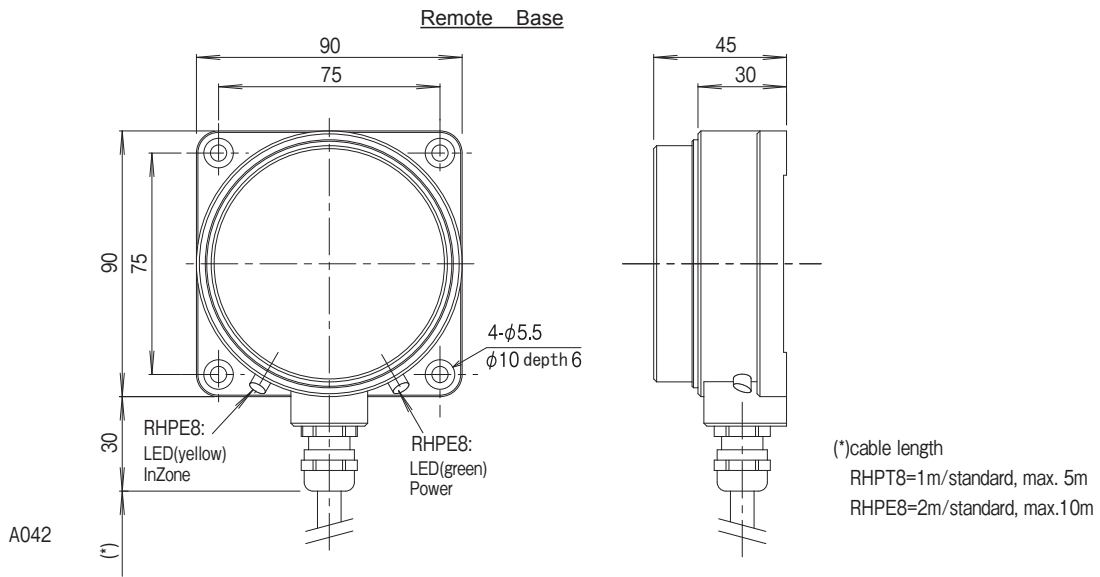


4 + 4 switch signals/ Size : 90 x 90

Operating distance
3...10mm

Remote / Base
shared dimension



Wiring C019 / P.127

Remote	
Type NPN	RHPT8-8010N-C3-PU-01
Code PNP	RHPT8-8010P-C3-PU-01
Drive voltage	24V ± 1.5V DC
Drive current	≤ 300mA
Input Signal / Type	4 (SI1...4) / NPN or PNP
spec 1) Load current	7 mA / per input
Output Signal / Type	4 (SO1...4) + 1 (Inzone) / NPN or PNP
spec 2) Load current	max.50mA per output
Operating distance	3...10mm
Center offset	±7mm
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / φ 7.7 , 2x0.5mm ² +9x0.18mm ²
Material Housing	Aluminum + alumite processing (metal part)
Active face	ABS+PBT (resin part)
Weight	Body 620 g + Cable75 g × 1 m
Remark	

- 1) Input from the sensor to RHPT8
2) Output to the actuator from RHPT8

Base	
Type NPN	RHPE8-8010N-C3-PU-02
Code PNP	RHPE8-8010P-C3-PU-02
Supply voltage	24V DC ±10% (including ripple)
Current consumption	≤ 1.5A
Input Signal / Type	4 (SI1...4) / NPN or PNP
spec 3) Load current	7 mA / per input
Output Signal / Type	4 (SO1...4) + 1 (Inzone) / NPN or PNP
spec 4) Load current	max.50mA per output
Frequency of operation	40Hz
LED	InZone / Power
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / φ 7.7 , 2x0.5mm ² +9x0.18mm ²
Material Housing	Aluminum + alumite processing (metal part)
Active face	ABS+PBT (resin part)
Weight	Body 620 g + Cable75 g × 2 m
Remark	

- 3) Input to the RHPE8 from the host device
4) Output to the host device from RHPE8

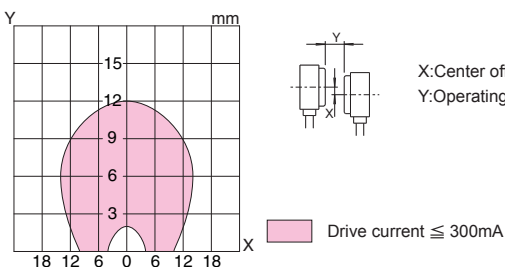
Applicable sensor and actuator

Remote can be connected up to 4 sensors and 4 actuators.

