

Cylinder switches

Type-C. Magnetic position sensor

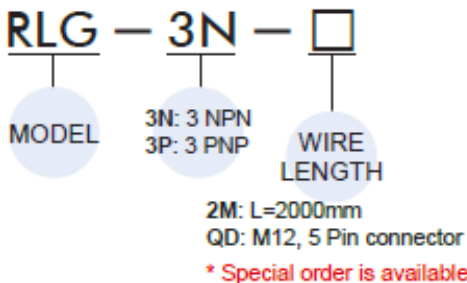
For your safety, please read the following before using.

- ① Suggest to connect, install, and set up by professional technicians.
- ② Avoid to use magnetically conductive components in working environment.
- ③ Avoid piston and magnet of cylinder spin to cause inaccurate.
- ④ Do not use corrosive or flammable gas or liquid with this product.
- ⑤ Do not drop, hit or allow excessive shock. Even if switch body appears undamaged, internal components may be broken and can cause malfunction.
- ⑥ Turn power off before connecting wiring. Wrong wiring or short circuit will damage and / or cause malfunction.
- ⑦ This product is not explosion-proof rated. Do not use in atmosphere containing flammable or explosive gases.
- ⑧ Wiring for pressure sensor should avoid power source line and high voltage line. If use in the same circuit, noise may cause malfunction.
- ⑨ Sensors at end-of-life must be disposed of in accordance with E-Waste regulations of the country/region, NOT disposed of with regular garbage.

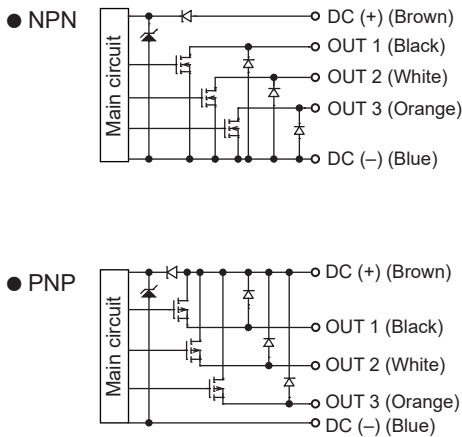
Model	RLG-3N	RLG-3P
Measuring range (*1)	50 mm	
Switching logic	Solid state output, normally open / normally close switchable	
Switch type	3 NPN current sinking	3 PNP current sourcing
Operating voltage	5 ~ 30 V DC	
Switching current (*2)	150 mA max.	
Power supply voltage (*2)	30 V DC	
Contact rating (*2)	4.5 W max.	
Current consumption	20 mA @ 24 V DC max.	
Voltage drop (*2)	1.5 V max. (with resistive load)	
Leakage current	0.01 mA max.	
Repeatability	≤ 0.01 mm	
Indicator	Yellow LED, Green LED, Red LED	
Cable	ø4 PVC - 26 AWG (0.15mm ²) - 5 cores	
Operating frequency	50 Hz	
Magnet requirement (*3)	40 ~ 1000 Gauss	
Temperature range	-10 ~ 70 °C	
Shock (*4)	50 G	
Vibration (*5)	9 G	
Enclosure classification	IEC 60529 IP69	
Protection circuit (*6)	2, 3, 4	
Weight	54 g	
Connect diagram		

- *1. The difference of magnetism, environment, and interference of magnetic field can cause the deviation of measurement.
- *2. The standard is for each output.
- *3. Measuring standard target: ø15.5 × ø8 × 5t (Anisotropy rubber magnet)
- *4. Sin wave / X , Y , Z 3 directions / 3 times each direction / 11 ms each time.
- *5. Double amplitude 1.5 mm / 10 Hz ~ 55 Hz ~ 10 Hz (Sweep 1 min) / X , Y , Z 3 directions / 1 hour each time.
- *6. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression.

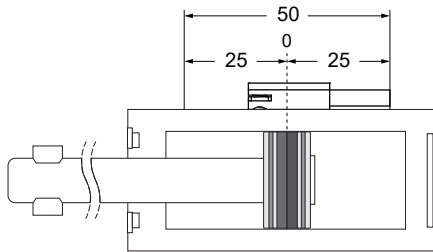
ORDERING INFORMATION



Output circuit wiring diagrams



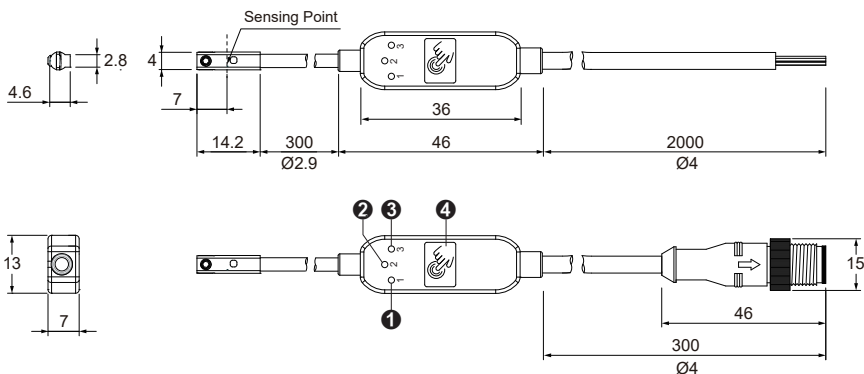
Measuring range



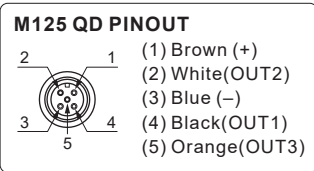
Best sensing point is at the central of measuring range (at 0).
The whole measuring range is 50 mm.

