

Selection Guide


COMPACT LCD PULSE METER

Ordering information

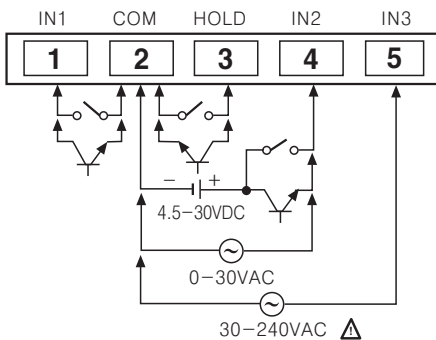
L R 5 N - B

B	Internal lithium battery
N	DIN W48×H24mm
5	10000(Digit)
R	Pulse meter
L	LCD Display

Specifications

Series	LR5N-B		
Digit	5		
Appearances & Dimensions	 [W48×H24×L54mm]		
Input type	No-voltage input	Voltage input 1	Voltage input 2
Input signal level	<ul style="list-style-type: none"> Impedance at short-circuit:10kΩ (ON), residual voltage:Max. 0.5V Impedance at open-circuit:500kΩ (OFF) 	DC Voltage : 4.5-30VDC Voltage : 0-2VDC AC Voltage : 0-30VAC	Voltage : 30-240VAC
Battery life cycle	Over 3 years(at 20℃)		
Display method	LCD Zero Blanking type(Height : 8.7mm)		
Digit	5 digits		
Display range	RPM	1 ~ 10000RPM	
	0.1RPM	0.1 ~ 1000.0RPM	
	RPS	1 ~ 1000RPS	
	Hz	1 ~ 1000Hz	
	0.1Hz	0.1 ~ 100.0Hz	
Display accuracy	F.S. ±0.1% ±1digit		
Insulation resistance	Min. 100MΩ (at 500VDC)		
Dielectric strength	2000VAC 50/60Hz for 1 minute		
Vibration	Mechanical	0.75mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 1 hour	
	Malfunction	0.3mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 10 minutes	
Shock	Mechanical	300m/s ² (Approx. 30G) in X, Y, Z directions for 3 times	
	Malfunction	100m/s ² (Approx. 10G) in X, Y, Z directions for 3 times	
Ambient Temperature	-10~ 55℃ (at non-freezing status))		
Storage Temperature	-25~ 65℃ (at non-freezing status)		
Ambient humidity	35 ~ 85%RH		

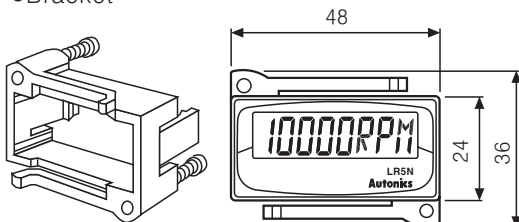
Connections



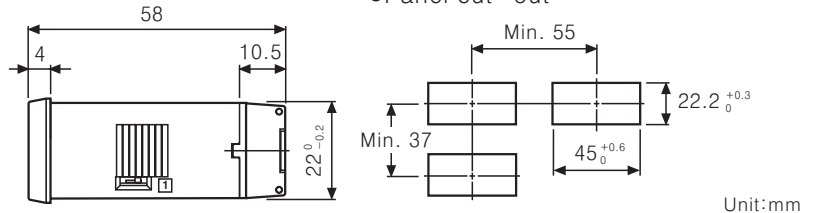
- ※Please use reliable contacts enough to flow 5μA of current when using input signal or reset signal as a contact.
- ※IN1 ⇔ No-voltage input
- IN2 ⇔ Voltage input
 - DC voltage input
 - AC voltage input : Display AC frequency.
- IN3 ⇔ AC voltage input : Display AC frequency.
- ※Choose one among IN1, IN2 and IN3 to use.

