Balluff/Remote system is an original connection system that supplies power and transmits signals inductively through air gap. Remote Link System designed to operate many detector switches and actuators by constructing link system of input and output.

Supply Power \((24\text{VDC}/2\text{A})\) & Transmit Signal \((64 \text{ detection signal} + 32 \text{ control signal})\)

Up to 32 detection signal can be connected to Remote Amplifier.
Base Amplifier available for Parallel I/O and DeviceNet.

By linking external units to Remote Amplifier,
Input unit: 8units x detecting 8 switches each
Output unit: 8units x driving 4 signals each
can be connected.

DeviceNet Base Amplifier

Description

Balluff/Remote system is an original connection system that supplies power and transmits signals inductively through air gap. Remote Link System designed to operate many detector switches and actuators by constructing link system of input and output.
# Remote Link System

## Description

### System configuration and functions

<table>
<thead>
<tr>
<th>Expanded Unit</th>
<th>Remote</th>
<th>Fixed side</th>
<th>Controller</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moving side</strong></td>
<td><strong>Base</strong></td>
<td><strong>Controller</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Remote</strong></td>
<td><strong>Head</strong></td>
<td><strong>Amplifier</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Input Unit</strong></td>
<td>RL64T-344N/P-000</td>
<td><strong>Pararel I/O type</strong></td>
<td></td>
</tr>
<tr>
<td>(max. 8 are connectable)</td>
<td>RL64T-345N/P-000</td>
<td><strong>DeviceNet type</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Output Unit</strong></td>
<td>RCH08T-211-PU</td>
<td>RCH08E-211-PU</td>
<td></td>
</tr>
<tr>
<td>(max. 4 are connectable)</td>
<td>RCH08T-211-PU</td>
<td>RCH08E-211-PU</td>
<td></td>
</tr>
<tr>
<td><strong>Remote part</strong></td>
<td><strong>Base part</strong></td>
<td><strong>Controller</strong></td>
<td></td>
</tr>
<tr>
<td>Remote Head/ Remote Amplifier</td>
<td>Base Head/ Base Amplifier</td>
<td><strong>DeviceNet type</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Remote part**

Remote Head/ Remote Amplifier

Receives power from the Base Unit and supplies power to connected detection switch or Input/Output unit and transmits Input/Output signals. Up to 32 detection switches can be connected.

**Input Unit**

Supply power to detection switches and transmits detecting signals to Remote amplifier. Max. 8 signals can be connected. Up to 4 units per 1 system can link to.

**Output Unit**

Operates connected driving units such as solenoid valve or small motor. Max. 4 signals can be connected. Up to 8 units per 1 system can be linked.

### Application

**Application**

24 proximity switches can confirm the various workpiece positions which are different according to their shapes before 4 clamps operate. Simultaneously supply 24VDC/2A, and transmit 32 detecting signals (proximity switches + 8 cylinder switches) and 4 control signals (solenoid valve).

**Advantage**

With using many proximity switches, various shapes of workpieces can be manufactured on one pallet.
**Remote Head / Base Head**

Transmit signals: 64 + 32

---

**Type code**

<table>
<thead>
<tr>
<th>Remote part</th>
<th>Base part</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCH08T-211-PU-01</td>
<td>RCH08E-211-PU-02</td>
</tr>
</tbody>
</table>

**Housing Remote part**

- L90xW90xH45

**Housing Base part**

- L90xW90xH45

**Dimensions N O.**

- L001

**Form**

- 90x90

**Transmission distance**

- (non-flush)
  - 4...9mm

**Drive Voltage**

- 24VDC +/- 1.5V

**Drive Current**

- max. 2A

---

**Specification (Base)**

**Supply Voltage**

- 24VDC +/- 5%

**Current consumption**

- <= 4A

**LED**

- Non

---

**Specification (Remote and Base)**

- Material: Case - Aluminum + Alumite-treated
  - Operating Surface - ABS + PBT
  - Cable - PUR, Phi 7.6, 4x0.75mm²/Shield
  - Operating temperature - 0...+50 deg. C
  - Protection class - IP67

---

**Drive Current**

* The sum current consumption of detecting switches and driving units with Remote Amplifier (70mA) + Input Unit (40mA) + Output Unit (40mA) should not exceed the drive current.

---

**Cable length**

To order special cable length, replace length in meters at the end of the type code.

(ex)

RCH08E-211-PU-03 = cable length 3m

---

**Transmitting area diagram**

[Supply Voltage: 24V DC]

RCH08...-211-PU...

---

X: Center offset (mm)  
Y: Transmission distance (mm)
**Remote Link System Specification**

**Remote Amplifier**

<table>
<thead>
<tr>
<th>Type Code</th>
<th>NPN</th>
<th>PNP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RL64T-344N-000</td>
<td>RL64T-344P-000</td>
</tr>
</tbody>
</table>

**Applicable Base Amplifier**

<table>
<thead>
<tr>
<th></th>
<th>RL64E-333-000</th>
<th>RL64EA-355DN-000</th>
</tr>
</thead>
</table>

**Housing size**

<table>
<thead>
<tr>
<th></th>
<th>Pin terminals: L140 x W85 x H54.3</th>
<th>Ring terminals: L200 x W85 x H67.8</th>
</tr>
</thead>
</table>

**Dimensions No.**

<table>
<thead>
<tr>
<th></th>
<th>Pin terminals: L-D003</th>
<th>Ring terminals: L-D004</th>
</tr>
</thead>
</table>

