

Digital Control Units

PD3 series

Refer to our website for product details.

CCS PD3 Search



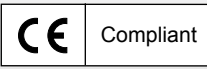
You can also use your smartphone or cell phone.

Use a search engine.

Select digital Control Units matching your network



DC Input Types



AC Input Types



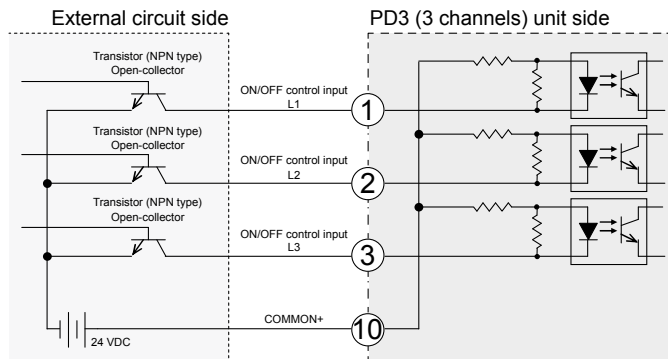
The supplied AC cord is for use with 100 to 120 VAC. CCS recommends using the following with 200 to 240 VAC.
Cable: GTCE-3 x 1.0 mm² (Kawasaki Electric Wire)
Connector: KS-31AY (Kawasaki Electric Wire)

Characteristics

- Each single unit is compatible with continuous, ON/OFF and strobe lighting. * Spot Light HLV2 series cannot emit strobe. (Spot Light HLV2 series Product Page ▶ P. 111)
- Digital display makes it easy to check settings. (Spot Light HLV2 series Product Page ▶ P. 111)
- Ethernet-compatible with a selection of three types of external controls.
- DIN rail installation is standard.
- There are four types of capacity: 3 channels/28 W, 3 channels/48 W, 4 channels/46 W, and 8 channels/95 W.
 - *1: Can be connected only with 24 V Light.
 - *2: Lineup includes only DC-input Control Units.
 - *3: Can be connected with both 24 V Light and Spot Light HLV2 series.
- The parallel type has the fastest switching for settings. Perform high-speed control through batch transmission.
- The Ethernet type supports standard protocols TCP/IP and UDP/IP. Pursuing even more convenience.
- The EIA-485 type can individually manage units using multi-drop wiring. Can manage up to 4 units.

Example connection * Refer to the "Instruction Guide" for details.

Example connection of external trigger signal



Connection specifications				
Rated input voltage	Maximum input voltage	ON voltage/ON current	OFF voltage/OFF current	Input impedance
24 VDC	26.4 VDC	14.4 VDC or more/ 3 mA max.	5 VDC max./ 1 mA max.	12 kΩ (per terminal)
Trigger logical setting switch	Input signal	Photocoupler	ON/OFF mode	Strobe mode
HIGH	HIGH	OFF	LED ON	LED is ON for the specified time.
	LOW	ON	LED OFF	No change
LOW	HIGH	OFF	LED OFF	No change
	LOW	ON	LED ON	LED is ON for the specified time.

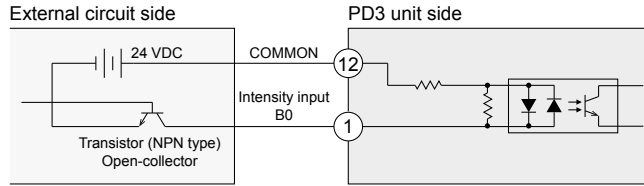
We have various materials.

- PDF Drawings
- DXF Drawings
- 3D CAD
- Instruction Guides
- Product Filers
- Imaging Samples
- Data Sheets
- Examples of Custom Ordered Products

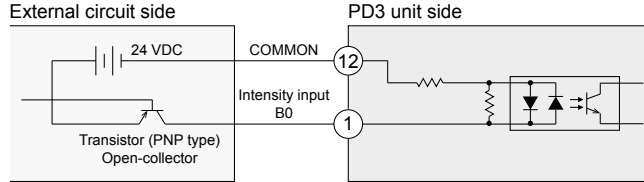
Download here. <http://www.ccs-grp.com/dl/>

