

KLG Series

Magnetic Position Sensor

PR-0688A 2022/11 Online Version



- 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.

A ORDERING INFORMATION

K L G - 3 N -

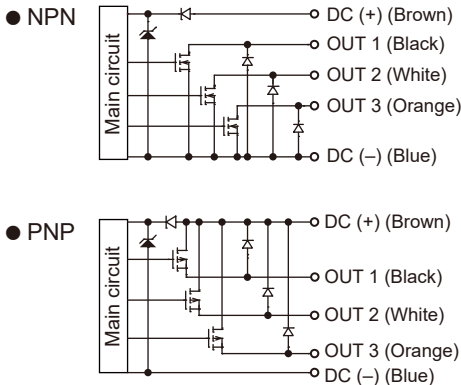
Output Specifications

3N : 3 NPN output
3P : 3 PNP output

Cable Length / Connector

Blank : 2M
QD : With M12, 5Pin male connector

B OUTPUT CIRCUIT WIRING DIAGRAMS



KITA

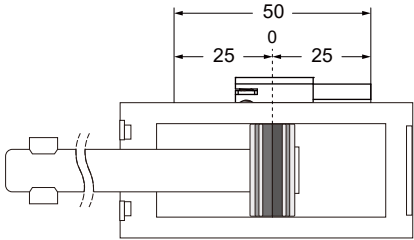
C SPECIFICATIONS

MODEL	KLG-3N	KLG-3P
Measuring Range ※1	50 mm	
Switching Logic	Solid State Output, Normally Open / Normally Close Switchable	
Sensor Type	3 NPN Current Sinking	3 PNP Current Sourcing
Repeatability	≤ 0.01 mm	
Operating Voltage	5 ~ 30 V DC	
Switching Current ※2	150 mA max.	
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.	
Indicator	Yellow LED · Green LED · Red LED	
Lead Wire	Ø4 PVC - 26AWG (0.15mm ²) - 5 cores	
Operating Frequency	50 Hz	
Magnet Requirement ※	40~1000 Gauss	
Temperature Range	-10 ~ 70 °C	
Shock ※4	50 G	
Vibration ※5	9 G	
Enclosure	IEC 60529 IP69	
Protection Circuit	Short-circuit , Power Source Reverse polarity , Surge Suppression	

NOTE

- ※ 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.

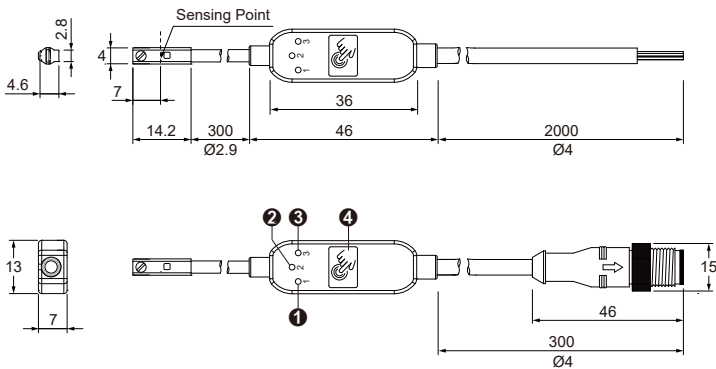
D MEASURING RANGE



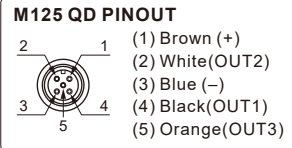
Best sensing point is at the central of measuring range (at 0).
The whole measuring range is 50 mm.

