

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

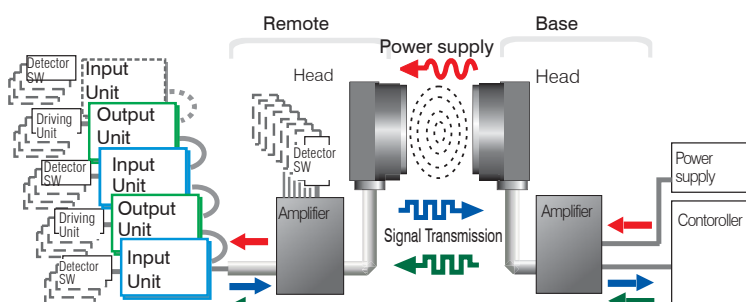


Up to 32 detection signal can be connected to Remote Amplifier.  
Base Amplifier available for Parallel I/O and DeviceNet

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



#### Description

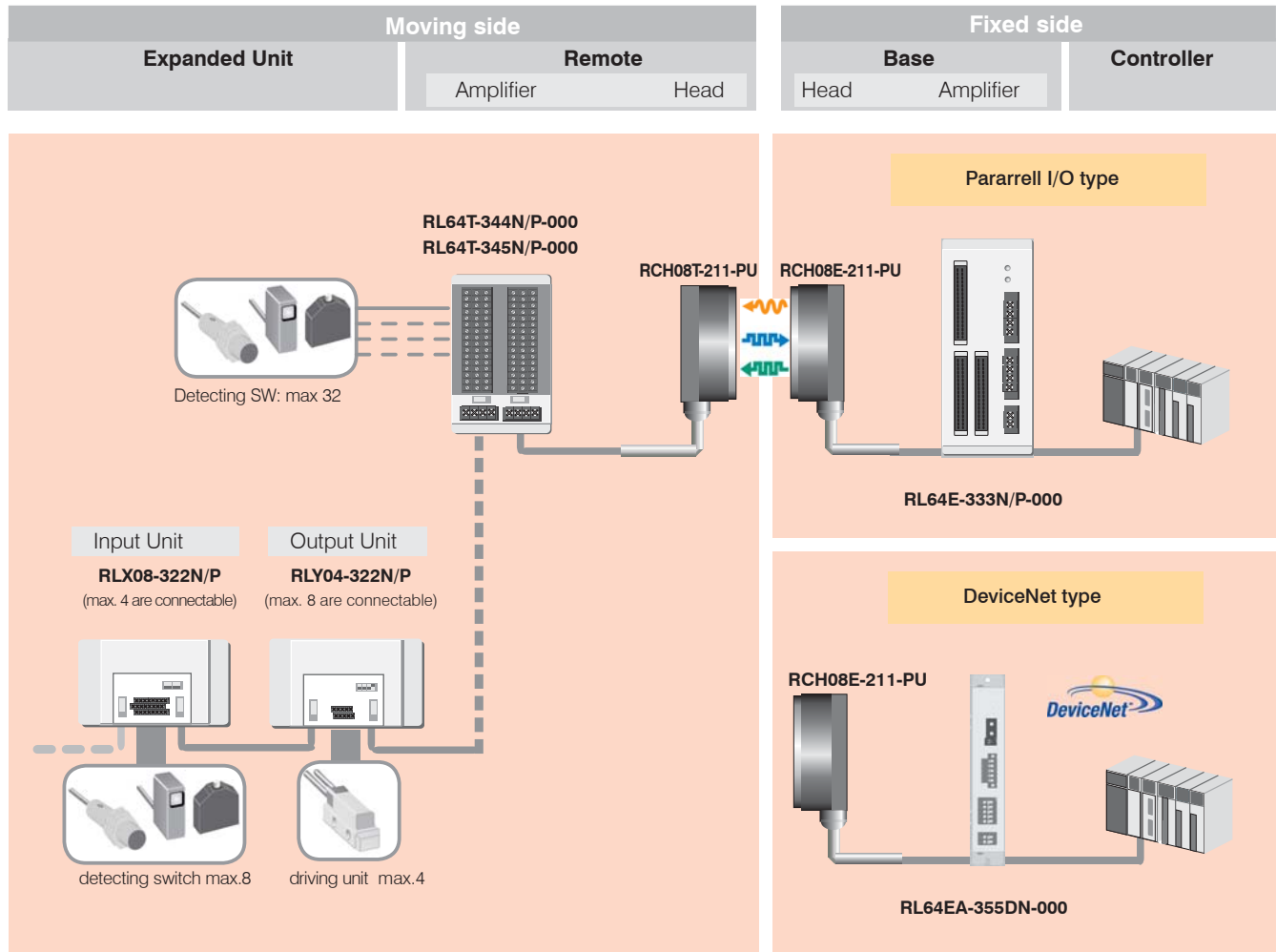


Balluff/Remote system is an original connection system that supplies power and transmits signals inductively through air gap.

Remote Link System designed to operate many detector switches and actuators by constructing link system of input and output.

# Remote Link System Description

## 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

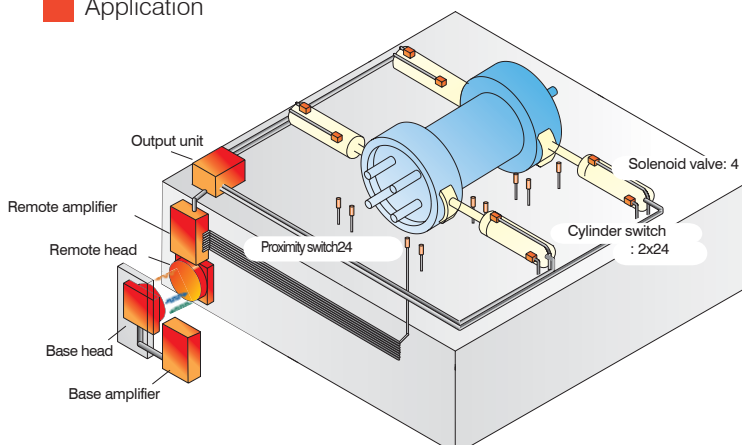
