

Multi Pulse Meters

MP5S / MP5Y / MP5W Series



Features

- 16 operation modes
 - Frequency / revolutions / speed, passing speed, cycle, passing time, time interval
 - Time differential, absolute ratio, error ratio, density, error, length measurement 1 / 2, interval
 - Accumulation, addition / subtraction (individual input), addition / subtraction (phase difference input)
- Various output models
 - Relay triple / quintuple output, NPN / PNP open collector quintuple output
 - BCD Dynamic output, PV transmission output (current output)
 - RS485 communication output (Modbus RTU)
- Various function
 - Prescale, delay monitoring, hysteresis, auto-zero, parameter lock, data bank (MP5W only)
- Display range: -19999 to 99999
- Various display units

Specifications

Series	MP5S	MP5Y	MP5W
Input signal ⁰¹⁾	Solid state input 1: ≤ 50 kHz (pulse width: ≥ 10 μs) Solid state input 2 ⁰²⁾ : ≤ 5 kHz (spulse width: ≥ 100 μs) Contact input: ≤ 45 Hz (contact: 12 VDC≐ ≥ 5 mA, (pulse width: ≥ 11 ms)		
Voltage input	Input impedance: 3.9 kΩ, [H]: 4.5 - 24 VDC≐, [L]: 0 - 1 VDC≐		
No-voltage input	Short-circuit impedance: ≤ 80 Ω, residual voltage: ≤ 1 VDC≐, open-circuit impedance: ≥ 100 kΩ		
Display method	7-segment LED (zero blanking method)		
Character size	W 4 × H 8 mm	W 7 × H 14 mm	
Prescale	0.0001 × 10 ⁻⁹ to 9.9999 × 10 ⁹		
Hysteresis	0 to 9999 ⁰³⁾		
Display cycle	OFF ⁰⁴⁾ , 0.05, 0.5, 1, 2, 4, 8 sec (same as update output cycle)		
Display range	-19999 to 99999		
Output	Depending on models		
Relay	250 VAC~ 3 A, 30 VDC≐ 3 A resistive load		
NPN / PNP open collector	≤ 30 VDC≐ 30 mA		
BCD Dynamic	NPN open collector ≤ 30 VDC≐ 30 mA (Dynamic COM cycle (T) = 40 ms)		
PV transmission	DC 4 - 20 mA (load: ≤ 500 Ω, resolution: 8,000 divisions) / DC 0 - 20 mA (load: ≤ 500 Ω, resolution: 10,000 divisions)		
RS485 communication	Modbus RTU		
Product components	Product, instruction manual		
Bracket	Mounted	× 2	× 2
Unit sticker	× 1	× 1	× 2
Unit weight (package)	≈ 132 g (≈ 191 g)	≈ 140 g (≈ 230 g)	≈ 210 g (≈ 334 g)
Approval	CE  us ENEC		

01) Standard duty ratio 1:1

02) Operation mode F7, F8, F9, F10: ≤ 1 kHz (pulse width: ≥ 500 μ s)

03) The hysteresis setting range varies according to the decimal point setting position.

04) Only available operation mode F2, F16

Input	AC voltage	AC / DC voltage
Power supply	100 - 240 VAC $\sim \pm 10$ % 50 / 60 Hz	24 VAC $\sim \pm 10$ % 50 / 60 Hz, 24 - 48 VDC $\Rightarrow \pm 10$ %
Power consumption	Depending on Series / power supply	
MP5S	≤ 7.5 VA	AC: ≤ 6 VA, DC: ≤ 4.5 W
MP5Y	≤ 9 VA	AC: ≤ 7 VA, DC: ≤ 6.2 W
MP5W	≤ 15 VA	AC: ≤ 11 VA, DC: ≤ 7 W
External power supply	≤ 12 VDC $\Rightarrow \pm 10$ % 80 mA	
Sub power supply ⁰¹⁾	≤ 24 VDC $\Rightarrow$ 30 mA	
Memory retention	Number of inputs: 100,000 operations (non-volatile semiconductor memory type)	
Relay life cycle	Mechanical: $\geq 10,000,000$ operations (switching frequency 180 operations / min) Electrical: $\geq 100,000$ operations (250 VAC $\sim$ 3 A, 30 VDC $\Rightarrow$ 3 A resistive load) (switching frequency 20 operations / min)	
Insulation resistance	≥ 100 M Ω (500 VDC $\Rightarrow$ megger)	
Dielectric strength	2,000 VAC $\sim$ 60 Hz for 1 min	
Noise immunity	± 2 kV the square wave noise (pulse width: 1 μ s) by the noise simulator	
Vibration	0.75 mm double amplitude at frequency of 10 to 55 Hz in each X, Y, Z direction for 1 hour	
Vibration (malfunction)	0.5 mm double amplitude at frequency of 10 to 55 Hz in each X, Y, Z direction for 10 min	
Shock	300m / s ² (≈ 30 G) in each X, Y, Z direction for 3 times	
Shock (malfunction)	100m / s ² (≈ 30 G) in each X, Y, Z direction for 3 times	
Ambient temperature	-10 to 50 $^{\circ}$ C, storage: -20 to 60 $^{\circ}$ C (no freezing or condensation)	
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)	
Comm. protocol	Modbus RTU (16-bit CRC)	

01) Only for MP5W



View product detail