Supply voltage	24V DC	-Sensors and actuators should have 24V DC rating.
Total current consumption	≤ 300mA	-The total current consumption of detectors and driving units must not exceed the rated drive current.
Residual voltage	---	
Leakage current	---	

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

RHPT8-8010 □ -C3-PU-__ / RHPE8-8010 □ -C3-PU-__

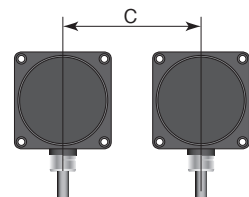


Installation notes

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

■ Surrounding metal

■ Parallel installation



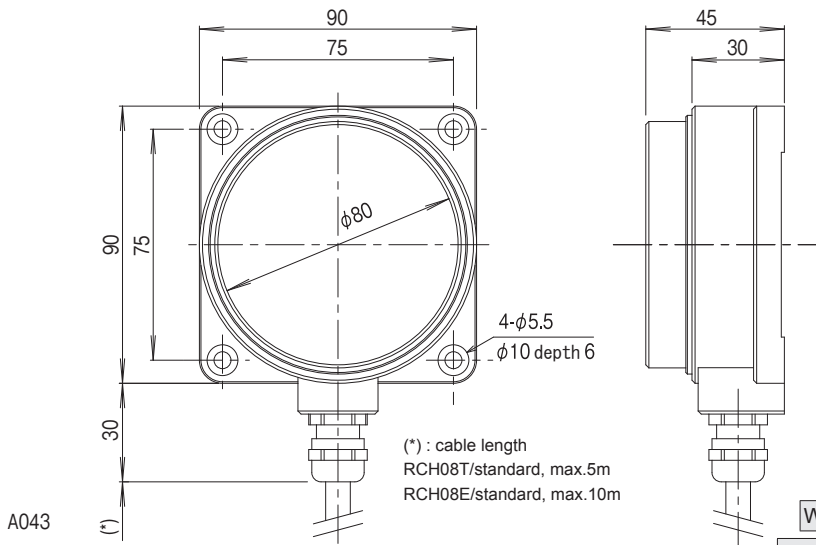
Type Code	A(mm)	B(mm)	C(mm)
RHPT8-8010 □ -C3-PU-__	50	45	300
RHPE8-8010 □ -C3-PU-__			

8+8 switch signals and 64+32 switch signals / Size : 90 x 90

Operating distance
4...9mm

Remote head / Base head

Remote head
Base head
shared dimension



Remote head:RCH08T-211 and
Base head:RCH08E-211 are
used for both 8+8 and 64+32
transmission system as a head.

Wiring 8+8	C020 / P.127
Wiring 64+32	Please refer to the User's Guide.

Remote / Remote head	
Type Code	RCH08T-211-PU-01
Applicable	8+8 RC08T-011_-000
Remote amplifier	64+32 RL64T-344_-000, RL64T-345_-000
Drive voltage	24V ± 1.5V DC
Drive current	≤ 2A
Operating distance	4...9mm : 6...8mm
Center offset	±5mm : ±3mm
Drive current	≤ 1A : ≤ 2A
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / Ø7.8, 2x1.25mm ² +2x0.2mm ² with shield
Material	Housing: Aluminum + alumite processing (metal part) Active face: ABS+PBT (resin part)
Weight	Body 600 g + Cable 120 g × 1 m
Remark	