Dimensions

Bracket



Panel cut-out



Unit:mm

TACHO/SPEED/PULSE METER




Ordering information

MP	5	S	-	4	N		
						Output	
						Power supply	
						Size	
						Digit	
						Series	
							S Type
							Y Type
							W Type
							M Type
							4
							S
							Y
							W
							M
							5
							MP

	Main output(Comparative value output)	Sub output(Display value output)
N	Indicator(No output)	X
N	Indicator	X
1	NPN open collector quintuple output	X
2	PNP open collector quintuple output	X
3	X	BCD Dynamic
4	X	PV transmission(DC4-20mA)
5	X	RS485 communication output
N	Indicator(No output)	X
A	Quintuple relay(HH, H, GO, L, LL)	X
1	Triple relay(H, GO, L)	X
2	NPN open collector quintuple output	BCD Dynamic
3	PNP open collector quintuple output	BCD Dynamic
4	NPN open collector quintuple output	PV transmission(DC4-20mA)
5	PNP open collector quintuple output	PV transmission(DC4-20mA)
6	NPN open collector quintuple output	Low speed serial output
7	PNP open collector quintuple output	Low speed serial output
8	NPN open collector quintuple output	RS485 communication output
9	PNP open collector quintuple output	RS485 communication output
N	Indicator	X
1	Relay single-stage(High-limit)output + NPN open collector output	X
2	Relay dual-stage(High/Low-limit) output + NPN open collector output	X
4	100-240VAC 50/60Hz	
S	DIN W48×H48mm	
Y	DIN W72×H36mm	
W	DIN W96×H48mm	
M	DIN W72×H72mm	
5	5 digits(99999)	
MP	Pulse meter	

*PNP open collector output : Sold separately

Specifications

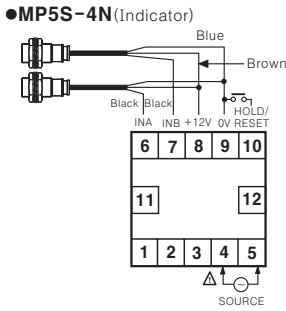
Model	MP5S	MP5Y	MP5W
Appearances & Dimensions	 [W48×H48×L90mm]	 [W72×H36×L102mm]	 [W96×H48×L100mm]
Power supply	100-240VAC 50/60Hz(Allowable operation voltage : 90-110% of power supply)		
Power consumption	MP5S-4N:Max. 7.5VA, MP5S-42:Max. 8VA	Max. 3.5VA	Max. 6VA
Power for external sensor	12VDC ±10%, 80mA		
Max. display range	0.0001 ~ 99999		
Display method	7 Segment LED(Zero Blanking)		
Display period	Selectable 0.05 / 0.5 / 1 / 2 / 4 / 8sec. (It is same with period of output update.)		
Input specification	[Voltage input] High : 4.5-24VDC, Low : 0-1VDC, Input impedance : 4.5kΩ [No voltage input] Impedance at short-circuit : Max. 300Ω, Residual voltage : Max. 1V, Impedance at open-circuit : Min. 100kΩ		
Input frequency	• Solid state input:Max. 50kHz(ON/OFF pulse width:Each over 10μs) • Contact input:Max. 45Hz(ON/OFF pulse width:Each over 11ms)		
Operation mode	Number of revolution/Speed/Frequency (F1), Passing time (F2), Cycle (F3), Passing speed (F4), Time width (F5), Time difference (F6), Absolute rate (F7), Error rate (F8), Density (F9), Error (F10), Measurement (F11), Interval (F12), Integration (F13)		
Various display unit	V, V, mV, mV, kV, A, mA, mA, W, VA, kVA, Var, kVar, kW, cm ² , m ² , mm ² , cm ³ , m ³ , mm, cm, m, km, μm, mg, g, kg, g/cm ³ , kg/m ³ , sec, min, hour, min ⁻¹ , h ⁻¹ , sec.1/100s, sec.1/10s, min.1/100m, min.1/10m, min.s.1/10s, h.s.1/10s, h.min.s, h.min,rps, rpm, m/min, m ³ /min, mm/s, m/s ² , rPh, r/s, r/min, r/h, kg/h, l, kl, l/s, l/min, l/h, l x, lx, Hz, kHz, t, °C, °F, Ω, kΩ, MΩ, Pa, kPa, MPa, kgf/mm ² , kgf-cm, gf-cm, mmHg, mmH ₂ O, TON, G, O, K, S, S, s, rad, cal, kcal, L, kL, L/s, L/min, L/h, N, mN, KN, N m, mN-m, KN-m, J, kJ, m/s, ms, t/h, kg/s, PS, hP, dB, %, cPs, cP, cst, deg, φ-mm, sccm, x10, x100, x1000, PH, PPM, counts		
Prescale function	0.0001 × 10 ⁻⁹ ~ 9.9999 × 10 ⁹		
Hysteresis	0-9999		
Other functions	<ul style="list-style-type: none"> • Lock setting function • Monitoring delay function • Auto-Zero time setting function • Time unit selection function • Display value monitoring function • Memory protection function (Mode F13 only) • Comparative output function (H, L) • Output mode selection function (S, H, L, B, I, F) • Deviation memory function (Mode F only) 	<ul style="list-style-type: none"> • Lock setting function • Monitoring delay function • Auto-Zero time setting function • Monitoring function : Memorize max. value or min. value • Current output range selection (Current output type only) • Remote/Local switching function (Communication output type only) • Comparative output function (HH, H, GO, L, LL) • Time unit selection function • Memory protection function (Mode F13 only) • Deviation memory function (Mode F only) 	<ul style="list-style-type: none"> • Lock setting function • Auto-Zero time setting function • Monitoring delay function • Monitoring function : Memorize max. value or min. value • Current output range selection (Current output type only) • Remote/Local switching function (Communication output type only) • Comparative output function (HH, H, GO, L, LL) • Data Bank switching function • Time unit selection function • Memory protection function (Mode F13 only) • Deviation memory function (Mode F only)

