

Building blocks types allowing for connecting companion units



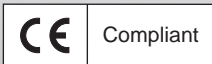
Master unit



Slave unit



Interface unit



Features

- You can select the master, slave and interface units, and combine them to configure various systems.
 - You can add and combine the necessary units easily to provide flexible Light Unit control (max. of 18 units can be connected).
- Additionally, power input is 24 VDC, which is optimal for on-site power supply environments. DIN rail mounting is also applicable to these units.

Master units

Unit equipped with setting and management functions. Controls all linked units. There are continuous and strobe lighting types. You can select a 12 or 24 V output type according to the connected Light Units.



		Model name
Continuous emitting	12 V	BB-V12P30-M
	24 V	BB-V24P30-M
Strobe emitting	12 V	BB-V12S30-M
	24 V	BB-V24S30-M

The strobe lighting type emits strobe with overdrive. Overdrive refers to brighter than normal emission of light by increasing the voltage and current supplied to the Light Unit.

Slave units

Unit for expansion. You can add and link it according to the number of the Light Units being used. There are continuous and strobe lighting types. You can select a 12 or 24 V output type according to the connected Light Units.



		Model name
Continuous emitting	12 V	BB-V12P30-S
	24 V	BB-V24P30-S
Strobe emitting	12 V	BB-V12S30-S
	24 V	BB-V24S30-S

The strobe lighting type emits strobe with overdrive. Overdrive refers to brighter than normal emission of light by increasing the voltage and current supplied to the Light Unit.

Interface units

This external control unit is equipped with a parallel communication function. There are CMOS and photocoupler input type units.

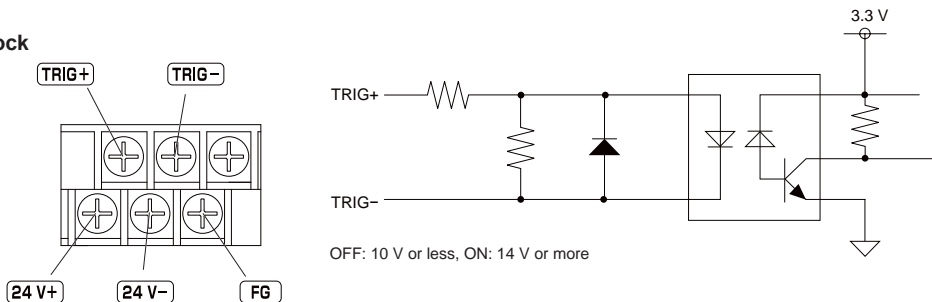


		Model name
CMOS		BB-CPC-S
Photocoupler		BB-CPP-S

PD3
PD2
STU-3000
PSB
POD
PTU2
PF
CN-4024-2-EIPT
PB-2430-1
CC-ST-1024
BB
BB
PJ2
PJ
CC-PJ-0707
PSCC
PSB4-30024
PSB3-30024
Band-Pass Filters
Lens Filters
Diffusion Plates
Polarizing Plates
Light Control Films
Brackets
Fixtures, etc.
SM/EL Cables

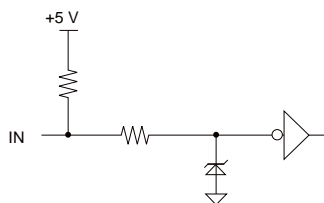
Example Connections Refer to the "Instruction Guide" for details.

