# Wireless power supply 24V1A

## Wireless signal transmission

**4** input signals
**+**
**4** output signals

Remote part : RC04T-422_-PU-01
Base part : RC04E-422_-PU-02

Built-in Amplifier

Power supply 24V/1A

25mm

45mm

**Coming soon!**

**330% power up** compered with our product
**High power**

**86% size down** compered with our product
**Compact**

90mm
90mm
24V300mA

Signal transmission
4 input signals
4 output signal

4 input signals
4 output signals

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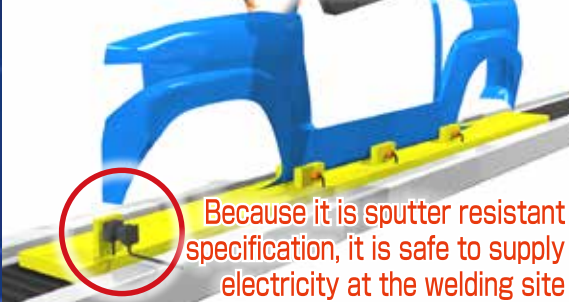## New line-up for selectable compact series!
# Interactive signal transmission

The smallest! W45mm D25mm

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Wireless power supply and signal transmission to the proximity sensor for work confirming
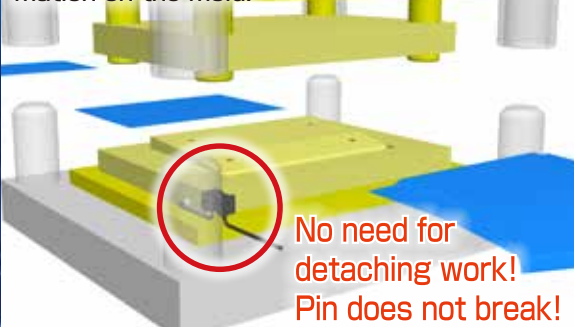
No contamination caused by probe sticking

Wireless power supply and signal transmission to the proximity sensor for seating confirmation of welding pallet.
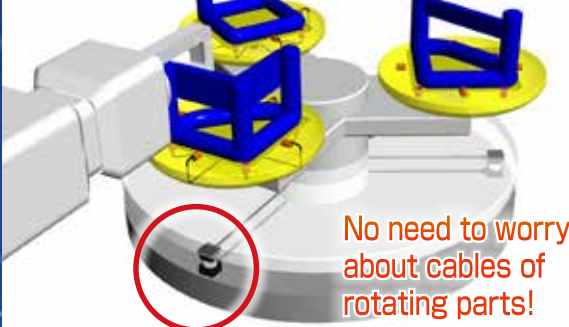
Because it is sputter resistant specification, it is safe to supply electricity at the welding site

Wireless power supply and signal transmission to the proximity sensor for work confirmation on the mold.

No need for detaching work! Pin does not break!

Wireless power supply and signal transmission to the proximity sensor for work confirmation on the turntable!
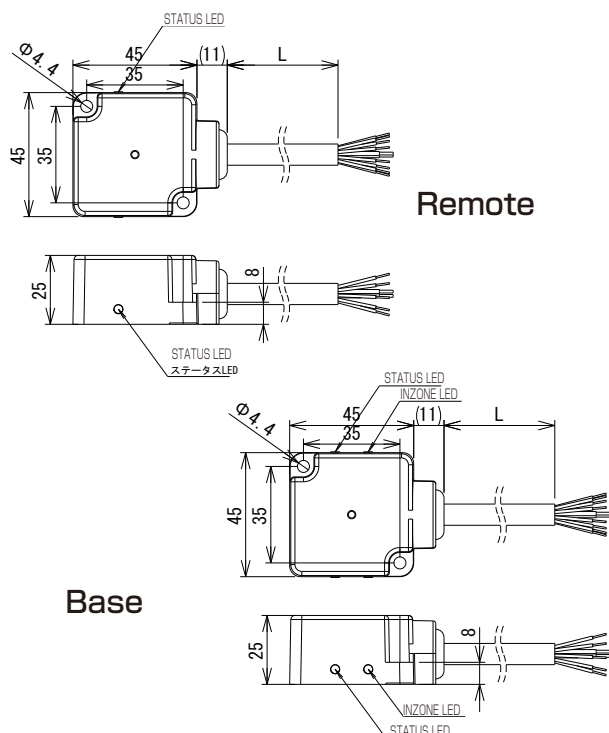
No need to worry about cables of rotating parts!

