Wireless power supply by

B&PLUS®

Remote Coupler system
Wireless power supply & Data signal transmission

Change both the Fieldbus network and a Power supply to a wireless!!

Wireless Power Supply 24VDC/2A

Correspondent network

- CC-Link
- DeviceNet
- PROFIBUS-DP

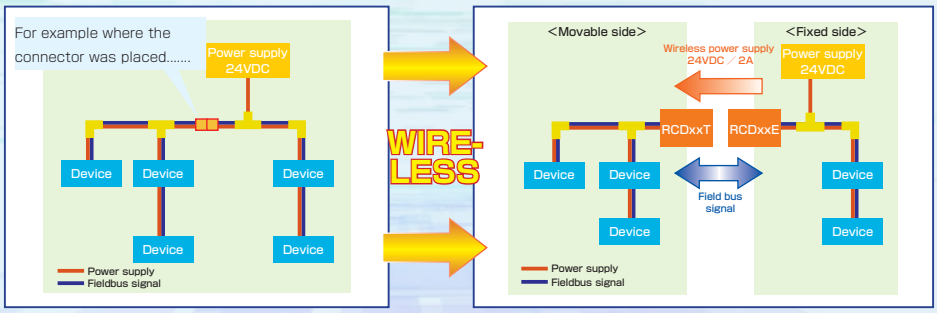
NEW!!

PROFIBUS-DP New Arrival!!

Implementation of the wireless connector!

Construction of the movable network

Only needs to face the connectors to each other. No need to put the connectors on and off. Wireless Power supply system can reduce the workload!!



Wire-saving | **Reducing the man-hours** | **Automatize** | **Reducing of maintenance costs**

Please be careful that the terminating resistor will be required in certain circumstances.

Secure basic performance

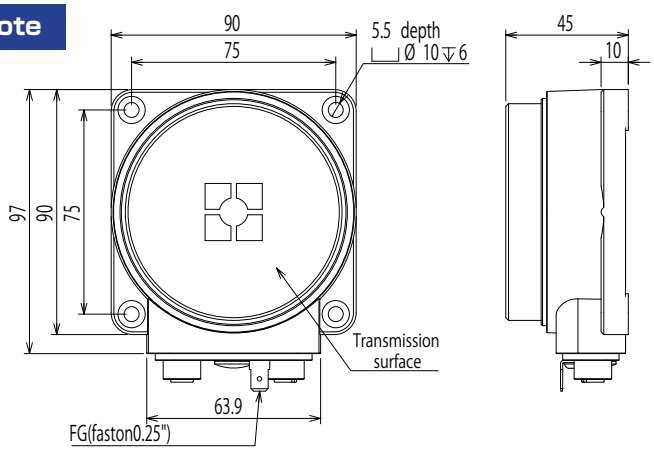
- Up to 48W electric power can be send.
- Transmission speed can be fastest up to 10Mbps! *1
- Communications distance 3...5mm / axis gap 4mm
- The installation to a rotator is possible as well.
- Strong in water, mine and dust! Protection class IP67

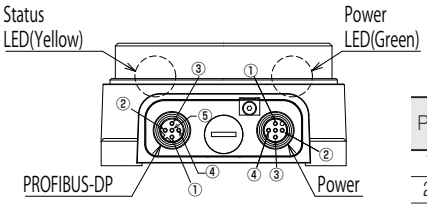
*1 in case of use of RCD22 series.

