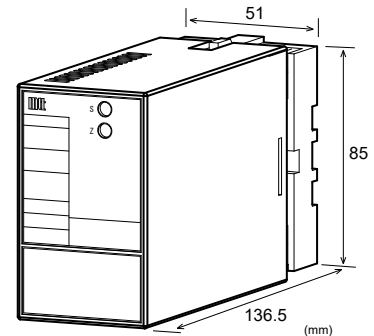
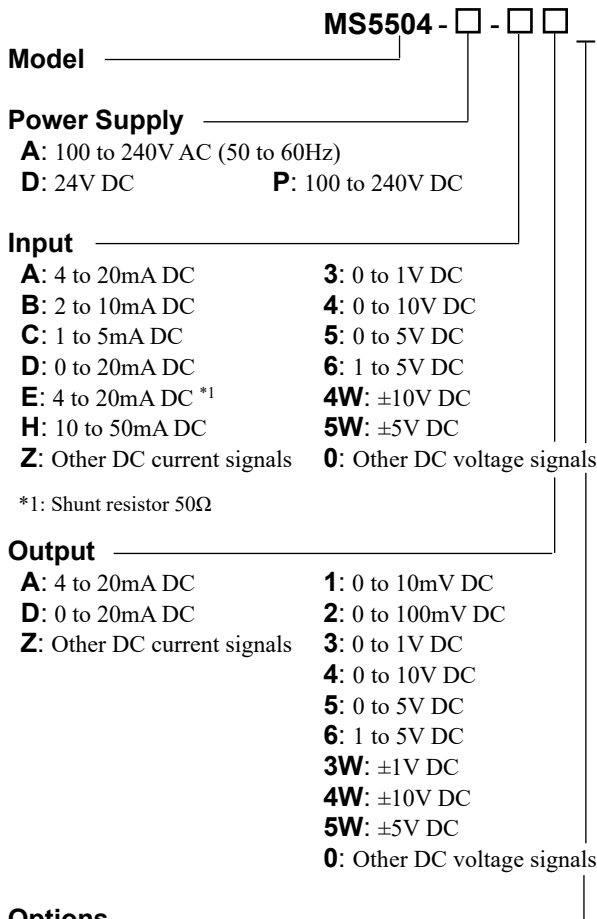




DESCRIPTION

The MS5504 is a plug-in high-level signal conditioner (isolator) that converts DC current or voltage signals into commonly used DC signals and provides an isolated single output.

ORDERING CODE



SPECIFICATIONS

POWER SECTION

Power Requirements	100 to 240V AC: 85 to 264V AC (47 to 63Hz) 24V DC: 24V DC±10%			
Power Sensitivity	Better than ±0.1% of span for each power supply range.			
Power Line Fuse	160mA fuse			
Maximum Power Consumption	Power	100-240V AC	24V DC	100-240V DC
		Approx. 4.0VA	Approx. 1.2W	Approx. 4.8W

INPUT SECTION

Input Resistance	Voltage Input (DC) With or without power: 1MΩ min.	
	Current Input (DC)	250Ω
		250Ω
		100Ω
		250Ω
		10Ω
Allowable Input Voltage	Voltage Input Model 30V DC max., continuous. (Standard for a span up to 10V)	
	Current Input Model 40mA DC max., continuous. (Standard for 4 to 20mA)	
Ranges Available	Current Signal	Voltage Signal
Input Range (DC)	-100 to 100mA	-300 to 300V
Input Span (DC)	100µA*1 to 200mA	200mV*2 to 600V
Input Bias	-100 to 100%	-100 to 100%
Note: For any input range including negative input signals, the input spans for current and voltage signals range from (*1)200µA to 200mA and (*2)400mV to 600V, respectively.		
Input Spec. Ex. 1: For 3 to 8V input, the input span is 5V and the bias +60%.		
Input Spec. Ex. 2: For -5 to 0V input, the input span is 5V and the bias -100%.		

ORDERING INFORMATION

To place an order, please use the ordering code format as shown above.
 (e.g.) MS5504-A-AA/K

Other Ordering Examples:
 For an input code of "Z": MS5504-A-ZA (Input: 8 to 20mA)
 For an output code of "0": MS5504-A-A0 (Output: 2 to 5V)
 For an option code of "X": MS5504-A-66/X (0-90% response time: 5ms max.)
 Note: If you wish to include multiple options in your order, specify the option codes in series (e.g. /KX).

● OUTPUT SECTION

Allowable Output Load		
Voltage Output (DC)	1V span and up	2mA max.
	10mV	10kΩ min.
	100mV	100kΩ min.
Current Output (DC)	4 to 20mA	750Ω max.
Zero Adjustment	Approx. ±5% of span. (Adjustable by the front-accessible trimmer.)	
Span Adjustment	Approx. ±5% of span. (Adjustable by the front-accessible trimmer.)	
Ranges Available		
	Current Signal	Voltage Signal
Output Range (DC)	0 to 20mA	-10 to 10V
Output Span (DC)	4 to 20mA	10mV to 20V
Output Bias	0 to 100%	-100 to 100%
* For current output signals, the accuracy of any current output smaller than 0.1mA is not guaranteed.		
Output Spec. Ex. 1: For 4 to 20mA output, the output span is 16mA and the bias +25%.		
Output Spec. Ex. 2: For -1 to 4V output, the output span is 5V and the bias -20%.		

● PERFORMANCE

Accuracy Rating	Better than ±0.1% of span (at 25°C±5°C).
Temperature Effect	Better than ±0.2% of span per 10°C change in ambient.
Response Time	85ms max. (0 to 90%) with a step input at 100%.
CMRR	100dB min. (500V AC, 50/60Hz)
Isolation	3-way isolation between input, output, and power.
Insulation Resistance	100MΩ min. (@ 500V DC) between input, output, and power.
Dielectric Strength	Input / Output / Power: 2000V AC for 1 minute (Cutoff current: 0.5mA)
Surge Withstand Capability	Tested as per ANSI/IEEE C37.90.1-1989.
Operating Environment	Ambient temperature: -5 to 55°C Humidity: 5 to 90% RH (non-condensing)
Storage Temperature	-10 to 60°C

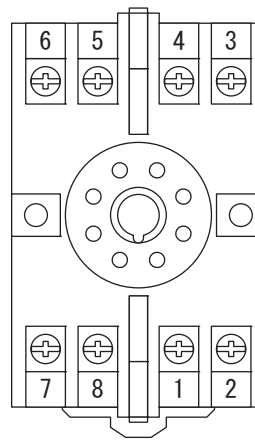
● PHYSICAL

Installation	Wall/DIN rail mounting
Mounting Direction	Vertical
Screwing Torque	0.78 to 1.18 [Nm] * Recommended
Wiring	M3.5 screw terminal connection
External Dimensions	W51 × H85 × D136.5 mm (including the socket)
Weight	Main unit: 200g max. Socket: 60g max.

● MATERIAL

Housing	ABS resin (UL 94V-0)
Socket	ABS resin (UL 94V-0)
Screw Terminal	Galvanized steel with trivalent chromate finish
Printed Circuit Board	Glass fabric, epoxy resin (FR-4: UL 94V-0)

TERMINAL ASSIGNMENTS



①	+ OUTPUT	
②	- OUTPUT	
③	+ INPUT	
④	- INPUT	
⑤	N.C.	
⑥	N.C.	
⑦	P (+)	POWER
⑧	N (-)	

BLOCK DIAGRAM

