

Remote Sensor System
Switch signal / 8 signal transmission type

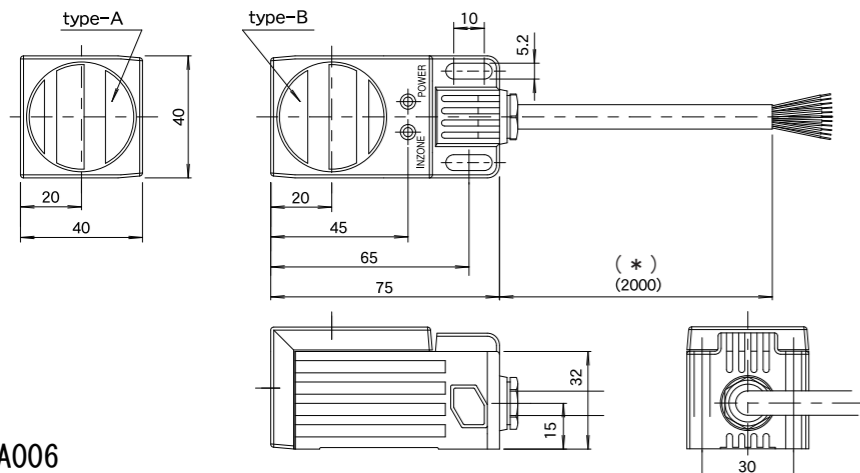
Transmitter: RGPT-4008-V1220 A/B-PU
Output Sensor: RGPE-4008-V1220N A/B-PU
RGPE-4008-V1220P A/B-PU

Attention for Installation

(Read this section thoroughly before installation.)
Before using the Remote Sensor, read this manual carefully.
During installation and operation, pay close attention to the safety aspect.

- ◆ Ensure the power is switched off during installation or maintenance operations.
- ◆ Use a regulated power supply, e.g. switch-model type.
Simpler power supplies, such as a full-wave rectification type, will cause the permissible ripple rating to be exceeded and may cause malfunction.
- ◆ Ensure correct connections by reference to the wiring diagram.
- ◆ To avoid malfunction caused by induction noise, cable should be kept apart from motor or other power cable.
- ◆ When the resin (ABS or ABS + PBT) is used to the case or the transmission surface, please be sure to avoid organic solvent or liquid containing them to splash over.
- ◆ Please install cable end "wiring part" in so that there is no water and cutting fluid.
(Water is transmitted to the internal from the cable core, there is a possibility of causing a problem such as short circuit or corrosion)
- ◆ Please do not face the output sensor to a metal at all times to avoid metal overheating or damage of the components.
- ◆ Please note that the signal may become unstable (false signal or chattering) when the transmission distance and the center offset are outside the specification range.
- ◆ The inzone signal is a preliminary signal for confirming that the output signal is established within the specification range. Please note that it does not guarantee signals output outside the specification range.

Dimension



Transmitter: **RGPT-4008-V1220 A**
RGPT-4008-V1220 B
Output Sensor: **RGPE-4008-V1220N A (NPN)**
RGPE-4008-V1220N B
RGPE-4008-V1220P A (PNP)
RGPE-4008-V1220P B

(*) Cable length: RGPT 1000mm=standard length
RGPE 2000mm=standard length
※ Selectable active surface A(front), B(top)

A006

Specification

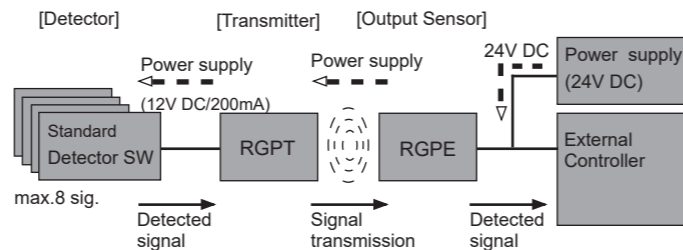
Type number	RGPT-4008-V1220 A/B	RGPE-4008-V1220N A/B RGPE-4008-V1220P A/B
Rated transmitting distance	3 ~ 8mm	
Sender off-set	≤ ± 3mm	
Drive current	≤ 200mA	
Drive voltage	DC 12 ± 1.5V	
Supply voltage	DC 24V ± 10%(incl. ripple)	
Current consumption	≤ 500mA	

- ◆ Total current consumption of detectors must not exceed the rated drive current.
Reduce the switches when the total current consumption exceeds the drive current.
- ◆ The drive current is dependent on the transmission distance between Transmitter and Output Sensor the degree of off-set between them-refer to Transmitting area diagram.

Note

Please note that the cable length of an output sensor may not longer than 10m. The CE marking verifies that our products comply with the requirements of EMC directive. The surge test to an output sensor is not carried out.
When using an output sensor with cable length longer than 10m, a measure to protect the sensor from surge current should be taken.

