Dimensions

connector M12 4-pin

LED 1-8 (function)

LED (power)

bolt-hole spacing 96

(22.6)
21
157
26
63
5.4
23.5
7.4
(20)
bolt-hole spacing 46
60
6
φ50
Lid
17
(43)

To fix with three M5 cap bolt (L≧20mm)

Cable entry for Transmitter

12
17

A032c

■ Specification is subject to change without notice.

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Terminal Box for Remote Sensor
Technical Manual

RPK-8C01L-N
RPK-8C01L-P

Attention for Safety
(Read this guide before installation and operation. Handle the Terminal Box properly.)

[Planning the system]

The Terminal Box for the Remote Sensor is an enclosure which connects the Detectors with the Transmitter of the Remote Sensor and transmits the detected signals. The Terminal Box should only be used for this purpose.

Plan the system to work safely if the Terminal Box should be damaged.

[Handling the Terminal Box]

Make the correct wiring and connect as referred to the wiring diagram of this manual.

Wiring errors may cause system failure.

Make sure that the power is turned off, when start the installation process.

Never take the device apart or modify.

Dispose of the device as an industrial waste.

Applicable Transmitters and Detectors

Remote Sensor RGPT series	Terminal Box	applicable Detectors
RGPT-3005, RGPT-4008, RGPT-9012	RPK-8C01L-N	DC 3-wire/NPN and Mechanical switchs[1]
	RPK-8C01L-P	DC 3-wire/PNP and Mechanical switchs[2]

1) In the application which mechanical switches are used, connector should be wired with pin no. 3.4
2) In the application which mechanical switches are used, connector should be wired with pin no. 1.4

◆ 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.

Specification

Applicable Detector	DC 3-wire switch (NPN or PNP) Mechanical limit switch
Connector function	1=+, 3=-, 4=output
Housing material	Aluminum sandmold casting
Lid material	Aluminum cutting with viton packing
Protection class	IP67
Blank plug	VA-OT5 (Supplied with Terminal Box) 4 pcs.

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Connection of the Transmitter to the Terminal Box

Connect the Transmitter to the Terminal Box in accordance
with the following procedure.
Measure of strip cables (Fig. 1-a)
   1. Strip outer sheaths of cable.
   2. Strip insulations of cores.
Fastening position of cable (Fig. 1-b)
   Make sure that outer sheath of cable is positioned inside
   of the Terminal Box properly in tightening cable.
Mounting of Cable <fig. 2>
   Put a cap and sealing ring on cable, then insert the cable
   to the body.
   Put a cap on the Cable Gland and tighten it with a
   spanner. (Spanner caliber : 17mm)
   Applicable cable diameter : 5.0...8.0mm
   Tightening torque : 6Nm
   The cap can be shut up tightly to the body.
Replace the sealing rings of Cable Glands when you
change Transmitter in maintenance to avoid decline of its
watertight quality.
   Sealing ring   Code : 991995008
                   Type number : KBC-F2/E150P8

17mm・6Nm

10mm

50mm

(Fig. 1)

body

Sealing ring

Cap

(Fig. 2)
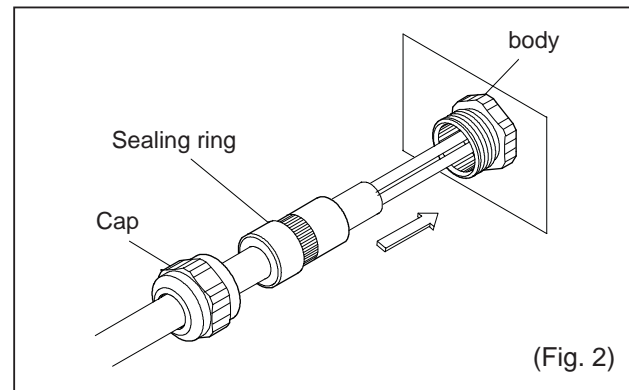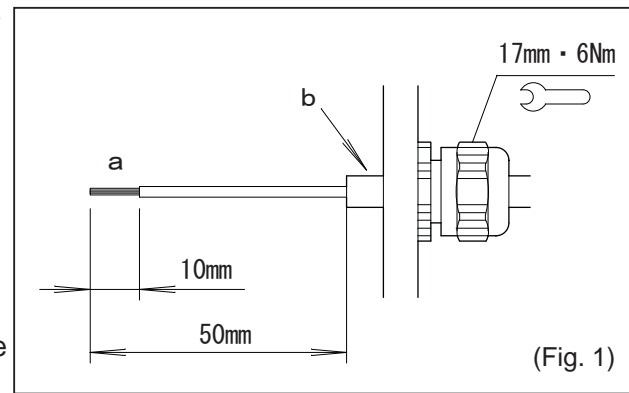
Fix the Box and Installing the Lid of the Terminal Box

Fix the Terminal Box with three M5 Allen screws (length : longer than 20mm).
Fit the lid on the Terminal Box horizontally and close the lid smoothly or not to damaged thread of the lid,
then insert and fasten it tightly. (Fig. 3)

