

## Signal Conditioner

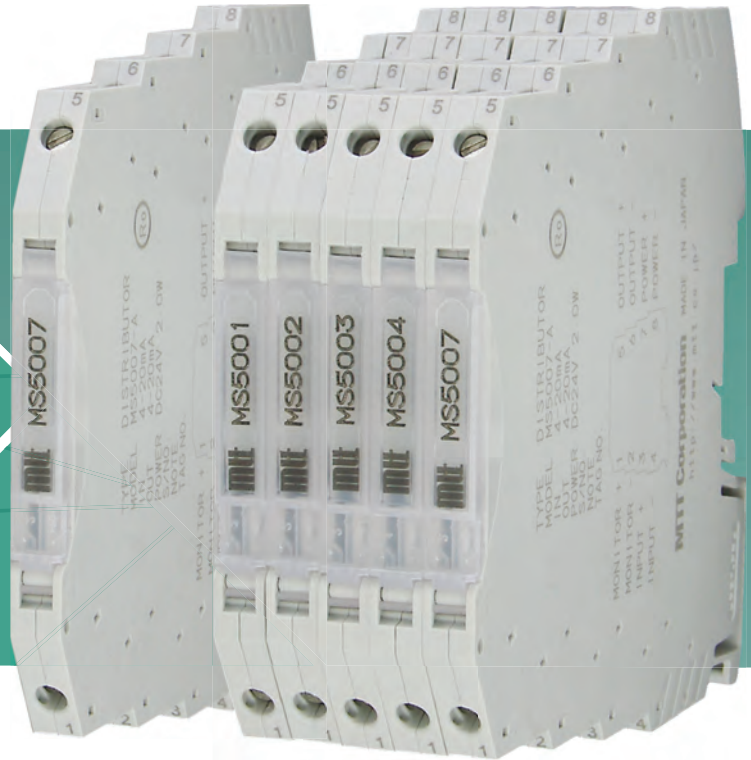
# MS5000 Series Ultra-slim Signal Conditioners

6.2 mm ultra-slim design convenient for embeded systems

Operating temperature range: -20 to 65

Operating humidity range: 5 to 90% RH

Reduced wiring manpower by European style screw terminal connection



### Increased product lineup

In addition to the mV isolator and high-level signal conditioner, thermocouple and RTD temperature transmitters and a distributor are available.

### Concentrated power supply using a power bridge

Power bridges reduce wiring manpower. The module can be used with 100-240V AC by using a separately provided AC power module.

### Our three main features provided as standard

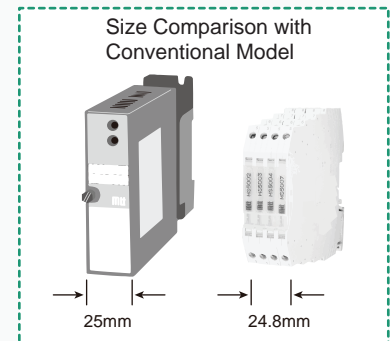
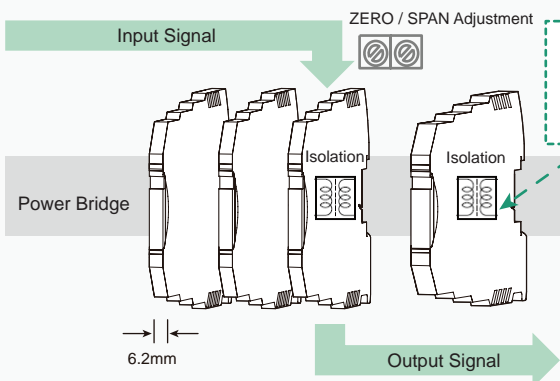
7-year warranty, transformer isolation and conformal coating are available as standard.

### Wide range of ambient temperatures supported

Heat-suppressing design provides an increased operating range.

