

Remote System
User's Guide

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

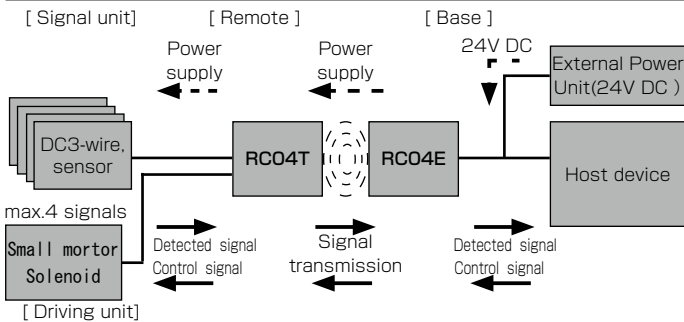
Base : **RC04E-422N-PU-__ (NPN)**
RC04E-422P-PU-__ (PNP)
Remote : **RC04T-422N-PU-__ (NPN)**
RC04T-422P-PU-__ (PNP)



Safety Considerations

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

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.

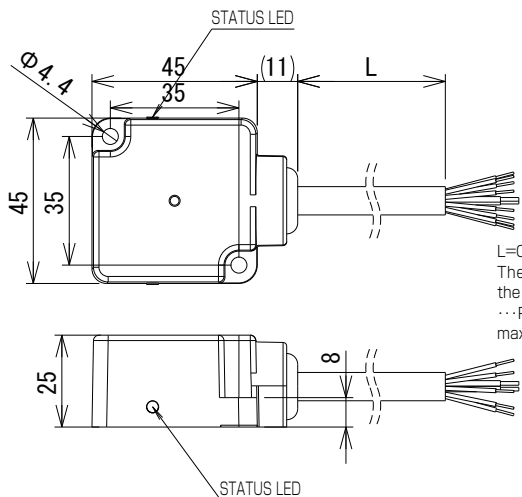
Remote : A unit which is installed on the moving side and has following functions: to supply power for connected actuators, to transmit input signal from "detectors" to "base" and to output the transmitted signals from "base" to "detectors".

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.

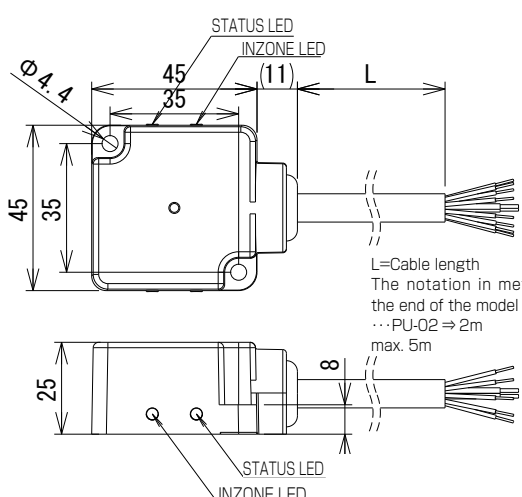
Dimension

Remote : RC04T-422N-PU-__, RC04T-422P-PU-__

Base : RC04E-422N-PU-__, RC04E-422P-PU-__



L=Cable length
The notation in meters to
the end of the model
...PU-01 ⇒ 1m
max. 5m



L=Cable length
The notation in meters to
the end of the model
...PU-02 ⇒ 2m
max. 5m

Specification of the System

Type	NPN	RC04T-422N-PU-__
	PNP	RC04T-422P-PU-__
Applicable sensor	DC 3-wire sensor	
Drive voltage	24V ± 1.5V DC	
Drive current	≤ 1A (include output load current)	
INPUT	Signals	4 signals
	Current load	≤ 7mA/1 output
OUTPUT	Signals	4 signals + 1 INZONE
	Current load	≤ 50mA/1 output
Frequency	300Hz	
Operating distance	0...3mm	
Center offset	Transmission distance is within 2 mm ± 4 mm Transmission distance 2 mm ... 3 mm ± 1.5mm	
Operating temperature	0...+50℃	
Protection class	IP67	
Protection circuit	output short circuit protection, Output surge suppression	
Cable	PUR φ 7.7 (2x0.5mm ² + 9x0.18mm ²)	
Material	PBT	
Weight	Body 110g +Cable 75g/m	

Type	NPN	RC04E-422N-PU-__
	PNP	RC04E-422P-PU-__
Supply voltage	24 V DC ± 5 % (include ripple)	
Current consumption	active	Max 1.4 A (with 1A drive)
	static	Max 0.2 A (when not facing)
INPUT	Signals	4 signals
	Current load	≤ 7mA/1 output
OUTPUT	Signals	4 signals + 1 INZONE
	Current load	≤ 50mA/1 output
Frequency	300Hz	
Start-up time *1	≤ 0.5s	
LED indication	Status (Green), Signal (Orange)	
Operating temperature	0...+50℃	
Protection class	IP67	
Protection circuit	output short circuit protection , Output surge suppression, Converse protection , Overttemperature protection, overheating protection when facing metal *2 Over current protection	
Cable	PUR φ 7.7(2x0.5mm ² + 9x0.18mm ²)	
Material	PBT	
Weight	Body 110g+ Cable 75g	

* 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.

