Remote System
User's Guide

Remote Sensor System
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Power Remote Sensor
RP Series 2 signal transmission type
M18 Transmitter: RPT2-1804D-PU
Output Sensor: RPE2-1804N / P-PU
M30 Transmitter: RPT2-3005D-PU
Output Sensor: RPE2-3005N / 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 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.
Please note that the signal becomes 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 sensor puts out detected signal to external controller, also sends power for operating of Detector and Transmitter.
Ensure correct connections by reference to the wiring diagram.

Construction of the system

Wiring diagram

Connecting DC2W type switch
(Excl. mechanical limit switch)

【(Function of each component)】

Detector : Connects DC2W or mechanical limit switches (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.

Transmitting area diagram

【Example: Supply voltage at 24V DC】

Sending power to the sensor with 24V DC (max. ripple 10%)
Typical transmittion distance

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

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

Installation
Tightening torque for attached nut is 20Nm(200kgf·cm).
The minimum bending radius for the sensor is 50mm.

<table>
<thead>
<tr>
<th>Type number</th>
<th>A (mm)</th>
<th>B (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPT2-1804D</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>RPT2-3005D</td>
<td></td>
<td>300</td>
</tr>
</tbody>
</table>

Specifications

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Type number</td>
<td>RPT2-1804D</td>
<td>Type number</td>
<td>RPT2-3005D</td>
</tr>
<tr>
<td>Rated transmitting distance</td>
<td>0.5 ~ 450mm</td>
<td>Rated transmitting distance</td>
<td>0.5 ~ 300mm</td>
</tr>
<tr>
<td>Center offset</td>
<td>≤ 2.5mm</td>
<td>Center offset</td>
<td>≤ 5mm</td>
</tr>
<tr>
<td>Drive current</td>
<td>0.0 ~ 8.5mA (per switch)</td>
<td>Drive current</td>
<td>0.0 ~ 8.5mA (per switch)</td>
</tr>
<tr>
<td>Drive voltage</td>
<td>12 ± 1.5V DC</td>
<td>Drive voltage</td>
<td>12 ± 1.5V DC</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>24V DC ± 10% (incl. ripple)</td>
<td>Supply voltage</td>
<td>24V DC ± 10% (incl. ripple)</td>
</tr>
<tr>
<td>Current consumption</td>
<td>≤ 10mA</td>
<td>Current consumption</td>
<td>≤ 10mA</td>
</tr>
</tbody>
</table>

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