

Welding Suitable for robot! Sputtering specifications-resistant



Introduction advantages of remote system

The remote system enables to send power and transmit the signals without a contact. It can provide many advantages when a conventional connector, which connects to a moving unit and a fixed unit. And these can be done wirelessly.

■ Compare with a connector



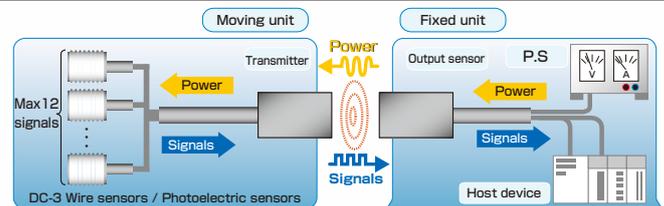
- No need to detach a connector. It can save the labor work.
- Untroubled conditions such as a pin breaking.
- Reducing of maintenance costs.

■ Compare with a cable



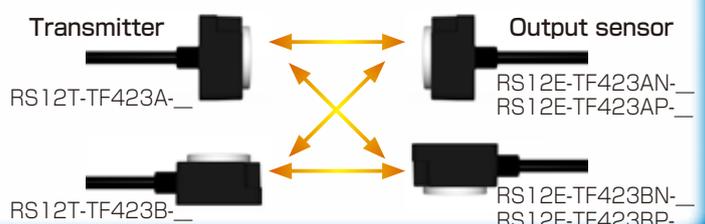
- A curl cord isn't necessary because of no extension parts.
- No cable disconnection troubles with a cable deterioration.

Construction of the system



Connecting to a power supply and the outside control equipment (PLC) in the output part of the fixation side and connect a sensor for detection to the transmission part of the movable side. When facing a remote system, the sensor detects wirelessly and able to transmit the ON/OFF sensor to the fixed part which controls the equipment.

Combination can be vary according to the placement.

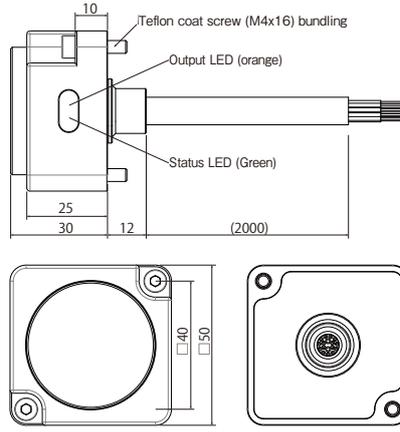
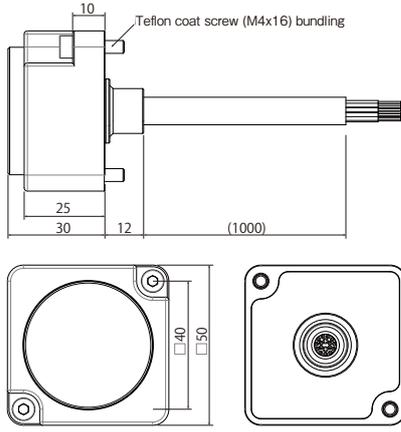


Transmitter

Output sensor

Size
50 x 50

Operating distance
2...4mm



Transmitter (standard type)	
Type code	DC 3-wire RS12T-TF423A-PU-01
Drive voltage	12V ± 1.5V DC
Drive current	≤ 230 mA
No. of Input signals	12 signals
Operating distance	2...4mm
Center offset	± 3mm
Drive current	230 mA
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ²
Material	Active surface: PTFE, Body: Brass +PTFE coat
Weight	Body 262 g + Cable 105 g x 1m
Remark	Two Teflon coat screw (M4x16) bundling for fixation

Output sensor (standard type)	
Type code	NPN output RS12E-TF423AN-PU-02 PNP output RS12E-TF423AP-PU-02
Power supply	24V DC ± 10% (incl.ripple)
Current consumption	≤ 600mA
No. of output signal	12 signals + 1 signal (Inzone)
Load current	max.50mA (1 signal.)
Frequency of operation	60Hz
LED (indication)	Status LED (Green) , Output LED (Orange)
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ²
Material	Active surface: PTFE, Body: Brass +PTFE coat
Weight	Body 262 g + Cable 105 g x 2m
Remark	Two Teflon coat screw (M4x16) bundling for fixation

