

Remote Sensor System

8 signal transmission type
 Transmitter : RPT8-1803D-PU_
 Output Sensor : RPE8-1800N-PU_
 RPE8-1800P-PU_
 8 signal transmission type/Anti-weld slag type
 Transmitter : RPT8-TF1803D-PU_
 Output Sensor : RPE8-TF1800N-PU_
 RPE8-TF1800P-PU_

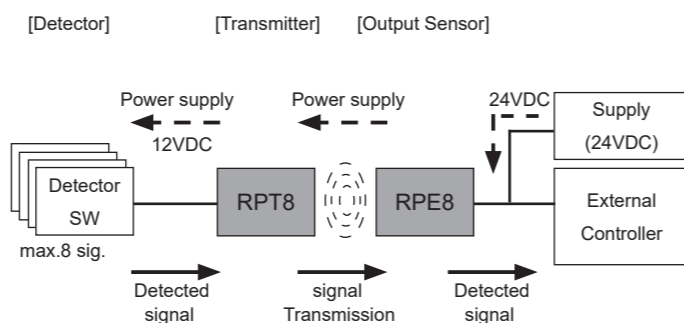
Attention for Installation

(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.

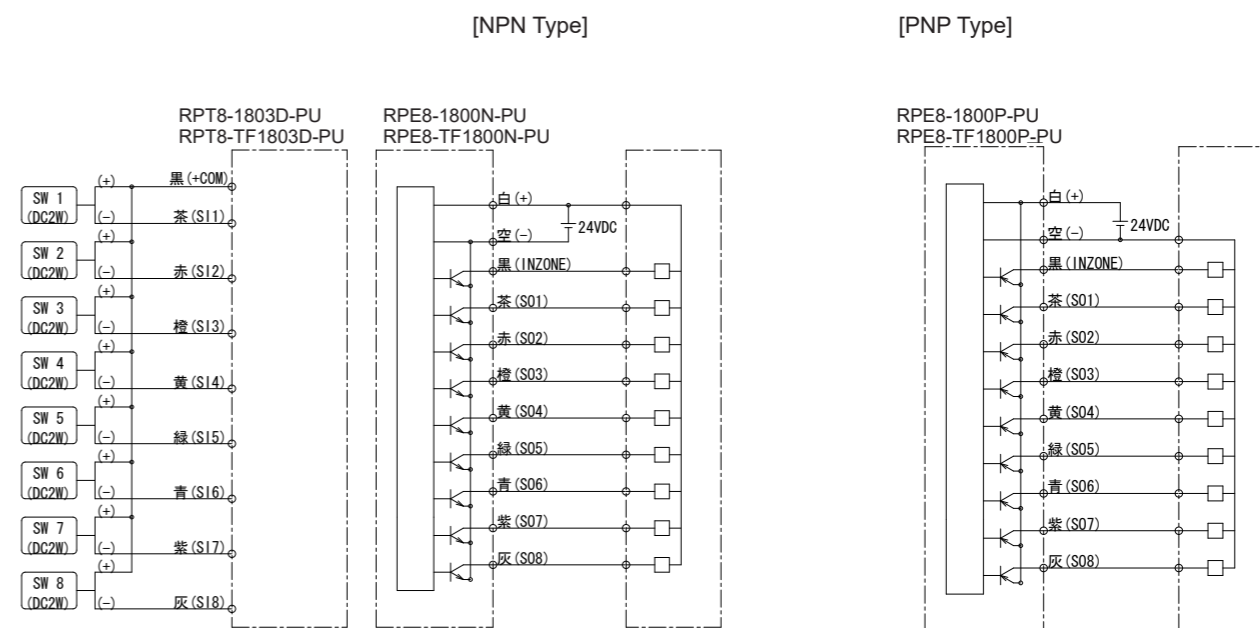
Construction of the system



【Function of each component】

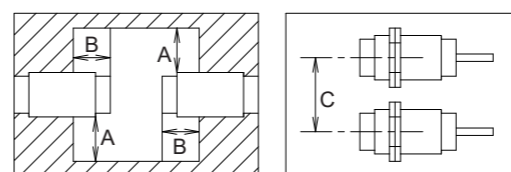
Detector : Connects detector switches (max.8) and transmits the detected signals to Transmitter.
Transmitter : Provides power for Detector, also passes detected signals from Detector to Output Sensor.
Output Sensor: Puts out detected signal to external controller, also sends power for operating of Detector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

Wiring



Influence of surrounding metal and Mutual interference

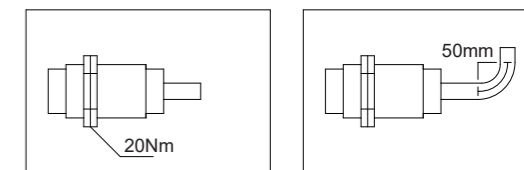
In order to avoid mutual interference between parallel-mounted sensors, or to avoid influence of surrounding metal, when sensor is mouted in metal, keep the minimum space as described below.



