

Remote Sensor System
1 signal transmission / Flat type

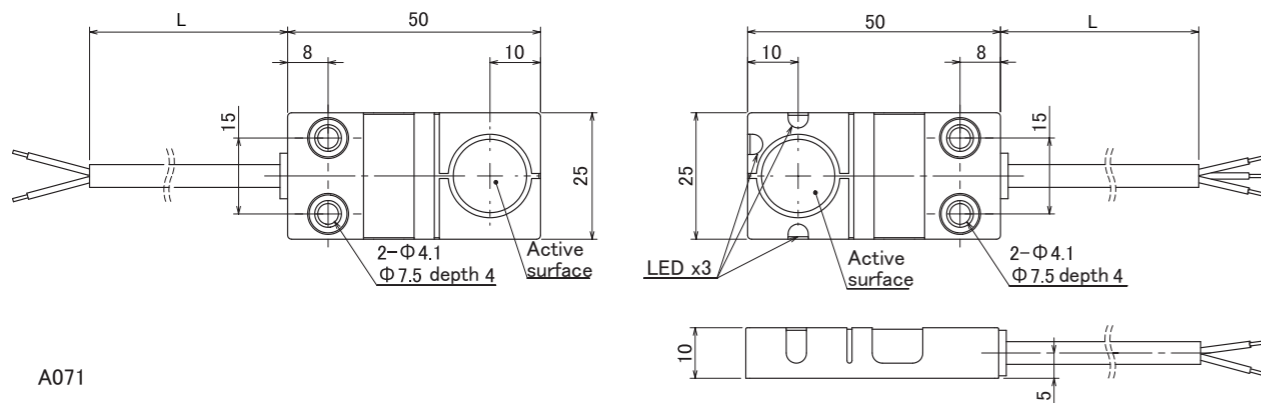
Transmitter : RPT-FOD-PU-__
Output sensor : RPE-FON-PU-__ RPE-FOP-PU-__

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.

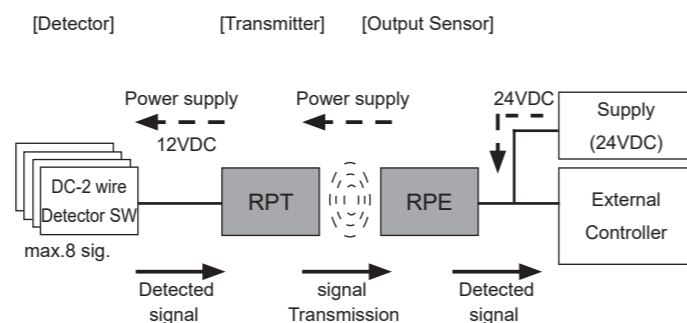
Specification



A071

Transmitter			Output sensor		
Type code	DC 2-wire	RPT-FOD-PU-__	Type code	NPN	RPE-FON-PU-__
				PNP	RPE-FOP-PU-__
Drive voltage	12V ± 1.5V DC		Supply voltage	24V DC ± 10% (incl. ripple)	
Drive current	5mA		Current consumption	≤ 70mA	
Input signal	1 signal		Output signal	1 signal	
Operating distance	0...1.5mm		Load current	max.50mA	
Center offset	± 1mm		Frequency	25Hz	
Drive current	5mA		LED indicate	Output function	
Operating temperature	0...+50°C		Operating temperature	0...+50°C	
Protection class	IP67		Protection class	IP67	
Cable	PUR / φ 4.5 , 2x0.34mm ²		Cable	PUR / φ 4.5 , 3x0.34mm ²	
Material	Housing	ABS	Material	Housing	ABS
	Back lid	Aluminum		Back lid	Aluminum
Weight	20 g + 30 g/m (Cable)		Weight	20 g + 30 g/m (Cable)	
Notes			Notes		

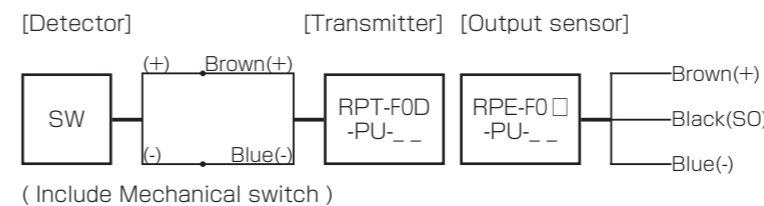
Construction of the system



【Function of each component】

- Detector** : Connects detector switch and transmits the detected signal to Transmitter.
- Transmitter** : Provides power for Detector, also passes detected signal from Detector to Output Sensor.
- Output Sensor** : Puts out detected signal to external controller, also sends power for operating of Detector and Transmitter.