Transmitter (Cable protection type)	
Type code	DC 3-wire RS12T-TF423A-TP-01
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ² Protection with the heat-resisting glass network tube

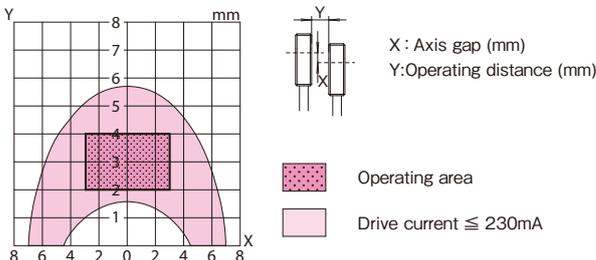
Output sensor (Cable protection type)	
Type code	NPN output RS12E-TF423AN-TP-02 PNP output RS12E-TF423AP-TP-02
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ² Protection with the heat-resisting glass network tube

Applicable sensor

Supply voltage	12V DC	Please sure to use applicable detector switch according to the specification on left.
Total current consumption	less than 230 mA	
Residual voltage	less than 3.5V	
Load current	---	*Total current consumption of all connected sensor.

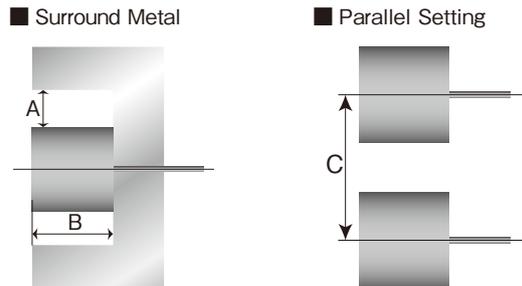
Typical diagram (ex: Power Supply voltage 24V Time/Metal non implantation)

RS12T-TF423_PU / RS12E-TF423_PU



Installation notes

To avoid influence with the neighborhood metal and the mutual interference between the product, Please make sure to have an open distance shown on the list below.



Type code	A	B	C
RS12T-TF423-PU			
RS12E-TF423N_PU	30	23	250
RS12E-TF423P_PU			

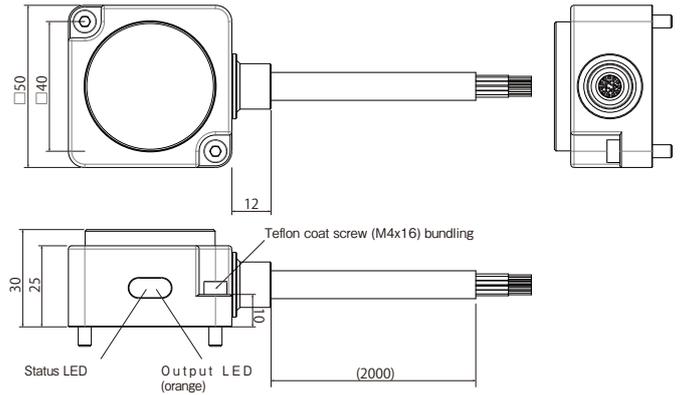
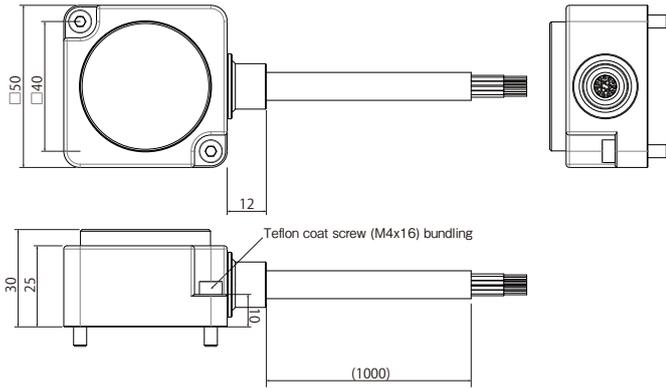
(mm)

* Possible that only one side, the metal contacts.