BaseBase head	
Type Code	RCH08E-211-PU-02
Applicable	8+8 RC08E-011_-000
Base amplifier	64+32 RL64E-333_-000, RL64EA-355DN-000, RL64E-366CL-000, RL64E-366EI-000
Supply voltage	24V DC ±5% (including ripple)
Current consumption	≤ 4A
Load current	---
Frequency of operation	---
LED	---
Operating temperature	0...+50°C
Protection class	IP67
Cable	PUR / Ø7.8, 2x1.25mm ² +2x0.2mm ² with shield
Material	Housing: Aluminum + alumite processing (metal part) Active face: ABS+PBT (resin part)
Weight	Body 620 g + Cable 120 g × 2 m
Remark	

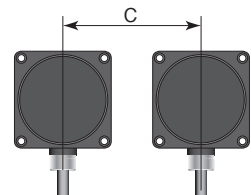
The same Remote Head or Base Head can be used both to 8+8 or 64+32 signals transmission type. But the Remote part of 8+8 transmission type can not be used with the Base part of 64+32 transmission type. The opposite is true.

Installation notes

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

■ Surrounding metal

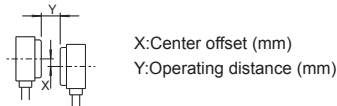
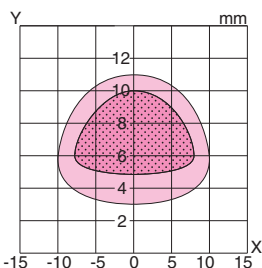
■ Parallel installation



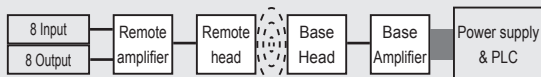
Type Code	A(mm)	B(mm)	C(mm)
RCH08T-211-PU-__	50	45	300
RCH08E-211-PU-__			

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

RCH08T-211-PU-__ / RCH08E-211-PU-__



■ Drive current ≤ 2A
■ Drive current ≤ 1A



RCH08T
RCH08E

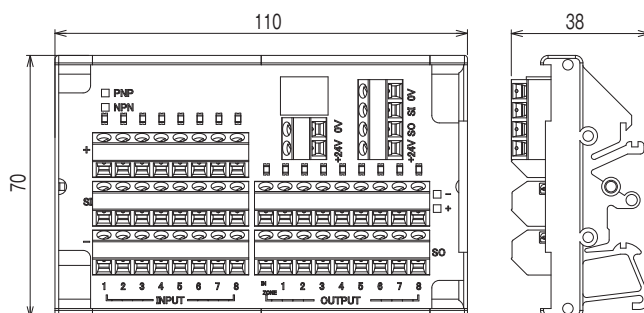
RC08T
RC08E

8+8
signals

8+8 switch signals / Size : 110x70

Remote amplifier / Base amplifier

Remote amplifier
Base amplifier
shared dimension



A044a

Wiring C020 / P.127

Remote amplifier		
Type	NPN	RC08T-011N-000
Code	PNP	RC08T-011P-000
Applicable Remote head	RCH08T-211-PU	
Supply voltage	24V DC \pm 10% (from Remote head)	
Current consumption	\leq 150mA	
Input ¹⁾	No. of signals	8 signals (SI1...8)
	Input logic	NPN or PNP
	Load current	7 mA / per input
Output ²⁾	No. of signals	8 (SO1...8) + 1 (InZone)
	Output logic	NPN or PNP
	Load current	\leq 300mA/1 output
	Frequency of operation	100Hz
LED	input and output signal, Inzone	
Operating temperature	0...+50°C	
Protection class	IP67	
Mounting	DIN rail 32/35mm	
Material	Body	Nylon
Weight	130 g	
Remark		

Base amplifier		
Type	NPN	RC08E-011N-000
Code	PNP	RC08E-011P-000
Applicable Base head	RCH08E-211-PU	
Supply voltage	24V DC \pm 10% (including ripple)	
Current consumption	\leq 150mA	
Input ³⁾	No. of signals	8 signals (SI1...8)
	Input logic	NPN or PNP
	Load current	7 mA / per input
Output ⁴⁾	No. of signals	8 (SO1...8) + 1 (InZone)
	Output logic	NPN or PNP
	Load current	\leq 300mA/1 output
	Frequency of operation	100Hz
LED	input and output signal, Inzone	
Operating temperature	0...+50°C	
Protection class	IP67	
Mounting	DIN rail 32/35mm	
Material	Body	Nylon
Weight	130 g	
Remark		

Applicable sensor and actuator

- Remote amplifier can connect up to 8 sensors and 8 actuators.
- The total current consumption of Remote amplifier, sensors and actuators must not exceed 2A the drive current which is supplied by the Remote head.