Master unit/ Slave unit terminal block Trigger input circuit drawing

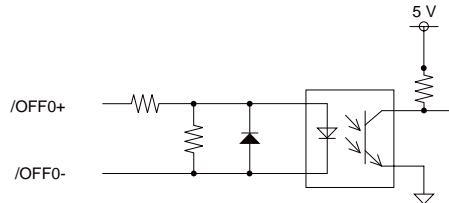


Interface unit Input circuit drawing

• CMOS input type



• Photocoupler input type

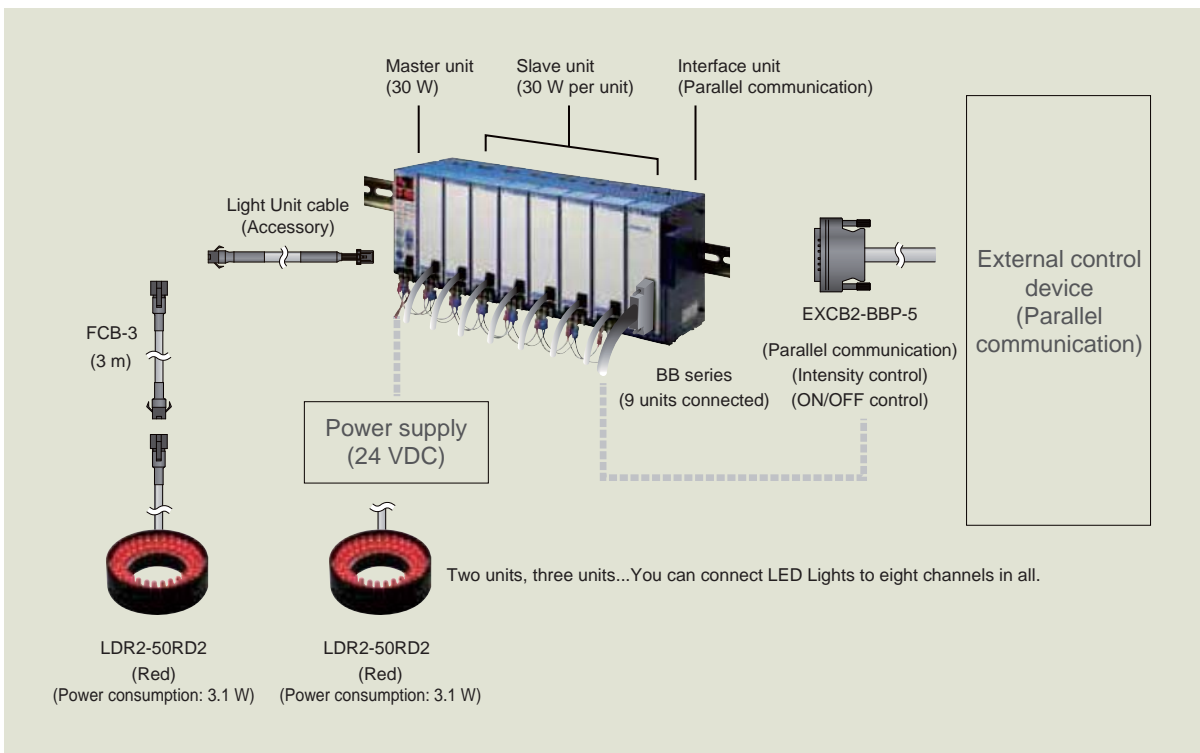
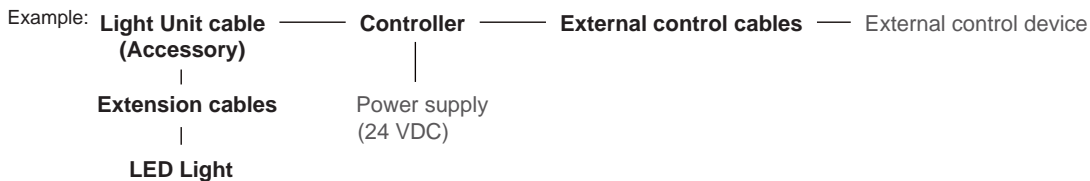


Input voltage - Low: 1.5 V or less, High: 3.5 V or more
Maximum permissible input voltage: 5.5 V

Input voltage - OFF: 10 V or less, ON: 14 V or more
Maximum permissible input voltage: 26.4 V

Control signal: CS0-CS2, WR, EXT, OFF0-OFF7, B0-B7 Drive the signal using driver IC, NPN open-collector, and so on.

Example System Configuration



BB Series



Specifications

Product name		Master unit / Slave unit			
Model name	Master units	BB-V12P30-M	BB-V24P30-M	BB-V12S30-M	BB-V24S30-M
	Slave units	BB-V12P30-S	BB-V24P30-S	BB-V12S30-S	BB-V24S30-S
Lighting method	Continuous / Strobe lighting (No overdrive)			Strobe lighting (With overdrive)	
Drive method	Constant-voltage system				
Intensity control method	PWM control / Lighting time control			Lighting time control	
No. of channels	1 channel				
Applicable Light Unit (rated)	12 V / 30 W	24 V / 30 W	12 V / 30 W	24 V / 30 W	
Input voltage (rated)	24 VDC				
Input voltage (range)	21.6 to 26.4 VDC	21.6 to 25.3 VDC	21.6 to 26.4 VDC	21.6 to 26.4 VDC	
Power consumption (typ.)	42 W (When connected to 30 W load)	42 W (When connected to 30 W load)	Avg. power consumption: 16 W (When connected to 30 W load) Peak power consumption: 72 W (When connected to 30 W load and strobe is being emitted)	Avg. power consumption: 16 W (When connected to 30 W load) Peak power consumption: 26 W (When connected to 30 W load and strobe is being emitted)	
Output voltage (rated)	12 VDC	24 VDC	18 VDC	48 VDC	
Output current (rated)	2.5 A	1.25 A	8.0 A	4.3 A	
Power cable length	5 m max.				
Terminal block control cable length	5 m max.				
Light Unit cable length	5 m max.				
Installation method	Secured by DIN rail, bottom mounting holes, or optional independent stand				
Operating temperature and humidity	Temperature: 0 to 40°C, Humidity: 20% to 85%RH (with no condensation)				
Storage temperature and humidity	Temperature: -20 to 60°C, Humidity: 20% to 85%RH (with no condensation)				
Weight	350 g max.	350 g max.	350 g max.	400 g max.	
Accessories	Master unit: Terminal unit x 1, terminal block (cover x 1, installation screw x 1), Light Unit cable x 1, User Manual x 1 Slave unit: Connection hardware (fixtures x 2, installation screws x 4), terminal block (cover x 1, installation screw x 1), Light Unit cable x 1, User Manual x 1				

