

# Indicator / Thumbwheel Switch Panel Meters



## M4M Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

### Features

- Max. display value: 1999
- Auto-zero function and hold display value function
- Linear display based on input specification
- Display output values (0 - 10 VDC $\rightleftharpoons$ ) from power converters (options available for DC 4 - 20 mA, 1 - 5 VDC $\rightleftharpoons$ )
- RMS or AVG value selection (AC voltage)
- 7-segment LED display
- DIN standard size models

### Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

**M 4 M ① - ② ③ - ④**

#### ① Output

No mark: Indicator  
1P: Single setting  
2P: Dual setting

#### ② Input type

DV: DC voltage  
AV: AC voltage  
DA: DC current  
AA: AC current  
W: Power  
T: Rotation  
S: Speed  
DI: Scaling (DC 4 - 20 mA)

#### ③ AC measurement method

No mark: AVG  
R: RMS

#### ④ Measurement input

Refer to measurement input specifications.

### Measurement Input Specifications

Measurement input	Input type							
	DV	AV	DA	AA	W <sup>01)</sup>	T <sup>02)</sup>	S <sup>02)</sup>	DI
No mark	-	-	-	-	-	-	-	1999
1	199.9 mVDC $\rightleftharpoons$	199.9 mVAC $\sim$	199.9 $\mu$ A	19.99 mA	199.9 W	1999 rpm 0 - 10 VDC $\rightleftharpoons$	1999 m / min 0 - 10 VDC $\rightleftharpoons$	-
2	1.999 VDC $\rightleftharpoons$	1.999 VAC $\sim$	1.999 mA	199.9 mA	1.999 kW	1999 rpm 0 - 10 VAC $\sim$	1999 m / min 0 - 10 VAC $\sim$	-
3	19.99 VDC $\rightleftharpoons$	19.99 VAC $\sim$	19.99 mA	1.999 A	19.99 kW	-	-	-
4	199.9 VDC $\rightleftharpoons$	199.9 VAC $\sim$	199.9 mA	19.99 A	199.9 kW	-	-	-
5	300 VDC $\rightleftharpoons$	-	1.999 A	199.9 A	-	-	-	-
6	-	400 VAC $\sim$	19.99 A	1999 A	-	-	-	-
7	-	-	199.9 A	-	-	-	-	-
8	-	-	1999 A	-	-	-	-	-
DX	-	-	-	-	-	DC input option		-
AX	-	-	-	-	-	AC input option		-
XX	Option	Option	Option	Option	Option	-	-	Option

01) This specification is based on the transducer with 0 - 10 VDC $\rightleftharpoons$  output.

When the output of transducer is DC 4 - 20 mA or 1 - 5 VDC $\rightleftharpoons$ , use the scaling meter.

02) This specification is based on the tachogenerator with 0 - 10 VDC $\rightleftharpoons$  or 0 - 10 VAC $\sim$  output.

### Product Components

- Product
- Bracket  $\times$  2
- Instruction manual

## Specifications

Input type	DC voltage	AC voltage	DC current	AC current	Power	Rotation, speed	Scaling
Max. allowable input	≤ 300 VDC≒	≤ 400 VAC~	≤ DC 2 A	≤ AC 5 A	≤ 10 VDC≒	≤ 10 VDC≒ ≤ 10 VAC~	DC 4 - 20 mA
	≈ 150 % F.S. for each measured input range <sup>01)</sup>						
Display method	7-segment (red) LED (character height: 10 mm)						
Display accuracy	Dependent on the input type						
DC input	± 0.2 % F.S. rdg ± 1-digit						
AC input	± 0.5 % F.S. rdg ± 1-digit						
Display scale	1999						
Sampling time	2.5 times / sec						
Response speed	≈ 2 sec (0 to 1999)						
Sampling cycle	300 ms						
Operation method	Dual integral method						
Unit weight	Dependent on the output						
Indicator	≈ 262 g						
Single setting	≈ 290 g						
Dual setting	≈ 316 g						
Approval	[EUC]						

01) At 400 VAC~ input: ≈ 120 % F.S. for each measured input range

Output	Indicator	Single setting	Dual setting
Power supply <sup>01)</sup>	110 / 220 VAC~ ± 10 % 50 / 60 Hz		
Power consumption	Dependent on the input type		
DC input	2 W	3 W	3 W
AC input	4 VA	5 VA	5 VA
Contact capacity	-	250 VAC~ 3 A, 150 VDC≒ 3 A	250 VAC~ 3 A, 150 VDC≒ 3 A
Contact composition	-	1c × 1	1c × 2
Insulation resistance	≥ 100 MΩ (500 VDC≒ megger)		
Dielectric strength	2,000 VAC~ 50 / 60 Hz for 1 min		
Noise immunity	± 1 kV square wave noise (pulse width: 1 μs) by the noise simulator		
Vibration	0.75 mm double amplitude at frequency of 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 1 hours		
Vibration (malfunction)	0.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 10 min		
Shock	300 m/s <sup>2</sup> (≈ 30 G) in each X, Y, Z direction for 3 times		
Shock (malfunction)	100 m/s <sup>2</sup> (≈ 10 G) in each X, Y, Z direction for 3 times		
Relay life cycle	Mechanical: ≥ 10,000,000 operations Electrical: ≥ 100,000 operations (250 VAC~ 3A resistive load)		
Ambient temperature	-10 to 50 °C, storage: -25 to 65 °C (no freezing or condensation)		
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)		

01) Power supply 24 - 70 VDC≒, 100 - 240 VAC~ 50 / 60 Hz options are also available to order.

## Dimensions

- Unit: mm, For the detailed drawings, follow the Autonics website.
- Following items are based on single setting model.

