

# Compact LCD Pulse Meter

DIN W48 × H24mm, Indication only, LCD pulse meter(RPM, RPS, Hz)

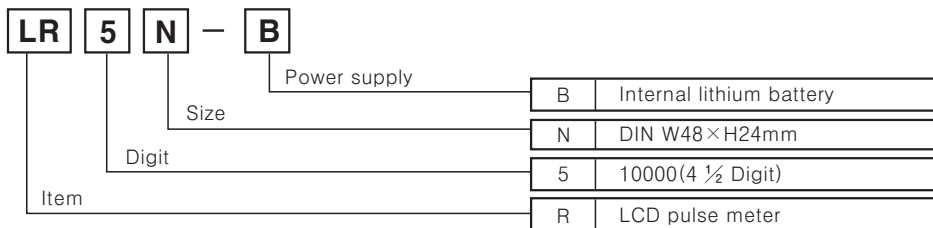
## Features

- Upgraded version of LR7N series
- Display up to 10000RPM
- No need power supply by internal battery
- Display RPM, RPS of rotator
- Display AC frequency
- Protection structure IP66(Front panel only)



**⚠ Please read "Caution for your safety" in operation manual before using.**

## Ordering information



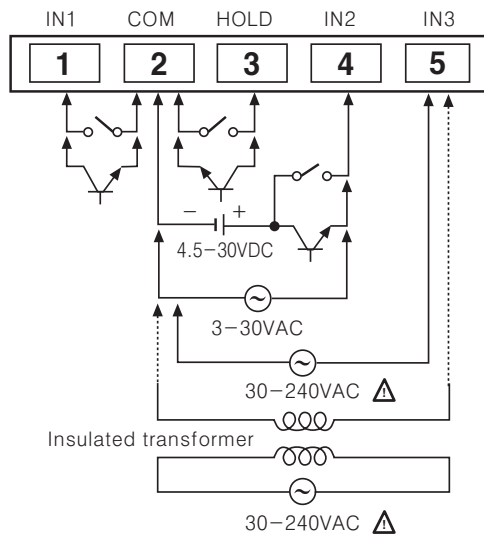
## Specifications

Series		LR5N-B		
Input type		No-voltage input	Voltage input 1	Voltage input 2
Input signal level		• Impedance at short-circuit:Max. 10kΩ (ON), residual voltage:Max. 0.5V • Impedance at open-circuit:Min. 500kΩ (OFF)	DC	High voltage : 4.5-30VDC Low voltage : 0-2VDC
			AC	Voltage : 3-30VAC
Voltage input 2		Voltage : 30-240VAC		
Battery life cycle		Over 3 years(at 20℃)		
Display method		LCD zero blanking type(Height : 8.7mm)		
Digit		5 Digit		
Display range	RPM	1 to 10000RPM		
	0.1RPM	0.1 to 1000.0RPM		
	RPS	1 to 1000RPS		
	Hz	1 to 1000Hz		
0.1Hz	0.1 to 100.0Hz			
	Display accuracy			
HOLD function		F.S. ±0.1% ±1digit		
Insulation resistance		Included(External HOLD terminal)		
Dielectric strength		Min. 100MΩ (at 500VDC megger)		
Vibration	Mechanical	2000VAC 50/60Hz for 1 minute(Cutoff current=10mA)		
	Malfunction	0.75mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 1 hour		
Shock	Mechanical	0.3mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 10 minutes		
	Malfunction	300m/s <sup>2</sup> (Approx. 30G) in X, Y, Z directions for 3 times		
Protection		100m/s <sup>2</sup> (Approx. 10G) in X, Y, Z directions for 3 times		
Ambient temperature		IP66(Front panel only)		
Storage temperature		-10 to 55℃ (at non-freezing status)		
Ambient humidity		-25 to 65℃ (at non-freezing status)		
Unit weight		35 to 85%RH		
		Approx. 58g		

- (A) Photo electric sensor
- (B) Fiber optic sensor
- (C) Door/Area sensor
- (D) Proximity sensor
- (E) Pressure sensor
- (F) Rotary encoder
- (G) Connector/Socket
- (H) Temp. controller
- (I) SSR/Power controller
- (J) Counter
- (K) Timer
- (L) Panel meter
- (M) Tacho/Speed/Pulse meter
- (N) Display unit
- (O) Sensor controller
- (P) Switching power supply
- (Q) Stepping motor & Driver & Controller
- (R) Graphic/Logic panel
- (S) Field network device
- (T) Production stoppage models & replacement

