

**Remote System
User's Guide**

Remote sensor system for DC 3-wire
4+4 signal transmission
Compact shape

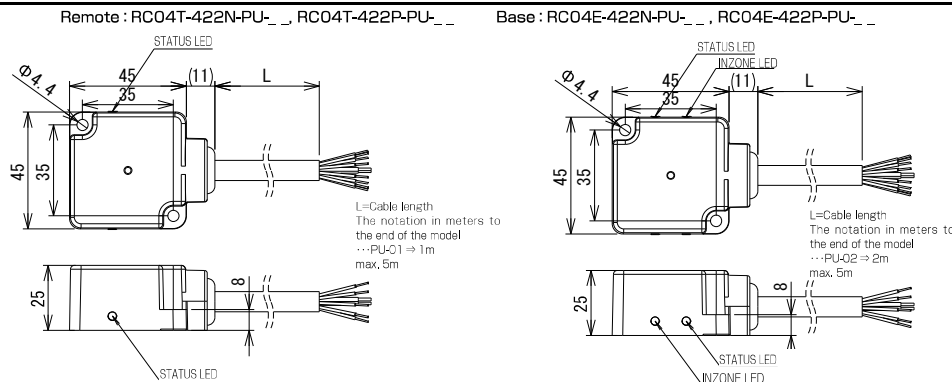
Base : RC04E-422N-PU-__ (NPN)
RC04E-422P-PU-__ (PNP)
Remote : RC04T-422N-PU-__ (NPN)
RC04T-422P-PU-__ (PNP)



Safety Considerations

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

Dimension



Specification of the System

Type	NPN	RC04T-422N-PU-__	Type	NPN	RC04E-422N-PU-__
	PNP	RC04T-422P-PU-__		PNP	RC04E-422P-PU-__
Applicable sensor	DC 3-wire sensor		Supply voltage	24 V DC ± 5% (include ripple)	
Drive voltage	24V ± 1.5V DC		Current consumption	active	Max 1.4 A (with 1A drive)
Drive current	≤ 1A (include output load current)		static	Max 0.2 A (when not facing)	
INPUT	4 signals		INPUT	4 signals	
Current load	≤ 7mA/1 output		Current load	≤ 7mA/1 output	
OUTPUT	4 signals + 1 INZONE		Signals	4 signals + 1 INZONE	
Current load	≤ 50mA/1 output		Current load	≤ 50mA/1 output	
Frequency	300Hz		Frequency	300Hz	
Operating distance	0...3mm		Start-up time *1	≤ 0.5s	
Center offset	Transmission distance is within 2 mm ± 4 mm Transmission distance 2 mm...3 mm ± 1.5mm		LED indication	Status (Green), Signal (Orange)	
Operating temperature	0...+50°C		Operating temperature	0...+50°C	
Protection class	IP67		Protection class	IP67	
Protection circuit	output short circuit protection, Output surge suppression		Protection circuit	output short circuit protection*, Output surge suppression, Cc-verse protection, Overtemperature protection, Overheat long protection when facing metal** Over current protection	
Cable	PUR φ 7.7 (2x0.5mm ² + 9x0.18mm ²)		Cable	PUR φ 7.7 (2x0.5mm ² + 9x0.18mm ²)	
Material Case	PPS		Material Case	PPS	
Heat sink	Aluminum		Heat sink	Aluminum	
Weight	Body 110g +Cable 75g/m		Weight	Body 110g+Cable 75g	

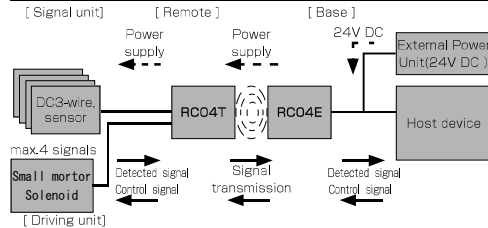
Applicable sensor

Supply voltage	24V DC
Residual voltage	≤ 6.5V
Load current	-

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

* 1 The time from when the base and remote units are energized in the transmittable area wireless signal transmission is possible.
* 2 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.

