

**Supply Power (24VDC/2A) &
Transmit Signal (64 detection signal + 32 control signal)**



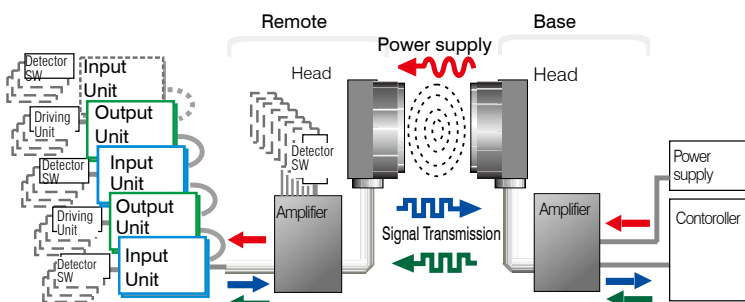
Parallel I/O

Up to 32 detection signal can be connected to Remote Amplifier.
Base Amplifier available for Parallel I/O and DeviceNet

By linking external units to Remote Amplifier,
Input unit: 8units×detecting 8 switches each
Output unit: 8units x driving 4 signals each
can be connected.

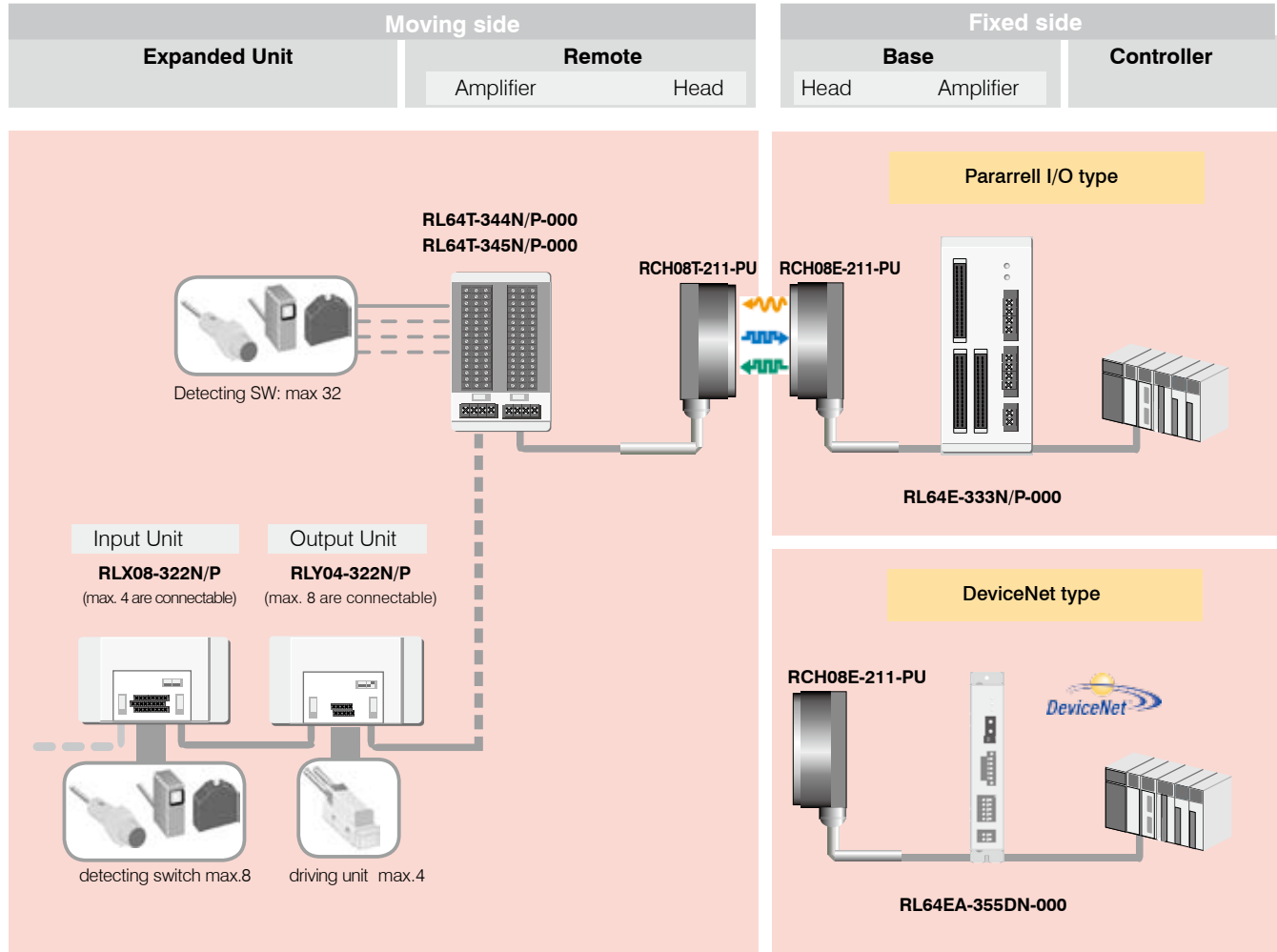


Description



Balluff/Remote system is an original connection system that supplies power and transmits signals inductively through air gap. Remote Link System designed to operate many detector switches and actuators by constructing link system of input and output.

System configuration and functions



Remote part

Remote Head/ Remote Amplifier

Receives power from the Base Unit and supplies power to connected detection switch or Input/Output unit and transmits Input/Output signals. Up to 32 detection switches can be connected.

Input Unit

