

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
- IP66 rated (Front panel only)



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

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		
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
Battery life cycle		Over 3 years (at 20°C)		
Display method		LCD Zero Blanking type (Height : 8.7mm)		
Digit		5 digit		
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		
HOLD function		Included (External HOLD terminal)		
Insulation resistance		Min. 100MΩ (at 500VDC mega)		
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		
Protection		IP66 (Front panel only)		
Ambient Temperature		-10 ~ 55°C (at non-freezing status)		
Storage Temperature		-25 ~ 65°C (at non-freezing status)		
Ambient humidity		35 ~ 85%RH		
Unit weight		Approx. 58g		

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

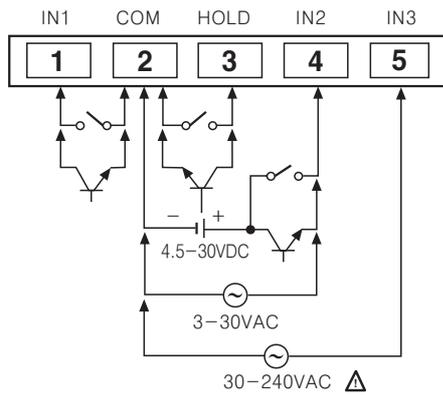
(O) Graphic panel

(P) Field network device

(Q) Production stoppage models & replacement

LR5N-B

Connections



※Please use reliable contacts enough to flow $5\mu\text{A}$ of current when using input signal or reset signal as a contact.

※IN1 \Rightarrow No-voltage input

IN2 \Rightarrow Voltage input

• DC voltage input

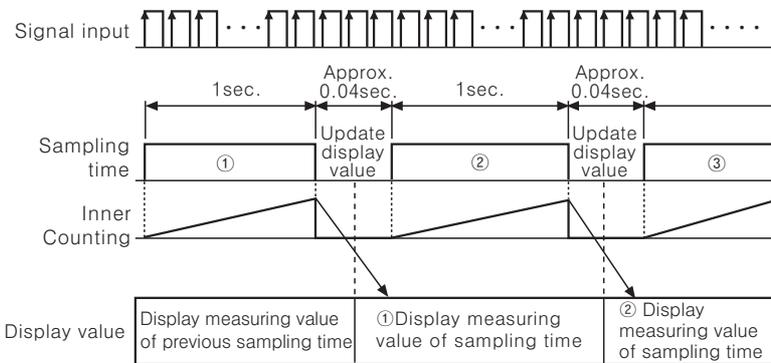
• AC voltage input : Display AC frequency.

IN3 \Rightarrow AC voltage input : Display AC frequency.

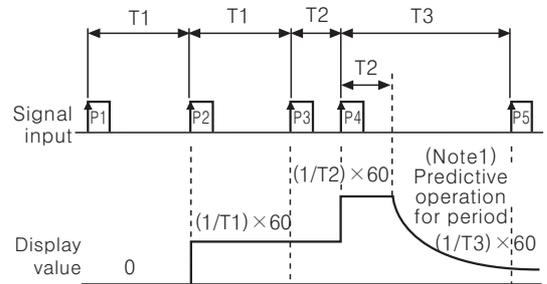
※Choose one among IN1, IN2 and IN3 to use.

Operation chart

●Setting RPS, Hz



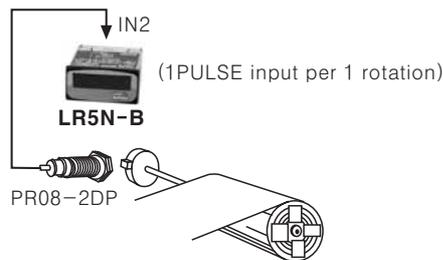
●Setting RPM, 0.1RPM, 0.1Hz



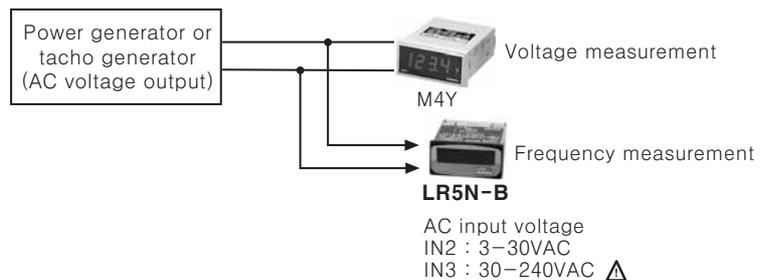
※(Note1) Predictive operation for period : There is no input signal within certain time (T_2), CPU considers input to be supplied, display value is decreased continuously.