Unit : mm

E DIMENSIONS

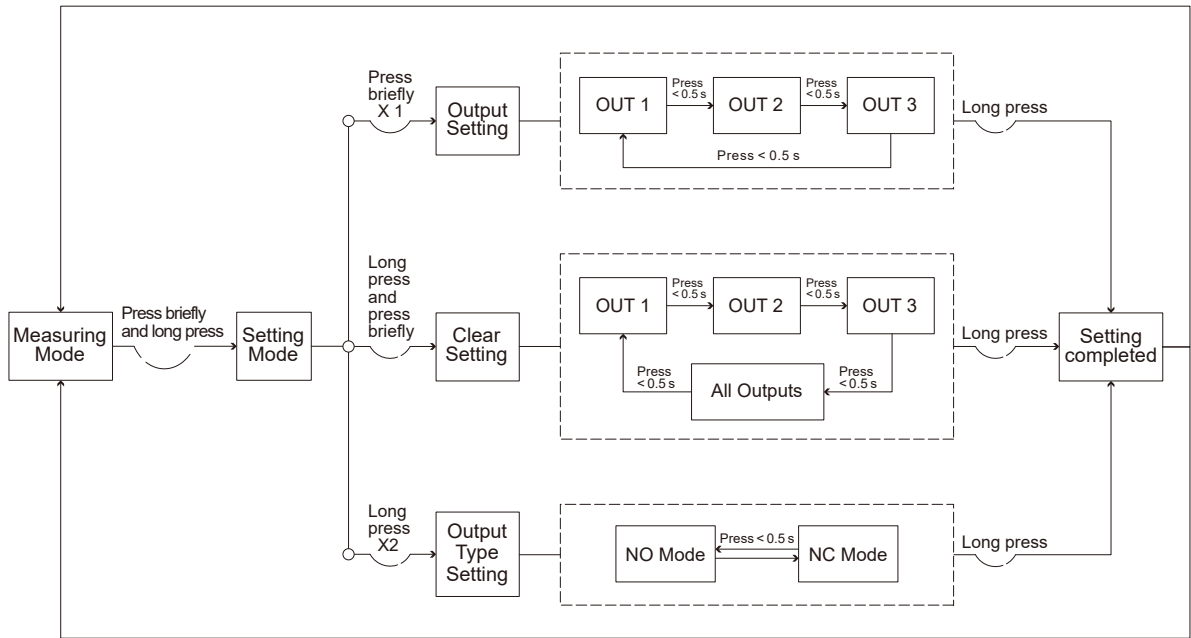


No.	Content
①	Output 1 Indicator (Yellow)
②	Output 2 Indicator (Green)
③	Output 3 Indicator (Red)
④	Setting Button



Unit : mm

F OPERATING PROCEDURES



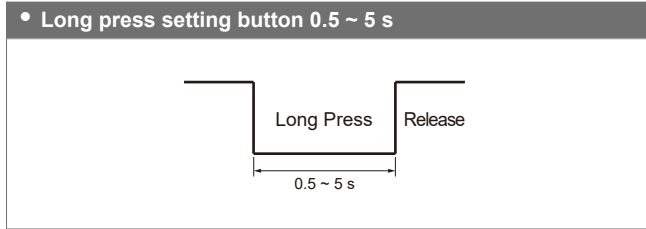
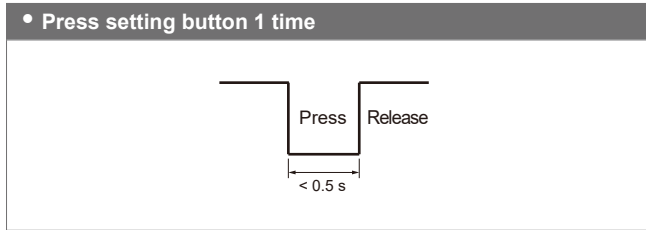
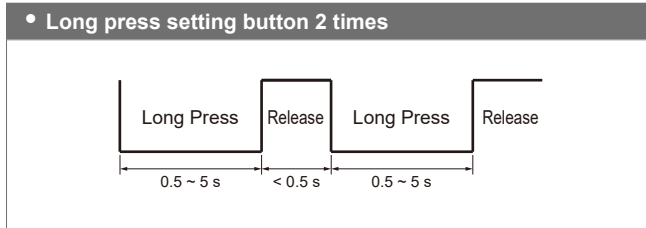
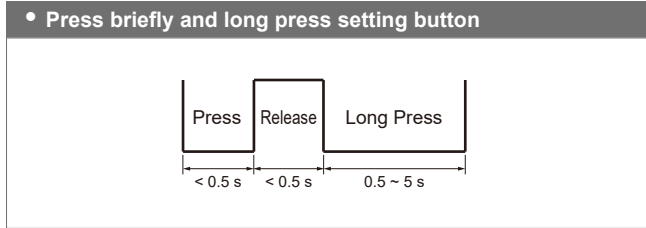
G LED INDICATOR DESCRIPTION

		Normal Open (NO) Mode			Normal Close (NC) Mode		
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