Supply power to detection switches and transmits detecting signals to Remote amplifier. Max. 8 signals can be connected. Up to 4 units per 1 system can link to.

Output Unit

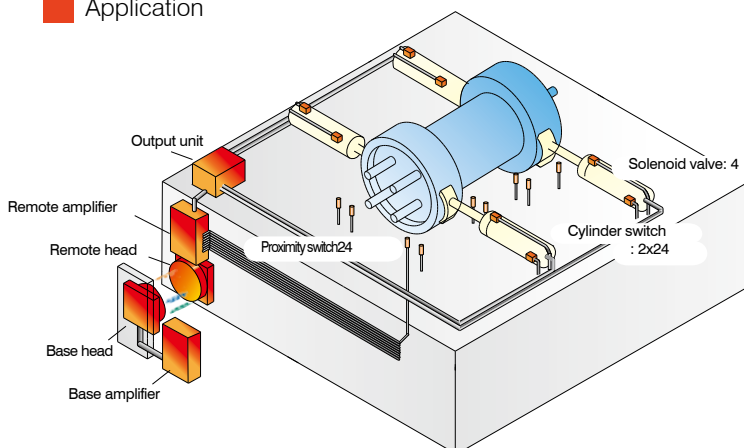
Operates connected driving units such as solenoid valve or small motor. Max. 4 signals can be connected. Up to 8 units per 1 system can be linked.

Base part

Base Head/ Base Amplifier

Supplies power 24VDC/2A to Remote unit without physical contact and transmits max. 64+32 input/output signals and executes input/output data communication with controller.

Application



On the assembly line

Application

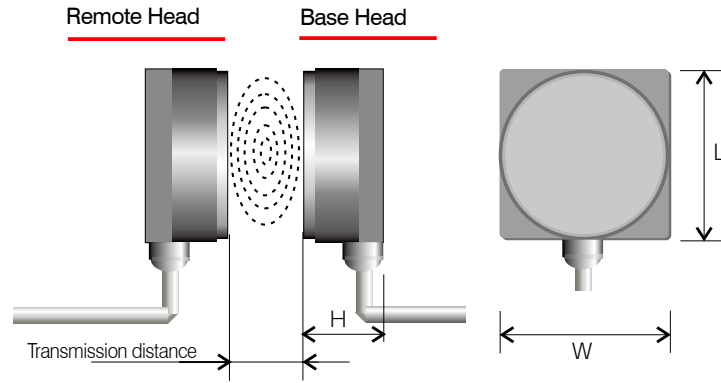
24 proximity switches can confirm the various workpiece positions which are different according to their shapes before 4 clamps operate. Simultaneously supply 24VDC/2A, and transmit 32 detecting signals (proximity switches +8 cylinder switches) and 4 control signals (solenoid valve)

Advantage

With using many proximity switches, various shapes of workpieces can be manufactured on one pallet.