Product news

PROFI BUS

Remote

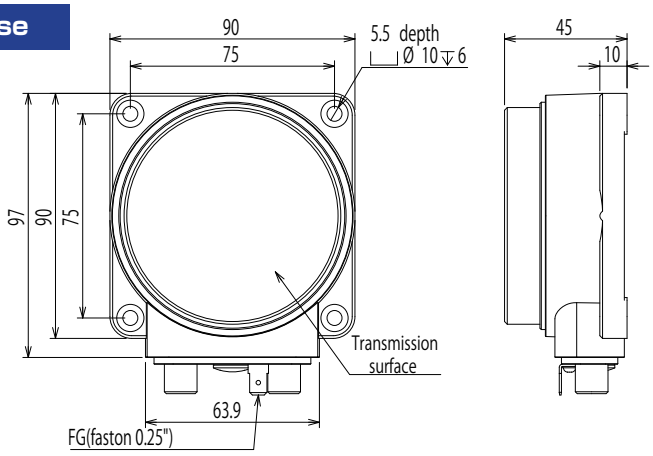


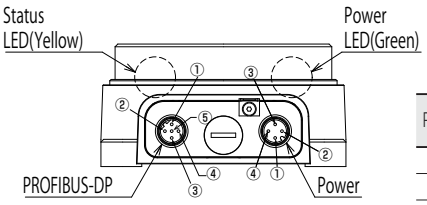


Pin	Signal (5pin)	Power (4pin)
1	unused	+24V
2	Rx/Tx A	unused
3	unused	0V
4	Rx/Tx B	unused
5	unused	-

Please do not connect anything to an unused pin.

Base





Pin	Signal (5pin)	Power (4pin)
1	unused	+24V
2	Rx/Tx A	unused
3	unused	0V
4	Rx/Tx B	unused
5	unused	-

Please do not connect anything to an unused pin.

Type code		RCD44T-211-PBC
Drive voltage		24V ± 1.5V DC
Drive current		≦2A
Operating distance		3...5mm
Center offset		±4mm
Operating temperature		0...+50℃
Storage temperature		-25...+70℃
Operating humidity		35...90%RH
Storage humidity		35...90%RH
Protection class		IP 67
For connection Connector	Signal	M12 / 5 pin female B
	Power	M12 / 4 pin female A
Material	Housing	Aluminum + alumite processing (metal part)
	Active face	PA12 (Resin)
included		Ferrite core clamp (Gray x 2・White x 1)
Remark		Terminating resistor built-in specification

- A remote part, a base part have terminal resistance both built-in.
- The transmission speed is 1.5Mbps
- Please set the cable head considering the total extension of the entire network.
- Please prepare your cable and connectors.
- Please ground with a tab terminal (FG) and screw for case installation.

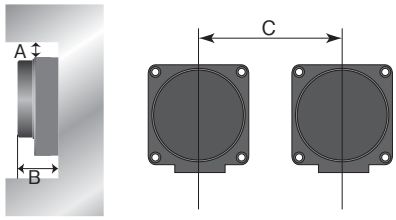
Type code		RCD44E-211-PBC
Power supply		24V DC ± 5%(incl.ripple)
Current consumption		≦3A
Signal transmission		PROFIBUS-DP
Transmission speed		1.5M bps
Start-up time		≦2sec *1
Data delay time		3Tbit
Delat time jitter		Max.1/4bit
Operating temperature		0...+50℃
Storage temperature		-25...+70℃
Operating humidity		35...90%RH
Storage humidity		35...90%RH
Protection class		IP 67
Use con-nector	Signal	M12 / 5 pin male B
	Power	M12 / 4 pin male A
Material	Housing	Aluminum + alumite processing (metal part)
	Active face	PA12 (Resin)
included		Ferrite core clamp (Gray x 2・White x 1)
Remark		Terminating resistor built-in specification

*1 It is the start up time of Remote system.
The start up time of PROFIBUS-DP changes depending on the system.

