

# BP6

## Multi pulse meter

- Auto zero time setting
- Comparative output (HH, H, GO, L,LL)
- Starting compensation timer function
- Save max value 5 kinds, min value 5 kinds
- Power backup compensation function (F9 mode)
- Max 50KHz



### Suffix code

Model	Code	Description	
BP	<input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Multi pulse meter	
Dimension	6	72(W) X 36(H) mm	
Displayable digit	5	5 digits (-19999 - 99999)	
Power supply voltage	A	100 - 240 V AC 50 - 60 Hz	
	D	24 - 60 V DC / AC	
Output specification		Main output	Auxiliary output
	N	Display only	-
	1	Relay 3 stages output	-

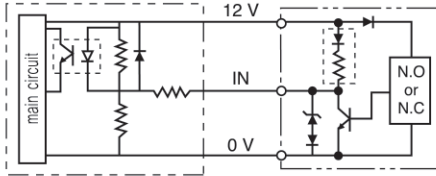
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### Specification

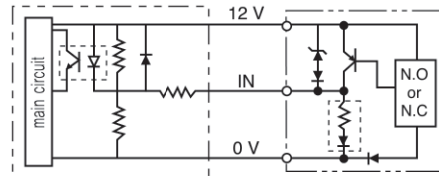
Input		
Non contact input	50 KHz max.(Duty ratio 50 %, each more than 10 $\mu$ s) (ON voltage 4.5 V - 24 V, OFF voltage 0-1.0 V)	
Contact input	30 Hz max.(Duty ratio 50 %, each more than 16.6 ms) (Sufficiently open/close the 12 V DC, 2 mA of current)	
Max displayable digit	5 digits (0 ~ 99999)	
Displaying time	0.05sec, 0.5sec, 1sec, 2sec, 4sec, 8sec	
Measurement range	Revolutions, frequency, velocity(F1), absolute ratio(F10), Error ratio(F11), Concentration(F12), Error(F13)	0.0005 Hz - 50 KHz
	Moving velocity (F2)	0.003 Hz - 1000 Hz
	Cycle(F3), Passing time(F4), Time difference(F5), Time range(F6),	0.001 s - 3,200 s
	Pulse width(F7), Pulse interval(F8), Adding counter(F9)	0 - 4 X 10 <sup>9</sup> Count

Input type selection

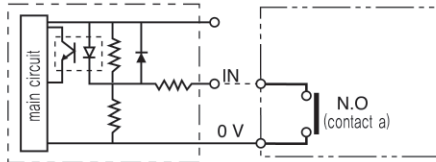
- $nPnno$  : NPN Normal Open
- $nPnnc$  : NPN Normal Close



- $PnPno$  : PNP Normal Open
- $PnPnc$  : PNP Normal Close



- $Cont.t.$  : Contact input Normal Open



Performance

Measurement accuracy	$\pm 0.05\%$ rdg $\pm 1$ dig (mode F1, F4, F10, F11, F12, F13) $\pm 0.01\%$ rdg $\pm 1$ dig (mode F2, F3, F5, F6)
Life expectancy (mechanical)	20 million times
Life expectancy (electrical)	When opening/closing the 250 V AC 3 A(30 V DC 3 A), 100 thousand times When opening/closing the 250 V AC 5 A(30 V DC 5 A), 50 thousand times Standard opening / closing speed is 20 times per min
Noise immunity	Square wave noise by the $\pm 2,000$ V noise simulator (pulse width 1 $\mu$ s)
Insulation resistance	Min 10 M $\Omega$ (500 V DC, electrically chargeable part-non electrically chargeable part)
Dielectric strength	2,000 V AC 60 Hz for 1 min (power terminal-case, power terminal-input terminal)