# LR5N-B

## 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.

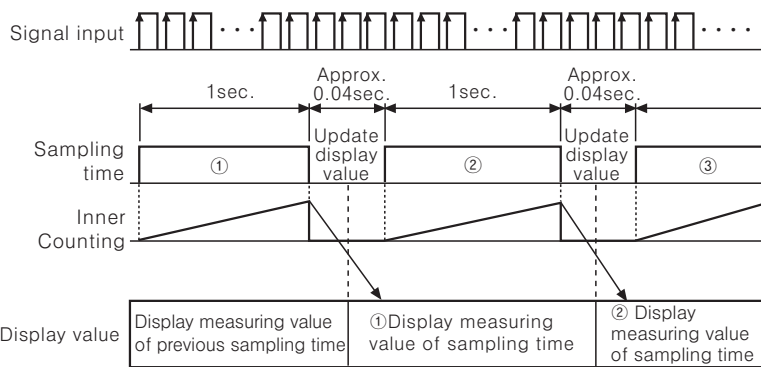
\*Choose one among IN1, IN2 and IN3 to use.

\*Caution for IN3 input

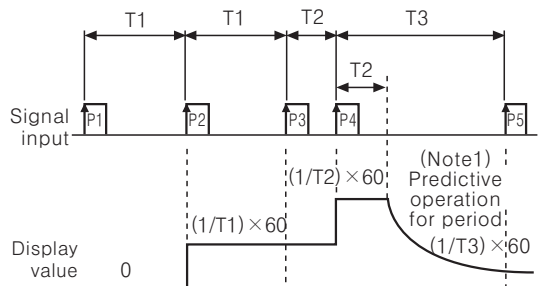
: If apply high voltage over 50VAC, it may cause an electric shock. Insulated transformer whose turn ratio is 1:1 must be installed, or countermeasures must be provided.

## Operation chart

●Setting RPS, Hz



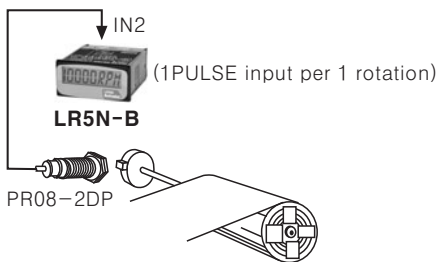
●Setting RPM, 0.1RPM, 0.1Hz



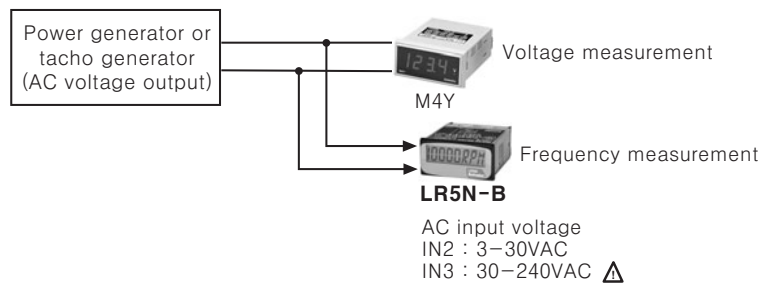
\* (Note1) Predictive operation for period : There is no input signal within certain time (T2), CPU considers input to be supplied, display value is decreased continuously.

## Operation mode (Frequency/Revolution)

●Revolution



●AC frequency



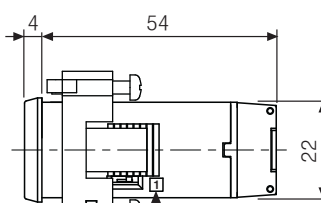
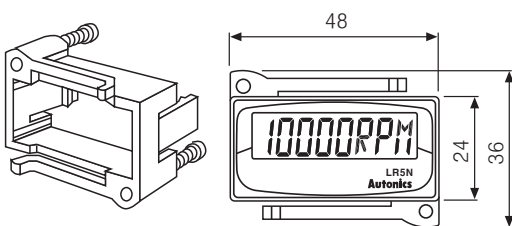
●Display and unit

Display	Frequency		Revolution		
	Hz	0.1Hz	RPM	0.1RPM	RPS
Unit	Hz	0.1Hz	RPM	0.1RPM	RPS