Applications: Isolation / signal level conversion; space saving

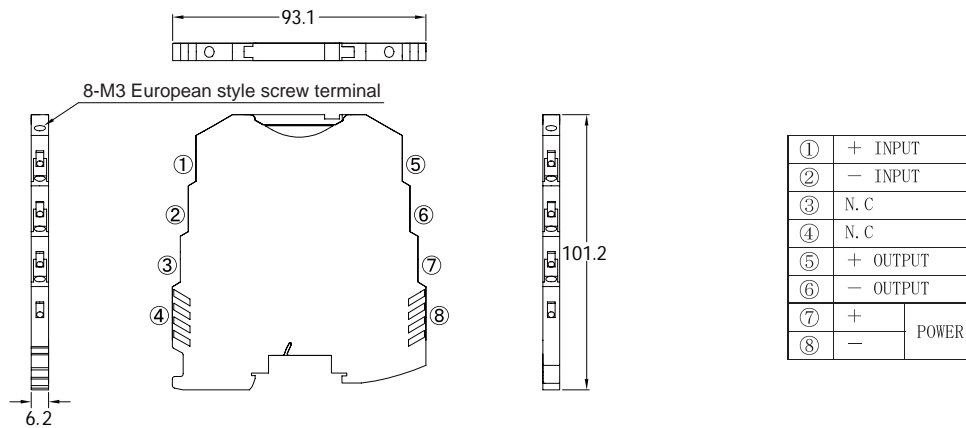
(e.g. device enclosure where mounting space is constrained or area with harsh environmental conditions)



## ● Specifications

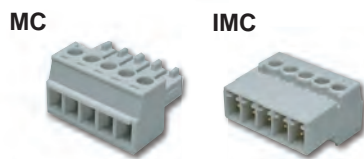
Model	MS5001	MS5002	MS5003	MS5004	MS5007
Product Name	Thermocouple temperature transmitter	RTD temperature transmitter	mV isolator	High-level signal conditioner	Distributor
Input Signal	JIS standard thermocouples	Pt 100 ohms, Jpt 100 ohms, etc.	-200mV-200mV	-100-100mA, -100-100V	4-20mA DC from 2-way transmitters
Input Span	3mV min.	50 min. (Pt 100 ohms)	5mV-400mV	100uA-200A, 200mV-200V	16mA
Input Resistance (w/ power)	1M ohms min.	-	1M ohms min.		250 ohms
(w/o power)	1M ohms min.	-	1M ohms min.		250 ohms
Output Signal	4-20mA, 0-20mA, 1-5V, 0-10V, +/-10V, etc.				
Maximum Output Load (current output)	550 ohms				
Power Supply	20V DC (+/-10%)				
Current Rating (Voltage Output)	45mA	35mA	24mA	24mA	65mA
(Current Output)	65mA	50mA	50mA	50mA	83mA
Accuracy Rating	Better than +/-0.1% + 3 + Linearity error		Better than +/-0.15%	Better than +/-0.1%	Better than +/-0.1%
Temperature Effect	Better than +/-0.2% (10 )		Better than +/-0.1% (10 )		Better than +/-0.2% (10 )
Response Time (0-90%)	160ms max.	170ms max.	160ms max.	85ms max.	85ms max.
Operating Environment	Ambient temperature: -20 to 65 ; Humidity: 5 to 90%RH (non-condensing)				
Storage Temperature	-25 to 70				
Wiring	European style screw terminal block connection (M3) (single / stranded wire with rod terminal; wire insulation stripped back 12mm from its end)				
Applicable Lead Wire Size	0.2 to 2.5mm <sup>2</sup>				
Screwing Torque	0.5 to 0.6 [N · m] * Recommended				
External Dimensions	W93.1 x H101.2 x D6.2 (mm) 60g max.				

## ● Dimensional Drawing



**Power Bridge**

The power bridge provides a concentrated power supply by plugging the rear connectors together. One power bridge accommodates two signal conditioners.



**Power Bridge Connector**

The power bridge connector includes a terminal block for power supply and is available in two types, allowing it to be connected to either side as required.



**AC Power Supply Unit**

This is a 100-240V AC power supply unit. The unit requires a special power bridge to supply power to signal conditioners.

\* Product design and specifications are subject to change without notice.

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