Example connections of external signal (parallel type)

Sink type



Source type

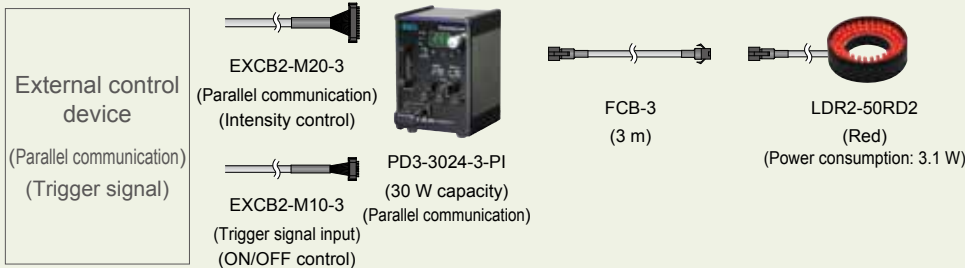


Connection specifications				
Rated input voltage	Maximum input voltage	ON voltage/ ON current	OFF voltage/ OFF current	Input impedance
24 VDC	26.4 VDC	14.4 VDC or more/ 3 mA max.	5 VDC max./ 1 mA max.	12 kΩ (per terminal)
Sink type	Input signal	Photocoupler	Data	
	HIGH	OFF	1	
Source type	HIGH	ON	0	
	LOW	OFF	1	

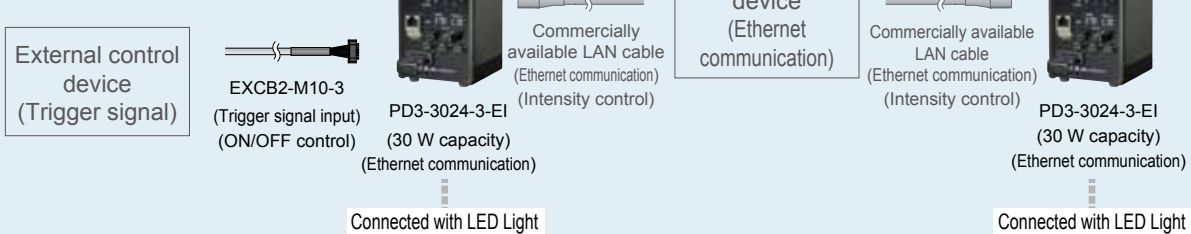
Example system configuration

Example:
External control device — External control cables — Control Unit — Extension cables — LED Light

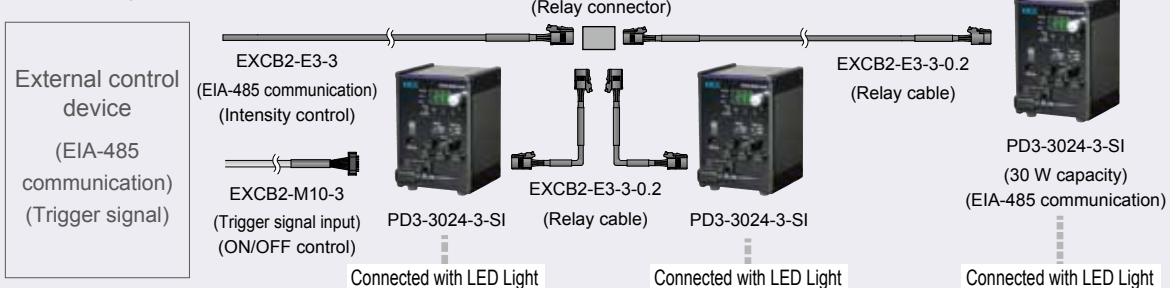
● Parallel type



● Ethernet type
(TCP/IP UDP/IP)



● EIA-485 type



* Refer to the material "Connecting EIA-485 Communications Cables" on our website for information on multi-drop wiring connections. You can download this information from the product website page.

Control Units

Options

- PD3 series
- PD2 series
- STU-3000
- PSB series
- PTU2 series
- PB-2430-1
- CC-ST-1024
- BB series
- PJ series
- CC-PJ-0707
- PSCC series
- PSB3-30024
- Lens Filters
- Diffusion Plates
- Polarization Plates
- Light Control Films
- Brackets
- Other
- Extension Cables

PD3 series



Refer to our website for product details.

