

**PULSE METER
LR5N-B**

M A N U A L



Thank you very much for selecting Autonics products.
For your safety, please read the following before using.

Caution for your safety

- *Please keep these instructions and review them before using this unit.
- *Please observe the cautions that follow;
- Warning** Serious injury may result if instructions are not followed.
- Caution** Product may be damaged, or injury may result if instructions are not followed.
- *The following is an explanation of the symbols used in the operation manual.
- ⚠ Caution : Injury or danger may occur under special conditions.

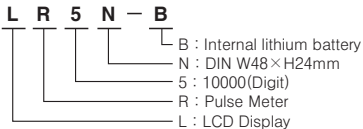
Warning

- In case of using this unit with machinery (Nuclear power control, medical equipment vehicle, train, airplane, combustion apparatus, entertainment or safety device etc), it is required to install fail-safe device.**
It may cause a fire, human injury or damage to property.
- Do not disassemble or modify this unit. Please contact us if it is required.**
It may give an electric shock and cause a fire.
- Do not disassemble or burn up because lithium battery is used for memory protection.**
It may cause an explosion.
- Set up the counterplan to supply high voltage into IN3 and COM.**

Caution

- This unit shall not be used outdoors.**
It might shorten the life cycle of the product or give an electric shock.
- Please observe the rated specifications.**
It might shorten the life cycle of the product and cause a fire.
- In cleaning the unit, do not use water or an organic solvents.**
It might cause a fire.
- Do not use this unit in place where there are flammable or explosive gas, humidity, direct ray of the sun, radiant heat, vibration and impact etc.**
It may cause a fire or explosion.
- Do not inflow dust or wire dregs into the unit.**
It may cause a fire or malfunction.

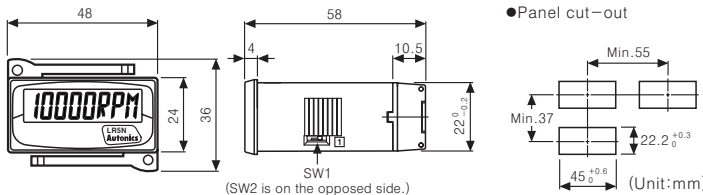
Ordering information



Factory specifications

Series	LR5N
Item	
SW1	Setting Hz(Terminal block direction)
SW2	Setting RPS(Terminal block direction)

Dimensions

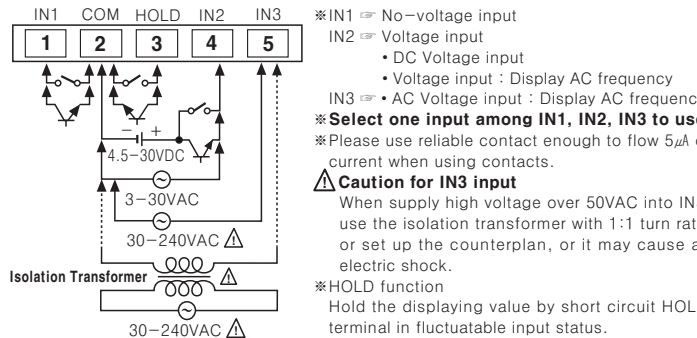


*The above specifications are changeable at anytime without notice.

Specifications

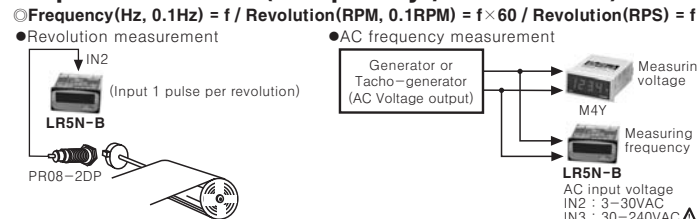
Model	LR5N-B		
Input method	No-voltage input	Voltage input 1	Voltage input 2
Input signal level	Residual voltage : Max. 0.5V Short-circuit impedance : Max. 10kΩ Open-circuit impedance : Min. 500kΩ	DC High input voltage range: 4.5~30VDC, Low input voltage range: 0~2VDC AC Voltage: 3~30VAC	Voltage: 30~240VAC
Battery life cycle	Over 3 years(at 20°C)		
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		
Measuring accuracy	F.S ±0.1% ±1Digit		
HOLD function	Includes (External HOLD function)		
Ambient temperature	-10 to 55°C (at non-freezing status)		
Storage temperature	-25 to 65°C (at non-freezing status)		
Ambient humidity	35 ~ 85%RH		
Power	Includes lithium battery (Replaceable)		
Display	LCD Zero Blanking method (Character height size: 8.7mm)		
Protection	IP66 (When using waterproof rubber for front panel), Terminal protection cover (Finger protector)		
Unit weight	Approx. 58g		