Supply voltage	24V DC
Total current consumption	\leq 2A
Residual voltage	---
Leakage current	---

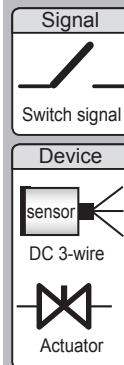
Base amplifier with Enable signal

The Base amplifier with an enable signal is also available. It stops the output of detection signals from Base amplifier to controller and control signals from Remote amplifier to actuators.

Enable signal type : RC08EA-011N-000
RC08EA-011P-000

Since the input signal No. 8 is assigned for Enable signal, the usable control signal from the controller is up to 7.

- 1) Input from sensor to Remote amplifier
- 2) Output from Remote amplifier to actuators
- 3) Input from the controller to Base amplifier
- 4) Output from Base amplifier to the controller



Remote
Coupler

4+4
Switch Signals

8+8
Switch Signals

64+ 32
Switch Signals

RS-232C

CC-Link

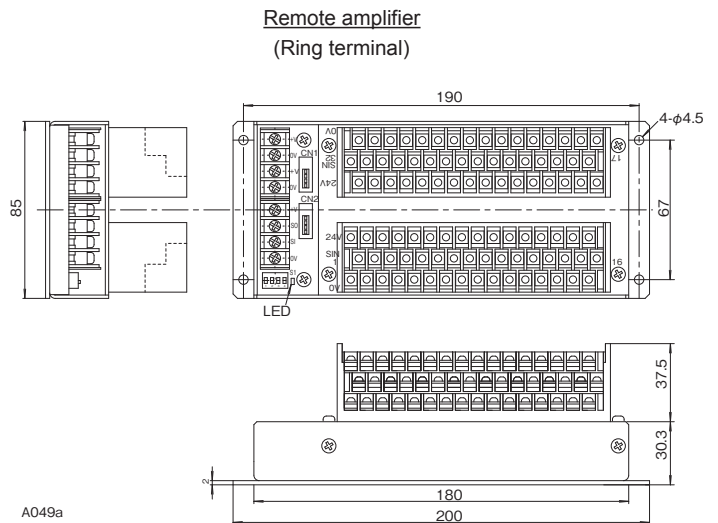
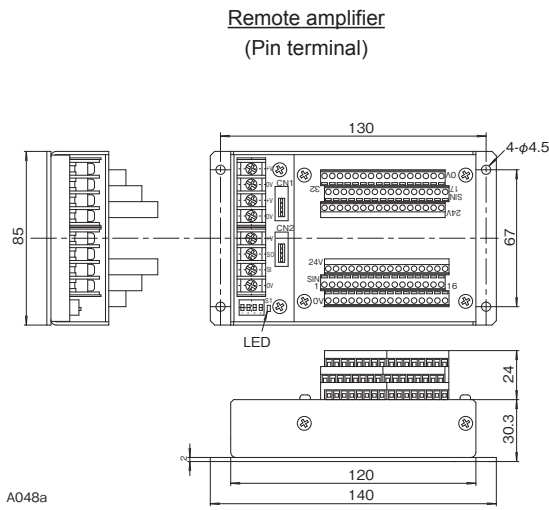
DeviceNet

Exclusive sensor

Terminal box
Other unit

Wiring

64+32 switch signals



Wiring Please refer to the User's Guide.