Product name		Interface Unit (Parallel Communication Type)	
Model name	BB-CPC-S	BB-CPP-S	
Input voltage (rated)	24 VDC (supplied from connected connector)		
Input voltage (range)	21.6 to 26.4 VDC (supplied from connected connector)		
Power consumption (typ.)	10 W (supplied from connected connector)		
External control input/output	Parallel bit method		
External control input/output specifications	Non-insulated C-MOS level input/output Low: 1.5 V max. High: 3.5 V min. 2.2 kΩ 5 V pull-up Input voltage range: 0 to 5.5 VDC	Photocoupler insulation: 24 V input/output OFF: 10 V max. with OFF current of 4 mA max. ON: 14 V or more with ON current of 5.8 mA or more Input voltage range: 0 to 26.4 VDC	
External control cable length	5 m max.		
Operating temperature and humidity	Temperature: 0 to 40°C, Humidity: 20% to 85%RH (with no condensation)		
Storage temperature and humidity	Temperature: -20 to 60°C, Humidity: 20% to 85%RH (with no condensation)		
Weight	300 g max.		
Accessories	Connection hardware (fixtures x 2, installation screws x 4), User Manual x 1		

Options

Stand

BB-FT

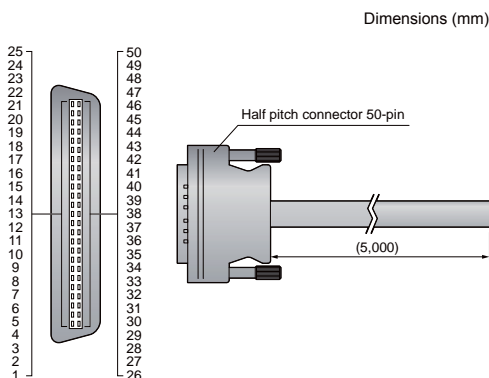
Independent stand attached to the unit.
Use this when securing the unit to a tabletop, floor or similar location other than DIN rail.



External control cable

EXCB2-BBP-5 (5 m)

Cable used to connect an interface unit (parallel communication type) with an external device such as a PLC or image processor.
(Connector: 50-pin half-pitch connector)

