Remote Sensor System
User's Guide

Remote Sensor system /Analog sugnal
Analog Sensor 1 signal transmission

Transmitter: RNT-1803-VS10-PU
Output Sensor : RNE-1803A-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.

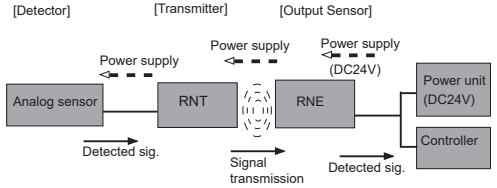
◆ Ensure the power is switched off during installation or maintenance operations.

◆ 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 exceed 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.

Construction of the system



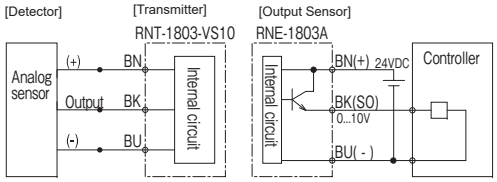
【Function of each component】

Detector :Connects an analog sensor and transmits the detected signals to the Transmitter.

Transmitter : Provides power for the Detector, also passes detected signals from the Detector to the Output Sensor.

Output Sensor: Change the detect signal to analog signal (0...10V) and output to external unit and supplies power for operation of Transmitter at the same time.

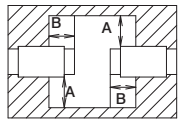
Wiring diagram



[Caution]
- Please use an analog sensor in accord with the forementioned condition as a detector.
- The cable length of RTE-1803A-PU must not exceed 10m.

Influence of surrounding metal

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

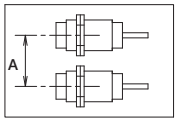


Non-flush mounting

Type number	A (mm)	B (mm)
RNT-1803-VS10-PU	20	15
RNE-1803A-PU		

Mutual interference

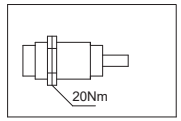
In order to prevent mutual interference between parallel-mounted sensors, keep minimum spacing as described below;



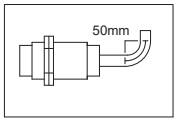
Type number	A (mm)
RNT-1803-VS10-PU	110
RNE-1803A-PU	

Installation

Tightening troque for attached nut is 20Nm(200kgf·cm).



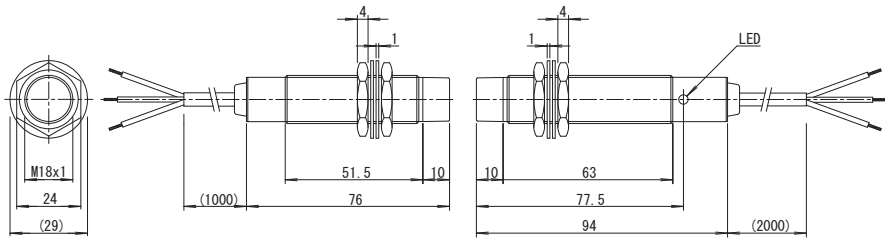
The minimum bending radius for the sensors are 50mm.



∗ Never pull the cable strongly in installing.

Dimension

Transmitter:**RNT-1803-VS10-PU-__** Output Sensor: **RNE-1803A-PU**



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Specification

Type number	RNT-1803-VS10-PU	RNE-1803A-PU
Rated transmitting distance	0 ... 2.5 mm	
Center off-set	± 2 mm	
Supply voltage	-	DC 24 V ± 5% (incl.ripple)
Current consumption	-	≦ 150 mA

Operating Temperature		0...+60 ℃
Protection class		IP67
Material	Housing	Nickel plated brass
	Active surface	Nylon12

◆ 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.

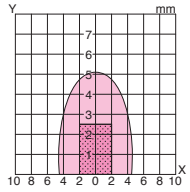
◆ The inzone signal is a preliminary signal for confirming that the output signal is established within the specification range. Please note that it does not guarantee signals output outside the specification range.

- For detector, please use analog sensor which fulfil the specifictions below.

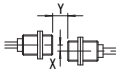
(1) Output voltage : 0 ...10 V
(2) Operating voltage : DC 16 ... 24 V
(3) Current consumption : ≦ 10 mA

Typical Transmitting Diagram

【Example: Supply voltage at 24V DC】



X:center off-set(mm)
Y:transmitting distance(mm)



Rated transmitting area

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