CCS PD3

Search



You can also use your smartphone or cell phone.

Use a search engine.

Common specifications: Parallel types

AC input: PD3-3024-3-PI/PD3-5024-4-PI/PD3-10024-8-PI
DC input: PD3-3024-3-PT/PD3-5024-3-PT/PD3-5024-4-PT

Model name	PD3-3024-3-PI	PD3-5024-4-PI	PD3-10024-8-PI	PD3-3024-3-PT	PD3-5024-3-PT	PD3-5024-4-PT
Input voltage	100 to 240 VAC (+10% -15%)			24 VDC (21.6 to 26.4 V)		
Lighting method	Continuous/Strobe lighting					
Drive method	Constant-voltage system	24 V LIGHT: Constant-voltage system HLV LIGHT: Constant-current system		Constant-voltage system		24 V LIGHT: Constant-voltage system HLV LIGHT: Constant-current system
Intensity control method	PWM control and lighting time control	24 V LIGHT: PWM control and lighting time control HLV LIGHT: Variable-current control		PWM control and lighting time control		24 V LIGHT: PWM control and lighting time control HLV LIGHT: Variable-current control
No. of channels	3 channels	4 channels	8 channels	3 channels		4 channels
Applicable Light Unit (rated)	Light Units with 24 VDC input Total for 3 channels: 28 W	Light Units with 24 VDC input Total for 4 channels: 46 W HLV2 series (Spot Light) 3.9 W per connector (700 mA) max.	Light Units with 24 VDC input 60 W max. (SMP-03V-BC /1 connector) 95 W max. (ELR-02V) HLV2 series (Spot Light) 3.9 W per connector (700 mA) max.	Light Units with 24 VDC input Total for 3 channels: 28 W	Light Units with 24 VDC input Total for 3 channels: 48 W	Light Units with 24 VDC input Total for 4 channels: 46 W HLV2 series (Spot Light) 3.9 W per connector (700 mA) max.
PWM frequency	125 kHz					
Error detection display	"OCP" displayed on front digital display: Overcurrent error	"OCP" displayed on front digital display: Overcurrent error "EFN" display: Fan stop error "EID" display: ID error (HLV2 series only)		"OCP" displayed on front digital display: Overcurrent error		"OCP" displayed on front digital display: Overcurrent error "EFN" display: Fan stop error "EID" display: ID error (HLV2 series only)
Overcurrent protection	Operates at 107% of the output current. Reset by pressing and holding the setting switch for 1 sec., or turning the power off and then on again. <small>* Do not create an intentional short circuit between the positive (+) and negative (-) outputs.</small>					
Power consumption (typ.)	78 VA	70 VA	130 VA	32 W	52 W	
Frequency	50/60 Hz					
Output voltage (rated)	24 VDC					
Intensity setting	Manual: 256-step using the front setting switch External: 8-bit input (B0 to B7), write pulse (BRTWR), and channel selection (CHSEL0 to CHSEL2)					
ON/OFF setting	External trigger input					
Lighting mode setting	Manual: 11-step using the front setting switch External: 4-bit input (M0 to M3), write pulse (TRGWR), and channel selection (CHSEL0 to CHSEL2)					
Error detection output	NPN Transistor output between pins 19 (OC) and 20 (OE) of the external control connector Normal operation: Open, Overcurrent output detected: Closed					
External control connector	Trigger input: MIL connector, 10-pin Intensity/Lighting mode setting: MIL connector, 20-pin					
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)					
Cooling method	Natural air cooling	Forced air cooling		Natural air cooling	Forced air cooling	
CE marking	Safety standard: EN61010-1 compliant, EMC standard: EN61326-1 Class A compliant					
Material/Surface processing	Material: aluminum and resin, Surface processing: blue alumite					
Weight	600 g max.	1,200 g max.	1,500 g max.	400 g max.	850 g max.	
Accessories	3-prong AC cord with ground terminal (2 m) x 1, Instruction Guide x 1, Base Brackets x 1 set (PD3-5024-4-PI/10024-8-PI)			Instruction Guide x 1, Base Brackets x 1 set (PD3-5024-4-PT)		