Connections



- *IN1: No-voltage input
- *IN2: Voltage input
 - DC Voltage input
 - Voltage input : Display AC frequency
- *IN3: AC Voltage input : Display AC frequency
- *Select one input among IN1, IN2, IN3 to use.
- *Please use reliable contact enough to flow 5mA of current when using contacts.
- Caution for IN3 input**
When supply high voltage over 50VAC into IN3, use the isolation transformer with 1:1 turn ratio or set up the counterplan, or it may cause an electric shock.
- *HOLD function
Hold the displaying value by short circuit HOLD terminal in fluctuatable input status.

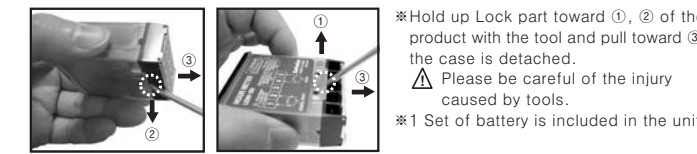
Operation mode (Frequency / Revolution)



Display value	Frequency	Revolution			
Display unit	Hz	0.1Hz	RPM	0.1RPM	RPS

* Default unit : RPS

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.
- *1 Set of battery is included in the unit.

Setting and operation

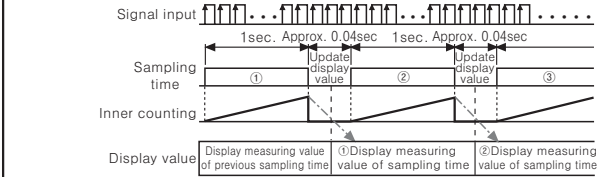
Setting



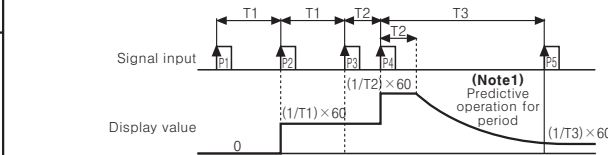
- *Setting of display range
 - ① Select one among ×1, ×0.1, RPS by SW2.
 - ② Switch 1 should be moved to RESET position.
 - ③ Select one again between RPM/RPS and Hz.
- *When display range and unit in front display panel do not conform, move Switch 1 to RESET and select RPM/RPS and Hz again.
- *"RESET" initializes display range and display value and unit are not appeared when it is selected.

Operation

Setting RPS and Hz



Setting RPM and 0.1RPM, 0.1Hz



- * (Note1) It implements Predictive operation for period without Auto zero time setting function (If there is no pulse input within setting time, it displays the value as zero forcibly). If there is any input signal within certain time (T2), CPU considers input to be supplied, display value is decreased continuously.

Caution for using

- Do not dispose in a place with danger of flammables or explosion because primary lithium battery is built in the product.
 - Input into IN3 by an isolation transformer with 1:1 turn ratio of 1st and 2nd terminals.
 - Do not use this unit in the following places
 - ① A place where ambient temperature is less than -10°C or over 55°C.
 - ② A place where ambient humidity is less than 35%RH or over 85%RH.
 - ③ A place where there is flammable or corrosive gas, dust, oil, vibration and impact.
 - ④ A place where there are organic solvents including methyl alcohol, benzene, thinner or strong alkalis including ammonia, caustic soda.
 - Safe using for battery
 - ① It shall be used indoor.
 - ② Altitude Max. 2000m
 - ③ Pollution Degree 2
 - ④ Installation Category II
- *It may cause malfunction if above instructions are not followed.

Major products

- PROXIMITY SENSOR ■ PHOTOELECTRIC SENSOR
- AREA SENSOR ■ FIBER OPTIC SENSOR
- DOOR/DOOR SIDE SENSOR ■ PRESSURE SENSOR
- ROTARY ENCODER ■ SENSOR CONTROLLER
- SWITCHING POWER SUPPLY
- TEMPERATURE CONTROLLER
- TEMPERATURE/HUMIDITY TRANSDUCER
- POWER CONTROLLER ■ RECORDER
- TACHOMETER/PULSE(RATE) METER
- PANEL METER ■ INDICATOR
- SIGNAL CONVERTOR ■ COUNTER ■ TIMER
- DISPLAY UNIT ■ GRAPHIC PANEL
- STEPPING MOTOR & DRIVER
- MOTION CONTROLLER
- LASER MARKING SYSTEM (CO₂, Nd:YAG)

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