		Remote amplifier (Pin terminal)	Remote amplifier (Ring terminal)
Type Code	NPN	RL64T-344N-000	RL64T-345N-000
	PNP	RL64T-344P-000	RL64T-345P-000
Applicable Remote head		RCH08T-211-PU	RCH08T-211-PU
Applicable Base amplifier		RL64E-333_-000、RL64EA-355DN-000、 RL64E-366CL-000、RL64E-366EI-000	RL64E-333_-000、RL64EA-355DN-000、 RL64E-366CL-000、RL64E-366EI-000
Input logic		NPN or PNP	NPN or PNP
No. of Input signals		32 signals	32 signals
Load current		7mA / per input	7mA / per input
Frequency of operation		20Hz	20Hz
Current consumption		≤ 70mA	≤ 70mA
LED		Ready	Ready
Material	Housing	SPCC-SD, Glass-epoxy	SPCC-SD, Glass-epoxy
	Cover plate	---	---
Connection	sensor	Terminal block : 3 pole x 32	Terminal block : 3 pole x 32
	Remote head	Terminal block : 4 pole x 1	Terminal block : 4 pole x 1
	Input/Output unit	Connector : e-con , 4P x 2	Connector : e-con , 4P x 2
Operating temperature		0...+50°C	0...+50°C
Weight		620 g	1,040 g
Remark			

Applicable sensor and actuator

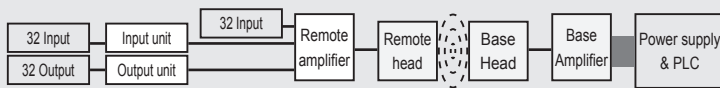
- Remote amplifier RL64T-344/345 can connect up to 32 detectors directly without Input unit.
- Please use a sensor which works definitely in the condition described below.

Supply voltage	24V DC
Total current consumption	≤ 2A
Residual voltage	≤ 6V
Leakage current	≤ 1mA

- The total of the current consumption of all units being connected to Remote head - Remote amplifier, an input and output unit, sensors and actuators - must not exceed 2A the drive current which is supplied by the Remote head.

Notes

- Prepare the cable, 4 conductors and outer diameter phi 1.35 ... 1.6 mm to connect an input unit and an output unit. An insulation displacement connector is attached to each unit.

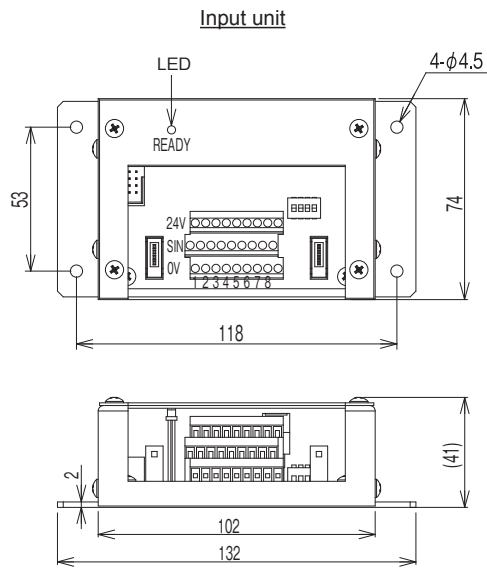


RL64T

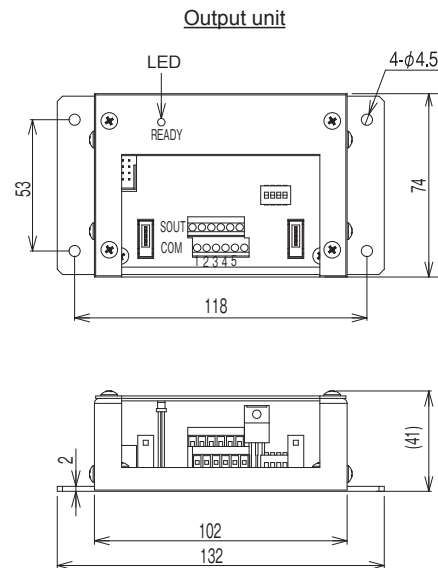
RLX08
RLY04

64+32
signals

64+32 switch signals



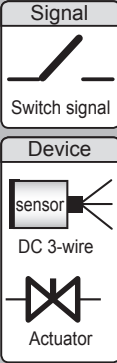
A052 Wiring Please refer to the User's Guide.



A053 Wiring Please refer to the User's Guide.