Common specifications: Ethernet type

AC input: PD3-3024-3-EI/PD3-5024-4-EI/PD3-10024-8-EI
DC input: PD3-3024-3-ET/PD3-5024-3-ET/PD3-5024-4-ET

Model name	PD3-3024-3-EI	PD3-5024-4-EI	PD3-10024-8-EI	PD3-3024-3-ET	PD3-5024-3-ET	PD3-5024-4-ET
Input voltage (rated)	100 to 240 VAC (+10% -15%)			24 VDC (21.6 to 26.4 V)		
Lighting method	Continuous/Strobe lighting					
Drive method	Constant-voltage system	24 V LIGHT: Constant-voltage system HLV LIGHT: Constant-current system		Constant-voltage system		24 V LIGHT: Constant-voltage system HLV LIGHT: Constant-current system
Intensity control method	PWM control and lighting time control	24 V LIGHT: PWM control and lighting time control HLV LIGHT: Variable-current control		PWM control and lighting time control		24 V LIGHT: PWM control and lighting time control HLV LIGHT: Variable-current control
No. of channels	3 channels	4 channels	8 channels	3 channels		4 channels
Applicable Light Unit (rated)	Light Units with 24 VDC input Total for 3 channels: 28 W	Light Units with 24 VDC input, HLV2 series (Spot Light) Total for 4 channels: 46 W	Light Units with 24 VDC input, HLV2 series (Spot Light) Total for 8 channels: 95 W (EL connector: one 95 W connector)	Light Units with 24 VDC input Total for 3 channels: 28 W	Light Units with 24 VDC input Total for 3 channels: 48 W	Light Units with 24 VDC input, HLV2 series (Spot Light) Total for 4 channels: 46 W
PWM frequency	125 kHz					
Error detection display	"OCP" displayed on front digital display: Overcurrent error	"OCP" displayed on front digital display: Overcurrent error "EFN" display: Fan stop error "EID" display: ID error (HLV2 series only)		"OCP" displayed on front digital display: Overcurrent error		"OCP" displayed on front digital display: Overcurrent error "EFN" display: Fan stop error "EID" display: ID error (HLV2 series only)
Overcurrent protection	Operates at 107% of the output current. Reset by pressing and holding the setting switch for 1 sec., or turning the power off and then on again. <small>* Do not create an intentional short circuit between the positive (+) and negative (-) outputs.</small>					
Power consumption (typ.)	78 VA	70 VA	130 VA	32 W	52 W	
Frequency	50/60 Hz					
Output voltage (rated)	24 VDC					
Intensity setting	Manual: 256-step using the front setting switch External: Command input via TCP/IP or UDP/IP communication					
ON/OFF setting	External trigger input or command input via TCP/IP or UDP/IP communication					
Lighting mode setting	Manual: 11-step using the front setting switch External: Command input via TCP/IP or UDP/IP communication					
Error detection output	Command sent when overcurrent output is detected.					
External control connector	Trigger input: MIL connector, 10-pin Intensity/Lighting mode setting: RJ-45 connector					
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)					
Cooling method	Natural air cooling	Forced air cooling		Natural air cooling	Forced air cooling	
CE marking	Safety standard: EN61010-1 compliant, EMC standard: EN61326-1 Class A compliant					
Material/Surface processing	Material: Aluminum and resin, Surface processing: Blue alumite					
Weight	600 g max.	1,200 g max.	1,500 g max.	400 g max.	850 g max.	
Accessories	3-prong AC cord with ground terminal (2 m) x 1, Instruction Guide x 1, Base Brackets x 1 set (PD3-5024-4-EI/10024-8-EI)			Instruction Guide x 1, Base Brackets x 1 set (PD3-5024-4-ET)		

We have various materials.