Transmitter

Output sensor

Size 50 x 50
Operating distance 2...4mm



Transmitter (standard type)	
Type code	DC 3-wire RS12T-TF423B-PU-01
Drive voltage	12V ± 1.5V DC
Drive current	≤ 230 mA
No. of Input signals	12 signals
Operating distance	2...4mm
Center offset	± 3mm
Drive current	230 mA
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ²
Material	Active surface: PTFE, Body: Brass +PTFE coat
Weight	Body 256 g + Cable 105 g x 1m
Remark	Two Teflon coat screw (M4x16) bundling for fixation

Output sensor (standard type)	
Type code	NPN output RS12E-TF423BN-PU-02 PNP output RS12E-TF423BP-PU-02
Power supply	24V DC ± 10% (incl.ripple)
Current consumption	≤ 600mA
No. of output signal	12 signals + 1 signal (Inzone)
Load current	max.50mA (1 signal.)
Frequency of operation	60Hz
LED (indication)	Status LED (Green) , Output LED (Orange)
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ²
Material	Active surface: PTFE, Body: Brass +PTFE coat
Weight	Body 256 g + Cable 105 g x 2m
Remark	Two Teflon coat screw (M4x16) bundling for fixation

Transmitter (Cable protection type)	
Type code	DC 3-wire RS12T-TF423B-TP-01
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ² Protection with the heat-resisting glass network tube

Output sensor (Cable protection type)	
Type code	NPN output RS12E-TF423BN-TP-02 PNP output RS12E-TF423BP-TP-02
Cable	PUR / φ 8.6 , 2x0.5mm ² + 13+x0.18mm ² Protection with the heat-resisting glass network tube

Applicable sensor

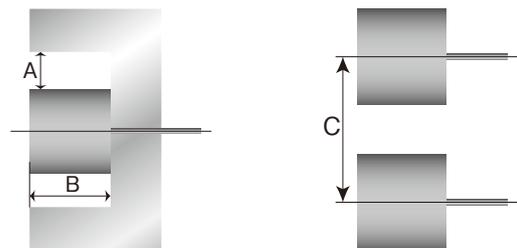
Supply voltage	12V DC	Please sure to use applicable detector switch according to the specification on left.
Total current consumption	less than 230 mA	
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Installation notes

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Surround Metal

Parallel Setting



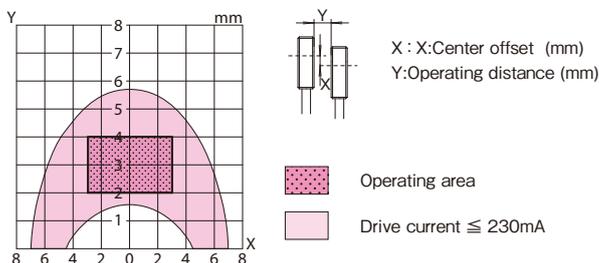
Type	A	B	C
RS12T-TF423-TP	30	23	250
RS12E-TF423N_-TP			
RS12E-TF423P_-TP			

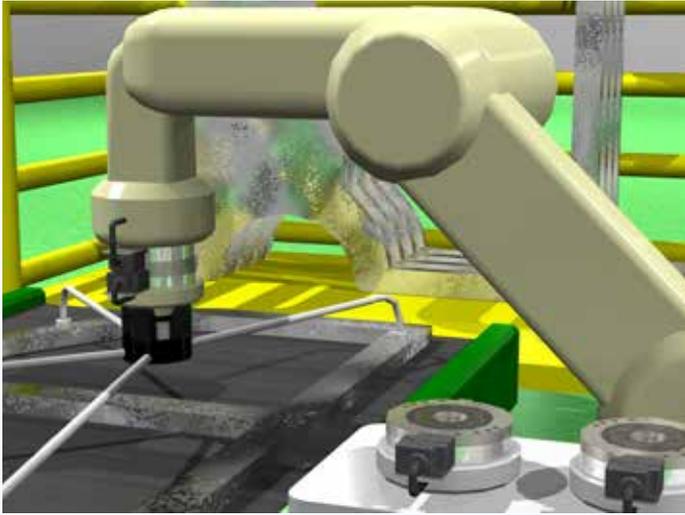
(mm)

* Possible that only one side, the metal contacts.