Input unit	
Type Code	NPN RLX08-322N PNP RLX08-322P
Input logic	NPN or PNP
No. of Input signals	8 signals
Load current	7mA / per input
Current consumption	≤ 40mA
Frequency of operation	20Hz
LED	Ready
Material Housing	SPCC-SD
Cover plate	Acrylic resin
Connect sensor	Terminal block : 3 x 8 pole
Actuator	---
Input/Output unit	Connector : e-con, 4-pin x 2
Operating temperature	0...+50°C
Weight	350 g
Remark	

Output unit	
Type Code	NPN RLY04-322N PNP RLY04-322P
Output logic	NPN or PNP
No. of Output signals	5 signals (data : 4, Data valid : 1)
Load current	max. 200mA per output
Current consumption	≤ 40mA
Frequency of operation	20Hz
LED	Ready
Material Housing	SPCC-SD
Cover plate	Acrylic resin
Connect sensor	---
Actuator	Terminal block : 3 x 4 pole
Input/Output unit	Connector : e-con, 4-pin x 2
Operating temperature	0...+50°C
Weight	350 g
Remark	



Remote Coupler

4+4
Switch Signals

8+8
Switch Signals

64+32 Switch Signals

RS-232C

CC-Link

DeviceNet

Exclusive sensor

Terminal box
Other unit

Wiring

Applicable sensor and actuator

- The input unit connects up to 8 sensors. It can connect up to 4. (Max 64 sensors can be connected to the amplifier and input units.)
- The output unit connects up to 4 actuators. It can connect up to 8
- Please use a sensor which works definitely in the condition described below.

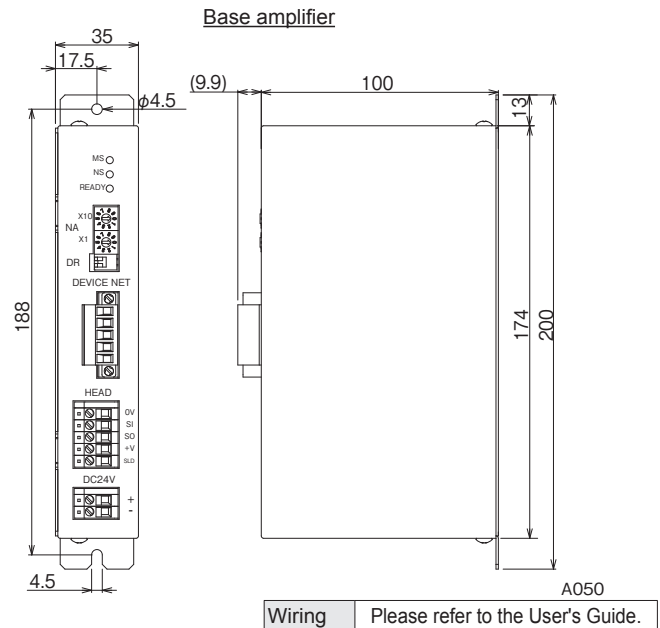
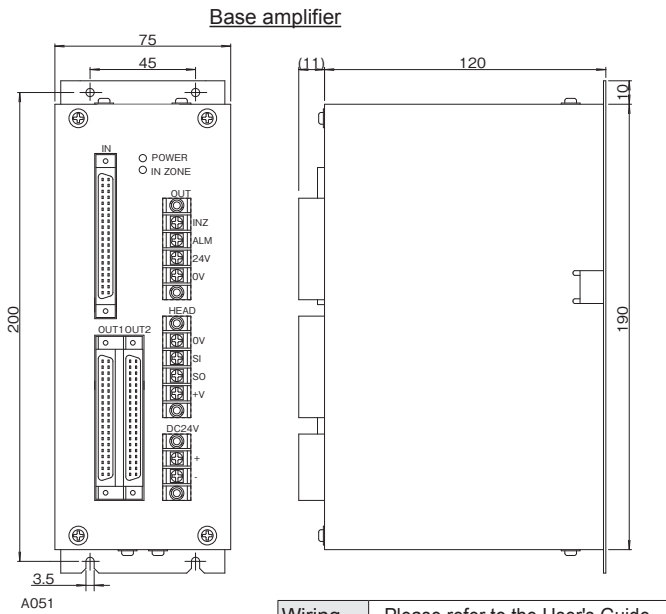
Supply voltage	24V DC
Total current consumption	≤ 2A
Residual voltage	≤ 6V
Leakage current	≤ 1mA

- The total of the current consumption of all units being connected to Remote head - Remote amplifier, an input and output unit, sensors and actuators - must not exceed 2A the drive current which is supplied by the Remote head.