## Compact type remote system　〜　Various lineups　〜

| Type name | applicable sensor/signal type | size | voltage/current | operation distance/center offset | frequency of operation | short circuit protection | converse protection | overheat protection | overcurrent protection | protection on facing metal | output surge suppresion |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RC04T-422_-PU-01<br>RC04E-422_-PU-02 | for DC3W sensor /Input4+Output 4 | H45xW45xD25mm | 24V/1A | 0〜3mm / max.4mm | 300Hz | ● | ● | ● | ● | ● | ● |
| RCD55T-422-CP0.3<br>RCD55E-422-CP0.3 | for DC3W sensor /IO-Link 2ch | H45xW45xD25mm | 24V/1A | 0〜3mm / max.4mm | -- | | ● | ● | ● | ● | |
| RS12TA-422-PU-01<br>RS12EA-422_-PU-02 | for DC3W sensor /Input 12 | H45xW45xD25mm | 24V/1A | 0〜3mm / max.4mm | 600Hz | ● | ● | ● | ● | ● | ● |
| RS12T-422_-PU-01<br>RS12E-422_-PU-02 | for DC3W sensor /Input 12 | H45xW45xD25mm | 12V/230mA | 2〜5mm / max.3mm | 60Hz | ● | ● | | | | ● |
| RS12T-422-PU-01<br>RS12E-422_-PU-02 | for both DC2W and DC3W sensor/ Input12 | H45xW45xD25mm | 12V/150mA | 2〜5mm / max.3mm | 60Hz | ● | ● | | | | ● |
| RVT-422-201-PU<br>RVE-422-2-PU | Power only | H45xW45xD25mm | 24V/1A | | -- | | ● | ● | ● | ● | |

| Type name | applicable sensor/signal type | size | voltage/current | operation distance/center offset | frequency of operation | short circuit protection | converse protection | overheat protection | overcurrent protection | protection on facing metal | output surge suppresion |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RS12T-TF423_-PU-01<br>RS12E-TF423_-PU-02 | for DC3W sensor /Input12 Anti-weld slag type | H50xW50xD30mm | 12V/230mA | 2〜4mm / max.3mm | 60Hz | ● | ● | ● | | | ● |
| RS12T-TF423_-TP-01<br>RS12E-TF423_-TP-02 | for DC3W sensor /Input12 Anti-weld slag type | H50xW50xD30mm | 12V/230mA | 2〜4mm / max.3mm | 60Hz | ● | ● | ● | | | ● |
| RS24T-424-PU-01<br>RS24E-424_-PU-02 | for DC3W sensor /Input 24 | H55xW55xD30mm | 24V/1A | 0〜10mm / max.8mm | 300Hz | ● | ● | ● | ● | ● | ● |

## Signal transmission 4 input+ 4output DC3W ＋ 24V1A

**interactive**



STATUS LED

Φ4.4　45　35　(11)　L

45　35

**Remote**

25　∞

STATUS LED
ステータスLED

STATUS LED
INZONE LED

Φ4.4　45　35　(11)　L

45　35

**Base**

25

INZONE LED
STATUS LED

| Type name | Remote part | RC04T-422N(P)-PU-01 | |
|---|---|---|---|
| | Base part | RC04E-422N(P)-PU-02 | |
| Drive Voltage Drive Current（Remote） | | 24V ± 1.5V DC / ≦ 1A（include output load current) | |
| Supply voltage / Current consumption（Base） | | 24V ± 5% / ≦ 1.4A | |
| Input | signals/type | 4（SI1…4）/ NPN or PNP | |
| | Load current | 7mA per 1 output | |
| Output | signals/type | 4（SO1…4）+1(INZONE) / NPN or PNP | |
| | Load current | ≦ 200mA（per 1output）*1 | |
| Frequency of operation | | 300Hz | |
| Start-up time*2 | | ≦ 0.5s | |
| Operating distance | | 0…3mm | |
| Center offcet accoring to operation distance | | operation distance | center offset |
| | | <2mm | ± 4mm |
| | | 2…3mm | ± 1.5mm |
| Operating temperature | | 0…+50℃ | |
| Protection class | | IP67 | |
| Protection circuit | | output short circuit protection, converse protection, overheat protection overcurrent protection, output surge suppresion, overheat protection when facing metal *3 | |
| Cable | | PUR, φ 7.7,2x0.5 mm$^2$+9x0.18 mm$^2$ | |
| Material | case | PBT | |
| | heat sink | Alminium | |
| Weight | Remote part | Body 110g+cable 75g × 1m | |
| | Base part | Body 110g+cable75g × 2m | |

