

**Remote Sensor System
1 signal transmission type**

| | |
|------------------------|--------------------|
| M12 Transmitter | : RPT-1202D-PU |
| Output Sensor | : RPE-1202N/P-PU |
| M18 Transmitter | : RPT-1804N/P/D-PU |
| Output Sensor | : RPE-1804N/P-PU |
| M30 Transmitter | : RPT-3008N/P/D-PU |
| Output Sensor | : RPE-3008N/P-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.
- ◆ 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.

Dimensions

Transmitter:
RPT-1202D-PU (for DC2W detector switch)

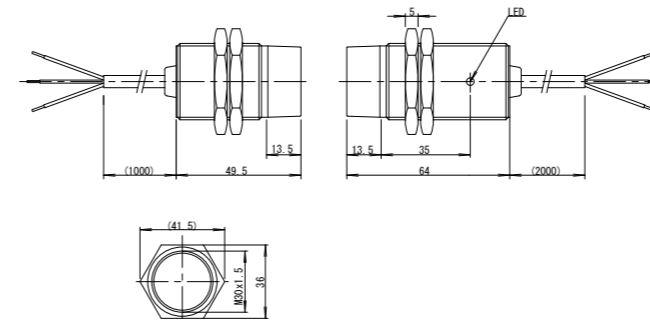
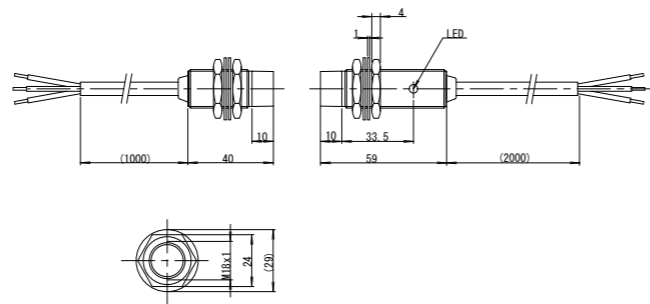
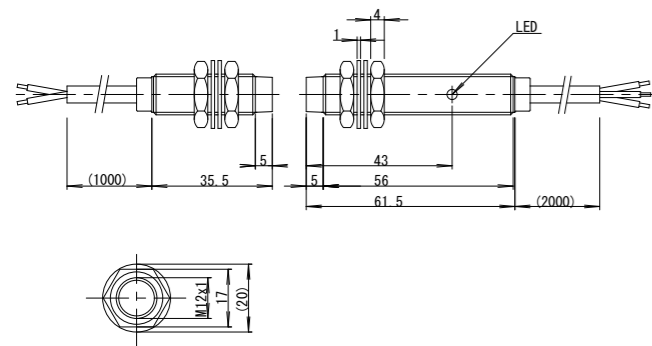
Output Sensor:
RPE-1202N-PU (NPN)
RPE-1202P-PU (PNP)

Transmitter:
RPT-1804N-PU (for NPN detector switch)
RPT-1804P-PU (for PNP detector switch)
RPT-1804D-PU (for DC2W detector switch)

Output Sensor:
RPE-1804N-PU (NPN)
RPE-1804P-PU (PNP)

Transmitter:
RPT-3008N-PU (for NPN detector switch)
RPT-3008P-PU (for PNP detector switch)
RPT-3008D-PU (for DC2W detector switch)

Output Sensor:
RPE-3008N-PU (NPN)
RPE-3008P-PU (PNP)



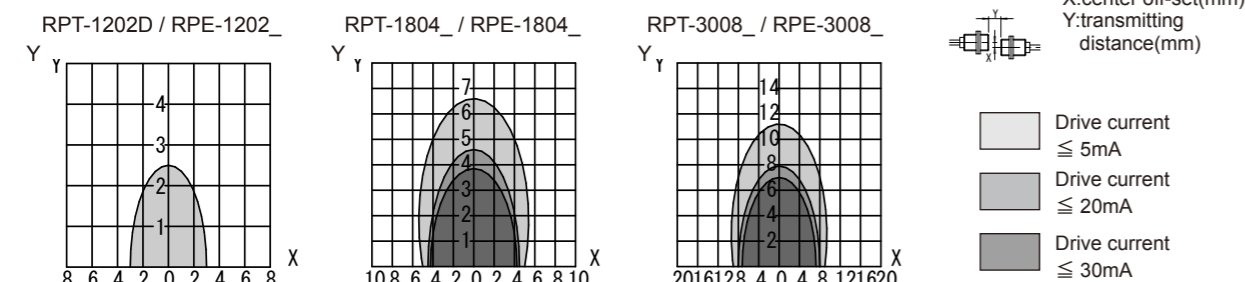
Specification

| Type number | RPT-1202D | RPE-1202N/P | RPT-1804N/P/D | RPE-1804N/P | RPT-3008N/P/D | RPE-3008N/P |
|-----------------------------|--------------|--------------------------|---------------|--------------------------|---------------|--------------------------|
| Rated transmitting distance | 0 ~ 2mm | | 0 ~ 4mm | 0 ~ 3mm | 0 ~ 2.5mm | 1 ~ 8mm |
| Sender off-set | ≤ ± 1mm | | ≤ ± 3mm | ≤ ± 2.5mm | ≤ ± 2mm | ≤ ± 5mm |
| Drive current | ≤ 5...5.6mA | | ≤ 5mA | ≤ 20mA | ≤ 30mA | ≤ 5mA |
| Drive voltage | DC 12 ± 1.5V | | DC 12 ± 1.5V | | DC 12 ± 1.5V | |
| Supply voltage | | DC24V ± 5%(incl. ripple) | | DC24V ± 5%(incl. ripple) | | DC24V ± 5%(incl. ripple) |
| Current consumption | | ≤ 150mA | | ≤ 150mA | | ≤ 150mA |