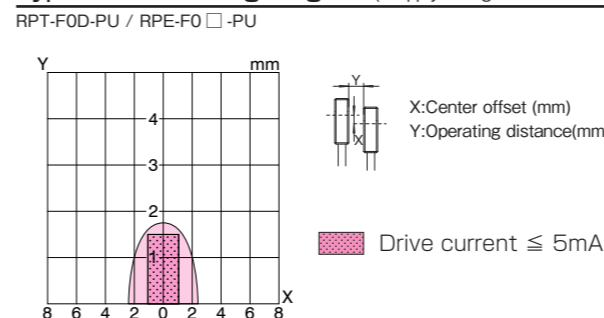
Wiring



【 Note 】

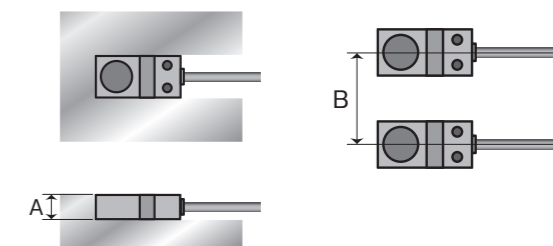
Please note that the cable length of an output sensor may not longer than 10m. The CE marking verifies that our products comply with the requirements of EMC directive. The surge test to an output sensor is not carried out. When using an output sensor with cable length longer than 10m, a measure to protect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

Typical Transmitting Diagram (Supply voltage at 24V/non-flush mount)



Influence of surrounding metal and Mutual interference

In order to avoid influence of surrounding metal, or to avoid mutual interference between parallel mounted sensors, keep the minimum space as described below.



Flush mount in metal is possible. But on the cable outlet side the free zone should be kept.

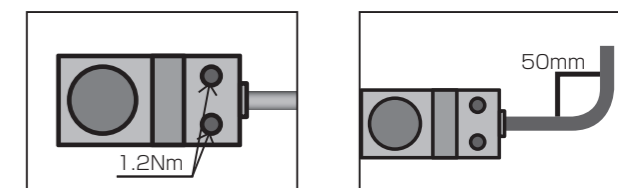
Type code	A	B
RPT-FOD-PU-__	10	100
RPE-FO□-PU-__		

mm

Mounting

It is recommended to install RPT/RPE on metal in order to reduce the influence of self-heating.

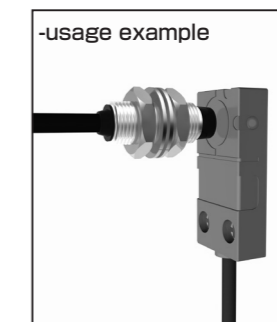
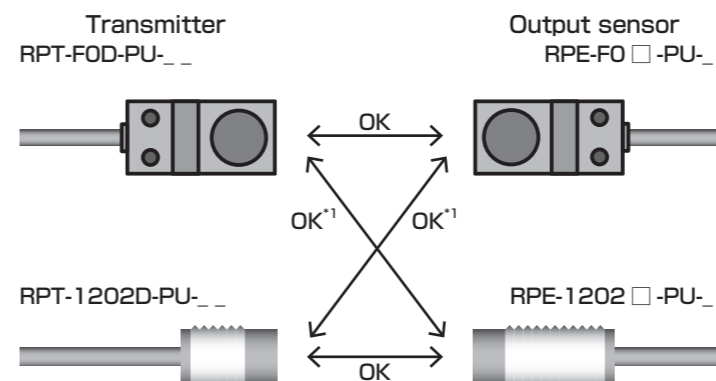
- Method of fixation: The torque of a screw(M4) is 1.2 Nm.
- Bending radius of Cable: Minimum bending radius secure bend radius more than 50mm.



* Do not pull the cable strongly.

Combination of RPE-1202□-PU and RPT-1202D-PU

This product is compatible with the M12 type (RPE-1202□-PU and RPT-1202D-PU) , it can also be used in the following combinations.



*1 When combined with M12 type and flat type, operating distance is equivalent to the flat type.

Operating distance	RPE-FO□-PU-__	RPE-1202□-PU-__
RPT-FOD-PU	0...1.5mm	0...1.5mm
RPT-1202D-PU	0...1.5mm	0...2mm