Notes

- Prepare the cable, 4 conductors and outer diameter phi 1.35 ... 1.6 mm to connect an input unit and an output unit. An insulation displacement connector is attached to each unit.

64+32 switch signals

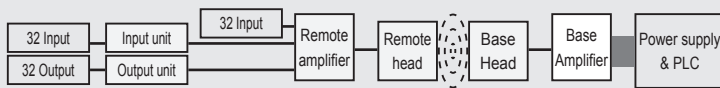


Base amplifier (Parallel I/O)	
Type	NPN RL64E-333N-000
Code	PNP RL64E-333P-000
Applicable Base head	RCH08E-211-PU
Applicable Remote amplifier	RL64T-344_-000 RL64T-345_-000
Input logic	NPN (current sink), PNP (current source)
No. of Input signals 2)	32
Load current	7mA / per input
Output logic	NPN (current sink), PNP (current source)
No. of Output signals 1)	67 (sensor: 64, InZone: 2, Short detection:1)
Load current	max. 20mA per output
Supply voltage	24VDC ± 5%
Current consumption	≤ 150mA
Frequency of operation	20Hz
LED	Power(Green), Ready(Yellow)
Material	Housing: SPCC-SD (steel plate)
Connection Power	Terminal block : 2 pole x 1
Head	Terminal block : 4 pole x 1
Input	Square connector : 40-pin x 1
Output	Square connector : 40-pin x 2
Operating temperature	0...+50°C
Weight	1,300 g
Remark	Connectors are supplied with Base amplifier

Base amplifier (DeviceNet)	
Type	DeviceNet RL64EA-355DN-000
Code	
Applicable Base head	RCH08E-211-PU
Applicable Remote amplifier	RL64T-344_-000 RL64T-345_-000
Communicating Function	Remote I/O (Poll)
Baud rate	500k/250k/125k Baud Set up by DIP switch
Node address	0 ~ 63 Set up by rotary switch
No. of Input signals 1)	64+1 Ready (9 byte)
No. of Output signals 2)	32 (4 byte)
Supply voltage	24VDC ± 5%
Current consumption	≤ 150mA
LED	MS:Red/Green, NS:Red/Green, Ready : Yellow
Material	Housing : SPCC-SD (steel plate)
Connection Power	Terminal block : 2 pole x 1
Head	Terminal block : 5 pole x 1
DeviceNet	Open Connector
Operating temperature	0...+50°C
Weight	550 g
Remark	

- 1) No. of output signal from Remote system
- 2) No. of input signal to Remote system

Please refer to the manual for more information.
The setting and the like more information of a base amplifier,
please refer to the instruction manual.