Remote Head / Base Head

Transmit signals: 64+32



Type code	Remote part	RCH08T-211-PU-01										
	Base part	RCH08E-211-PU-02										
Housing size	Remote part	L90xW90xH45										
	Base part	L90xW90xH45										
Dimensions	N o .	L-D001										
Form		90x90										
Transmission distance (non-flush)		4 ··· 9mm										
Drive Voltage		24VDC +/- 1.5V										
Drive Current*		max.2A										
		<table border="1"> <thead> <tr> <th>Transmission distance</th> <th>Center Offset</th> <th>Drive current</th> </tr> </thead> <tbody> <tr> <td>4...9mm</td> <td>+/-5mm</td> <td>= <1A</td> </tr> <tr> <td>6...8mm</td> <td>+/-5mm</td> <td>= <2A</td> </tr> </tbody> </table>	Transmission distance	Center Offset	Drive current	4...9mm	+/-5mm	= <1A	6...8mm	+/-5mm	= <2A	
Transmission distance	Center Offset	Drive current										
4...9mm	+/-5mm	= <1A										
6...8mm	+/-5mm	= <2A										
Specification (Base)												
Supply Voltage		24VDC +/-5%										
Current consumption		= <4A										
LED		Non										
Specification (Remote and Base)												
Material	Case	Aluminum+ Alumite-treated										
	Operating Surface	ABS+PBT										
	Cable	PUR Phi 7.6 4x0.75mm ² /Shield										
	Operating temperature	0 ··· +50 deg. C										
	Protection class	IP67										

* The sum current consumption of detecting switches and driving units with Remote Amplifier (70mA) + Input Unit (40mA) + Output Unit (40mA) should not exceed the drive current.

Cable length

To order special cable length, replace length in meters at the end of the type code.

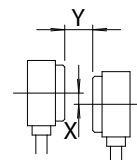
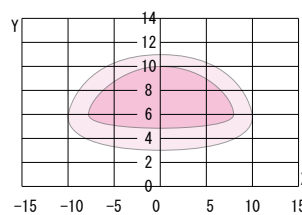
(ex)

RCH08E-211-PU-03 = 3 cable length 3m

Transmitting area diagram

[Supply Voltage : 24V DC]

RCH08_ -211-PU-__

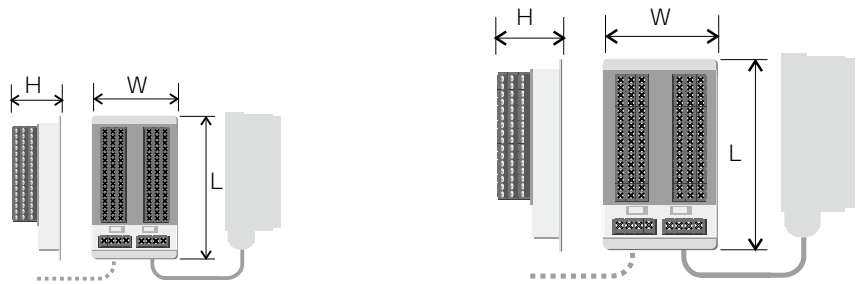


X: Center offset (mm)
Y: Transmission distance (mm)

- Drive current = <1A
- Drive current = <2A

Remote Link System Specification

Remote Amplifier



		32 signal input (Pin terminals)	32 signal input (Ring terminals)
Type Code	NPN	RL64T-344N-000	RL64T-345N-000
	PNP	RL64T-344P-000	RL64T-345P-000
Applicable Base Amplifier		RL64E-333_-000 , RL64EA-355DN-000	RL64E-333_-000 , RL64EA-355DN-000
Housing size		Pin terminals : L140 x W85 x H54.3	Ring terminals : L200 x W85 x H67.8
Dimensions N o .		Pin terminals : L-D003	Ring terminals : L-D004
Specification			
Current consumption		= <70mA	= <70mA
L E D		READY(Yellow)	READY (Yellow)
Material	Case	SPCC-CD	SPCC-CD
Connection	Head	Terminal block : 4P x 2	Terminal block : 4P x 2
	Link*	Connector : e-con, 4P x 2	Connector : e-con, 4P x 2
	Detecting switch	Terminal block : 3P x 32	Terminal block : 3P x 32
Operating temperature		0 ... +50 degree C	0 ... +50 degree C

* 4 conductor insulation displacement connectors are used to connect the Remote Link Input/ Output units. Outside diameter of the conductor jacket should be between 1.35 and 1.6mm.

