**Safety Considerations**

Please read carefully before using and full attention to Safety Considerations. (See the attached T31853)

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**Dimension**

**Type code**

<table>
<thead>
<tr>
<th>Type code</th>
<th>RS08T-L01-PU-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable sensor</td>
<td>DC 3-wire sensor</td>
</tr>
<tr>
<td>Drive voltage</td>
<td>12V ± 1.5V DC</td>
</tr>
<tr>
<td>Drive current</td>
<td>500mA ± 15mA</td>
</tr>
<tr>
<td>No. of input signals</td>
<td>8 signals</td>
</tr>
<tr>
<td>Operating distance</td>
<td>0~6mm</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20°C~80°C</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP67</td>
</tr>
<tr>
<td>Cable material</td>
<td>UL flame retardant</td>
</tr>
<tr>
<td>Weight</td>
<td>165g+75g</td>
</tr>
</tbody>
</table>

**Applicable sensor**

| Supply voltage | 12V DC ± 15V |
| Residual current | ≤ 3mA |

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**System configuration**

*Function of each component*

- **Detector**: Connects Detector sensor (DC 3 wire or Mechanical switch) and transmits the detected signals to Transmitter.
- **Transmitter**: Provides power for Detector, also passes detected signals from Detector to Output Sensor.
- **Output Sensor**: The side to connect the control equipment and power supply called the "master". The side to be connected to the "slave".

**Wiring diagram**

*RS08T-L01-PU-__ (NPB)*

*RS08E-L02P-PU-__ (PNP)*

**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.

**Surrounding metal**

The minimum bending radius for the sensors is 50mm.

**Parallel installation**

Please do not set another output sensor within 150 mm (all directions in [3D] from the output sensor.

Also, there can be only one transmitter in the destination area.

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**Installation notes**

- Please make sure there is no metal around output sensor according to the above, and install the transmitter so that it will be attached after satisfying the area on the above after moving.
- Besides of the brackets and screws.

**Bending radius of Cable**

The minimum bending radius for the sensors is 50mm.

**Typical Transmitting Diagram**

- Never put the cable strength installing

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**Wireless Power Supply by**

B & PLUS K.K.

**Wireless Power Supply by**

B & PLUS K.K.

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**Wireless Power Supply by**

B & PLUS K.K.

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**Wireless Power Supply by**

B & PLUS K.K.
Safety Considerations

Please read carefully before using and full attention to Safety Considerations. Incorrect handling may cause not only malfunction or failure, leading to an accident or injury. Also in order to prevent damage or injury, please look after.

- **Precaution regarding architectonic**
  - Remote sensor series are a system, which supplies/transmits power/signals wirelessly. Please do not use the system except for this purposes.
  - The processor must be operated only using approved power supplies. There can be a risk of fire or heat generation exceeds the rated voltage when power is being supplied.
  - The processor must be operated only using approved power supplies. Incorrectly connected wiring may cause malfunction or unexpected problems.
  - Please install an apparatus in the standard setting of the products. Transmission distance, Axis gap, drive voltage, drive electric current set of this product, and, please install an apparatus according to ambient temperature, surrounding metal (the side, facing side) mutual interference. It can cause degradation to the internal part and cause malfunction.
  - Even if the abnormality of power supply and this product break down, please design the system so that the whole system acts on the safe side.

- **Surrounding metal**
  - Be sure to observe the following in order to prevent equipment damage due to the presence of metal.
  - Please turn on the power after installing the output sensor not to face the metal. By heating the metal, damage of inside element can be caused.
  - When power is turned on while cutting chips or pieces of metal exist on the transmission surface, the head and the metal piece heats up and this may cause for unexpected accidents or damage to the equipment. Please be sure to run the system after removing metal chips and slugs from transmission surface.
  - Do not put your hands or metal objects between the coils during operation. There and heat generated by induction heating, the potential to catch fire.
  - Make sure to keep minimum spacing, when installing, in order to avoid influence with the surrounding metal, have space indicates on the manual.

- **Cable**
  - Please observe the bending radius when wiring the cable. Bending the cables may damage the cable. To prevent damage to the cable, please install so that the cable exits are straight (approx 10mm).
  - Please secure bend radius determined by an instruction manual or User's Guide. Never pull the cable strongly.
  - Specifications subject to change without notice. If there is a point of notice about the contents of this document, feel free to contact us, thank you.

