

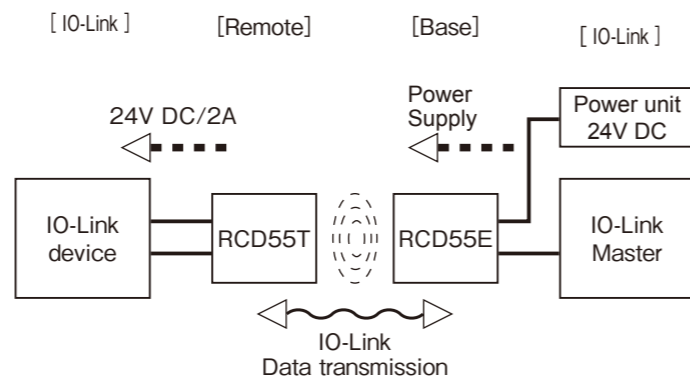
Remote Coupler System IO-Link version	
Remote	: RCD55T-211-IOC
Base	: RCD55E-211-IOC



Safety Considerations

Please read carefully before using and full attention to Safety Considerations. (See the attached T318501)

Construction of the System



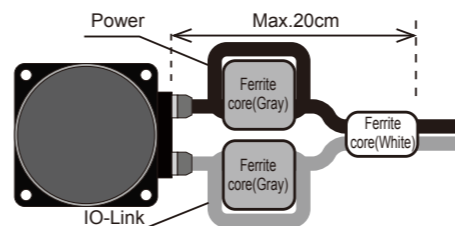
[Function of each Component]

Remote : A unit that is mounted on the moving side.

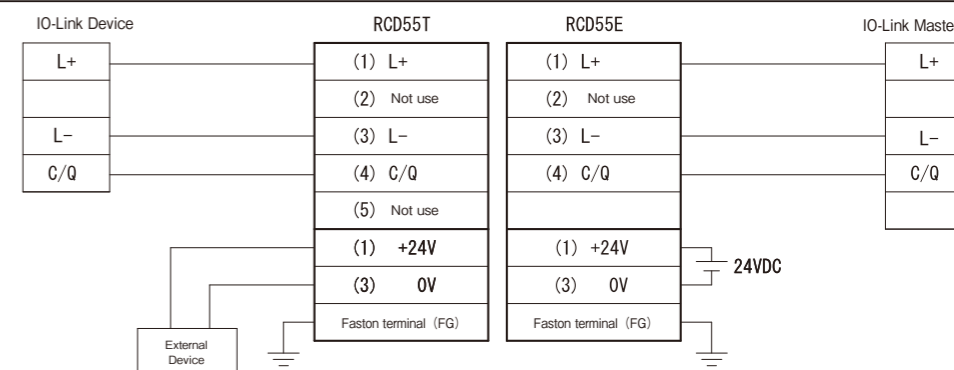
It communicates IO-Link data with a Base and supplies power to connected each device.

Base : A unit that is mounted on the fixed side. It communicates IO-Link data with a Remote and supplies power by non-contact.

Setting ferrite core clamp



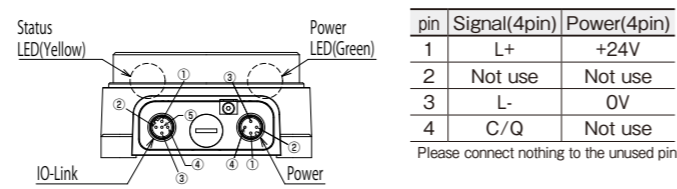
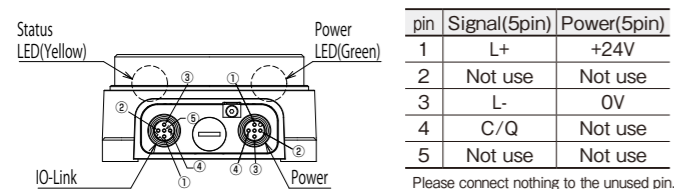
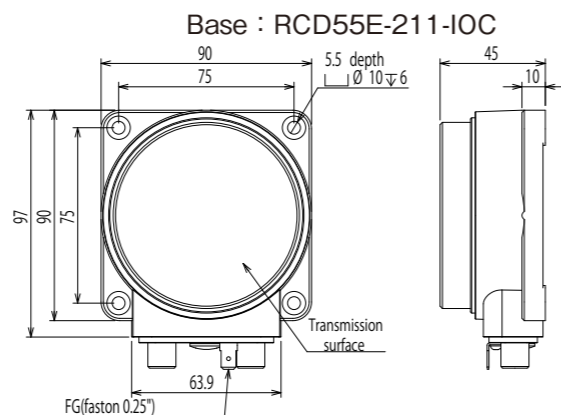
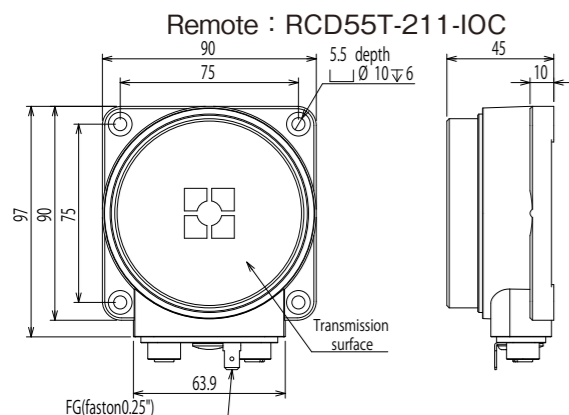
Wiring between Master unit and Remote unit