Operation mode (Frequency/Revolution)

●Revolution



●AC frequency



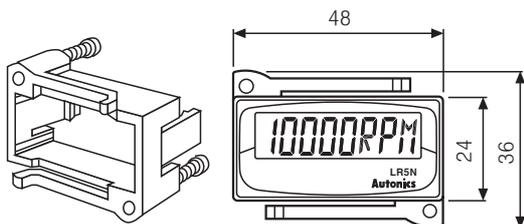
●Display and unit

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

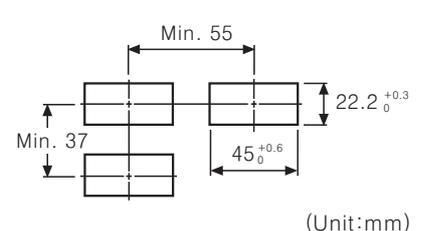
※Default unit : RPS

Dimensions

●Bracket



●Panel cut-out

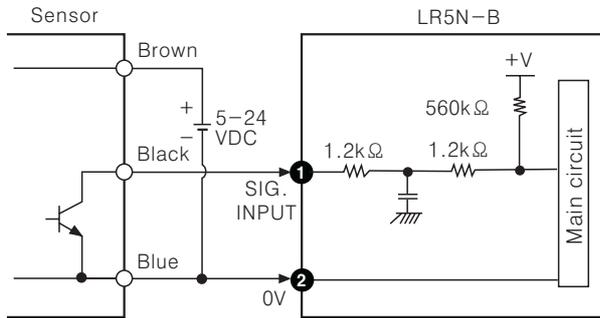


(Unit:mm)

Compact LCD Pulse Meter

Input connections

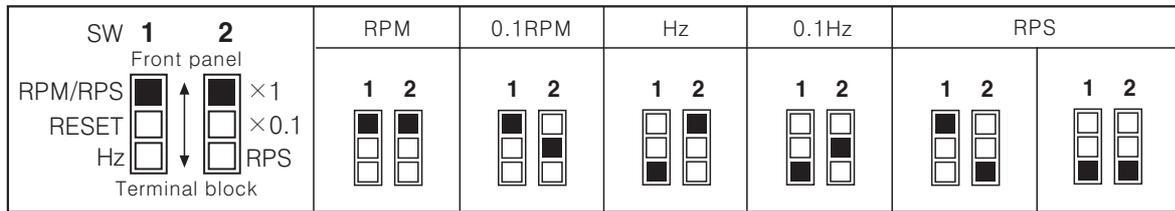
- Standard input sensor
: Encoder with NPN open collector output type



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.

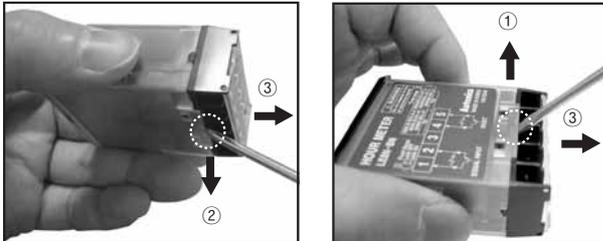
Display range selection



- 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

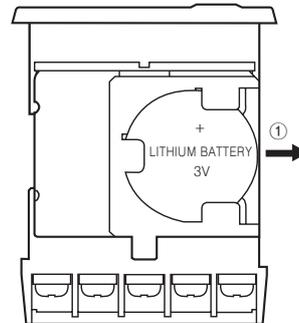
- Case detachment



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