- PDF Drawings
- DXF Drawings
- 3D CAD
- Instruction Guides
- Product Filers
- Imaging Samples
- Data Sheets
- Examples of Custom Ordered Products

Download here.
<http://www.ccs-grp.com/dl/>

Common specifications: EIA-485 types

AC input: PD3-3024-3-SI/PD3-5024-4-SI/PD3-10024-8-SI

Model name	PD3-3024-3-SI	PD3-5024-4-SI	PD3-10024-8-SI
Input voltage (rated)	100 to 240 VAC (+10% -15%)		
Lighting method	Continuous/Strobe lighting		
Drive method	Constant-voltage system	24 V LIGHT: Constant-voltage system HLV LIGHT: Constant-current system	
Intensity control method	PWM control and lighting time control	24 V LIGHT: PWM control and lighting time control HLV LIGHT: Variable-current control	
No. of channels	3 channels	4 channels	8 channels
Applicable Light Unit (rated)	Light Units with 24 VDC input Total for 3 channels: 28 W	Light Units with 24 VDC input, HLV2 series (Spot Light) Total for 4 channels: 46 W	Light Units with 24 VDC input, HLV2 series (Spot Light) Total for 8 channels: 95 W (EL connector: one 95 W connector)
PWM frequency	125 kHz		
Error detection display	"OCP" displayed on front digital display: Overcurrent error	"OCP" displayed on front digital display: Overcurrent error "EFN" display: Fan stop error "EID" display: ID error (HLV2 series only)	
Overcurrent protection	Operates at 107% of the output current. Reset by pressing and holding the setting switch for 1 sec., or turning the power off and then on again. <small>* Do not create an intentional short circuit between the positive (+) and negative (-) outputs.</small>		
Power consumption (typ.)	78 VA	70 VA	130 VA
Frequency	50/60 Hz		
Output voltage (rated)	24 VDC		
Intensity setting	Manual: 256-step using the front setting switch External: Command input via EIA-485 communication		
ON/OFF setting	External trigger input or command input via EIA-485 communication		
Lighting mode setting	Manual: 11-step using the front setting switch External: Command input via EIA-485 communication		
Error detection output	Command sent when overcurrent output is detected.		
External control connector	Trigger input: MIL connector, 10-pin Intensity/Lighting mode setting: e-CON connector, 3-pin		
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)		
Cooling method	Natural air cooling	Forced air cooling	
CE marking	Safety standard: EN61010-1 compliant, EMC standard: EN61326-1 Class A compliant		
Material/Surface processing	Material: Aluminum and resin, Surface processing: Blue alumite		
Weight	600 g max.	1,200 g max.	1,500 g max.
Accessories	3-prong AC cord with ground terminal (2 m) x 1, Instruction Guide x 1, Base Brackets x 1 set (PD3-5024-4-SI/10024-8-SI)		

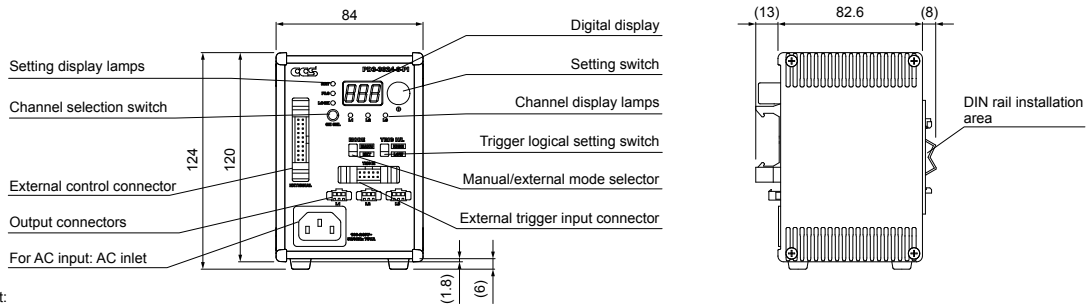
A unit with a PWM frequency of 500 kHz can be made for custom orders. Please contact your CCS sales representative for details.

For the effect on brightness due to differences in PWM frequency, refer to P. 235.

