

Remote sensor system  
12 signal transmission / Compact shape  
24V1A type

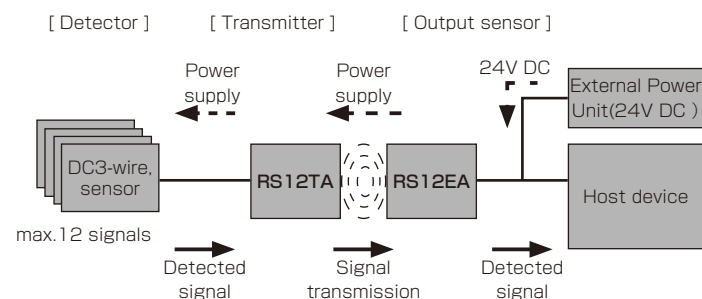
Output sensor : **RS12EA-422N-PU-\_\_ (NPN)**  
**RS12EA-422P-PU-\_\_ (PNP)**  
Transmitter : **RS12TA-422-PU-\_\_**



### Safety Considerations

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

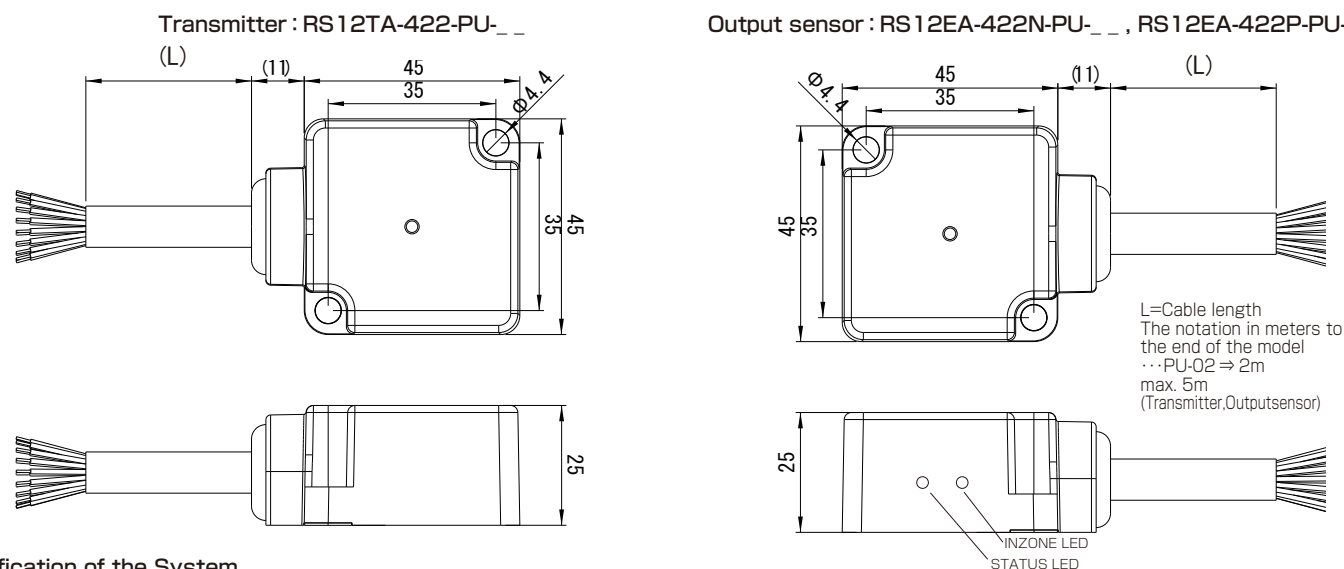
### System configuration



#### [Function of each component]

- Detector :** Connects Detector sensor (max.12) and transmits the detected signals to Transmitter.
- Transmitter :** Provides power for Detector, also passes detected signals from Detector to Output Sensor.
- Output Sensor :** Puts out detected signal to external controller, also sends power for operating of Detector and Transmitter.

### Dimension



### Specification of the System

Type	RS12TA-422-PU-__
Applicable sensor	DC 3-wire sensor
Drive voltage	24V ± 1.5V DC
Total current consumption	≤ 1A
Input signals	12
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°C
Protection class	IP67
Cable	PUR φ 8.6mm (2x0.5mm <sup>2</sup> + 13x0.18mm <sup>2</sup> )
Material Case	Polyurethane (surface treatment: two-pack acrylic urethane)
Heat sink	Aluminum
Weight	Body 110g +Cable 105g/m

\* 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.

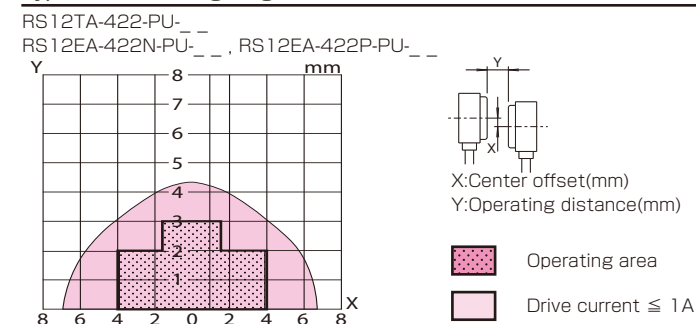
### Applicable sensor

Supply voltage	24V DC
Total current consumption	≤ 1A
Residual voltage	≤ 6.5V
Load current	-

