Remote Sensor System Switch signal Terminal unit version 16 signals transmission

: RS16TA-211D-S04, RS16T-211D-S04 Remote terminal

RS16TA-211P-S04, RS16T-211P-S04

: RSH16T-030-PU-CP-_ _,RSH16T-TF030-PU-CP-_ Transmitting head RSH16E-030N-PU-_ _,RSH16E-TF030N-PU-_ Output head

RSH16E-030N-PU-__,RSH16E-TF030N-PU-_

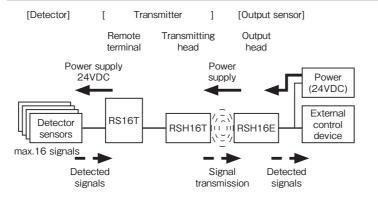
Attention for Installation

Read this section thoroughly before installation.)

Before using the Remote Sensor, read this manual carefully. During installation and operation, pay close attention to the safety aspect.

- ◆ Ensure the power is switched off during installation or maintenance operations
- ◆ Use a regulated power supply, e.g. switch-model type. Simpler power supplies, such as a full-wave rectification type, will cause the permissible ripple rating to be exceed and may cause malfunction
- ◆ Ensure correct connections by reference to the wiring diagram.
- ◆ To avoid malfunction caused by induction noise, cable should be kept apart from motor or other power cable.

Construction of the system



[Function of each component]

Detector SW: Detected signals is transmitted to Remote terminal.

DC2W/Mechanical switch or DC3W switch is connected Remote terminal:

and detected signals is transmitted to Tranmission head.

Provides power for Detector SW, also passes detected Transmitting head:

signals from Detector to Output Head.

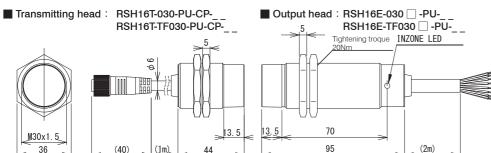
Output head: Puts out detected signal to external controller, also sends

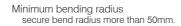
power for operating of Detector and Transmitter.

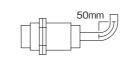
Fluorine resin cap & Fluorine resin coated housing to Anti-weld slag type:

(TF in type name) protect against weld slag

Transmitting head / Output head specification







Do not pull the cable strongly.

AU5 /					
Transmitting head	Standard type	Anti-weld slag type			
Type code	RSH16T-030-PU-CP	RSH16T-TF030-PU-CP			
Operating distance	28 mm				
Center offset	±3 mm				
Connection cable	M12 connector				
Material Housing	Nickel plated brass	Fluorinated resin coated			
Operating surface	Nylon 12	Fluorinated resin			
Ambient temperature	0+50 deg.C.				
Protection class	IP 67				
(Note)		-			

Please note that the cable length of an output sensor may not longer than 10m.

The CE marking verifies that our products comply with the requirements of EMC directive.

The surge test to an output sensor is not carried out.

When using an output sensor with cable length longer than 10m, a measure to protect the sensor from serge current should be taken.

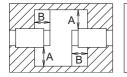
♦ Please note that the signal may become unstable (false signal or chattering) when the transmission distance and the center offset are outside the specification range.

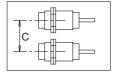
♦ The inzone signal is a preliminary signal for confirming that the output signal is established within the specification range. Please note that it does not guarantee signals output outside the specification range.

Output head	Standard type	Anti-weld slag type			
Type code NPN	RSH16E-030N-PU	RSH16E-TF030N-PU RSH16E-TF030P-PU			
PNP	RSH16E-030P-PU				
Output signal	17 signals (Detect:16,INZONE:1)				
Output type	NPN or PNP				
Supply voltage	24 V DC ±10 % (incl. ripple)				
Load current	max. 50 mA (1 signal)				
Current consumption	≦ 500 mA				
Frequency of operation	20 Hz				
LED	INZONE				
Connection cable	PUR/ φ 8.6、2x21AWG+17x25AWG	<u> </u>			
Material Housing	Nickel plated brass	Fluorinated resin coated			
Operating surface	Nylon 12	Fluorinated resin			
Ambient temperature	0+50 deg.C.				
Protection class	IP 67				

■ Influence of surrounding metal and Mutual interference

In order to avoid influence of surrounding metal or to avoid mutual interference between parallel-mounted sensors. keep the minimum space as described below.