Typical diagram (ex: Power Supply voltage 24V Time/Metal non implantation)

RS12T-TF423_-TP / RS12E-TF423_-TP

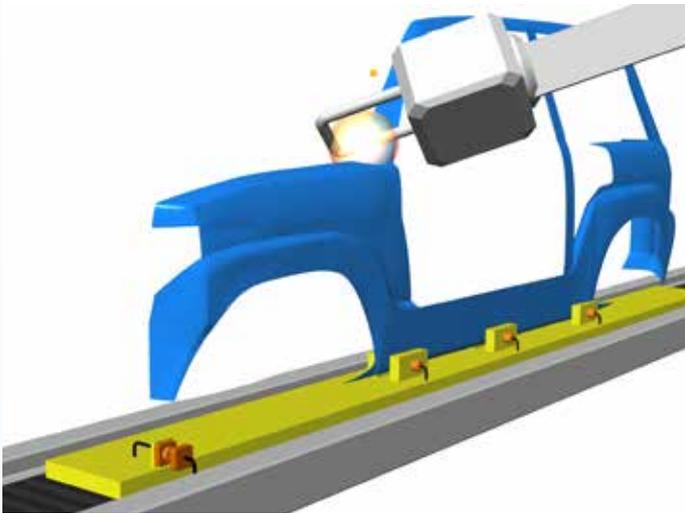




Tool changer of the robot hand

Wireless feeding to a robot hand grasp confirmation and transmit the grasp signal of the sensor to the control side. There was a trouble such as short-circuiting when positioning between the points of contact. Trouble getting water on to the point of contact and breaking down. But by changing to wireless, it solves these issues.

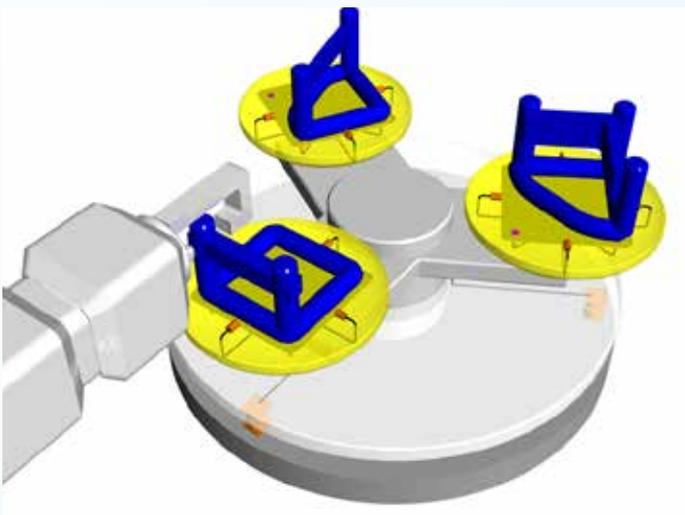
- Because it is wireless, the gap of positioning can be large!
- Strong in water and oil! - Protection class; IP 67.
- Wireless Power Supply 12V/230mA and signal transmits for 12 points !



Welding process of the car.

Welding the car which are placed on the palette at a welding line. Install a sensor to confirm the body part By replacing the connector to remote system, problems such as defectiveness, disconnection and the sputtering was solved.

Unnecessary for the connector to plug in and out. Saving operation time by automatizing. Solving the trouble of disconnection of the steering cableveyor. Reducing the frequency of maintenance of the sputtering system.



Identifying and verifying workpiece on a turntable

Continuous cycle of Loading, welding and unloading. By using 3 jigs mounted on a turntable turning 120 degree at a time. Remote system supplies power to 8 proximity switches and transmits their switching state.

Solving the trouble of disconnection of the steering cable.
○ Possible to continuously rotate the table and work effectively!

Wireless Power Supply by
B & PLUS K.K.

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Web : <http://www.b-plus-kk.com>

* Contents is subject to change without notice.