Operates connected driving units such as solenoid valve or small motor. Max. 4 signals can be connected. Up to 8 units per 1 system can be linked.

### 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

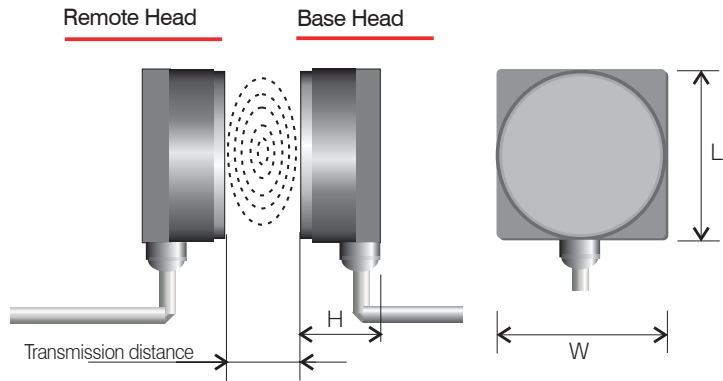
24 proximity switches can confirm the various workpiece positions which are different according to their shapes before 4 clamps operate. Simultaneously supply 24VDC/2A, and transmit 32 detecting signals (proximity switches +8 cylinder switches) and 4 control signals (solenoid valve)

#### 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	Remote part		L90xW90xH45	
size	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	
		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 Φ7.6 4x0.75mm <sup>2</sup> /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.