Notes

- Since RCD55 is naturally cooling system, it is recommended to install RCD55 in metal in order to reduce the influence of self-heating. The operating temperature should be within the specification with considering of self-heating.
- Attach ferrite core clamp to the power and signal line less than 20cm from a main part according to the above-mentioned Setting ferrite core clamp. Ferrite core clamp (Gray) : Signal line is 2 Turn , Power line is 2 Turn / Ferrite core clamp (White) : Signal line is 1Turn , Power line is 1Turn.
- For wiring of external power unit 24V DC and FG, please refer to wiring diagram above. Please ground RCD55 with FG tab.
- Drive voltage/ Supply voltage is the value measured at the connector of Remote/ Base part. Please be noted that a drop voltage (the product of the current and the conductor resistance) will be caused at each power cable.
- Connectors and cables are not included in.
- Do not face two RCD55E(Base part) when they are powered. There is a possibility of breaking down.
- Please be sure in the withstanding voltage test that a capacitor (250VDC 1μF×2) is built in between the live part and the FG.

Specification



Type number	RCD55T-211-IOC
Drive voltage	24V ± 1.5V DC
Drive current	≤ 2A
Transmitting distance	3...5mm
Center off-set	± 4mm
Operating/Storage temperature	0...+50°C / -25...+70°C
Operating/Storage humidity	35 ~ 90%RH / 35 ~ 90%RH
Protection class	IP 67
Connector Signal/Power	M12 /5 pin female A coding/ M12 /5 pin female A coding
Available connector cable Signal/Power	CBL-B2/4DBX5PUG3NB13 / TM-4DBX5HG2-1/3
Material Housing	Aluminum anodized finish
Active surface	PA12
Bundled items	Ferrite core clamp (Gray x2 / White x1)

Type number	RCD55E-211-IOC
Supply voltage	24 V DC ± 5 % (include ripple)
Current consumption	≤ 3.2 A
Transmission signal	IO-Link data (Non-supported SIO mode)
Transmission speed	38.4 Kbps
Start-up time	≤ 1 sec*
Data delay time	≤ 100 μ S
Operating/Storage temperature	0...+50°C / -25...+70°C
Operating/Storage humidity	35 ~ 90%RH / 35 ~ 90%RH
Protection class	IP 67
Connector Signal/Power	M12 /4 pin male A coding/ M12 /4 pin male A coding
Available connector cable Signal/Power	CBL-B2/4DSX5MG3NB35 / TM-4DSX5HG2-1/3
Material Housing	Aluminum anodized finish
Active surface	PA12
Bundled items	Ferrite core clamp (Gray x2 / White x1)

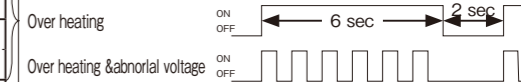
* This means the time since the timing when a Remote part and a Base part are energized within the transmission area until the timing when the wireless signal transmission starts. It doesn't mean the time until the system as IO-Link established.

LED indication

LED	Color	LED state	State
Power LED Remote&Base part	Green	ON	The power supply* is supplied.
		OFF	The power supply* is not supplied.
		Blink	Over heating (turn on : 6s / turn off : 2s)
Remote part	Green	Blink	Drive voltage is low. (turn on : 0.5s / turn off : 0.5s)
Base part	Green	Blink	Supply voltage is low. (turn on : 0.5s / turn off : 0.5s)
		Blink	Supply voltage is high. (turn on : 0.1s / turn off : 0.1s)
Status LED Remote&Base part	Yellow	ON	Remote (or Base) part is existing in the transmission area.(INZONE)
		OFF	No Remote (or Base) part is existing in the transmission area.

*Indicates External power supply at Base and indicates Base part at Remote.

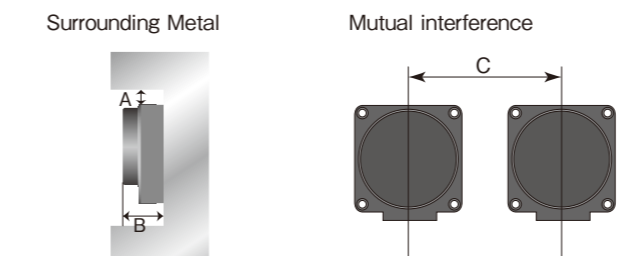
When temperature and voltage are abnormalities - - -
LED turned on for 6 sec changes to blink of the interval of 0.5 sec or 0.1 sec.



* When excessive heat is generated. It stops the power supply and once heat cool-down. RCD55E would be restarted.

Mutual Interference

In order to avoid influence of surrounding metal and mutual interference, keep the minimum distance as described below.



Type number	A(mm)	B(mm)	C(mm)
RCD55T-211-IOC	50	45	300
RCD55E-211-IOC			

Transmitting Area Diagram (Non-flush mounted)

[Example : Supply voltage at 24V DC]