Setting condition (the RCD series is common)

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 ■ Parallel Setting



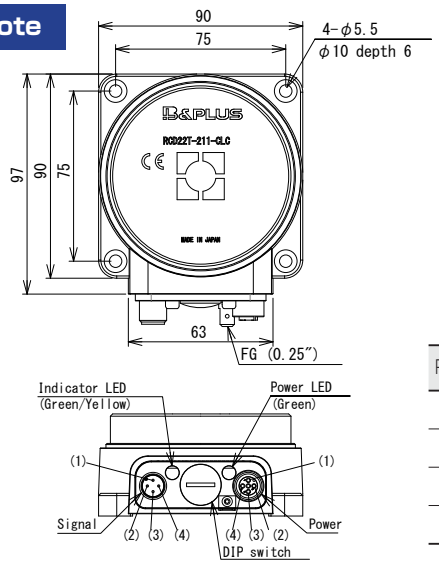
Type code	A	B	C
RCD22T-211-CLC RCD33T-211-DNC RCD44T-211-PBC	50	45	300
RCD22E-211-CLC RCD33E-211-DNC RCD44E-211-PBC			

Unit :mm

- It is recommended to install to metal in order to reduce the influence of self-heating.
- In case and when transmission aspect materials are resin (product of ABS or ABS+PBT) please avoid the liquid including organic sol vent to spread out.
- Please set up the output part not facing with the metal constantly. Metal overheat and an internal element can possibly be damaged.
- Product may be damaged when it is out of specification in a distance / axis gap / overload state, for a long time.

CC-Link

Remote

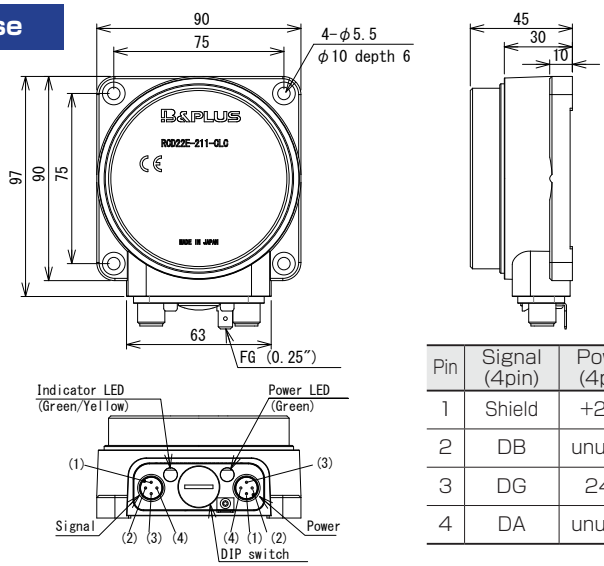


Pin	Signal (4pin)	Power (4pin)
1	Shield	+24V
2	DB	unused
3	DG	24G
4	DA	unused

Type code	RCD22T-211-CLC
Drive voltage/current	24V ± 1.5V DC / ≦2A
Operating distance/ Center off set	3...5mm / ± 4mm
Protection class	IP 67
Use connector	Singnal : M12/4 pin male , Power : M12/4 pin female
Material	Aluminum + alumite processing (metal part),ABS + PBT (resin part)
Weight	800g

■ Installation condition. Reference P.2
■ Please connect the termination resistor to unit of both ends on CC-link between DA-DB.
■ Please set the cable head considering the total extension of the entire network.
■ Please prepare your cable and connectors.
■ Please ground with a tab terminal (FG) and screw for case installation.

Base



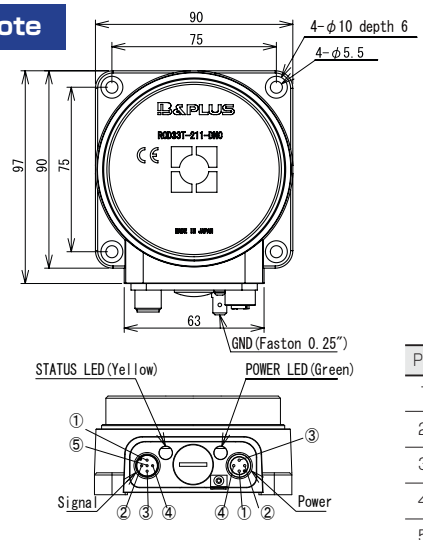
Pin	Signal (4pin)	Power (4pin)
1	Shield	+24V
2	DB	unused
3	DG	24G
4	DA	unused