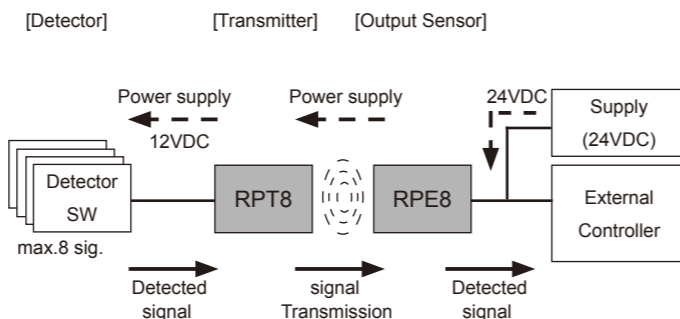
◆ The drive current is dependent on the transmission distance between Transmitter and Output Sensor the degree of off-set between them-refer to Transmitting area diagram.

Transmitting area diagram

【Example: Supply voltage at 24V DC】



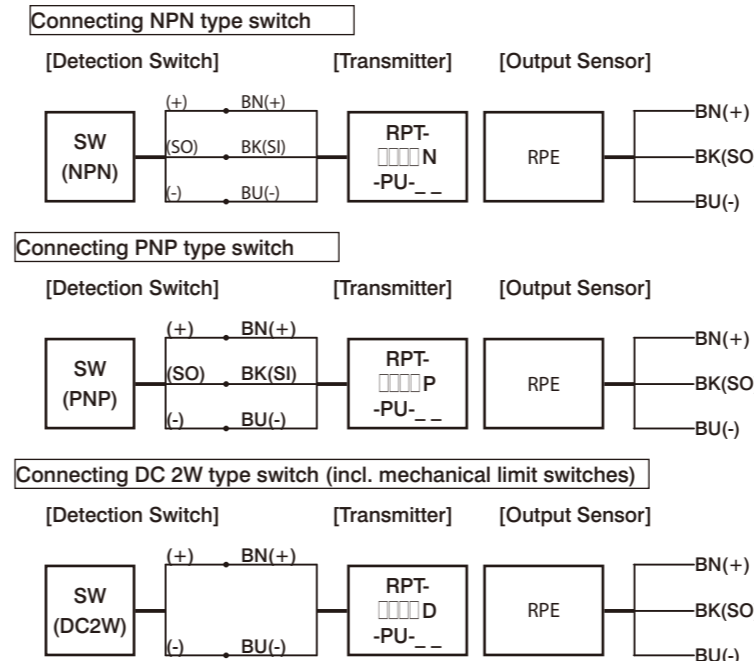
Construction of the system



【Function of each component】

- Detector** : Connects detector switch 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

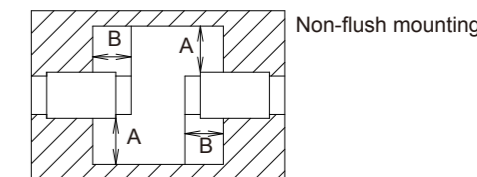


Note

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.

Influence of surrounding metal

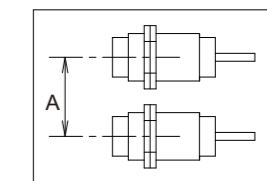
To avoid influence of surrounding metal, keep minimum spacing as described below;



| Type number | A (mm) | B (mm) |
|---------------|--------|--------|
| RPT-1202D | 12 | 12 |
| RPE-1202N/P | | |
| RPT-1804N/P/D | 20 | 15 |
| RPE-1804N/P | | |
| RPT-3008N/P/D | 30 | 20 |
| RPE-3008N/P | | |

Mutual interference

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

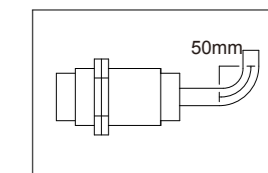
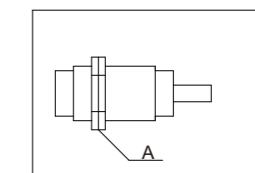


| Type number | A (mm) |
|---------------|--------|
| RPT-1202D | 100 |
| RPE-1202N/P | |
| RPT-1804N/P/D | 110 |
| RPE-1804N/P | |
| RPT-3008N/P/D | 300 |
| RPE-3008N/P | |

Installation

Tightening torque for attached nut A = M12:10Nm (100kg·f·cm) M18/M30:20Nm (200kg·f·cm)

The minimum bending radius for these sensors are 50mm.



* Never pull the cable strong in installing.