TYPE CODE	A (mm)	B (mm)	C (mm)
RPT8-1803D-PU_ , RPT8-TF1803D-PU_	18	18	110
RPE8-1800N/P-PU_ , RPE8-TF1800N/P-PU_			

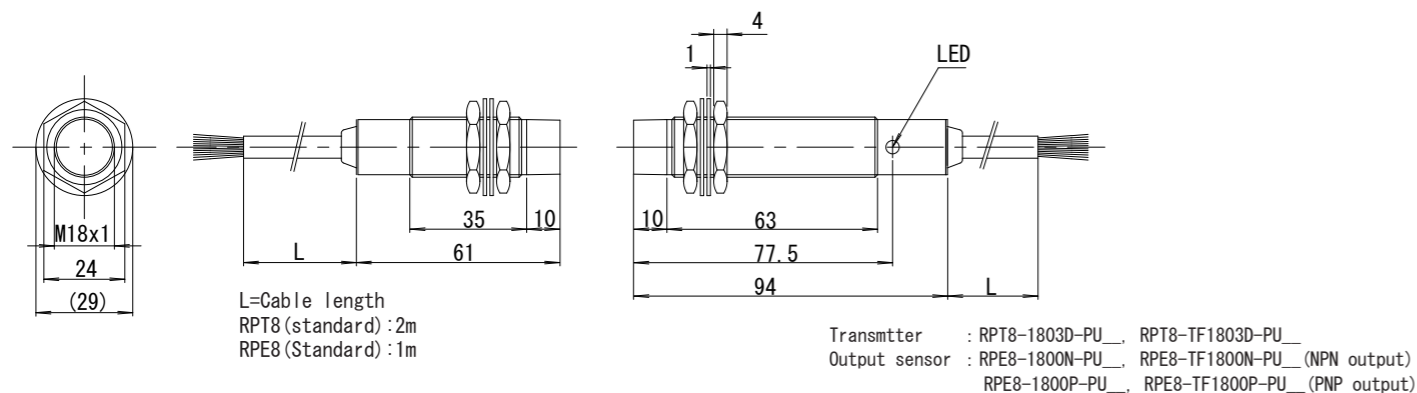
Installation

Tightening troque for attached nut is 20Nm(200kgf·cm). The minimum bending radius for the sensors are 50mm.



* Never pull the cable strongly in installing.

Dimension



Specification of Remote sensor system

Type number	Transmitter	RPT8-1803D-PU_ , RPT8-TF1803D-PU_ (テフロン仕様)	
	Output sensor	RPE8-1800 □ -PU_ , RPE8-TF1800 □ -PU_ (テフロン仕様)	
Drive voltage		12V DC ± 1.5V	
Drive current		5mA (per 1 signal)	
Transmission distance and Center offset	Transmission distance	Center offset	
		0.5...3mm	± 2.5mm
Only Output sensor	Supply voltage	24V DC ± 10% (incl. ripple)	
	Current consumption	≤ 400mA	
Material	Nomal	Case: Active surface:Nickle Plated brass, Active surface:Nylon12	
	Anti-weld slag	Case:fl uorinated resin coated brass, Active surface:fl uorinated resin	

Specification of Detectors

Where standard switches are used, the following characteristics must be maintained.

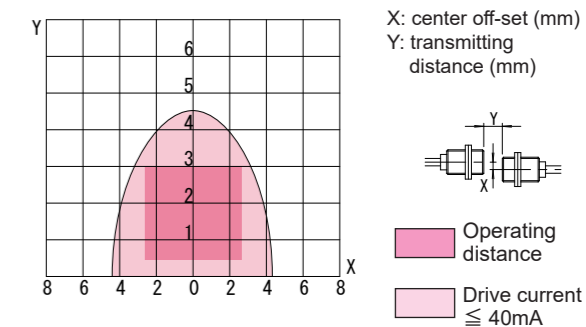
Supply voltage	12VDC	
Load current	min.	≤ 5mA
	max.	>= 20mA
Residual voltage	>= 3.5V	
Leakage current	≤ 1mA	

<NOTES>

This product is in conformity with EMC directive and indicated CE marking. Appropriate measure should be taken to avoid excessive surge when the cable length between RPE8-(TF)1800_ and a power unit is longer than 10m because it is not taken procedure to surge.

Transmitting area diagram

[Example: Supply voltage at 24V DC]



◆ 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.