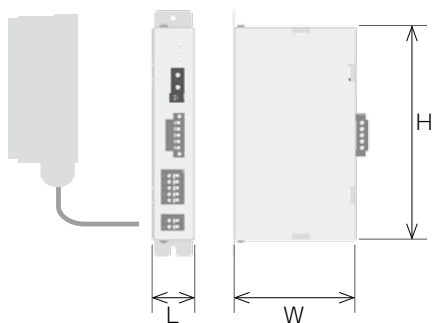


Remote Amplifier



Base Amplifier

Base Amplifier

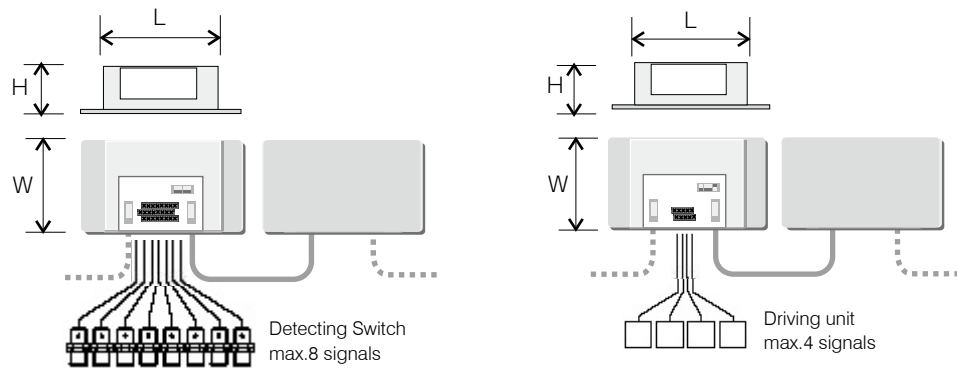


DeviceNet	
Type Code	RL64EA-355DN-000
Housing size	L35xW100xH174
Dimension No.	L-D009
Applicable Remote Amplifier	RL64T-344_-000 RL64T-345_-000
Input/ Output	
Communication Function	Remote I/O (Poll)
Baud rate	500k/250k/125k Baud (set by dip SW)
Node address	0...63 (set by rotary SW)
Input	64 signals + Ready signal 1 (9byte)
Output	32 signals (4byte)
Specification	
Supply Voltage	24VDC +/- 5%
Current Consumption	= < 150mA
LED	MS: Red/Green, NS: Red/ Green, READY: Yellow
Case Material	SPCC-SD
Connection	Power Terminal block : 2P x 1 Head Terminal block : 5P x 1 DeviceNet Open connector *
Operating temperature	0...+50 degree C

Parallel I/O	
Type Code	NPN RL64E-333N-000 PNP RL64E-333P-000
Housing size	L75xW120xH190
Dimension No.	L-D006
Applicable Remote Amplifier	RL64T-344_-000 RL64T-345_-000
Input/ Output	
Input (Control signal)	Input signal NPN (Current sink) or PNP (Current source) Count 32 Load current 7 m A / 1input
Output (Detect signal)	Output signal NPN (Current sink) or PNP (Current source) Count 67(data: 64, inzone: 2 short circuit detecting: 1) Load current max.20 m A / 1output
Specification	
Supply Voltage	24VDC +/- 5%
Current consumption	= < 150mA
Frequency of operation	20Hz
LED	POWER SUPPLY(Green), READY(Yellow)
Case Material	SPCC-SD
Connection	Power Terminal block : 2Px 1 Head Terminal block : 4P x 2 Input * Square connector : 40P x 1 Output * Square connector : 40P x 2
Operating temperature	0...+50 degree C

* The connector is attached in Base Amplifier package.

Input/ Output Unit



		Input Unit	Output Unit
Type Number	Input Unit	NPN	
	Input Unit	PNP	
	Output Unit	NPN	RLY04-322N
	Output Unit	PNP	RLY04-322P
Housing size		L132xD74xH38.5	L132xD74xH38.5
Dimensions No.		L-D007	L-D008
Input/Output			
Input	Logic	NPN or PNP	—
	Signals	8 signals	—
	Load current	7mA per 1 input	—
Output	Logic	—	NPN or PNP
	Signals	—	5 signals (data 4+data valid1)
	Load current	—	max.200mA per 1 output
Specification			
Current consumption		= <40mA	= <40mA
Frequency of peration		20Hz	20Hz
LED		Ready (Yellow)	Ready (Yellow)
Material Case		SPCC-CD	SPCC-CD
Connection	Detecting Switch	Terminal block : 3P x 8	—
	Driving unit	—	Terminal block : 3P x 4
Link*		Connector : e-con, 4Px2	Connector : e-con, 4Px2
Operating temperature		0...+50 deg. C	0...+50 deg. C

* 4 conductor insulation displacement connectors are used to connect the Remote Link Input/ Output units. Outside diameter of the conductor jacket should be between 1.35 and 1.6mm.