H OPERATION DEFINITION

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

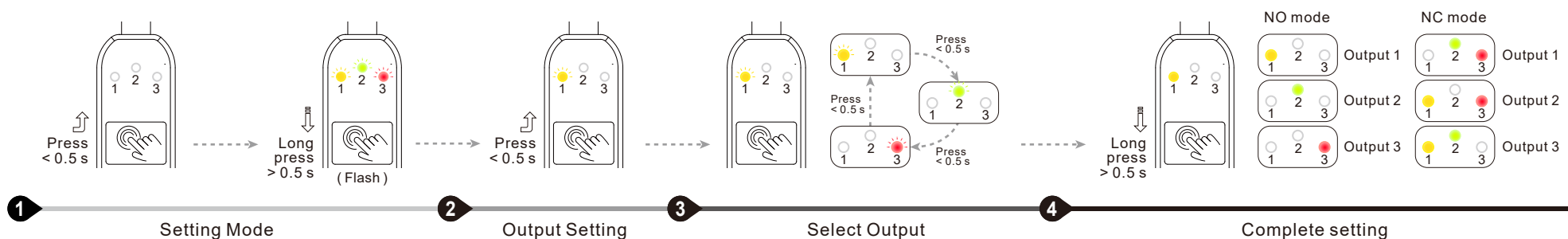


I OPERATION INSTRUCTION

Output Setting

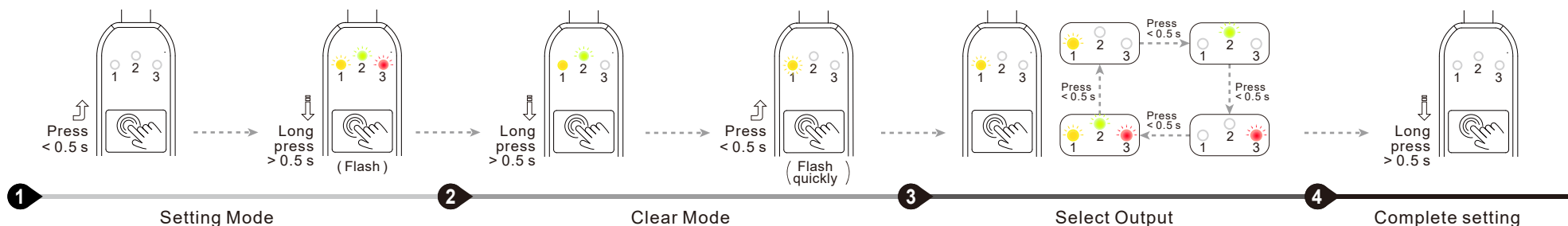
- Step 1 : Press briefly and long press the setting button until 3 indicators flash simultaneously.
- Step 2 : Press briefly the setting button, indicator 1 flashes to enter Output Setting.
- Step 3 : Press briefly the setting button to set OUT 1, 2 or 3.
- Step 4 : Move the piston to the desired position,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

Note ※ 1 · After 10 seconds of inactivity, the product returns to measuring mode automatically.
 ※ 2 · One output only can be set each time.



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.



I OPERATION INSTRUCTION

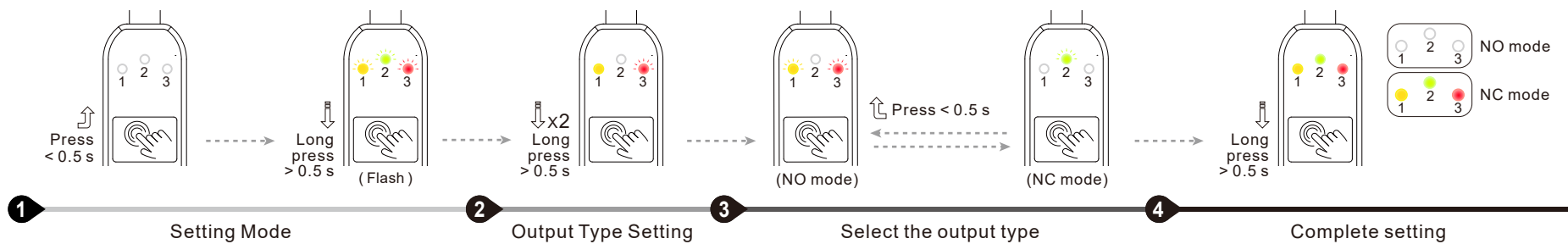
Output Type Setting

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.

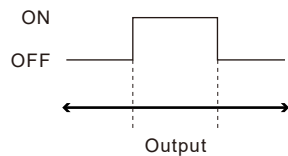
Step 3 : Press briefly the setting button to select NO or NC mode. (NO mode : indicator 1 and 3 flash ; NC mode : indicator 2 flashes)

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

