

# Intensity Control

## Light Units with Intensity Control Unit

### IU Series

Light intensity and light ON/OFF control can be performed without an external controller.



The light intensity can be set to any of 126 levels by adjusting the Intensity Control Unit.

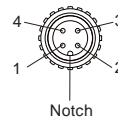
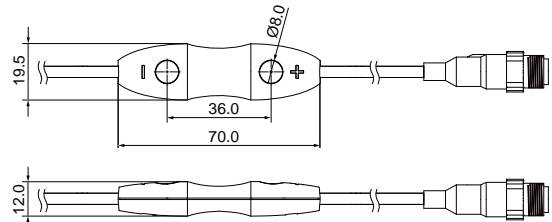
An M12 input connector, to which you can connect **Smart Cameras** and other devices to supply power.

Note: These products are sold only outside Japan.

#### Common Specifications

Lighting method	Continuous lighting
Drive method	Constant-voltage system
Intensity control method	PWM control
PWM frequency	125 kHz
Input voltage (rating)	24 VDC
Input voltage (range)	21.6 to 24 VDC
Input connector	M12 (4 pins, male)
Cable length	670 mm (including the Intensity Control Unit)

#### Dimensions (mm)



Pin No.	Signal
1	24 VDC*1
2	NC
3	COMMON GND
4	ON/OFF input (+24 V)*2

\*1 Voltage rating: 24 VDC, Voltage range: 21.6 to 24 VDC

- The brightness of the Light Unit will be lower when the input voltage is less than 24 VDC.
- Use a stable power source with an output voltage that does not fluctuate.

\*2 Voltage rating: 24 VDC, Voltage range: 20 to 26.4 VDC

#### Custom Orders

Please contact your sales representative.

E.g.: Different color

##### Customizable items

Wavelength/Color  
Creating a blue LED Light Unit

External/Internal diameter  
Wavelength/Color

Increase output  
Cable length

Illuminating angle  
Format/material

Connector format  
Installation/mounting

Etc.



#### Optional Accessories

##### Extension Cable

Model name: **FRCB-n-M12-4M-4F** (n=1, 2, 3)

This robot cable is used to extend the Light Unit cable length. Cable length: 1, 2, 3 m

##### Continuous Lighting Adapter

Model name: **FRCB-0.5-M12-AL-4M4F**

This Adapter is used to continuously turn ON the Light Unit. A robot cable is used.

(Pins 1 and 4 are internally connected.)

Cable length: 0.5 m

## Lineup

### Ring Lights

	Model name	Power consumption (typ.)
HPR2	HPR2-50RD-IU	8.1 W
	HPR2-50SW-IU	9.6 W
	HPR2-75RD-IU	11 W
	HPR2-75SW-IU	11 W
	HPR2-100RD-IU	11 W
	HPR2-100SW-IU	11 W
	HPR2-150RD-IU	11 W
	HPR2-150SW-IU	11 W
LDR2	LDR2-32RD2-IU	2.0 W
	LDR2-32SW2-IU	2.4 W
	LDR2-42RD2-IU	2.5 W
	LDR2-42SW2-IU	3.2 W
	LDR2-50RD2-IU	3.6 W
	LDR2-50SW2-IU	4.3 W
	LDR2-70RD2-IU	6.6 W
	LDR2-70SW2-IU	8.1 W
	LDR2-90RD2-IU	11 W
	LDR2-90SW2-IU	11 W
	LDR2-50RD2-WD-IU	3.6 W
	LDR2-70RD2-WD-IU	6.6 W
	LDR2-90RD2-WD-IU	11 W
	LFR	LFR-100RD2-IU
LFR-100SW2-IU		5.1 W
LFR-130SW2-IU		6.2 W
LKR	LKR-70RD2-IU	3.0 W
	LKR-70SW2-IU	4.3 W
LDR-LA1	LDR-75RD2-LA1-IU	3.0 W
	LDR-75SW2-LA1-IU	4.3 W
	LDR-96RD2-LA1-IU	3.6 W
	LDR-96SW2-LA1-IU	4.3 W
	LDR-146RD2-LA1-IU	5.1 W
	LDR-146SW2-LA1-IU	6.6 W
	LDR-176RD2-LA1-IU	6.6 W
LDR2-LA	LDR-176SW2-LA1-IU	8.1 W
	LDR-206RD2-LA1-IU	7.6 W
	LDR-206SW2-LA1-IU	9.6 W
	LDR2-48RD2-LA-IU	2.5 W
	LDR2-48SW2-LA-IU	3.6 W
	LDR2-74RD2-LA-IU	5.1 W
	LDR2-74SW2-LA-IU	6.2 W
	LDR2-100RD2-LA-IU	9.6 W
	LDR2-100SW2-LA-IU	11 W
	LDR2-132RD2-LA-IU	11 W
LDR2-132SW2-LA-IU	11 W	