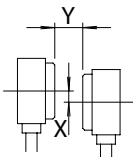
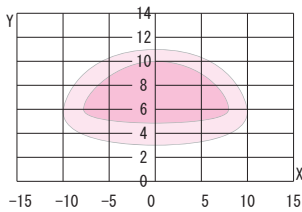
(ex)

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

Transmitting area diagram

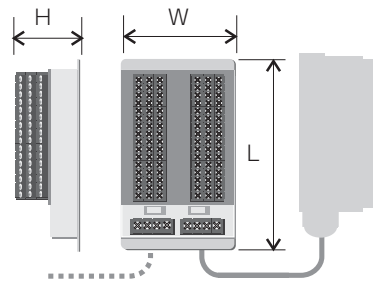
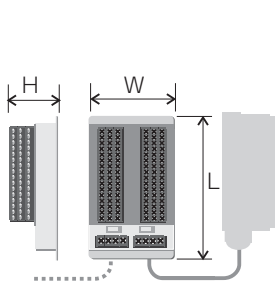
[Supply Voltage : 24V DC]

RCH08\_211-PU-\_\_



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

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



		32 signal input (Pin terminals)	32 signal input (Ring terminals)
Type Code	NPN	<b>RL64T-344N-000</b>	<b>RL64T-345N-000</b>
	PNP	<b>RL64T-344P-000</b>	<b>RL64T-345P-000</b>
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
Demensions 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

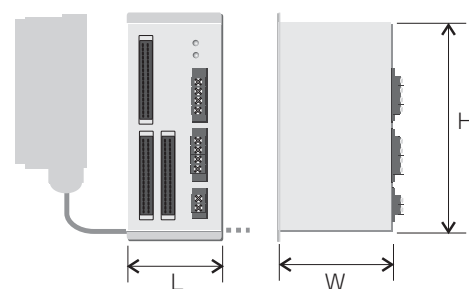
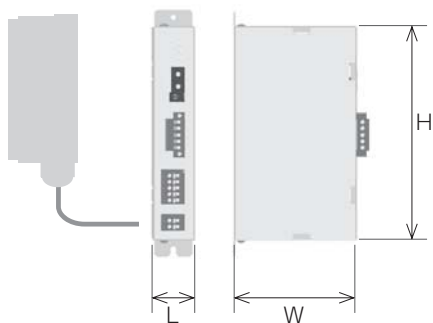
\* 4 conductor insulation displacement connectors are used to connect the Remote Link Input/ Output unis.  
Outside diameter ofthe conductor jacket should be between 1.35 and 1.6mm.

Remote Amplifier



Base Amplifier

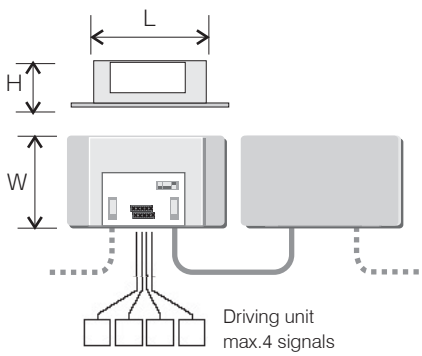
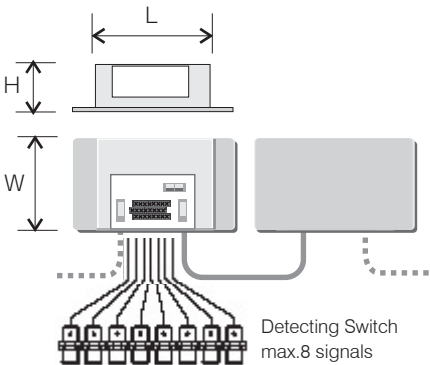
## Base Amplifier



DeviceNet	
Type Code	<b>RL64EA-355DN-000</b>
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 Unit			Output Unit		
Type Number	Input Unit	NPN	<b>RLX08-322N</b>		
	Input Unit	PNP	<b>RLX08-322P</b>		
	Output Unit	NPN	<b>RLY04-322N</b>		
	Output Unit	PNP	<b>RLY04-322P</b>		
Housing size			L132xD74xH38.5		
Dimensions No.			L-D007		
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		
Frequency of peration			20Hz		
LED			Ready (Yellow)		
Material Case			SPCC-CD		
Connection Detecting Switch			Terminal block : 3P x 8		
Driving unit			—		
Link*			Terminal block : 3P x 4		
Operating temperature			Connector : e-con、 4Px2		
			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 ofthe conductor jacket should be between 1.35 and 1.6mm.