Selection Guide

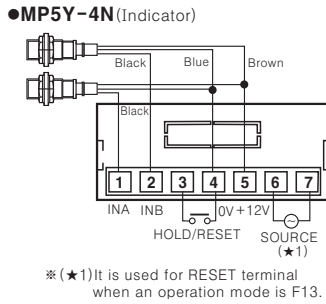
TACHO/SPEED/PULSE METER

Connections

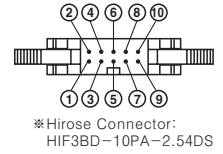
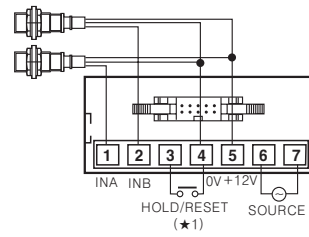
MP5S Series



MP5Y Series

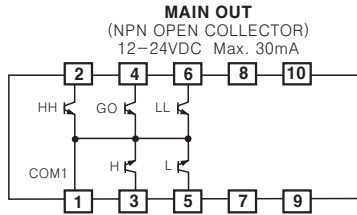


MP5Y series main output / Sub output

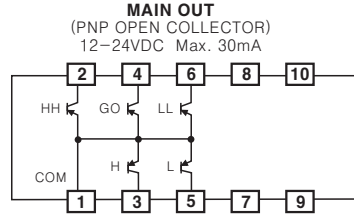


MP5Y Series main output

MP5Y-41(NPN Open Collector output)

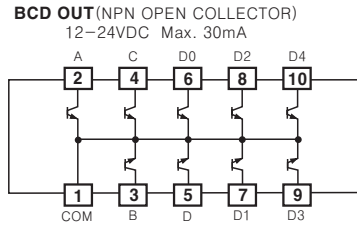


MP5Y-42(PNP Open Collector output)

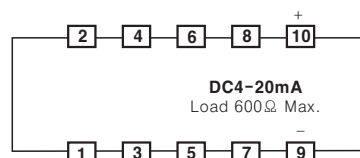


MP5Y Series sub output

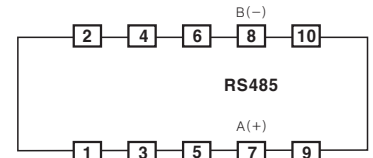
MP5Y-43(BCD Dynamic output)



MP5Y-44(PV transmission output)



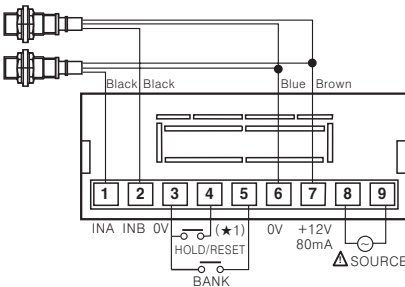
MP5Y-45(RS485 communication output)



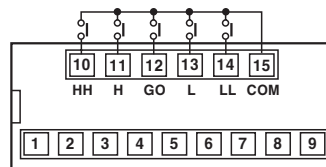
※Main output type & Sub output type : Sold separately

MP5W Series

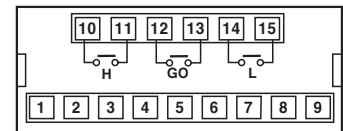
MP5W-4N(Indicator)



MP5W-4A(Quintuple relay output)