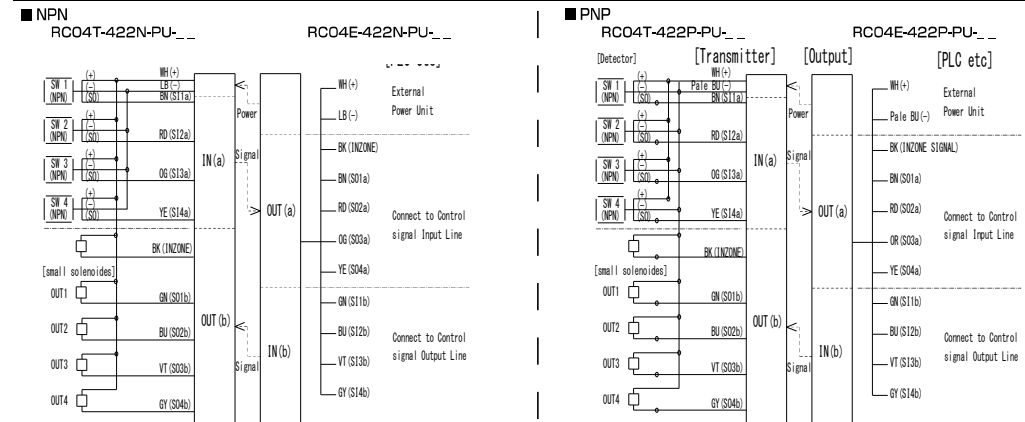
System configuration



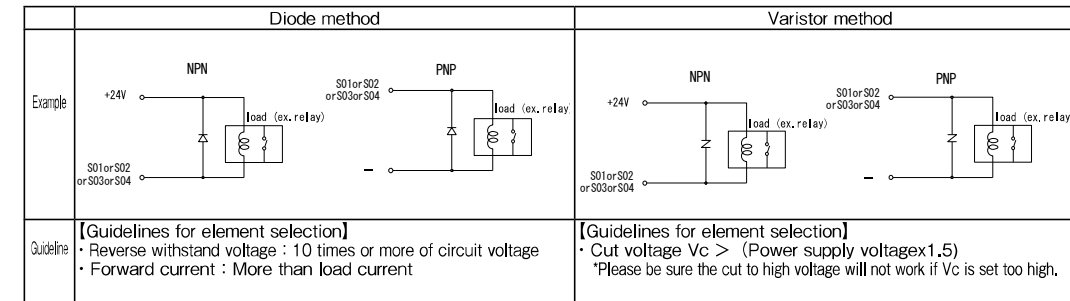
[Function of each component]

Driving unit : Small motors, solenoid valves can be connected.
Signal unit : Connects signal units such as detector switches or controllers.
Remote : A unit which is installed on the moving side and has following functions: to supply power for connected actuators, to transmit input signal from "detectors" to "base" and to output the transmitted signals from "base" to "detectors".
Base: A unit which is installed on the fixed side, and it has following functions: to supply power for "remote" to "external controller" to "remote".

Wiring diagram



● When using an inductive load exceeding 50 mA, take measures against surges with a diode or varistor.



LED indication

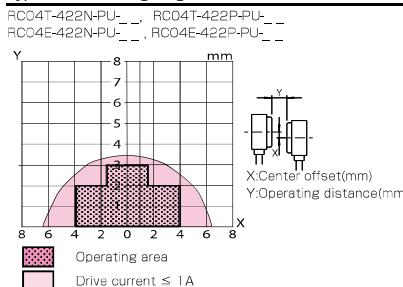
Status LED (Green)

	LED	Blinking	Pattern	Meaning
Remote car:	ON	●	---	The power supply is supplied.
	OFF	●	---	The power supply is not supplied.
Base part:	Blink	●	High speed (0.2sec)	The LED flashes at the same interval. Short circuit protection.
	Blink	●	Slow (3.5sec)	Off time of the LED is long. Lighting time of the LED is long. Anomalous temperature Oscillation circuit overcurrent, or when metal facing.
Base part:	Blink	●	High Speed (0.6sec)	Off time of the LED is long. Lighting time of the LED is long. Supply voltage is high. Supply voltage is low.
	Blink	●	0.6sec	

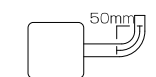
Signal LED (Orange) Base part

The in zone LED lights up when the transmission part and the output part are in a confronting state and communication is possible

Typical Transmitting Diagram (Supply voltage at 24V /non-flush mount)



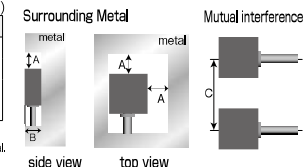
Bending radius of Cable



Installation notes

Type code	A*	B	C
RC04T-422N-PU-__	6	25	135
RC04T-422P-PU-__			
RC04E-422N-PU-__			
RC04E-422P-PU-__			

* The tightening torque when the fixing → ≤ 1.5N·m
* Besides the back side, only one side can be in contact with the metal.



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