Dimensions (mm)

PD3-3024-3-PI/PD3-3024-3-EI/PD3-3024-3-SI/PD3-3024-3-PT/
PD3-3024-3-ET/PD3-5024-3-PT/PD3-5024-3-ET

Parallel type

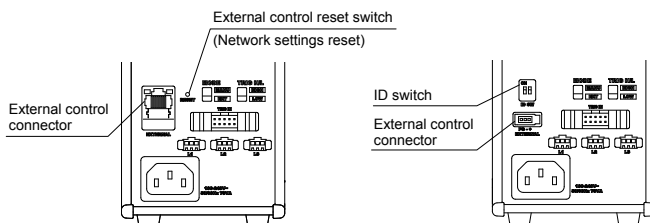


For DC input:
24 VDC input terminal block

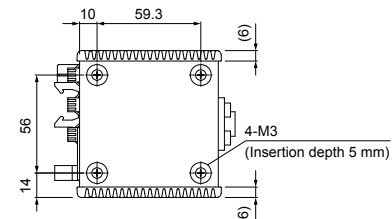


Ethernet type

EIA-485 type



* Ethernet/EIA-485 types have the same external dimensions as the parallel type.



PD3 series



Refer to our website for product details.

CCS PD3

Search

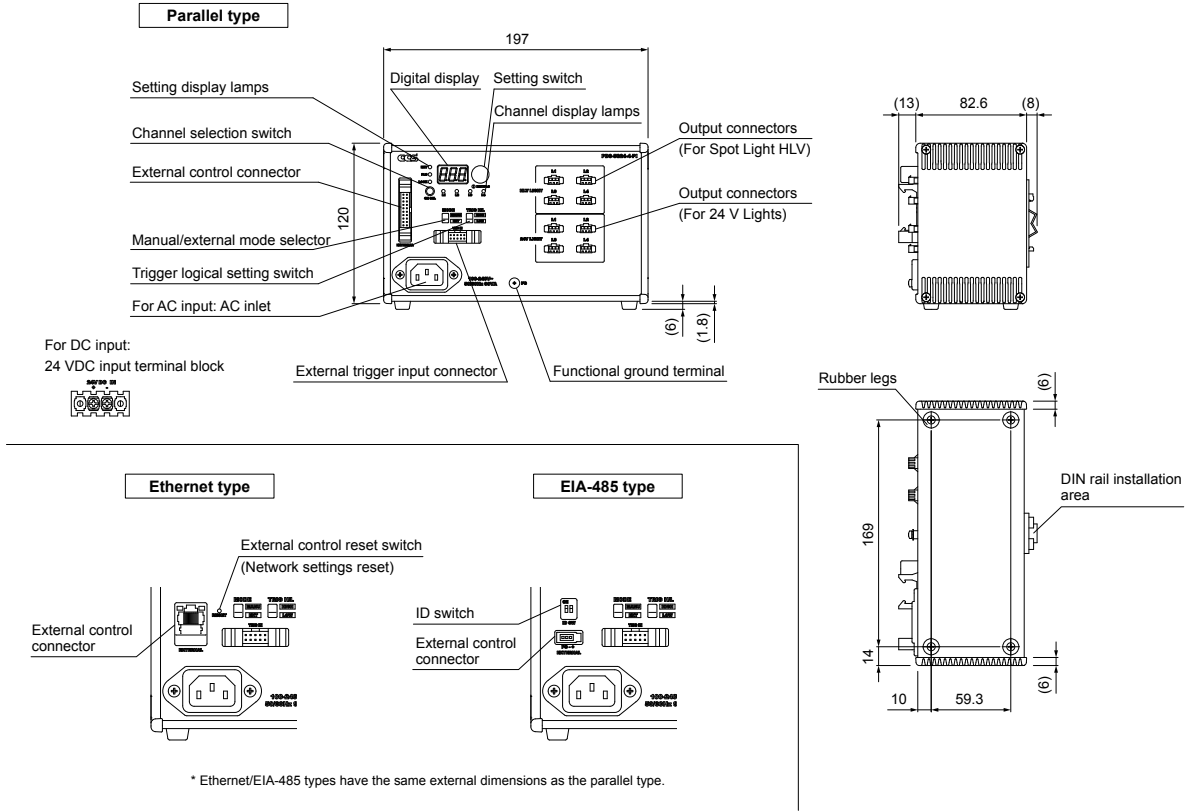


You can also use your smartphone or cell phone.

Use a search engine.