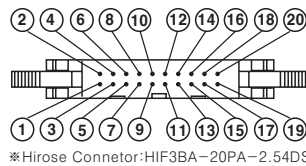
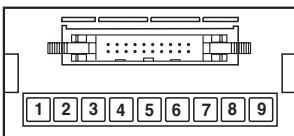


MP5W-41(Triple relay output)

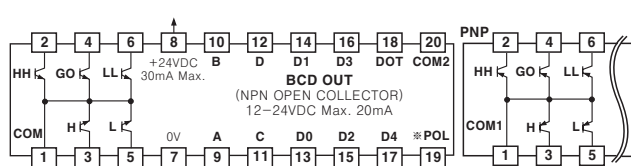


※(★1) It is used for RESET terminal when an operation mode is F13.
※Main output type & sub output type : option

Main output+Sub output(Connector)



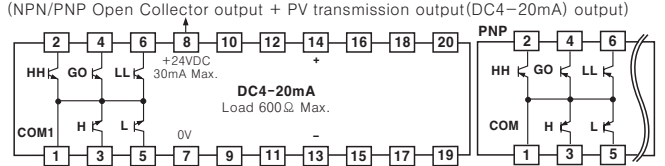
MP5W-42/MP5W-43(NPN/PNP Open Collector output + BCD output)



※POL signal is on when it is - display value

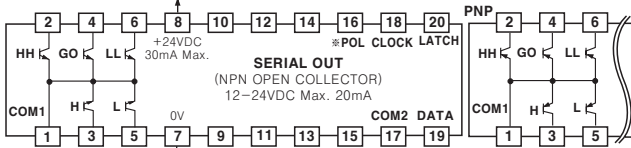
MP5W-44/MP5W-45

(NPN/PNP Open Collector output + PV transmission output(DC4-20mA) output)



MP5W-46/MP5W-47

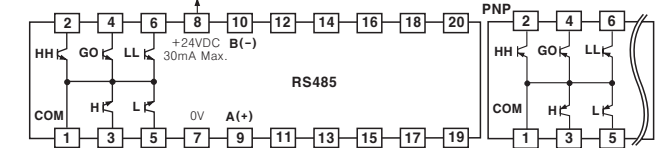
(NPN/PNP Open Collector output + Low speed serial output)



※POL signal is on when it is - display value

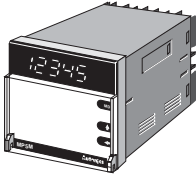
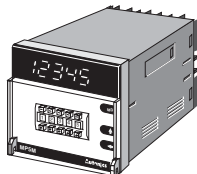
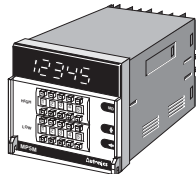
MP5W-48/MP5W-49

(NPN/PNP Open Collector output + RS485 communication output)



TACHO/SPEED/PULSE METER

Specifications(MP5M Series)