Construction of the system

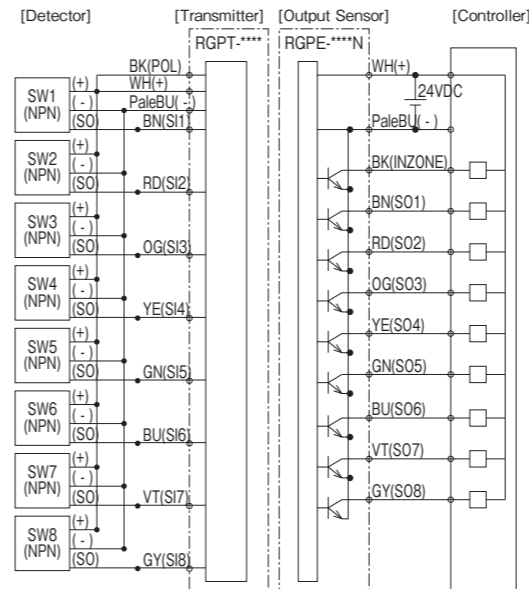


[Function of each component]

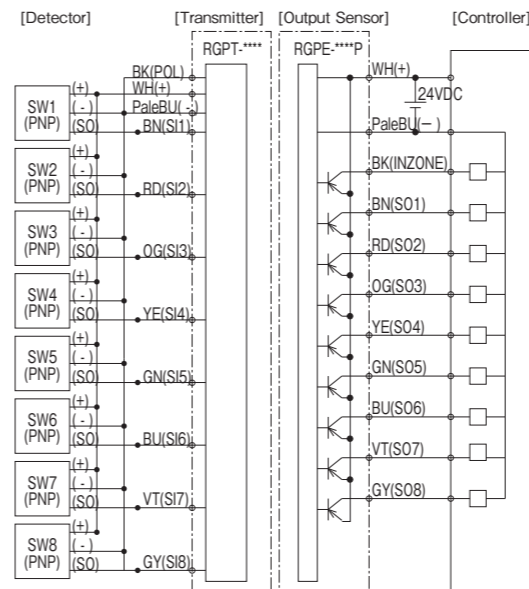
- Detector : Connects detector switches (max.8) and transmits the detected signals to Transmitter.
- Transmitter : Provides power for Detector, also passes detected signals from Detector to Output Sensor.
- Output Sensor: Puts out detected signal to external controller, also sends power for operating of Detector and Transmitter.

Wiring diagram

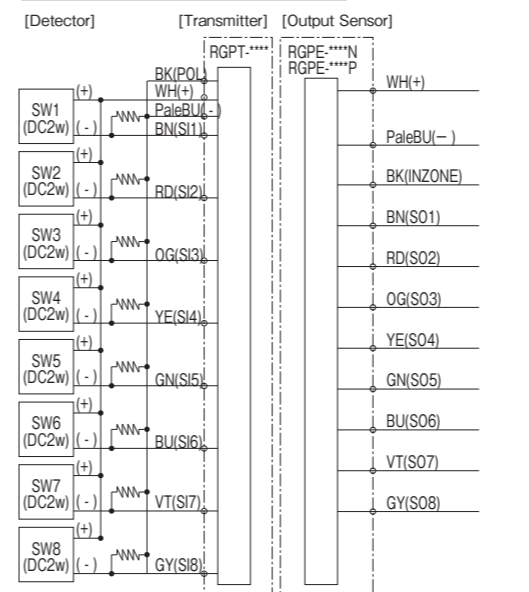
Connecting NPN type switch



Connecting PNP type switch



Connecting DC 2W type switch (incl. mechanical limit switches)

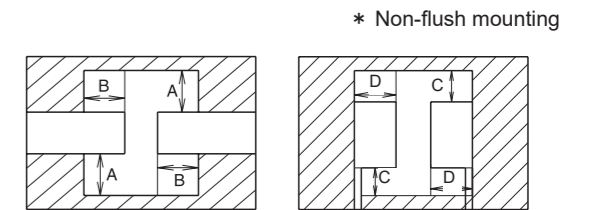


(Note)

(-) line of Transmitter and (-) line of Detectors should be connected together with a resistor of 1-2kohm.

Influence of surrounding metal

To avoid influence of surrounding metal, keep minimum spacing as described below;

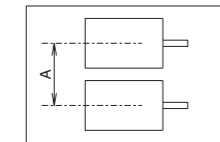


Type number	A (mm)	B (mm)	C (mm)	D (mm)
RGPT-4008-V1220 □ *	40	40	40	40
RGPE-4008-V1220 □ *				

* Active surface A (front) : A, B
Active surface B (top) : C, D

Mutual interference

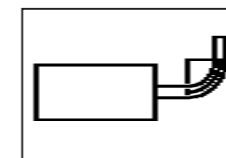
In order to prevent mutual interference between parallel-mounted sensors, keep minimum spacing as described below;



Type number	A (mm)
RGPT-4008-V1220 □	300
RGPE-4008-V1220 □ □	

Installation

The minimum bending radius for the sensors are 50mm.



* Never pull the cable strong in installing.