Function

Displaying type	7 Segment LED
Alphabet size(mm)	7.6 X 13.8 (width X height mm)
Operation mode	Number of revolutions, frequency, velocity(F1), moving velocity(F2), Cycle(F3), Passing time(F4), Time difference (F5), Time range(F6), Pulse width(F7), Pulse interval(F8), Adding counter(F9), absolute ratio(F10), Error ratic(F11), Concentration (F12), Error(F13)
Pre-scale	$0.0001 \times 10^{-9} \sim 9.9999 \times 10^9$
Hysteresis	0 ~ 9999 (only applied to the output type, connected to the mode so the setting range varies.)
Other function	Time unit selecting function, movement compensation timer function, displayable cycle setting function, parameter lock function, auto zero time setting function, power backup compensation function (only applied to the F9), min measurement value 4 kinds, min measurement average value, max measurement value 4 kinds, max measurement average value saving function (total 10 kinds), comparative output function (HH, H, GO, L, LL)

Output

Comparative alarm output	NPN open collector(HH, H, GO, L, LL), (12 – 24 V DC 100 mA max.)
	Relay(HH, H, GO, L, LL)

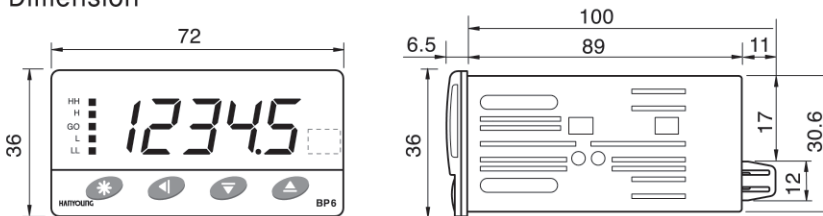
General specification

Power supply voltage	AC voltage	DC voltage
	100 – 240 V AC (50 – 60 Hz)	24 – 60 V DC / AC
Voltage fluctuation	±10 % of the power supply voltage	
Power consumption	Approx. 10 VA	Approx. 6 W
Power only for sensor	12 V DC ±10 %, 120 mA max	
Weight	Approx. 135 g	
Vibration resistance	10 – 55 Hz double amplitude 0.75 mm for 2 hour each in X, Y and Z direction	
Shock resistance	300 m/s <sup>2</sup> (30 G) 3 times each in X, Y and Z	
Ambient temperature	-10 ~ 50 °C (with no condensation)	
Ambient humidity	35 ~ 85 % RH	
Storage temperature	-20 ~ 60 °C (with no condensation)	

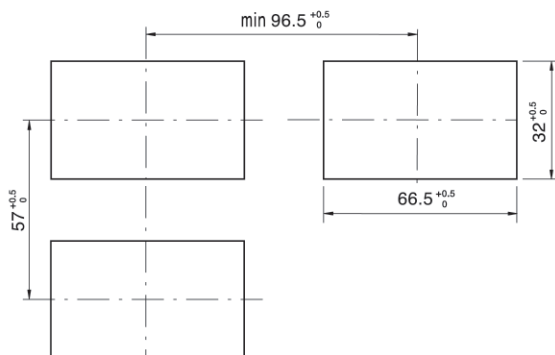
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Dimension and panel cutout (unit : mm)

Dimension



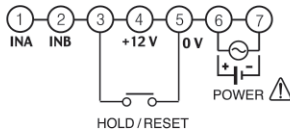
Panel cutout



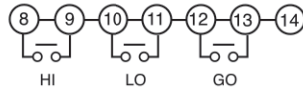
## Connection diagram

### Input side terminal

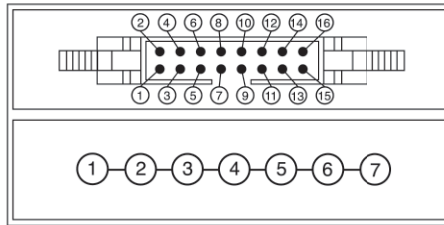
- Display only [BP6-5A(D)N]



- Contact output [BP6-5A(D)1]



- Auxiliary connector output  
(bank external selection is standard)



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