＊1 When using an inductive load exceeding 50 mA, take measures against surges with a diode or varistor. (Refer to the User's Guide for details)
＊2 The time from when the base and remote units are energized in the transmittable area until wireless signal transmission is possible.
＊3 Metal protection is a function of metal heat prevention when metal opposed. Since it is not guaranteed to operate with all metals, please do not deliberately confront the metal against the communication surface.
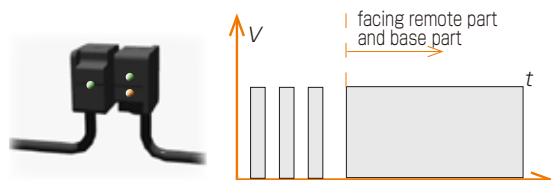
### Applicable sensor

| Supply voltage | 24V DC |
|---|---|
| Residual voltage | ≦ 6.5V |
| Load current | - |

Please use sensors that operate properly within the conditions on the left table.

**What is INZONE?**

It means that the remote part and the base part are in the power supply area and possible to transmit signals.



V

facing remote part and base part

t

# Safe and secure protection function

**Safe**
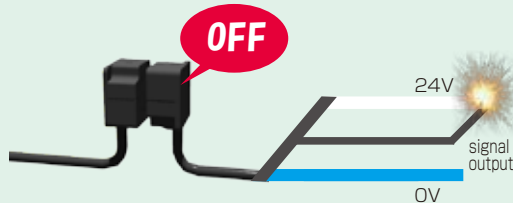**Secure**

The B & PLUS compact remote is equipped with various excellent protection functions to prevent breakdowns, so it could be use safety.
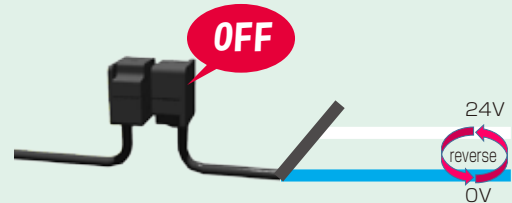
## short circuit protection

The function protects the circuit by turning off the output for a certain period of time when a current exceeding the specification flows through the signal output line due to connection with no load.
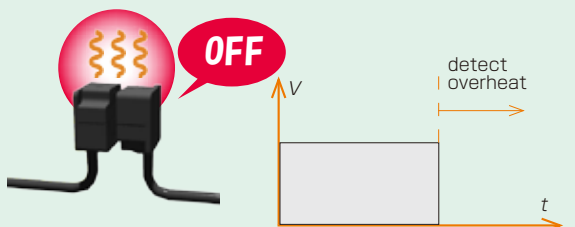
**OFF**

24V
signal output
0V

## reverse protection

This function protects the circuit by turning off the output for a certain time when 24V and 0V are reversely connected on the power line of the base part.
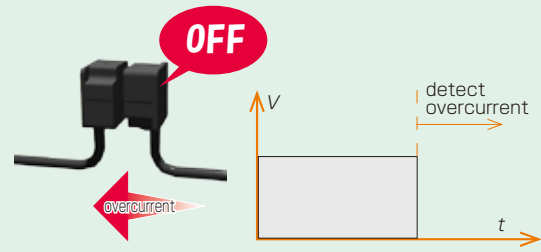
**OFF**

24V
reverse
0V

## overheat protection

The function which measures the temperature inside the base part and stops oscillation when it exceeds a certain temperature. It will restart when the temperature drops.

**OFF**
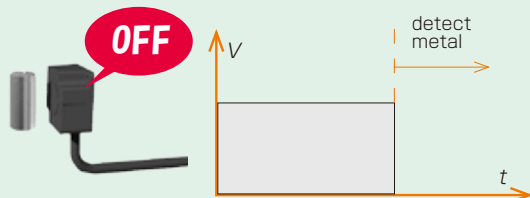
detect overheat

$V$

$t$

## overcurrent protection

The function which detects the current inside the base part, and when it exceeds a certain current value, it stops oscillation for a certain period of time and protects the circuit.

**OFF**

overcurrent

detect overcurrent

$V$

$t$

## protection when facing metal

overvoltage and overcurrent

The function which protects the circuit by stopping oscillation for a certain period of time when metal is detected.