**Specification**

<table>
<thead>
<tr>
<th></th>
<th>Current consumption =&lt;70mA</th>
<th>Operating temperature 0 ... +50 degree C</th>
</tr>
</thead>
</table>

**LED**

- READY (Yellow)

**Material**

- Case: SPCC-CD

**Connection**

- Head
- Link* Connection: 4P x 2
- Detecting switch: 3P x 32

* 4 conductor insulation displacement connectors are used to connect the Remote Link Input/Output units. Outside diameter of the conductor jacket should be between 1.35 and 1.6mm.
**Base Amplifier**

**DeviceNet**

- **Type Code**: RL64EA-355DN-000
- **Housing size**: L35xW100xH174
- **Dimension No.**: L-D009
- **Applicable Remote Amplifier**: RL64T-344_-000, RL64T-345_-000

**Input/Output**

- **Communication Function**: Remote I/O (Poll)
- **Baud rate**: 500k/250k/125k Baud (set by dip SW)
- **Node address**: 0...63 (set by rotary SW)
- **Input**: 64 signals + Ready signal 1 (9byte), 32 signals (4byte)

**Specification**

- **Supply Voltage**: 24VDC +/- 5%
- **Current Consumption**: <=150mA
- **LED**: MS: Red/Green, NS: Red/Green, READY: Yellow
- **Case Material**: SPCC-SD
- **Connection Power**: Terminal block : 2P x 1
- **Head**: Terminal block : 5P x 1
- **Connector**: Open connector *
- **Operating temperature**: 0...+50 degree C

---

**Remote Amplifier**

- **Type Code**: RL64EA-355DN-000
- **Housing size**: L35xW100xH174
- **Dimension No.**: L-D009
- **Applicable Remote Amplifier**: RL64T-344_-000, RL64T-345_-000

**Input/Output**

- **Communication Function**: Remote I/O (Poll)
- **Baud rate**: 500k/250k/125k Baud (set by dip SW)
- **Node address**: 0...63 (set by rotary SW)
- **Input**: 64 signals + Ready signal 1 (9byte), 32 signals (4byte)

**Specification**

- **Supply Voltage**: 24VDC +/- 5%
- **Current Consumption**: <=150mA
- **LED**: MS: Red/Green, NS: Red/Green, READY: Yellow
- **Case Material**: SPCC-SD
- **Connection Power**: Terminal block : 2P x 1
- **Head**: Terminal block : 5P x 1
- **Connector**: Open connector *
- **Operating temperature**: 0...+50 degree C

*The connector is attached in Base Amplifier package.*
## Remote Link System Specification

### Input/Output Unit

<table>
<thead>
<tr>
<th>Type Number</th>
<th>Input Unit</th>
<th>Output Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NPN</td>
<td>PNP</td>
</tr>
<tr>
<td>RLX08-322N</td>
<td>RLX08-322P</td>
<td></td>
</tr>
<tr>
<td>RLX08-322P</td>
<td>RLX08-322N</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions No.</th>
<th>L132xD74xH38.5</th>
<th>L132xD74xH38.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-D007</td>
<td>L-D008</td>
<td></td>
</tr>
</tbody>
</table>

### Input/Output

#### Input
- **Logic**: NPN or PNP
- **Signals**: 8 signals
- **Load current**: 7mA per 1 input

#### Output
- **Logic**: NPN or PNP
- **Signals**: 5 signals (data 4 + data valid1)
- **Load current**: max. 200mA per 1 output

### Specification
- **Current consumption**: <40mA
- **Frequency of operation**: 20Hz
- **LED**: Ready (Yellow)
- **Material**: SPCC-CD
- **Connector**: e-con, 4Px2
- **Driving unit**: Terminal block: 3P x 8
- **Operating temperature**: 0...+50 deg. C

### Operating temperature

- 4 conductor insulation displacement connectors are used to connect the Remote Link Input/Output units.
- Outside diameter of the conductor jacket should be between 1.35 and 1.6mm.
Remote Link System Specification

### Remote Head/ Base Head

**RCH08T-211-PU-01**  
**RCH08E-211-PU-02**

**Notes for installation**

**Installation in metal**

When the Heads are mounted in metal, keep minimum spacing as described below in order to avoid influence of surrounding metal.

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCH08T-....</td>
<td>50</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>RCH08E-....</td>
<td>45</td>
<td></td>
<td>45</td>
</tr>
</tbody>
</table>

**Mutual interference of the Head**

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

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCH08-.... to</td>
<td>300</td>
</tr>
</tbody>
</table>

**Cable (mm)/ Material**

RCH088 φ 7.6 4x0.75mm² / PUR Shield

---

### Remote Amplifier

**RL64T-344N-000**  
**RL64T-344P-000**

**RL64T-345N-000**  
**RL64T-345P-000**

**Notes for installation**

**Installation in metal**

When the Amplifiers are mounted in metal, keep minimum spacing as described below in order to avoid influence of surrounding metal.

**Mutual interference of the Amplifier**

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

**Type**

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL64-.... to</td>
<td>300</td>
</tr>
</tbody>
</table>
Base Amplifier

Specifications are subject to change without notice.

B & PLUS K.K.
(Former NIHON BALLUFF Co., LTD.)
274 Gomyo Tokigawa-machi Hiki-gun
Saitama JAPAN

http://www.b-plus-kk.jp
E-mail : b-plus@b-plus-kk.jp