Load		
Voltage Output (DC)	1V Span min. 10mV 100mV	2mA max. 10k Ω min. 100k Ω min.
Current Output(DC)	550 Ω min.	
Zero Adjustment Range	Approx. ±2.5% of Span (Adjustable by Trimmer on front panel)	
Span Adjustment Range	Approx. ±2.5% of Span (Adjustable by Trimmer on front panel)	

Range of Products Available		
	Current Signal	Voltage Signal
Output Range (DC)	0~20mA	0~10V
Output Span(DC)	4~20mA	10mV~10V
Output Bias	0~100%	0~100%

*For current output smaller than 0.1mA, the accuracy is not guaranteed.
 (e.g.1) 4~20mA ⇒ Output Span 16mA, Bias 25%
 (e.g.2) 4~8V ⇒ Output Span 4V, Bias 100%

● Standard Performance

Conversion Accuracy	Within $\pm 0.1\%$ /F.S. (@25°C $\pm 5^\circ$ C)
Temp. Characteristics	Within $\pm 0.2\%$ of Span with every 10°C variation
Response Time	85msec max.(0~90%)@100% step input
CMRR	100dB min. (500V AC, 50/60Hz)
Signal Isolation	Between Input -Output - Power Supply, mutually
Isolation Resistance	100M Ω min. (@500V DC) Between Input -Output - Power Supply, mutually
Dielectric Strength	Between Input -Output - Power Supply, mutually :1500V AC, Shut Down Current 0.5mA for 1 min.
Measures against SWC	Conform to ANSI/IEEE C37.90.1-1989
Operating Environment	Temperature : -5~55°C Humidity : 5~90%RH (Non-Condensing)
Storage Temp.	-10~60°C

● Installation / Physical Specifications

Installation	DIN-rail mounting
Wiring	M3.5 screw terminal connection (Screw drop-protection)
Screw Tightening Torque	0.8~1[N·m] *Recommendable
Outer Dimension	W24.5×H94.0×D40.0mm
Mass	80g max.

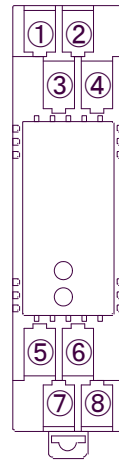
● Materials

Housing	ABS Resin (UL-94V-0)
Terminal Screws	Iron/Nickel-plated
P.C.Board	Glass-Epoxy (FR-4:UL-94V-0)
Moisture-proof Coating	HumiSeal Coating :HumiSeal 1A27NS(Polyurethane Resin)

● Compatible Standards

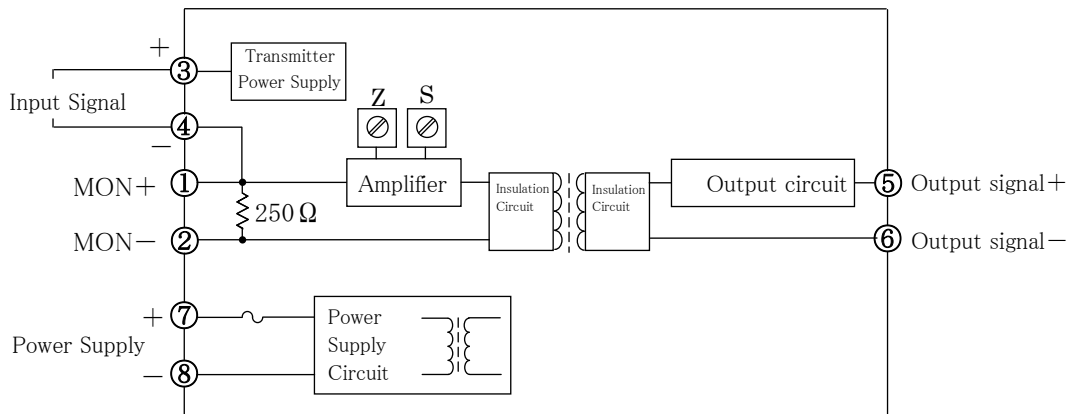
Compatible EC Directive	EMC Directive (2004/108/EC) EN61326-1:2006 Class A
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Terminal Arrangement / Signal Assignment

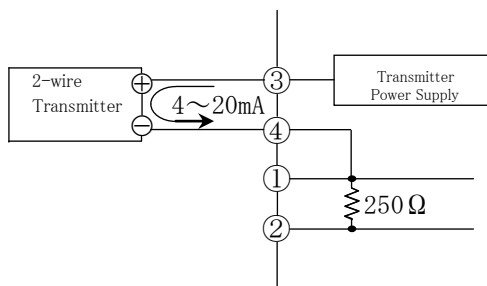


①	MON +
②	MON -
③	INPUT +
④	INPUT -
⑤	OUTPUT +
⑥	OUTPUT -
⑦	+ Power
⑧	- Supply

Block Diagram



*When using as a distributor



*When using as an isolator