**OFF**

detect metal

$V$

$t$

## Output surge suppression

A surge absorption circuit is built in to protect the output circuit.

**built in surge absorption circuit**

# Accessories ～blacket easy to use～

Type name : B-PLUS-BLOP-01
Material : SUS
Depth : 3mm

no rust
easy to use

# A more advanced production system!　Easy RFID without controller

It is an RFID system for easier data writing and easier installation than conventional magnet type reader and underground embedded type glass tag.
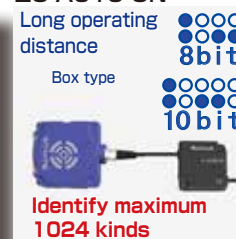
## Reader (reading system)

Type name :
Z5-EA05N(P)-PU__

5bit
Thin Compact
Small type
Identify maximum 32 kinds

Type name :
Z5-AA01N(P)-PU__

8bit
Easy to attach
Cylinder type
Identify maximum 256 kinds

Type name :
Z5-AA03N(P)-PU__

8bit
Compact
Box type
Identify maximum 256 kinds

Type name :
Z5-DA01N(P)-PU__
Z3-A010-CN

Long operating distance
Box type
8bit
10bit
Identify maximum 1024 kinds

## Reader writer (Writing system)

Type name : Z6-01-U
Easy to write from PC

Read system

* The cable length is included after the PU.　Example : PU-02 = 2 m
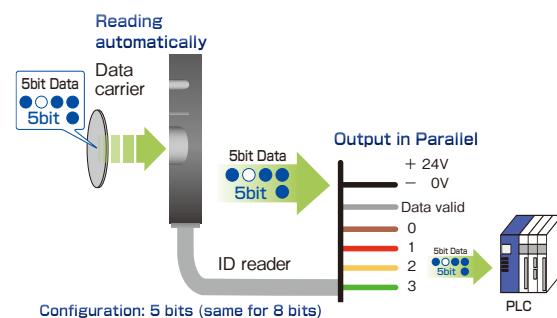
## Data carrier

| Type code | Z1-FA01-128 | Z1-FB01-128 | ISO15693CARD | Z1-B011-128 | Z1-AA04-02K | Z1-EC02-128 |
|---|---|---|---|---|---|---|
| Features | Flexible | Flexible | Card | Long distance | D-2N Compatible on installation | Ceramic |
| Applicable system | 5/8/10 bit | 5/8/10 bit | 5/8/10 bit | 5/8/10 bit | 5/8/10 bit | 5/8/10 bit |
| Size(mm) | $\phi$ 16 x 0.9 | $\phi$ 28 x 0.8 | 85.6 x 54 x 0.76 | $\phi$ 50 x 8.3 | 30 x 30 x 6 | $\phi$ 26 x 3.4 (Hole $\phi$ 6) |
| Material | Glass fiber cloth | Glass fiber cloth | PVC | PA6 | PBT | Almina ceramic |
| Read distance (When non-metal) | 5bit:0...15mm 8bit:0...18mm 10bit:0...42mm | 5bit:0...19mm 8bit:0...30mm 10bit:0...60mm | 5bit:0...22mm 8bit:0...47mm 10bit:0...108mm | 5bit:0...12mm 8bit:0...22mm 10bit:0...54mm | 5bit:0...12mm 8bit:0...16mm 10bit:0...34mm | 5bit:0...12mm 8bit:0...12mm 10bit:0...34mm |

## Diagram
(in case of 5bit)

○ Just stic Data carrier on to the model that wants to be identified.
○ Parallel output starts as ID reader approaches.
○ Simple wiring! Just connect cable to input unit.
○ Unlike the existing ID system,
　controller and programming is not required.
○ Protection class IP67. Waterproof and dustproof!
○ Easy writing by ID writer.

Reading automatically
5bit Data
5bit
Data carrier
5bit Data
5bit
ID reader

Output in Parallel
+ 24V
− 0V
Data valid
0
1
2
3
5bit Data
5bit
PLC

Configuration: 5 bits (same for 8 bits)

## Wireless Power Supply by
# B & PLUS K.K.

Mail : b-plus-usa@b-plus-kk.com
Web : http://www.b-plus-kk.com

* Info may change the mention contents such as specifications without a notice.
　Thank you for understanding
* Please refer to instruction manual or the user's guide. It can be download by HP.