### Remote Sensor System / Analog signal

Thermocouple / 2 signal transmission

Transmitter: RS02T-018-J___ (type-J)
RS02T-018-K___ (type-K)

Output Sensor: RS02E-018E-PU

### Construction of the system

[Diagram showing the construction of the system with labels for Detector, Transmitter, and Output Sensor]

### Function of each component

Detector: A thermocouple type J or K is used as a detector and it detects the temperature.

Transmitter: (1) Detects the voltage of thermocouples which changes depending on temperature.

(2) The internal CPU converts the temperature data of (1) into digital signals and transmits the signals to the Output Sensor.

Output Sensor: Change the temperature data to analog signal (4...20mA) and output to external unit and supplies power for operation of Transmitter at the same time.

### Power supply

24V DC +/- 5% (including ripple)

### LED

<= 150 mA

### Dimensions

Transmitter: RS02T-018-J
RS02T-018-K

Output Sensor: RS02E-018E-PU

### Specification

<table>
<thead>
<tr>
<th>Type code</th>
<th>Output Sensor</th>
<th>Table number</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS02T-018-J___</td>
<td>RS02E-018E-PU__</td>
<td>___</td>
</tr>
<tr>
<td>RS02T-018-K___</td>
<td>RS02E-018E-PU__</td>
<td>___</td>
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</table>

### Rated transmitting distance

1 mm - 4 mm

### Center off-set

+/- 2.5 mm

### Cable

Compensation lead wire, outer diameter 3.2 x 5.1 mm 2 conductor, phi 0.9 mm

R502T-018-J: outer sheath color Yellow UK/G-T/0.3x2.5
R502T-018-K: outer sheath color Blue/VG-T/0.3x2.5

### Technical data

#### Output 4...20 mA × 2 ch (current source)

- Load resistance <= 400 Ohm
- Response speed <= 0.5 sec.
- Linearity <= +/- 0.15 % full scale range
- Cable: PUR, PTFE mm/00,25 mm

#### Compensated cold junction

+/- 0.5 deg. C

### Applicable Transmitter

- For thermocouple J: RS02T-018-J
- For thermocouple K: RS02T-018-K

### Applicable Output sensor

- RS02E-018E-PU__
- ___ stands for cable length

### Operating Temperature

0...+80 degree C

### Protection class

IP67

### Connection

- For a detector, please use a thermocouple J or K that meets JIS.
- The measurement temperature should be lower than the upper limit of the temperature shown at the code end.

### Mutual interference

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

#### Type number

A (mm)  B (mm)

<table>
<thead>
<tr>
<th>Type number</th>
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<th>B (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS02T-018-J</td>
<td>110</td>
<td>20</td>
</tr>
<tr>
<td>RS02T-018-E</td>
<td>110</td>
<td>15</td>
</tr>
</tbody>
</table>

### Installation

#### Tightening torque for attached nut

- 20Nm (20kgf cm)

#### The minimum bending radius for Output sensor is 50mm.

### Influence of surrounding metal

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

#### Type number

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