Dimensions

Remote Head/ Base Head

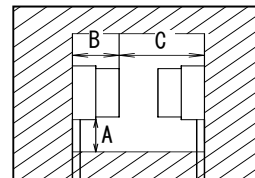
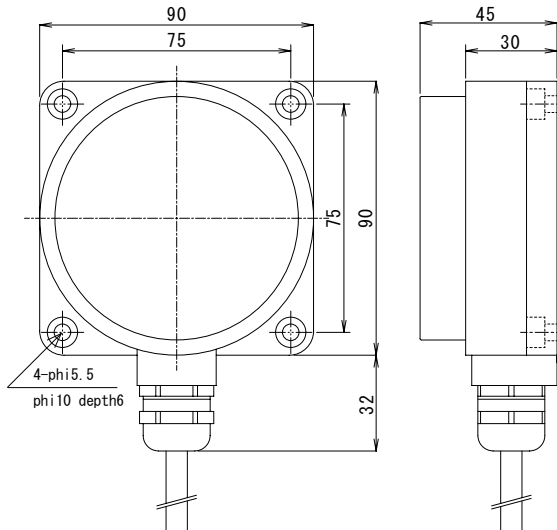
RCH08T-211-PU-01
RCH08E-211-PU-02

No. L-D001

Notes for installation

Installation in metal

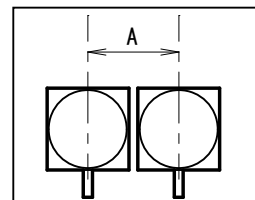
When the Heads are mounted in metal, keep minimum spacing as described below in order to avoid influence of surrounding metal.



Type	A	B	C
RCH08T-...	50	45	—
RCH08E-...			45

Mutual interference of the Head

In order to prevent mutual interference between parallel-mounted sensors, keep minimum spacing as described below.



Type	A
RCH08_... to RCH08_...	300

Cable (mm)/ Material	RCH08	ϕ 7.6 4x0.75mm ² /PUR Shield
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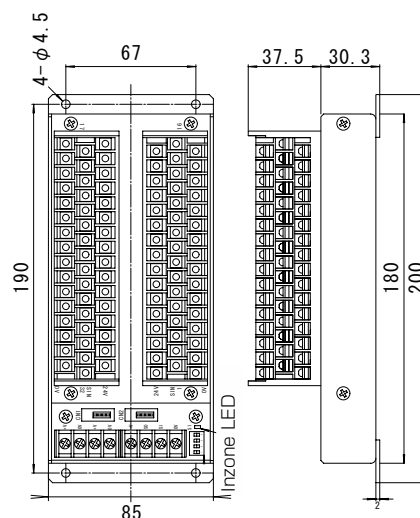
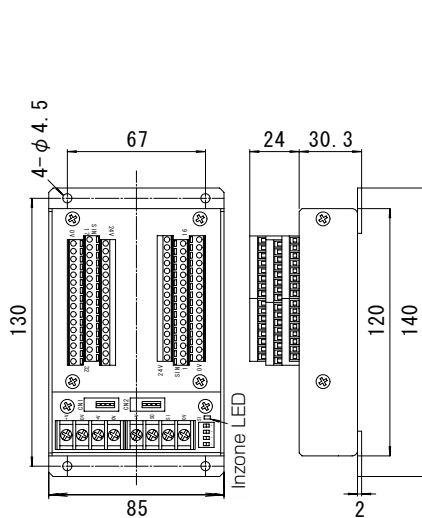
Remote Amplifier