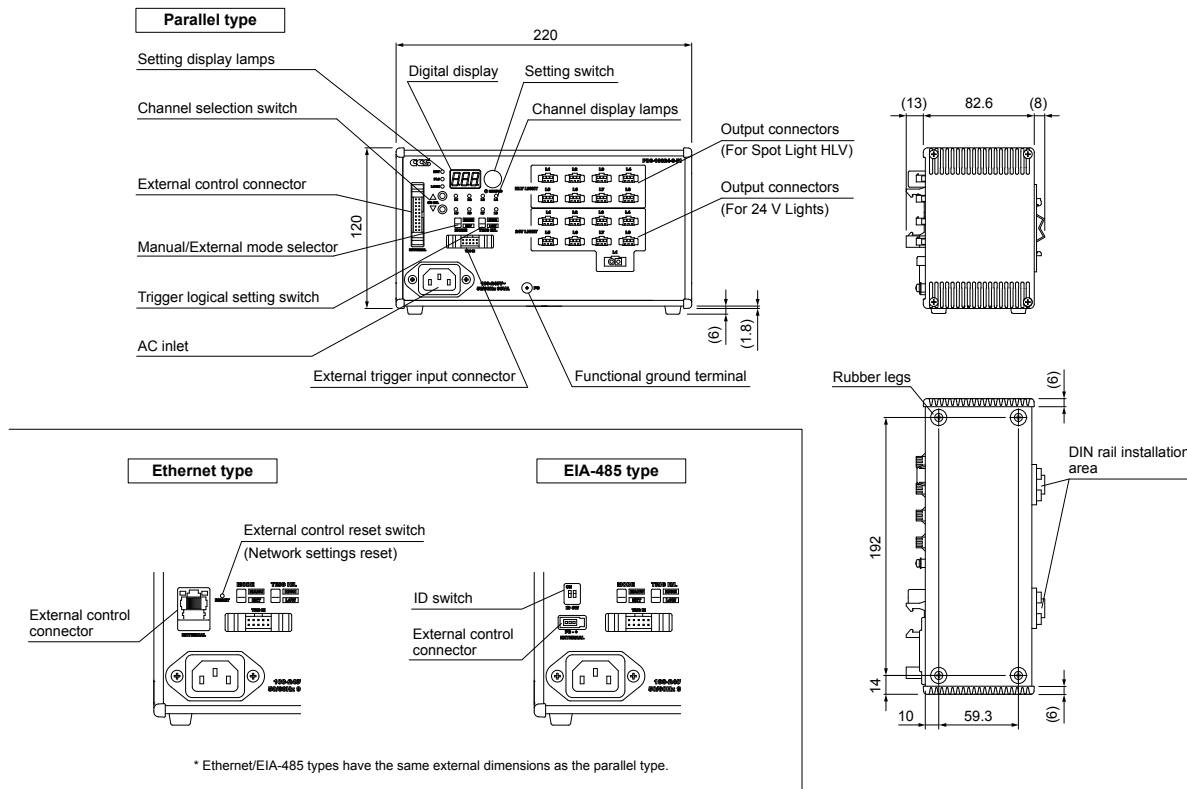
Dimensions (mm)

PD3-5024-4-PI/PD3-5024-4-EI/PD3-5024-4-SI/PD3-5024-4-PT/PD3-5024-4-ET



Dimensions (mm)

PD3-10024-8-PI/PD3-10024-8-EI/PD3-10024-8-SI



We have various materials.

- PDF Drawings
- DXF Drawings
- 3D CAD
- Instruction Guides
- Product Filers
- Imaging Samples
- Data Sheets
- Examples of Custom Ordered Products

Download here. <http://www.ccs-grp.com/dl/>

- Control Units
- Options
- PD3 series
- PD2 series
- STU-3000
- PSB series
- PTU2 series
- PB-2430-1
- CC-ST-1024
- BB series
- PJ series
- CC-PJ-0707
- PSCC series
- PSB3-30024
- Lens Filters
- Diffusion Plates
- Polarization Plates
- Light Control Films
- Brackets
- Other
- Extension Cables

Options

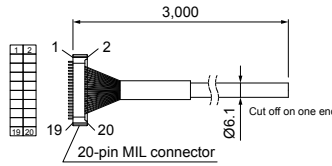
External control cables

Parallel communication cable

Used for performing external control via parallel communication. You can select the channel, intensity setting and lighting mode (continuous, ON/OFF and strobe modes).