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

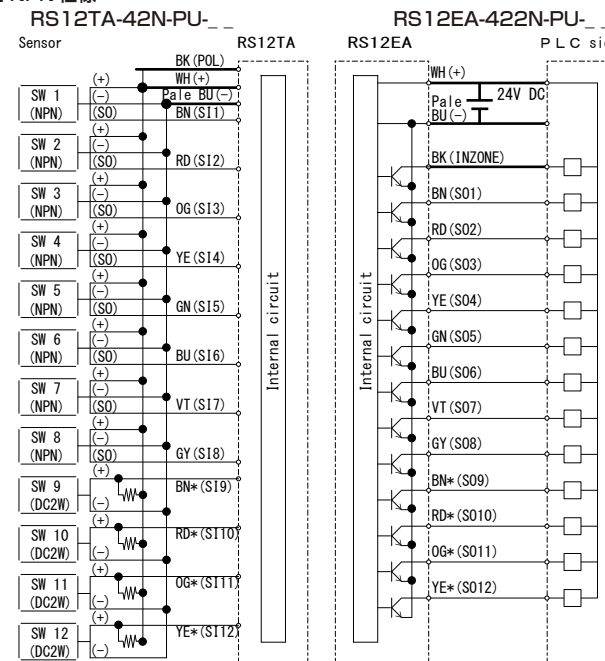
Type	NPN	RS12EA-422N-PU-__
	PNP	RS12EA-422P-PU-__
Supply voltage		24 V DC ± 5 % (include ripple)
Current active consumption		Max 1.4 A (with 1A drive)
Current static consumption		Max 0.1 A (when not facing)
Number of output signals		12+1 (INZONE)
Load current		≤ 50mA/ 1 output
Frequency of operation		600Hz
LED indication		Status (Green), Signal (Orange)
Operating temperature		0...+50°C
Protection class		IP67
Protection circuit		Short circuit protection , Overtemperature protection, Converse protection , Output surge suppression, overheating protection when facing metal *1
Cable		PUR φ 8.6mm (2x0.5mm <sup>2</sup> + 13x0.18mm <sup>2</sup> )
Material Case		Polyurethane (surface treatment: two-pack acrylic urethane)
Heat sink		Aluminum
Weight		Body 110g+ Cable 105g/m

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

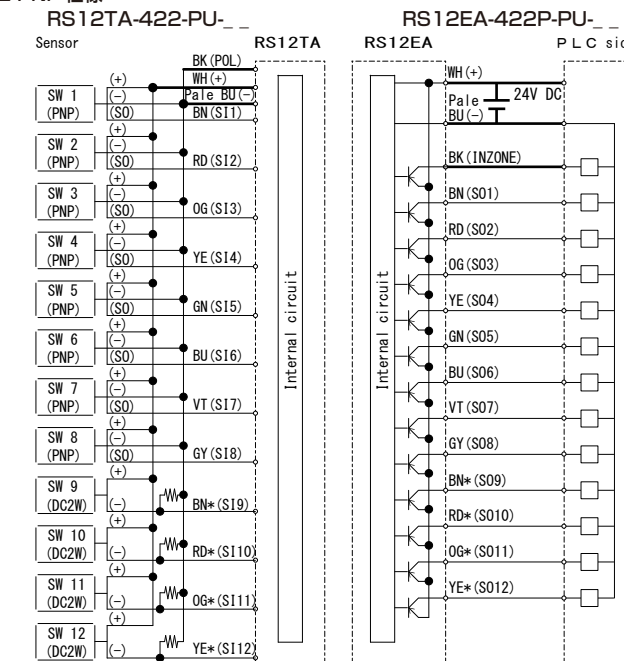


### Wiring diagram

#### ■ NPN仕様



#### ■ PNP仕様



■ SW9...12 of the wiring diagram is an example of the DC-2 Wire sensor wiring. It is also possible to connect DC 2-wire sensor without using a resistor.

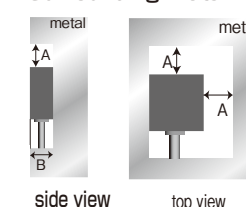
■ The unused cable core is cut. In the case of cutting cable, the unused core cable will be exposed. In that case, please be sure to take measures against short-circuit. Unused core is GN\*,BU\* and VT\*.

### Installation notes

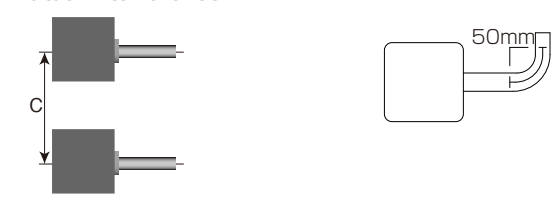
Type code	A*	B	C
RS12TA-422-PU-__			
RS12EA-422N-PU-__	6	25	135
RS12EA-422P-PU-__			

\*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

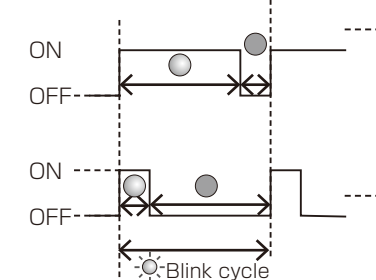
### LED indication

#### ■ Status LED (Green)

LED	Blinking	Pattern	Meaning
ON	●	-	The power supply is supplied.
OFF	○	-	The power supply is not supplied.
Blink	○	Slow (1.5 sec)	Off time of the LED is long Anomalous temperature Lighting time of the LED is long Oscillation circuit overcurrent.
Blink	○	Mid.Speed (0.6 sec)	Off time of the LED is long Supply voltage is high. Lighting time of the LED is long Supply voltage is low.
Blink	○	High speed (0.2 sec)	The LED flashes at the same interval Short circuit protection.

Lighting time of the LED is long

OFF time of the LED is long



#### ■ Signal LED (Orange)

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