### Bar Lights

	Model name	Power consumption (typ.)
LDL2	LDL2-33X8RD2-IU	3.0 W
	LDL2-33X8SW2-IU	2.5 W
	LDL2-41X16RD2-IU	4.3 W
	LDL2-41X16SW2-IU	4.3 W
	LDL2-41X16RD2-WD-IU	4.3 W
	LDL2-41X16SW2-WD-IU	4.3 W
	LDL2-80X16RD2-IU	8.1 W
	LDL2-80X16SW2-IU	8.1 W
	LDL2-80X16RD2-WD-IU	8.1 W
	LDL2-80X16SW2-WD-IU	8.1 W
	LDL2-119X16RD2-IU	11 W
	LDL2-119X16SW2-IU	11 W
	LDL2-119X16RD2-WD-IU	11 W
	LDL2-119X16SW2-WD-IU	11 W
	LDL2-74X30RD2-IU	11 W
	LDL2-74X30SW2-IU	11 W
	LDL2-74X30RD2-WD-IU	11 W
	LDL2-74X30SW2-WD-IU	11 W

### Square Lights

	Model name	Power consumption (typ.)
FPQ2	FPQ2-32RD-IU	6.6 W
	FPQ2-32SW-IU	5.6 W
	FPQ2-48RD-IU	6.3 W
	FPQ2-48SW-IU	11 W

### Back Lights

	Model name	Power consumption (typ.)
TH2	TH2-27X27RD-IU	2.8 W
	TH2-27X27SW-IU	3.4 W
	TH2-43X35RD-IU	5.4 W
	TH2-43X35SW-IU	5.3 W
	TH2-51X51RD-IU	7.0 W
	TH2-51X51SW-IU	8.7 W
	TH2-63X60RD-IU	10.4 W
	TH2-63X60SW-IU	10.2 W
	TH2-83X75RD-IU	11 W
	TH2-83X75SW-IU	11 W

### Back Lights (Continued)

	Model name	Power consumption (typ.)
LFL	LFL-612RD2-P-IU	1.0 W
	LFL-612SW2-P-IU	0.9 W
	LFL-1012RD2-IU	1.0 W
	LFL-1012SW2-IU	1.3 W
	LFL-1012RD2-P-IU	1.0 W
	LFL-1012SW2-P-IU	1.3 W
	LFL-3212RD2-IU	2.0 W
	LFL-3212SW2-IU	2.8 W
	LFL-4012RD2-IU	2.5 W
	LFL-4012SW2-IU	3.2 W
	LFL-50RD2-IU	3.0 W
	LFL-50SW2-IU	3.6 W
LFL-100RD2-IU	5.6 W	
LFL-100SW2-IU	5.8 W	

### Dome Lights

	Model name	Power consumption (typ.)
HPD2	HPD2-75RD-IU	11 W
	HPD2-75SW-IU	11 W
	HPD2-100RD-IU	11 W
	HPD2-100SW-IU	11 W
	HPD2-150RD-IU	11 W
	HPD2-150SW-IU	11 W

### Flat Dome Lights

	Model name	Power consumption (typ.)
LFX3	LFX3-50RD-IU	11 W
	LFX3-50SW-IU	11 W
	LFX3-75RD-IU	11 W
	LFX3-75SW-IU	11 W
	LFX3-100RD-IU	11 W
	LFX3-100SW-IU	11 W

### Coaxial Lights

	Model name	Power consumption (typ.)
LNV3	LNV3-34RD-IU	4.2 W
	LNV3-34SW-IU	3.7 W
	LNV3-35RD-IU	3.6 W
	LNV3-35SW-IU	4.2 W
	LNV3-40RD-IU	5.1 W
	LNV3-40SW-IU	5.1 W
	LNV3-50RD-IU	8.6 W
	LNV3-50SW-IU	11 W
	LNV3-70RD-IU	11 W
	LNV3-70SW-IU	11 W
	LNV3-CP-13RD-IU	2.5 W
	LNV3-CP-13SW-IU	2.8 W
	LNV3-CP-18RD-IU	3.8 W
	LNV3-CP-18SW-IU	4.6 W

Note: For information on the LED color, wavelength, and other specifications, refer to those of the Light Unit that does not have "-IU" at the end of the model name.

You can inquire  
using our website.

Sample  
Testing

Light Unit  
Selection

Free Product  
Trial

Custom  
Orders

Product  
Details

Pricing/  
Quotation

Discontinued  
Products

Direct Lighting	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Diffused Lighting	HPR2 LFR LKR FPR FPQ2
Direct Lighting	LDL2 LDLB HLDL2 HL
Diffused Lighting	TH2 (5 types) TH LFL HPD2 LDM2 LAV PDM LFX3 LFX3-PT LFX3
Coaxial Lighting	MSU MFU
Strobe Lighting	PF
Water-proof	HLDR-IP/ HSL-PCL
Ultraviolet Lighting	UV2 UV LNSP-UV-FN
Infrared Lighting	IR2
Intensity Control	IU
Spot Lighting, Etc.	HLV3 HLV2 LV LSP HFS/HFR HLV3-NR HLV3-3M-RGB-4 HLV2-NR HLV2-3M-RGB-3W PFBR PFB3 PFB2
Convergent Lighting	LNLP LNSP2 LNSP Coaxial Units LNSP-FN LN/LN-HK
Diffused Lighting	LNLD LND2 HLND LT LNV
Oblique Angled Lighting	LNLDG LNIS2 LNIS LNIS-FN
Lenses	Telecentric Lens Macro Lens