Dimensions

Remote Head/ Base Head

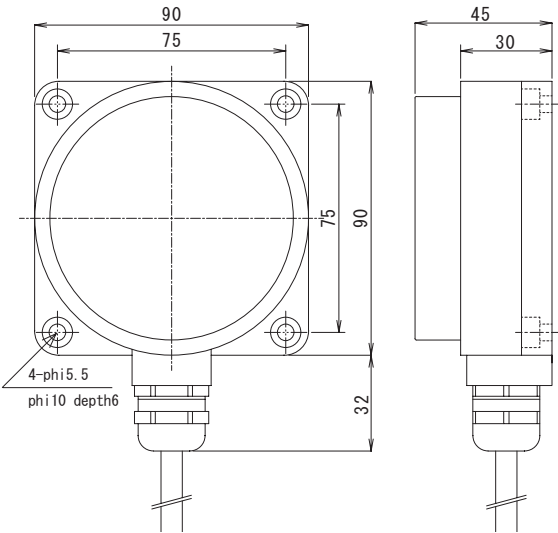
RCH08T-211-PU-01  
RCH08E-211-PU-02

No. L-D001

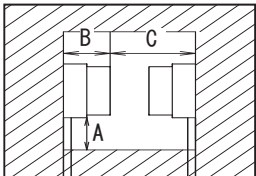
Notes for installation

Installation in metal

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



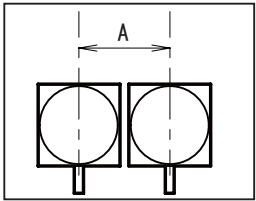
Cable (mm)/ Material	RCH08	$\phi$ 7.6 4x0.75mm <sup>2</sup> /PUR Shield
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	(mm)		
Type	A	B	C
RCH08T-...	50	45	—
RCH08E-...			45

Mutual intererance of the Head

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



	(mm)
Type	A
RCH08_... to RCH08_...	300

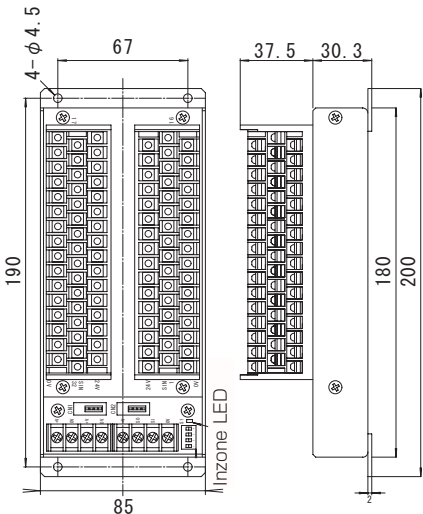
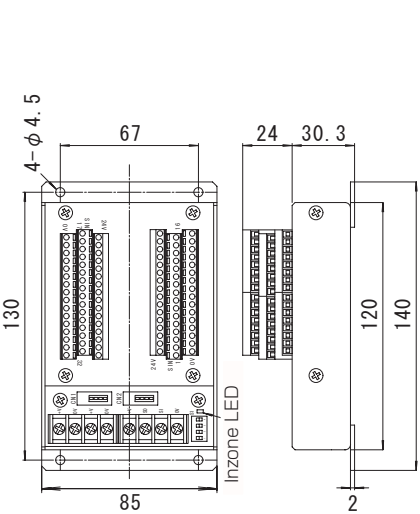
Remote Amplifier