Unit : mm

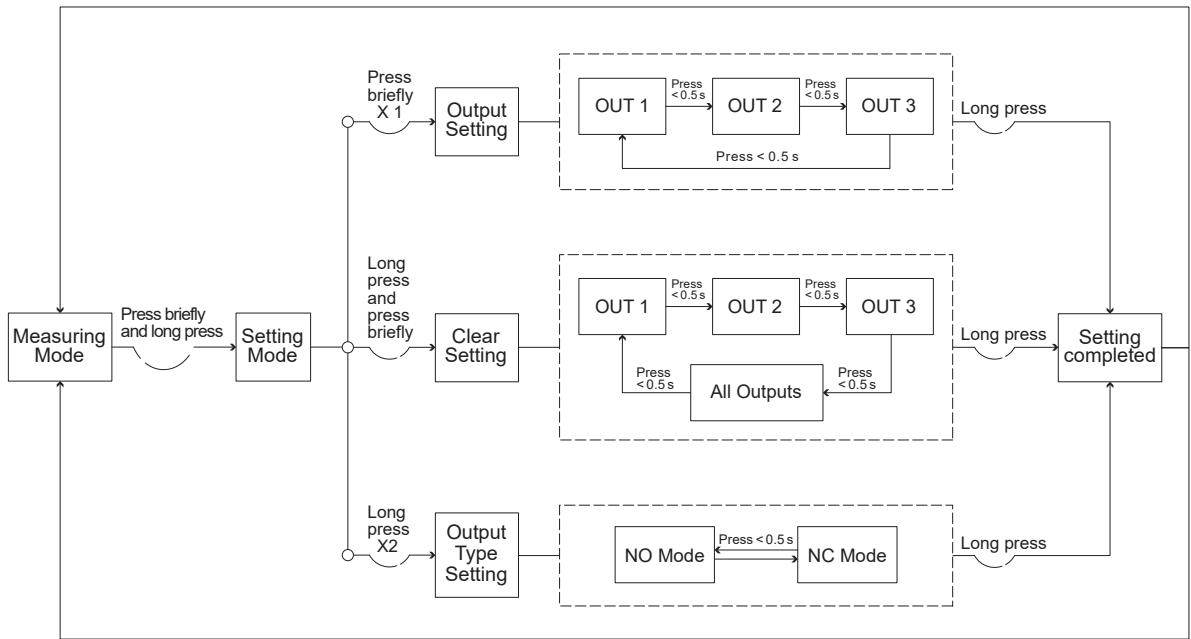
Dimensions



No	Content
①	Output 1 Indicator (Yellow)
②	Output 2 Indicator (Green)
③	Output 3 Indicator (Red)
④	Setting Button



Operating procedures



Led indicator description

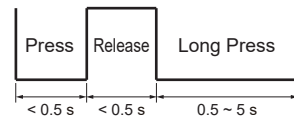
		Normal Open (NO) Mode			Normal Close (NC) Mode		
Item	Indicator	1 : Yellow	2 : Green	3 : Red	1 : Yellow	2 : Green	3 : Red
Setting mode							
Enter clear setting				—			—
Enter output type setting			—			—	
Select the output type (NO/NC)			—		—		—
Output ON	1		—	—	—		
	2	—		—		—	
	3	—	—				—

NOTE : : LED flashing , : LED on , — : LED off

Operation definition

This sensor uses capacitive setting button which is based on press times and press period to operate.

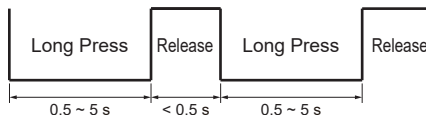
• Press briefly and long press setting button