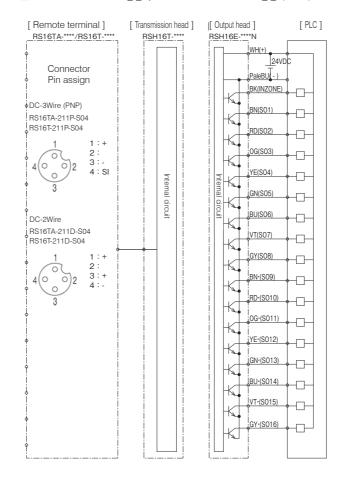




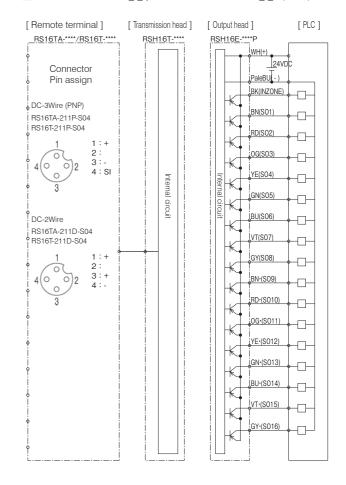
			(111111)
Type code	Α	В	С
RSH16E-030 □ -PU RSH16T-030-PU-CP	30	30	160

Wiring

■ RSH16E-030N-PU-_ , RSH16E-TF030N-PU-_ (NPN)



■ RSH16E-030P-PU-_ , RSH16E-TF030P-PU-_ (PNP)



DC 2-wire detector switch

RS16TA-211D-S04

RS16T-211D-S04

RSH16T-030-PU-CP-

22 V DC \pm 10 %

5 mA (1 signal)

22 V DC ±10 %

= < 6.5 V

=>5 mA

=< 1 mA

0...+50 deg.C.

PPS

IP67

DC 2-wire

RSH16T-TF030-PU-CP-

DC 3-wire detector switch

RS16TA-211P-S04

RSH16T-030-PU-CP-

RSH16T-TF030-PU-CP-

12 V DC ± 10 %

max.16 signals

12 V DC ±10 %

DC 3-wire

150 mA

= < 3.5 V

 $=> 0.5 \, \text{mA}$

 $=< 0.1 \, \text{mA}$

0...+50 deg.C

PPS

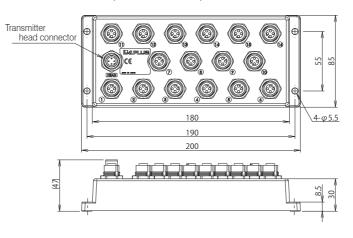
IP67

The unused connectorshould be protected in an exclusive

RS16T-211P-S04

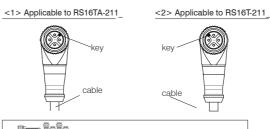
Remote terminal specification

■ Remote terminal: RS16TA-211D-S04 / RS16TA-211P-S04 /RS16T-211D-S04 / RS16T-211P-S04



Applicable angle connector type (Detector's connector)

When using an angle connector, please use a connector of which key is positioned same as the following figure.



the left figure.

The direction of the cable is shown in



Type code

(see connector type) type-2

Applicable Detector Sensor Driving Voltage

Driving Current

Spec

of

tyep-1

Connection Detector Sensors max.16 signals

Supply Voltage

ON Voltage

Detector Load current

Material Housing

Protection class

protection cap

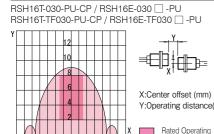
Sensors Leakage current

Ambient temperature

 $B \& PLU f K.K. \quad \text{(Former NIHON BALLUFF co., Ltd.)}$ http://www.b-plus-kk.jp/ E-mail b-plus@b-plus-kk.jp

protection cap (option:PROT-M12).

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



Y:Operating distance(mm)

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