RL64T-344N-000
RL64T-344P-000

No. L-D003

RL64T-345N-000
RL64T-345P-000

No. L-D004



Dimensions

Base Amplifier

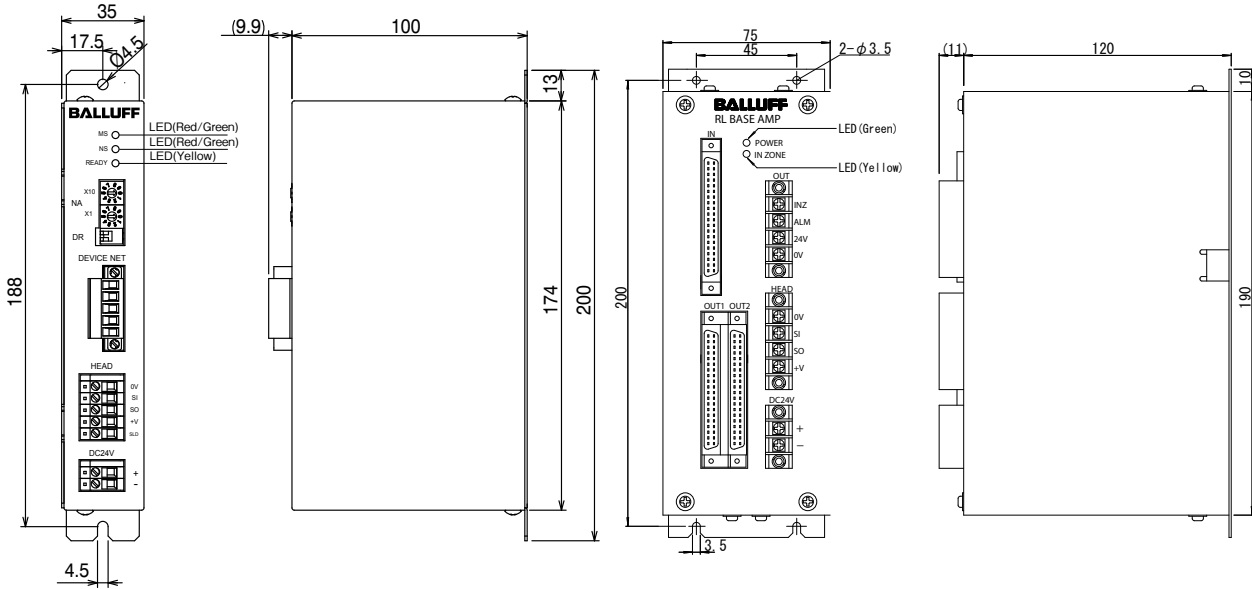
RL64EA-355DN-000

No. L-D009

RL64E-333N-000

RL64E-333P-000

No. L-D006

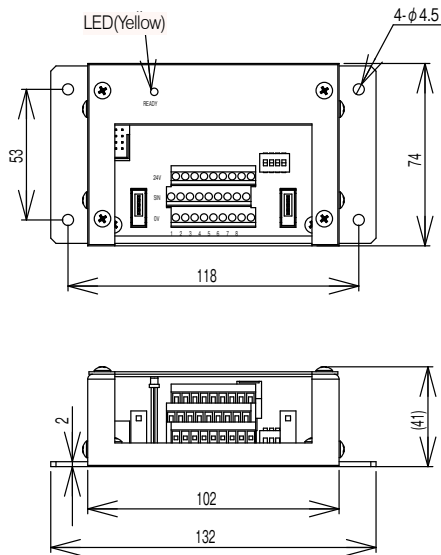


Input Unit

RLX08-322N

No. L-D007

RLX08-322P

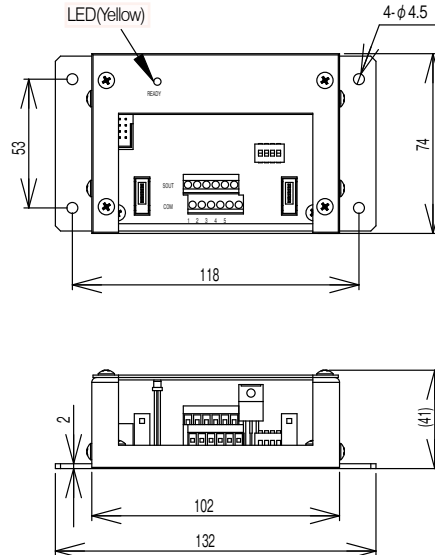


Output Unit

RLY04-322N

No. L-D088

RLY04-322P



Specification is a subject to change without notice.

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