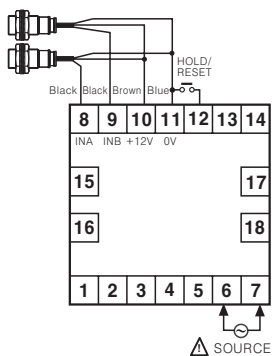
Model	MP5M-4N	MP5M-41	MP5M-42
Appearances & Dimensions	 [W72×H72×L113mm]	 [W72×H72×L113mm]	 [W72×H72×L113mm]
Power supply	100-240VAC 50/60Hz(Allowable operation voltage : 90~110% of power supply)		
Power consumption	Max. 7.5VA (240VAC)	Max. 8VA (240VAC)	
Power for external sensor	12VDC ±10%, 80mA		
Max. display range	0.0001~99999		
Display method	7 Segment LED (Zero Blanking)		
Display period	Selectable 0.05 / 0.5 / 1 / 2 / 4 / 8sec.(It is same with period of output update.)		
Input specification	[Voltage input] High : 4.5-24VDC, Low : 0-1VDC, Input impedance : 4.5kΩ [No voltage input] Impedance at short-circuit : Max. 300Ω, Residual voltage : Max. 1V, Impedance at open-circuit : Min. 100kΩ		
Input frequency	<ul style="list-style-type: none"> Solid state input : Max. 50kHz(ON/OFF pulse width : Each over 10μs) Contact input : Max. 45Hz(ON/OFF pulse width : Each over 11ms) 		
Operation mode	Number of revolution/Speed/Frequency (F1), Passing time (F2), Cycle (F3), Passing speed (F4), Time width (F5), Time difference (F6), Absolute rate (F7), Density (F8), Length measurement (F9), Interval (F10), Integration (F11)		
Various display unit	V, \bar{V} , mV, $m\bar{V}$, kV, $k\bar{V}$, A, \bar{A} , mA, $m\bar{A}$, W, VA, kVA, Var, kVar, kW, cm^3 , m^3 , mm^3 , cm^3 , m^3 , mm, cm, m, km, μm , mg, g, kg, g/cm^3 , kg/m^3 , sec, min, hour, min^{-1} , h^{-1} , $sec.1/100s$, $sec.1/10s$, $min.1/100m$, $min.1/10m$, $min.s.1/10s$, $h.s.1/10s$, h.min.s, h.min,rps, rpm, m/min, m^2/min , mm/s, m^3/s^3 , rPh, r/s, r/min, r/h, kg/h, l , kl , l/s , l/min , l/h , lx , Hz, kHz, t, °C, °F, Ω, kΩ, MΩ, Pa, kPa, MPa, kgf/mm^2 , $kgf-cm$, $gf-cm$, mmHg, mmH ₂ O, TON, G, O, K, S, S, s, rad, cal, kcal, L, kL, L/s, L/min, L/h, N, mN, KN, N m, mN-m, KN-m, J, kJ, m/s, ms, t/h, kg/s, PS, hP, dB, %, cPs, cP, cst, deg, ϕ -mm, sccm, x10, x100, x1000, PH, PPM, counts		
Prescale function	0.0001 × 10 ⁻⁹ ~ 9.9999 × 10 ⁹		
Hysteresis	(Note1) 0 ~ 9999		
Other functions	<ul style="list-style-type: none"> Lock setting function Auto-Zero time setting function Time unit selection function Display value monitoring function Memory protection function (Mode F11 only) 	<ul style="list-style-type: none"> Lock setting function Monitoring delay function Auto-Zero time setting function Time unit selection function Display value monitoring function Memory protection function (Mode F11 only) Comparative output function (H) 	<ul style="list-style-type: none"> Lock setting function Monitoring delay function Auto-Zero time setting function Time unit selection function Display value monitoring function Memory protection function (Mode F11 only) Comparative output function (H, L) Output mode selection function (S, H, L, B, I, F) Deviation memory function (Mode F)
Main output	<ul style="list-style-type: none"> Relay output : 250VAC 3A resistive load 1c NPN Open Collector output : 30VDC 100mA max. 		<ul style="list-style-type: none"> Relay output : 250VAC 3A resistive load 1a × 2 NPN Open Collector output : 30VDC 100mA max. × 2
Memory protection	No-volatile memory (Input times : Min. 100,000 times)		

※Function part is same as MP5S, MP5Y, MP5W series.

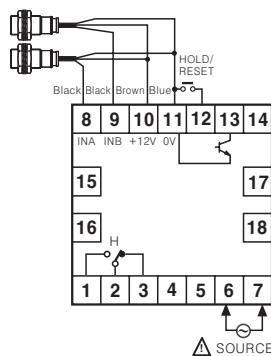
※(Note1) The hysteresis setting range is different by the setting position of decimal point.

Connections

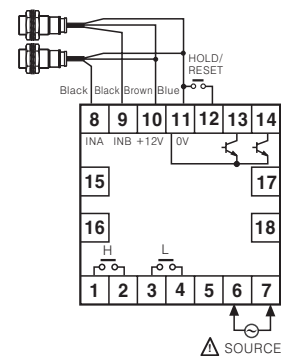
MP5M-4N (Indicator)



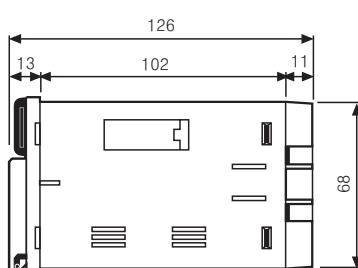
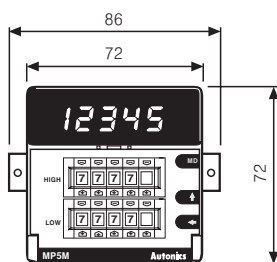
MP5M-41 (High-limit setting type)



MP5M-42 (High/Low-limit setting type)



Dimensions



Panel cut-out