Type code	RCD22E-211-CLC
Power supply	24V DC ± 5%(incl.ripple)
Current consumption	≦3A
Signal transmission	CC-Link Data Signal
Transmission speed	156K....10M bps （set up by DIP switch)
Start-up time	≦2sec *2
Use connector	Singnal : M12/4 pin male Power : M12/4 pin female
Protection class	IP 67
Material	Aluminum + alumite processing (metal part) ABS + PBT (resin part)
Weight	800g

*2 It is the start up time of Remote system. The start up time of CC-Link is varied by the system.

DeviceNet

Remote

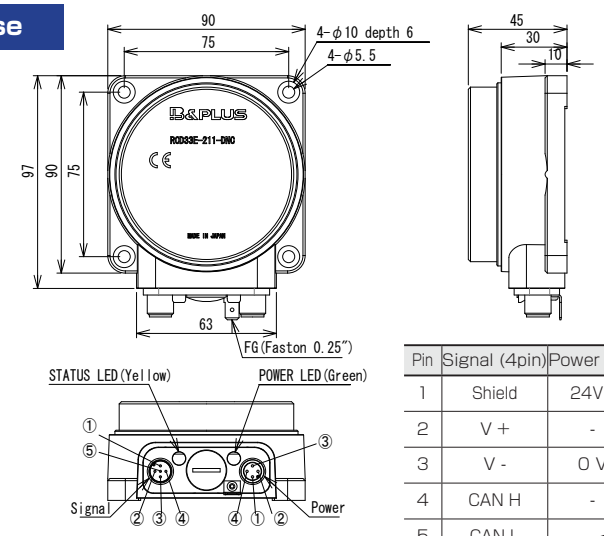


Pin	Signal (4pin)	Power (4pin)
1	Shield	24V DC
2	V +	-
3	V -	0 V
4	CAN H	-
5	CAN L	

Type code	RCD33T-211-DNC
Drive voltage/current	24V ± 1.5V DC / ≦2A
Operating distance/ Center off set	3...5mm / ± 4mm
Protection class	IP 67
Use connector	Singnal : M12/5 pin male、Power : M12/4 pin female
Material	Aluminum + alumite processing (metal part) ABS + PBT (resin part)
Weight	800g

■ Installation condition. Reference P.2
■ The terminal resistance is not built-in.
■ Communication speed is 125K....500K bps.
■ Please prepare your cable and connectors.

Base



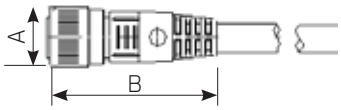
Pin	Signal (4pin)	Power (4pin)
1	Shield	24V DC
2	V +	-
3	V -	0 V
4	CAN H	-
5	CAN L	

Type code	RCD33E-211-DNC
Power supply	24V DC ± 5% (incl. ripple)
Current consumption	≦3A
Signal transmission	DeviceNet (CAN Bus) data
Transmission speed	125K...500K bps
Transmission delay	≦0.5 μ sec.
Start-up time	≦2sec *3
Use connector	Singnal : M12/5 pin male、Power : M12/4 pin male
Protection class	IP 67
Material	Aluminum + alumite processing (metal part) ABS + PBT (resin part)
Weight	800g

*3 It is the start up time of Remote system. The start up time of DeviceNet is varied by the system.

Connector cable

■ CC-Link connection type

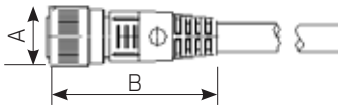


Length of the cable (m) is = ※
· VA-4DSX ※ CCG4 ····· 2、5、10(m).
· TM-4DBX ※ HG2-1/3 ····· 2、5(m).