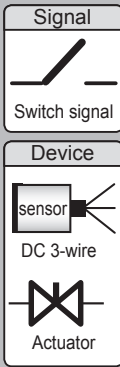


RL64E-333
RL64EA-355

RL64E-366

64+32
signals

64+32 switch signals



Remote Coupler

4+4
Switch Signals

8+8
Switch Signals

64+32 Switch
Signals

RS-232C

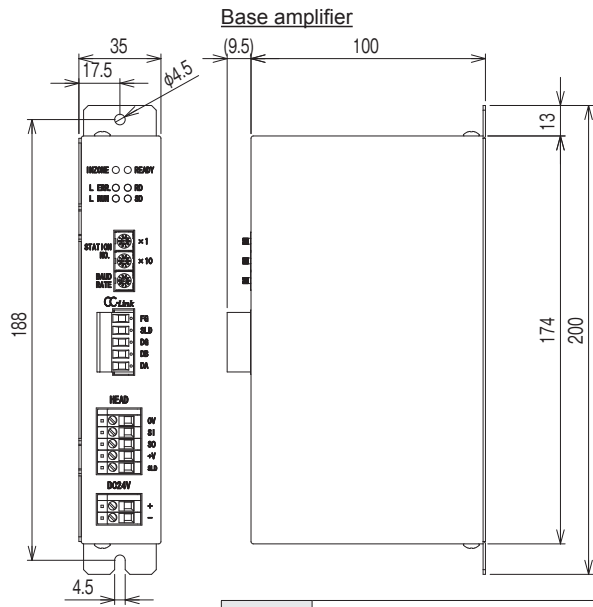
CC-Link

DeviceNet

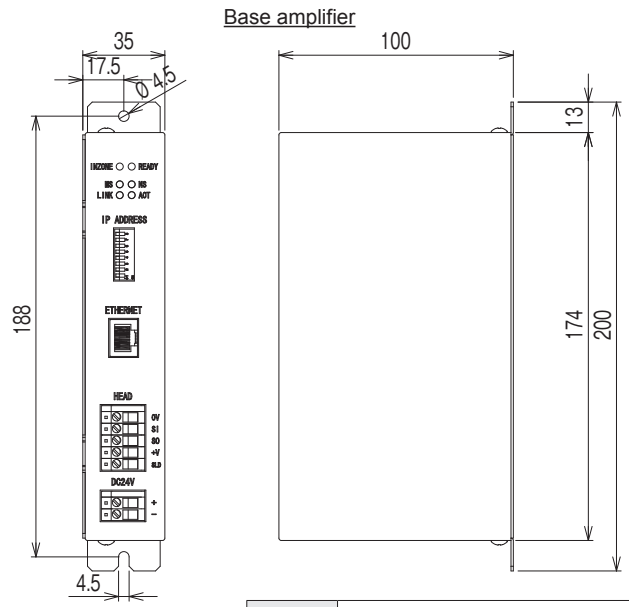
Exclusive sensor

Terminal box
Other unit

Wiring



Wiring Please refer to the User's Guide.



Wiring Please refer to the User's Guide.

Base amplifier (CC-Link)	
Type	CC-Link
Code	RL64E-366CL-000
Applicable Base head	RCH08E-211-PU
Applicable Remote amplifier	RL64T-344_-000 RL64T-345_-000
Protocol	CC-Link (Ver. 1.10)
Station type	Remote device station
Occupied station	3 stations (RX/Ry 96 each bits, RWr/RWw each 12 words)
Baud rate	156k/625k/2.5M/5M/10M bps (Set up by rotary switch)
Station No.	1...62(Set up by rotary switch)
No. of Input signals ¹⁾	64 (RXn0 ... RX(n+3)F) + 1 INZONE
No. of Output signals ²⁾	32 signals (RYn0 ... RX(n+1)F) *1
Supply voltage	24VDC ± 5% (Ripple less than 1V)
Current consumption	≤ 150 mA
Material	Housing : SPCC-SD (steel plate)
Connection	Power Terminal block : 2 pole x 1
	Head Terminal block : 5 pole x 1
	CC-Link 2 piece terminal block : 5 pole x 1
Operating temperature	0...+50°C
Weight	570 g
Remark	

Base amplifier (EtherNet/IP)	
Type	EtherNet/IP
Code	RL64E-366EI-000
Applicable Base head	RCH08E-211-PU
Applicable Remote amplifier	RL64T-344_-000 RL64T-345_-000
Protocol	EtherNet/IP
Communicating Function	Remote I/O function (Cyclic)
Communication method	Full duplex / half duplex (Automatic negotiation)
Baud rate	100Mbps/10Mbps (Automatic negotiation)
IP Address	Set by DIP switch, DHCP and other
No. of Input signals ¹⁾	64 + 1 Inzone (9 byte)
No. of Output signals ²⁾	32 (4 byte)
Supply voltage	24VDC ± 5% (Ripple less than 1V)
Current consumption	≤ 150 mA
Material	Housing : SPCC-SD (steel plate)
Connection	Power Terminal block : 2 pole x 1
	Head Terminal block : 5 pole x 1
	Ethernet RJ 45 female Connector x 1
Operating temperature	0...+50°C
Weight	560 g
Remark	

*1 n : Address that was allocated to the master station with setting station number.