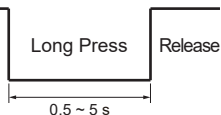
• Press setting button 1 time



• Long press setting button 2 times



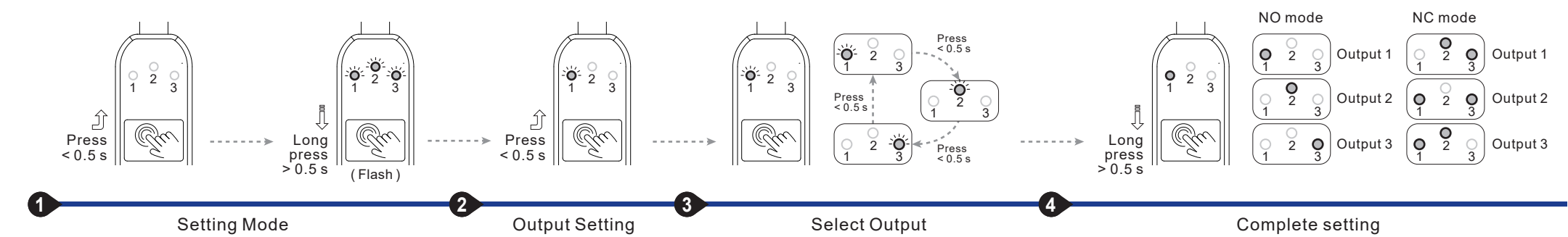
• Long press setting button 0.5 ~ 5 s



Operation instruction

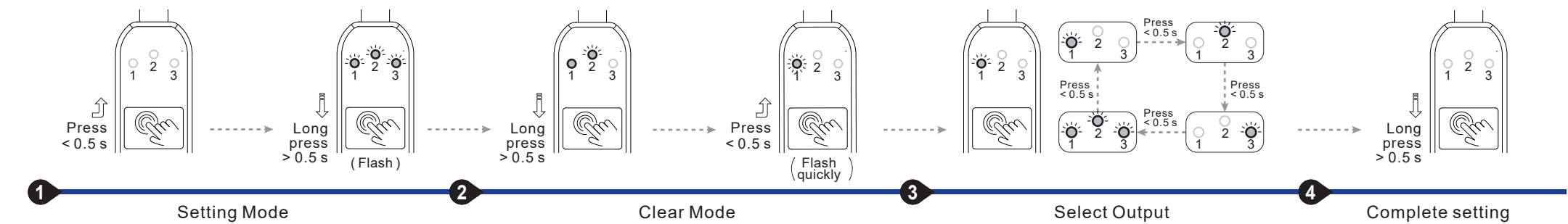
Output Setting

- Step 1 : Press briefly and long press the setting button until 3 indicators flash simultaneously.
- Step 2 : Press briefly the setting button, indicator 1 flashes to enter Output Setting.
- Step 3 : Press briefly the setting button to set OUT 1, 2 or 3.
- Step 4 : Move the piston to the desired position, then long press the setting button to complete the setting.
- ※ Set other outputs by repeating Step 1 to Step 4.



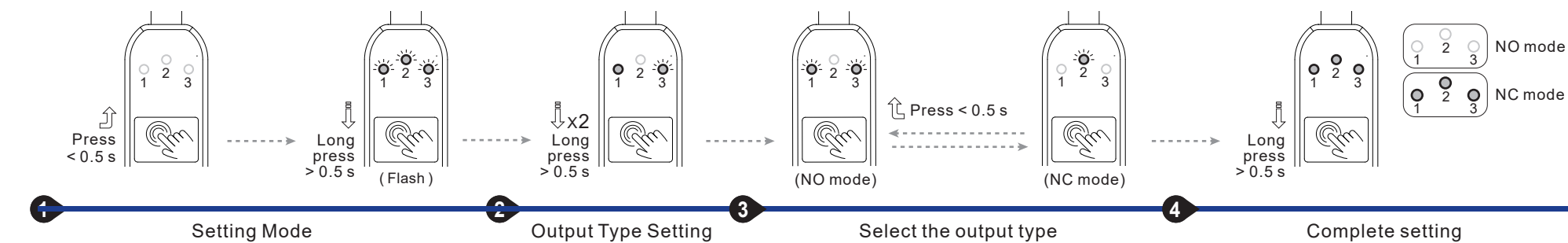
Clear Setting

- Step 1 : Press briefly and long press the setting button until 3 indicators flash simultaneously.
- Step 2 : Long press the setting button, indicator 1 lights up and indicator 2 flashes. Then press briefly the setting button, indicator 1 flashes quickly to enter clear setting.
- Step 3 : Press briefly to clear OUT 1, 2, 3 or all of them.
- Step 4 : Choose the output needs to be cleared, then long press the setting button to complete the setting.
- ※ Clear other outputs by repeating Step 1 to Step 4.



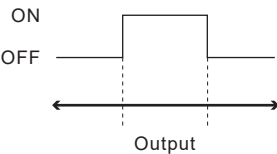
Output Type Setting

- Step 1 : Press briefly and long press the setting button until 3 indicators flash simultaneously.
- Step 2 : Long press the setting button 2 times, indicator 1 lights up and indicator 3 flashes to enter output type setting.
- Step 3 : Press briefly the setting button to select NO or NC mode. (NO mode : indicator 1 and 3 flash ; NC mode : indicator 2 flashes)
- Step 4 : Long press the setting button to complete the setting.



- ※ Note :
1. After 10 seconds of inactivity, the product returns to measuring mode automatically.
 2. One output only can be set each time.
 3. NO, NC mode description :

NO mode



NC mode