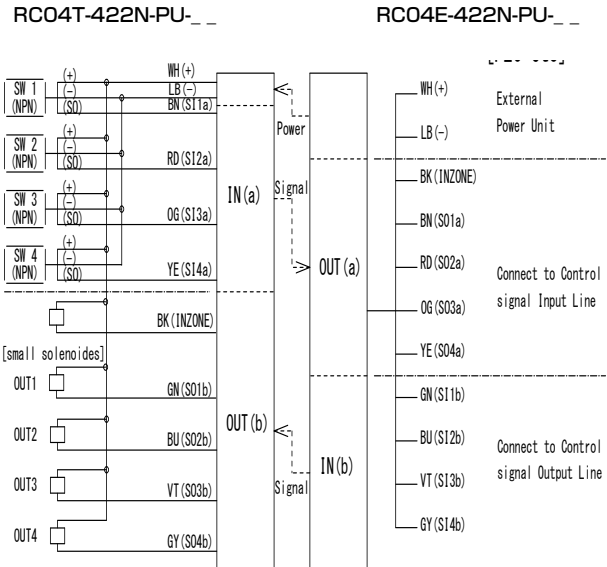
Applicable sensor

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

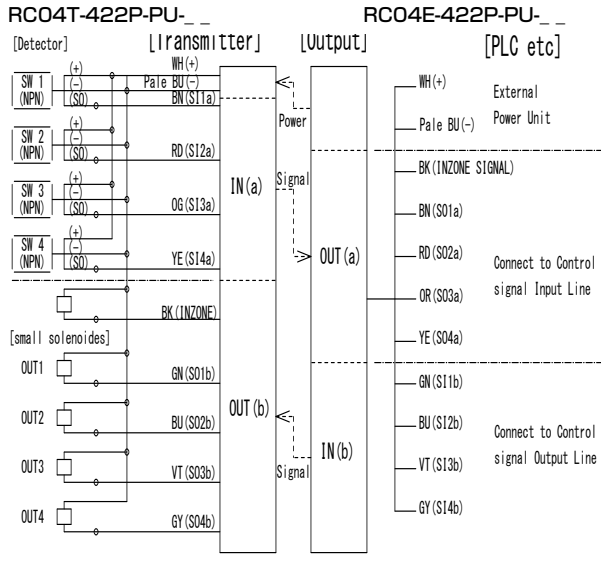
Please use sensors
that operate properly
within the conditions on
the left table.

Wiring diagram

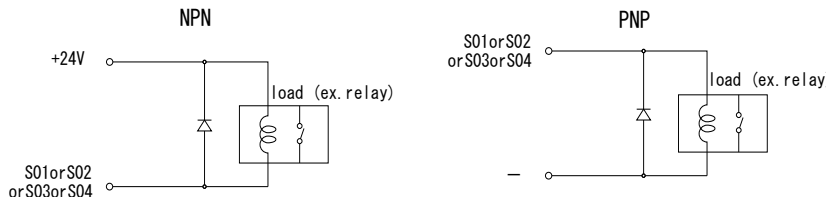
■ NPN



■ PNP



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



【Guidelines for element selection】

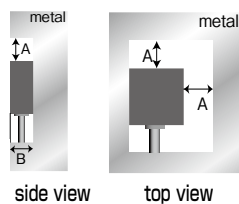
- Reverse withstand voltage : 10 times or more of circuit voltage
- Forward current : More than load current

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.

Surrounding Metal



Mutual interference



Bending radius of Cable

LED indication

■ Status LED (Green)

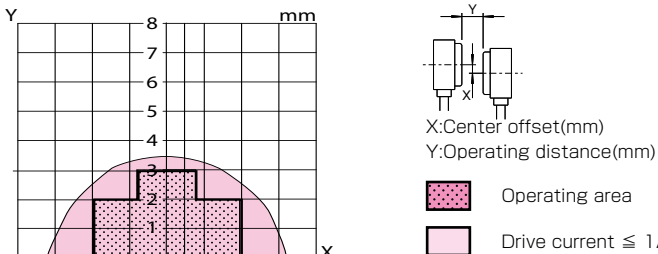
	LED	Blinking	Pattern	Meaning
Remote part	ON	●	—	The power supply is supplied.
	OFF	●	—	The power supply is not supplied.
Base part	Blink	☀	High speed (0.2sec)	The LED flashes at the same interval
	Blink	☀	Slow (1.5sec)	Short circuit protection.
Base part	Blink	☀	Off time of the LED is long	Anomalous temperature
	Blink	☀	Lighting time of the LED is long	Oscillation circuit overcurrent, or when metal facing
	Blink	☀	Mid.Speed (0.6sec)	Supply voltage is high.
	Blink	☀	Lighting time of the LED is long	Supply voltage is low.

■ 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)

RC04T-422N-PU-__, RC04T-422P-PU-__
RC04E-422N-PU-__, RC04E-422P-PU-__



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