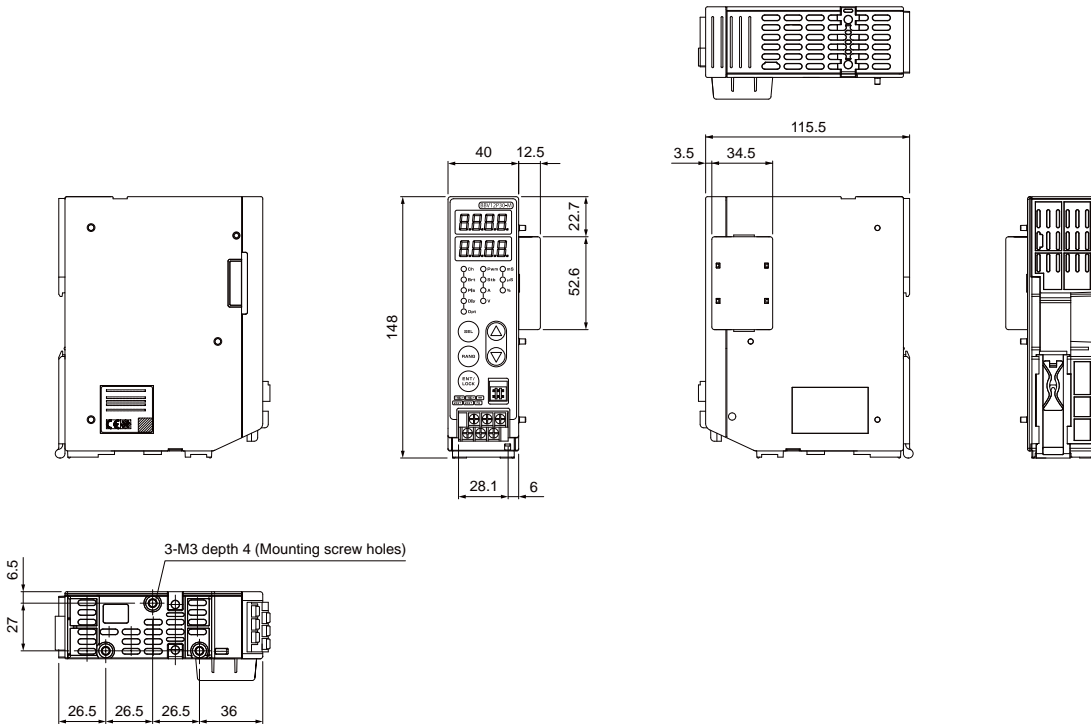


No.	Line color	Color and segments of broken line	BB-CPC-S (CMOS input)	BB-CPP-S (Photocoupler input)	No.	Line color	Color and segments of broken line	BB-CPC-S (CMOS input)	BB-CPP-S (Photocoupler input)
1	Orange	Black1	GND	NC	26	Orange	Red1	NC	NC
2	Gray	Black1	GND	NC	27	Gray	Red1	NC	NC
3	White	Black1	GND	NC	28	White	Red1	NC	NC
4	Yellow	Black1	GND	B7-	29	Yellow	Red1	B7	B7+
5	Pink	Black1	GND	B6-	30	Pink	Red1	B6	B6+
6	Orange	Black2	GND	B5-	31	Orange	Red2	B5	B5+
7	Gray	Black2	GND	B4-	32	Gray	Red2	B4	B4+
8	White	Black2	GND	B3-	33	White	Red2	B3	B3+
9	Yellow	Black2	GND	B2-	34	Yellow	Red2	B2	B2+
10	Pink	Black2	GND	B1-	35	Pink	Red2	B1	B1+
11	Orange	Black3	GND	B0-	36	Orange	Red3	B0	B0+
12	Gray	Black3	GND	OFF7-	37	Gray	Red3	OFF7	OFF7+
13	White	Black3	GND	OFF6-	38	White	Red3	OFF6	OFF6+
14	Yellow	Black3	GND	OFF5-	39	Yellow	Red3	OFF5	OFF5+
15	Pink	Black3	GND	OFF4-	40	Pink	Red3	OFF4	OFF4+
16	Orange	Black4	GND	OFF3-	41	Orange	Red4	OFF3	OFF3+
17	Gray	Black4	GND	OFF2-	42	Gray	Red4	OFF2	OFF2+
18	White	Black4	GND	OFF1-	43	White	Red4	OFF1	OFF1+
19	Yellow	Black4	GND	OFF0-	44	Yellow	Red4	OFF0	OFF0+
20	Pink	Black4	GND	ERR0UT-	45	Pink	Red4	ERR0UT	ERR0UT+
21	Orange	Continuous black line	GND	EXT-	46	Orange	Continuous black line	EXT	EXT+
22	Gray	Continuous black line	GND	WR-	47	Gray	Continuous black line	WR	WR+
23	White	Continuous black line	GND	CS2-	48	White	Continuous black line	CS2	CS2+
24	Yellow	Continuous black line	GND	CS1-	49	Yellow	Continuous black line	CS1	CS1+
25	Pink	Continuous black line	GND	CS0-	50	Pink	Continuous black line	CS0	CS0+

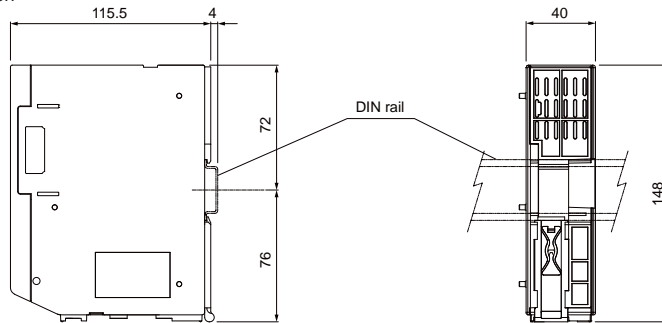
Dimensions (mm)

Master unit

Slave and interface units have the same external dimensions as the master unit.



DIN rail installation



Connected assembly