(Fig. 3)
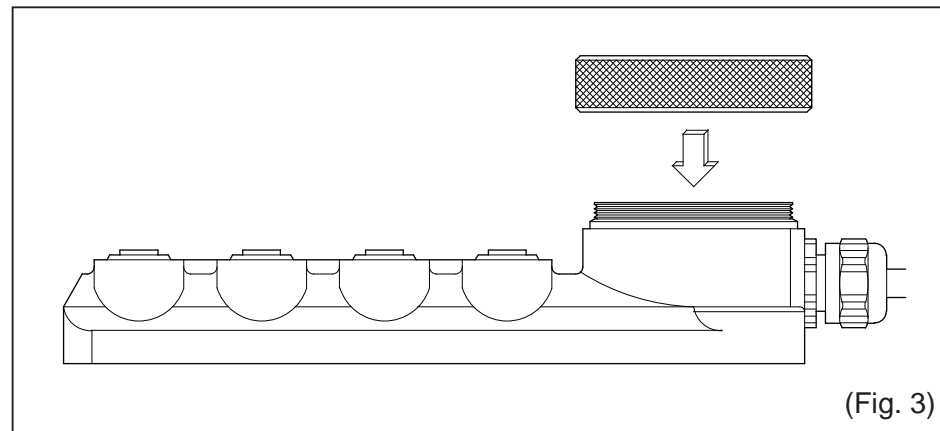
Connection of Angle Connectors

In using angle connectors, use a connector which a projection is positioned
indicated in the right figure (Fig. 4).
If you use different type connectors, connectors interfere each other and other
connectors cannot connect into the contacts.

45°

(Fig. 4)
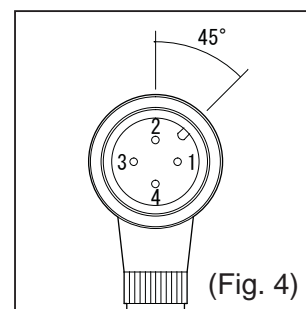
*Use this type connector.

Connecting to Terminal block

In accordance with the connection diagram, connect the core to each appropriate terminal.
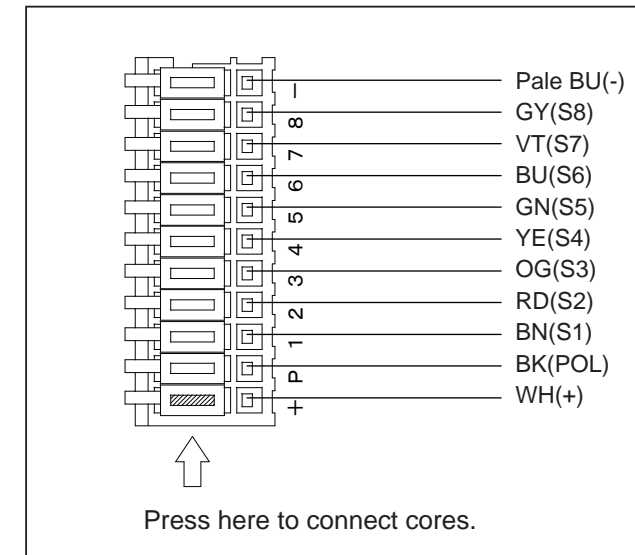<Note>
Press the button with slotted screw driver (width of edge : 2.6mm) and connect the core.
Insert core to reach terminal sufficiently.
(If a core was inserted insufficiently, core may come out or cause short with adjoining cable. If a core was
 inserted exceedingly, the core cannot be connected sufficiently because of terminal catching insulations.)

Connection diagram

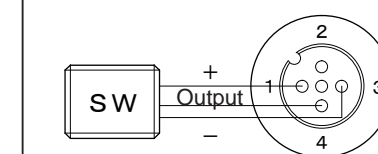Power Remote Sensor RGPT / 8 signal transmission type

–	Pale BU(-)
8	GY(S8)
7	VT(S7)
6	BU(S6)
5	GN(S5)
4	YE(S4)
3	OG(S3)
2	RD(S2)
1	BN(S1)
P	BK(POL)
+	WH(+)

Press here to connect cores.

Wiring to Connector

In accordance with the wiring diagram bellow, connect the wire of detectors to connectors.

NPN 3-wire sensor

RPK-8C01L-N
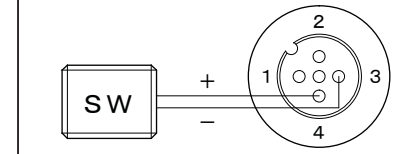
Connect to pol. 1, 3, 4

SW Output

Mechanical limit switch

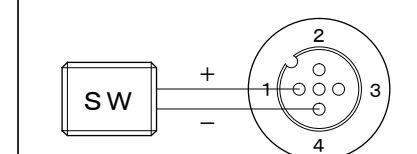Connect to pol. 3, 4

SW

PNP 3-wire sensor

RPK-8C01L-P

Connect to pol. 1, 3, 4

SW Output
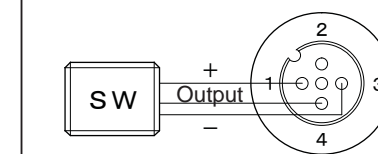
Mechanical limit switch

Connect to pol. 1, 4

SW

Plug supplied blank plug into any unused connectors.