RCD22T-211-CLC (Remote Part)			
Signal	M12/4 pin male	A=φ14、B=41.7	**VA-4DSX ※ CCG4**
Power	M12/4 pin Female	A=φ14、B=42	**TM-4DBX ※ HG2-1/3**

RCD22E-211-CLC (Base Part)			
Signal	M12/4 pin male	A=φ14、B=41.7	**VA-4DSX ※ CCG4**
Power	M12/4 pin male	A=φ14、B=40.2	**TM-4DSX5HG2-1/3**

■ DeviceNet connection type



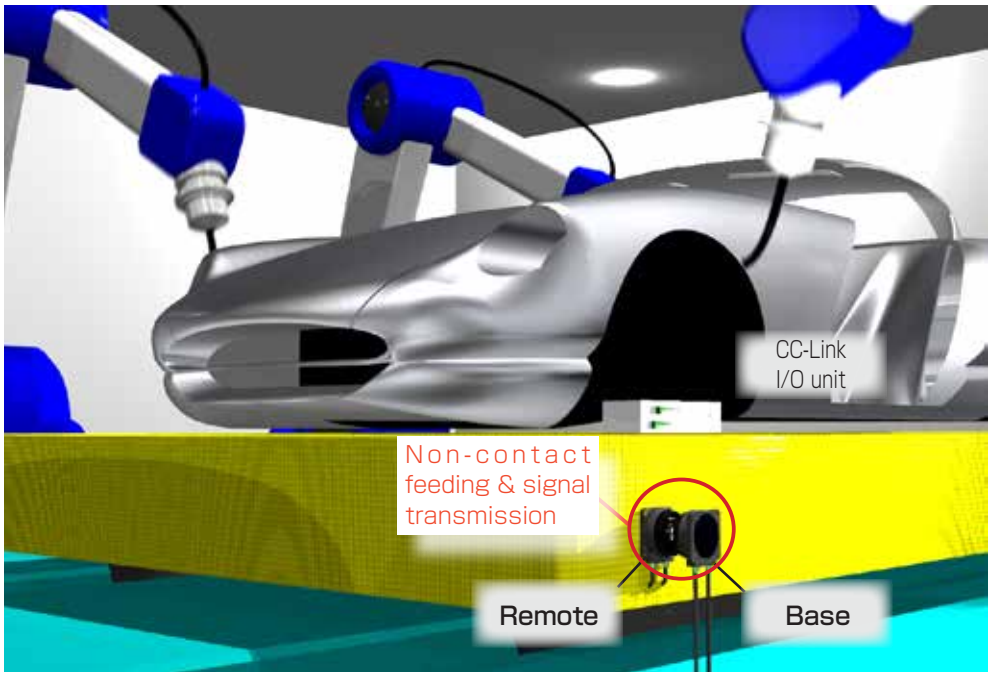
A cable length is 5m (authentic sample). Please contact for a different length.

RCD33T-211-DNC (Remote part)			
Signal	M12/5 pin male	A=φ14、B=40.2	**VA-5DSX5DVG5-BL**
Power	M12/4 pin Female	A=φ14、B=42.2	**TM-4DBX5HG2-1/3**

RCD33E-211-DNC (Base part)			
Signal	M12/4 pin male	A=φ14、B=40.2	**VA-5DSX5DVG5-BL**
Power	M12/4 pin male	A=φ14、B=40.2	**TM-4DSX5HG2-1/3**

Introduction example

confirm the seating of a palette on the welding line



Previous problems

- Because of the use of a contact-type connector, the maintenance of the pin was necessary.

Solution!

Remote System

After improvement

- A line stop by the point of contact, sputter defectiveness is no longer happening.
- No need for pin maintenance because of the non-contact solution.

Point

Welding the car which are placed on the palette at a welding line.
A palette has an I/O unit of CC-Link and confirms a seating with a sensor connected to it.
Be able to perform the feeding to a sensor and the transmission of the CC-Link signal from an I/O unit at the same time.

Wireless Power Supply by
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