Model name: EXCB2-M20-3



PIN No.	Line color	Marking	PIN No.	Line color	Marking
1	Orange	Black1	11	Orange	Black2
2	Orange	Red1	12	Orange	Red2
3	Gray	Black1	13	Gray	Black2
4	Gray	Red1	14	Gray	Red2
5	White	Black1	15	White	Black2
6	White	Red1	16	White	Red2
7	Yellow	Black1	17	Yellow	Black2
8	Yellow	Red1	18	Yellow	Red2
9	Pink	Black1	19	Pink	Black2
10	Pink	Red1	20	Pink	Red2

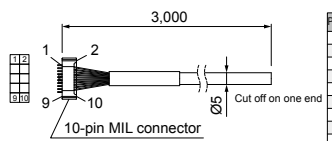
Dimensions (mm)

Trigger input cable

Cable through which external trigger signals are input by parallel bit method. Used when performing ON/OFF or strobe lighting using an external trigger signal.



Model name: EXCB2-M10-3



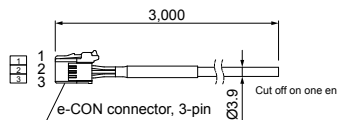
PIN No.	Line color	Marking
1	Orange	Black1
2	Orange	Red1
3	Gray	Black1
4	Gray	Red1
5	White	Black1
6	White	Red1
7	Yellow	Black1
8	Yellow	Red1
9	Pink	Black1
10	Pink	Red1

EIA-485 communication cable

Used for performing external control via EIA-485 communication. You can select the channel, intensity setting, ON/OFF setting and lighting mode (continuous, ON/OFF and strobe modes).



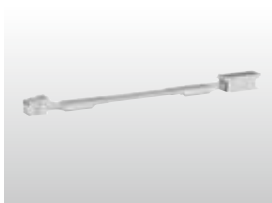
Model name: EXCB2-E3-3



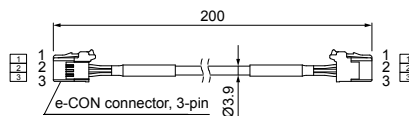
PIN No.	Line color	Embedded line color
1	Black	None
2	Black	White
3 (shielded)	Drain wire	None

EIA-485 communication relay cable

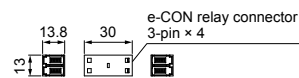
Relay cable necessary if using with two or more PD3 series units connected for EIA-485 communication.



Model name: EXCB2-E3-E3-0.2

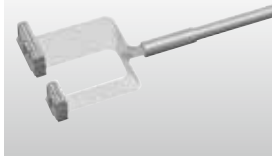


Relay connector
Model name: ECNR-E3CN4

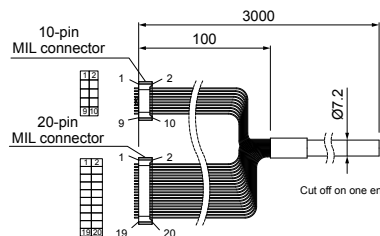


Parallel communication/Trigger input branch cable

Branch cable that combines parallel communication and trigger input cables into a single cable.



Model name: EXCB2-M10M20-3



20-pin MIL connector		
PIN No.	Line color	Marking
1	Orange	Black2
2	Orange	Red2
3	Gray	Black2
4	Gray	Red2
5	White	Black2
6	White	Red2
7	Yellow	Black2
8	Yellow	Red2
9	Pink	Black2
10	Pink	Red2

10-pin MIL connector		
PIN No.	Line color	Marking
1	Orange	Black1
2	Orange	Red1
3	Gray	Black1
4	Gray	Red1
5	White	Black1
6	White	Red1
7	Yellow	Black1
8	Yellow	Red1
9	Pink	Black1
10	Pink	Red1

Base brackets

Bracket for securing PD3 series units to the floor, shelving and similar locations.



* Base Brackets are included with PD3-5024-4 and PD3-10024-8 models.

Model name: BK-PD3