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

No. L-D003

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

No. L-D004



## Dimensions

### Base Amplifier

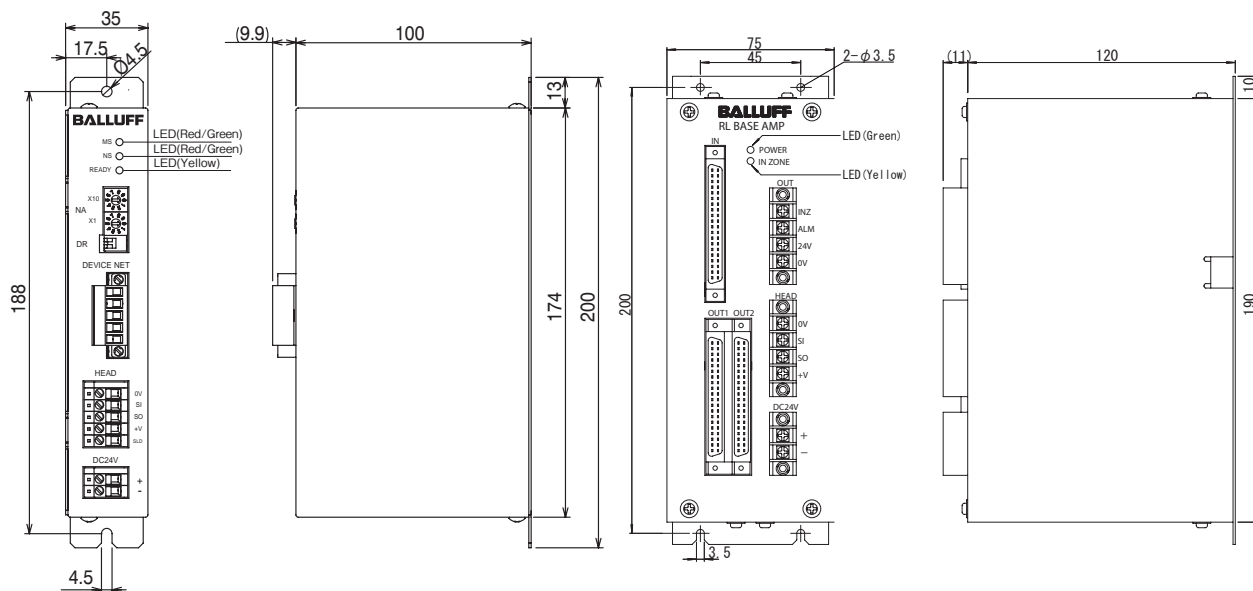
RL64EA-355DN-000

No. L-D009

RL64E-333N-000

RL64E-333P-000

No. L-D006

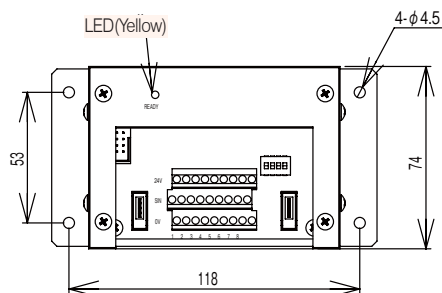


### Input Unit

RLX08-322N

No. L-D007

RLX08-322P

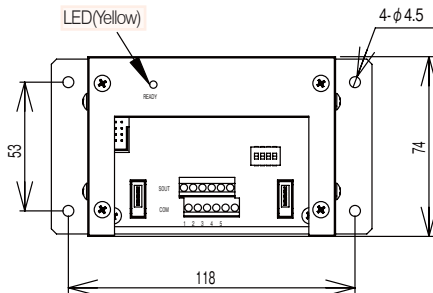


### Output Unit

RLY04-322N

No. L-D088

RLY04-322P



Specification is a subject to change without notice.

NIHON BALLUFF Co., Ltd.

274 Gomyo Tokigawa-machi Hiki-gun  
Saitama JAPAN

<http://www.balluff.co.jp>

e-mail : [balluff@balluff.co.jp](mailto:balluff@balluff.co.jp)