Remote System
User's Guide
(Former NIHON BALLUFF co., Ltd.)
http://www.b-plus-kk.jp/

Remote sensor system
4 signal transmission / Compact shape
Output sensor : RS04F1-F1-PU-_- RS04E1-F1-PU-_- Transmitter : RS04T1-F1-PU-_- 

Attention for 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-mode type.
- Simpler power supplies, such as a full-wave rectification type, will cause the permissible ripple 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 cables.
- When the resin (ABS or AAS + 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 no signal) when the distance is beyond the specification range and the center offset is outside the specification range.
- The output 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 : RS04T1-F1-PU-_- Output sensor : RS04F1-F1-PU-_- , RS04E1-F1-PU-_- 

System configuration

[Detector] [Transmitter] [Output sensor]

Power supply 12V DC / 30...60mA

Output signals (NPN) (PNP)

([ ])

Function of each component

Detector : Connects Detector sensor (max.4) 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.

Specification of the System

Type code
RS04T1-F1-PUC

Applicable sensor
DC transmitter

Drive voltage 12V ±1.5V DC

No. of Input signals 4 signals

Drive current 5mA to 65mA

Operating distance 0...35mm

Center offset 0...3mm

Protection class IP67

Cable M16 x 1.5 x 2.5mm²

Material ABS

Weight 26g (max) / 25g (min)

Total current consumption of detectors must not exceed the rated drive current. Reduce the switches when the total current consumption exceeds the drive current.

Applicable sensor

Supply voltage 12V DC

Current consumption 20mA

Residual voltage ±2.5V

Load current 0mA

Circuit protection Current protection, Surge suppression

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

RS04T1-F1-PU-_- / RS04E1-F1N-PU-_- / RS04E1-F1P-PU-_- 

LED indication

ON OFF

Lighting time of the LED is long

- (Nm)

Bending radius of Cable

The minimum bending radius for the sensors are 50mm.

Never pull the cable strongly installing.

Installation notes

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

Tightening torque ⇒ 0.63N·m

Inzone LED (Orange)

RS04E and RS04T are opposed, LED is lit when you can communicate.

[Detector] [Transmitter] [Output sensor] [PLC]