

# MT-SG STRAIN GAUGE CONVERTER & ISOLATOR

## FEATURE

- 5 Popular Input and Output Ranges Programmable by dip switches
- Changeable Input Module Between V/mA, Pt100, Potentiometer, Strain Gauge, easy maintain and save stock
- Low cost & high stability
- CE Approved



## SPECIFICATION

Input Range	Input Impedance	Output Range	Load Resistance
1.0 mV/V	≥ 1M ohm	0 ~ 100 mV	≥ 100K ohm
1.25 mV/V	≥ 1M ohm	0 ~ 1 V	≥ 50 ohm
1.5 mV/V	≥ 1M ohm	0 ~ 5 V	≥ 250 ohm
2.0 mV/V	≥ 1M ohm	0 ~ 10 V	≥ 500ohm
3.0 mV/V	≥ 1M ohm	1 ~ 5 V	≥ 250 ohm
4.0 mV/V	≥ 1M ohm	2 ~ 10 V	≥ 500ohm
5.0 mV/V	≥ 1M ohm	-10 ~ 0 ~ +10 V	≥ 1K ohm
10.0 mV/V	≥ 1M ohm	0 ~ 1 mA	≤ 15K ohm
20.0 mV/V	≥ 1M ohm	0 ~ 10 mA	≤ 1500 ohm
50.0 mV/V	≥ 1M ohm	0 ~ 20 mA	≤ 750ohm

Accuracy:	±0.1% of F.S.
Response time:	≤ 250 msec.
Span adjustment:	≤ 10% of F.S.
Zero adjustment:	≤ 5% of F.S.
Output ripple:	≤ 0.1% of F.S.
Excitation Supply:	DC 5V/10V/24V, 40 mA, adjustable±10% 10V / 24V changeable by DS3
Power Supply:	AC 115 or 230V ±10%, 50/60 Hz AC 380 or 415V ±10%, 50/60 Hz Option: DC 12V, 24V, 48V ±10%, (Isolated)
Power consumption:	DC 5W, AC 6.5VA
Operating temperature:	0~60 °C
Operating relative humidity:	20~95 %RH, non-condensing
Temperature coefficient:	≤ 100 PPM/°C
Storage temperature:	-10~70 °C
Isolation:	Between Power / Input / Output / Excit. Supply
Insulation resistance:	≥ 100M ohm at 500Vdc
Surge test:	4 KV, 1.2 x 50 μ sec. Common mode & differential mode
Dielectric Strength:	AC 2.0 KV for 1 min Between Power / Input / Output / Case
Standard:	Comply with EN50081-1, EN50082-2
Dimensions:	50mm(W) x 87mm(H) x 123mm(D) with socket
Mounting:	Surface and DIN rail 35mm wide

Weight: 600g

## ADJUSTMENT

Dip Switch: Programming for O/P - 4 Ranges selectable

O/P Span Adjust Pot (Clockwise: o/p increase)

O/P Zero Adjust Pot (Clockwise: o/p increase)

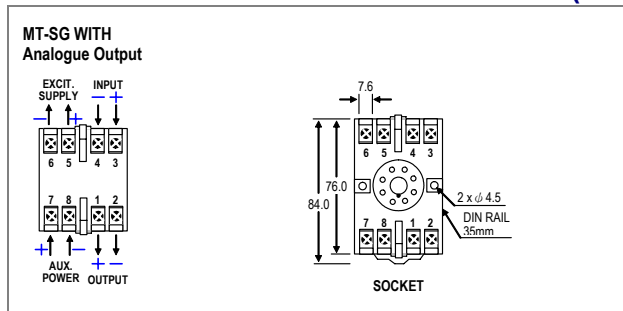
Programming for input ( on input module )

SIGNAL RANGE	DIP-SWITCH (INPUT)			
	SW1	SW2	SW3	SW4
1.0 mV/V	on			
1.5 mV/V		on		
2.0 mV/V			on	
3.0 mV/V				on

Programming for output

SIGNAL RANGE	DIP-SWITCH (OUTPUT)				
	SW1	SW2	SW3	SW4	SW5
0 ~ 5 V		on	on	on	
1 ~ 5 V	on	on	on	on	
0 ~ 10 V			on	on	
2 ~ 10 V	on		on	on	
0 ~ 20 mA					on
4 ~ 20 mA	on				on

## CONNECTION DIAGRAM & SOCKET(8 PIN)



## ORDERING INFORMATION

MT-SG- Input Range - Output Range - Excitation Supply - Aux. Power

CODE	INPUT RANGE	Current		Voltage		Excitation Supply		Aux. Power		
		CODE	OUTPUT	CODE	OUTPUT	CODE	EXCITATION	CODE	AUX. POWER	
V1	1.0 mV/V(*P1)	A	0 ~ 1 mA	1	0 ~ 100 mV	E5	DC 5 V	A1	AC 115 V	
V2	1.25 mV/V	B	0 ~ 10 mA	2	0 ~ 1 V	E1	DC 10 V	A2	AC 230 V	
V3	1.5 mV/V(*P1)	C	0 ~ 20 mA	3	0 ~ 5 V	E2	DC 24 V	A3	AC 380 V	
V4	2.0 mV/V(*P1)	D	4 ~ 20 mA	4	0 ~ 10 V	E0	Specify	A4	AC 415 V	
V5	3.0 mV/V(*P1)	I	Specify (mA o/p)	5	1 ~ 5 V					
V6	4.0 mV/V	P	Programmable 6 ranges (by D-S): 4~20/0~20 mA 0~5/0~10/1~5/ 2~10 V	6	2 ~ 10 V					
V7	5.0 mV/V			7	-10 ~ +10 V					
V8	10.0 mV/V			V	Specify (Vo/p)					
V9	20.0 mV/V			N	None					
VA	40.0 mV/V									
VO	Specify (mV/V)									
P1	Programmable 4 Ranges (by D-S) 1.0 mV/V, 1.5 mV/V 2.0 mV/V, 3.0 mV/V									

**Remark:**

- > When you select coding P1 or P for input and output range, please specify initial range.
- > After change input or output range by dip switches (D-S), re-calibration is to be requested.