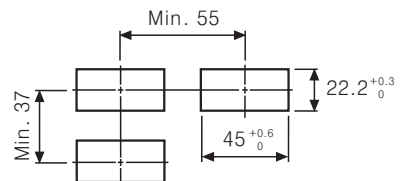
\*Default unit : RPS

## Dimensions

●Bracket



●Panel cut-out



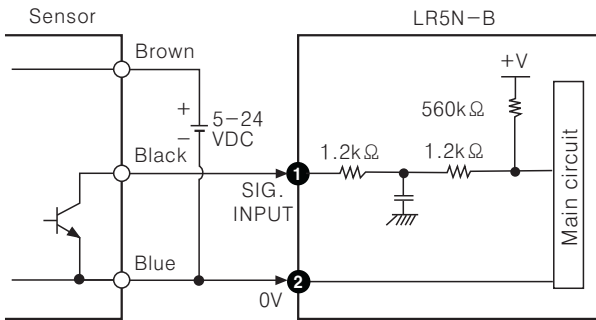
SW1 (SW2 is in the opposite side.)

(Unit:mm)

# Compact LCD Pulse Meter

## Input connections

- Standard input sensor  
:NPN open collector output type



## Function description

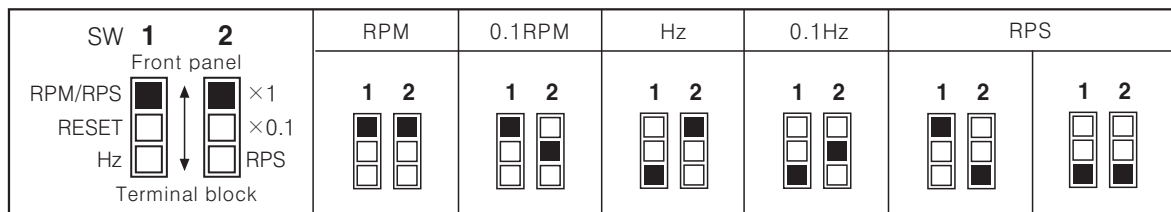
### ●RESET

It initializes an unit and front LCD display. There are not indicated when set switch1 as RESET.

### ●HOLD

It stops display value by short circuit HOLD terminal when it is hard to read the value because of frequent input changes.

## Display range selection



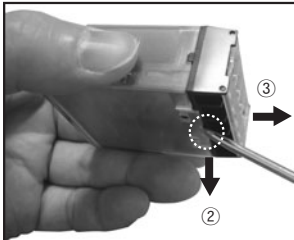
### ●Display range selection

- ① Select one among ×1, ×0.1 and RPS by SW2.
- ② Shift SW1 to RESET.
- ③ Select one between RPM/RPS and Hz by SW1.

※If set display range and front display LCD unit are not same, shift SW1 to RESET and select RPM/RPS or Hz.

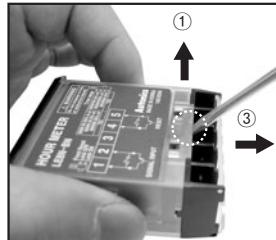
## Case detachment and battery replacement

### ●Case detachment

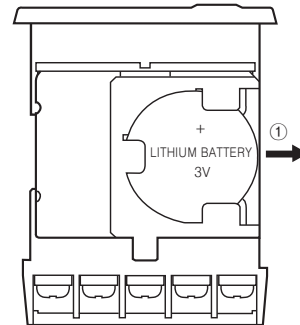


※Hold up Lock part toward ①, ② of the product with the tool and pull toward ③, the case is detached.

⚠ Please be careful of the injury caused by tools.



### ●Battery replacement



- 1) Detach the case.
- 2) Push the battery and detach toward ①.
- 3) Insert new battery with correct alignment of polarity pushing toward opposite of ①.

※Battery is sold separately.

※Do not burn up or disassemble the lithium battery.

- (A) Photo electric sensor
- (B) Fiber optic sensor
- (C) Door/Area sensor
- (D) Proximity sensor
- (E) Pressure sensor
- (F) Rotary encoder
- (G) Connector/Socket
- (H) Temp. controller
- (I) SSR/Power controller
- (J) Counter
- (K) Timer
- (L) Panel meter
- (M) Tacho/Speed/Pulse meter
- (N) Display unit
- (O) Sensor controller
- (P) Switching power supply
- (Q) Stepping motor & Driver & Controller
- (R) Graphic/Logic panel
- (S) Field network device
- (T) Production stoppage models & replacement