- **Power and the wiring**
  - If you want to support the installation, maintenance, and failure, please work after confirming that the main circuit breaker (power board) is always on when working with hot-state, there is a potential for electric shock.
  - Please observe proper procedure to street work. Improper installation can cause malfunction or an electrical shock, or the cause of the fire.
  - Use a regulated power supply, e.g. Switch-model type. (Simpler power supplies, such as a full-wave rectification type, will cause the permissible current to be exceeded and may cause malfunction.)
  - When wiring the power supply or signal lines, please follow the chapter contains the manual, and wire all connection properly. Incorrectly connected wiring may cause malfunction, unexpected problems.
  - To avoid malfunction caused by induction noise, cable should be kept apart from motor or other cables.
  - Transmission range
    - When the unit keeps to be using under out-of-satisfaction transmission distance/center offset/overload status for long time, it may be damaged or overheating.
    - The in zone signal becomes the spare signal for the transmission distance when an output signal establishes in the use in the specifications range.
    - Please be careful that it is not guarantee the signals without of specifications.
    - Please note that when transmission distance and the axis gap is out of range specifications, it can become unstable in a signal (a false signal and chattering)
    - Please note that when using remote coupler system, out of range specifications can cause unstable in a signal (a false signal and chattering)
    - Facilities operation can be influenced by chattering. When influenced by chattering, remote part/base part is in the range, add a relay between power supply wiring from outside control equipment to base region in the domain specifications range, and turn on or off the power.

- **Installation**
  - A detection sensor to connect and the drive unit, please use a thing working definitely in a voltage reading range prescribed to the drive voltage.
  - The total current consumption of connecting sensor and driving units must not exceed the value of Drive current.
  - The drive current is affected by transmission distance and center offset.
  - When using a mechanical switch please use the micro-load type without LED.
  - Please make sure to consider the self-fever of this product and have the ambient temperature be below the service temperature.
  - It is recommended to install on metal in order to reduce the influence of self-heating. When installed in a place such as not all heater or direct sunlight directly, it could cause a malfunction or fire.
  - Please follow the apparatus specifications, and have the head, opposed correctly.
  - Careful installation and handling, it may generate when starting a system. And please have them set up accordingly. For certain items we also have products to prevent innush current.

- **About cable**
  - Make sure to install so that the end (wiring part) of the cable will not get water on it. (Water can handed down to the main body from the cable core line and may lead to malfunction such as a short circuit or the corrosion.)
  - When wiring the cable bending radius, please install so that the cable exits are straight (approx 10mm).
  - Please be careful that it is not guarantee the signals without of specifications.

- **Others**
  - There will be a rise time to supply appointed electricity. After confirming in zone signal and then base part and a remote part faces each other. Please check the specification manual or the user's guide about the boot-time. If there is no boot-time mentioned, boot-time for remote sensor system is 0.2Sec.
  - Please don't resolution remodeling or modify the product. Failure to do so may result in fire, electric shock or malfunction. In addition, there is a risk that can lead to serious injury.
  - When I perform the resolution remodeling, a guarantee may not be received.
  - Smoke, or in the case of such an abnormal state when abnormal noise or offensive smell is, please stop using it immediately. The malfunction or electric shock, the cause of the fire.
  - If you want to dispose of this product, you will be disposed of as industrial waste.
  - Always, use the specified parts and accessories. It can cause the malfunction or accident or the cause of the fire.
  - With the product mounted with a cooling fan, please prevent from blocking the fan. Heat build inside and cause malfunction or fire.
  - While working or immediately after operation, please do not touch the (power supply unit, charging Unit, Head part) hot spots. It can cause the burn.
  - Specifications subject to change without notice. If there is a point of notice about the contents of this document, feel free to contact us, thank you.

[Precaution for product of the charge type]

- The product of the charge type becomes the product for 12VDC battery, 24VDC battery and appointed lithium-ion batteries.
  - It cannot be used other than charging battery and battery appointed with each product. The malfunction or cause of the fire.
  - Because the voltage that is higher than battery is applied at the time of the charge, please make sure to check the voltage range of an apparatus connected to battery or appropriate voltage license, please prepare converters.
  - The charge time of the battery varies according to a consumption electric current and the charge time of the use apparatus. Please choose the most suitable product. Please contact for simple simulation requests.
  - Because the prescribed charge voltage and charge condition vary according to each battery, the Lithium ion battery cannot take responsibility to any other than our recommendation battery.