LDR2 LDR2-LA LDR-LA1

HL
(ypes)
TH
LFL
HPD2
LDM2
LAV

PDM

LFX3 LFX3-PT

MFU

PF

UV2

IR2

IU

HLV3

HLV2 LV LSP

HFS/HFR

HLV3-NR

HLV2-NR HLV2-3M-RGB-3W PFBR PFB3

> LNLP LNSP2

LNSP

Coaxial Units

LN/LN-HK

LNSD

LND2

HLND LT LNV

LNDG

LNIS2 LNIS

LNIS-FN

Telecentric Lens

Macro Lens

HLV3-3M-RGB-4

HLDR-IP/ HSL-PCL

LNSP-UV-FN

SQR SQR-TP
HPR2
LFR
LKR
FPR
FPQ2
LDL2
LDL2

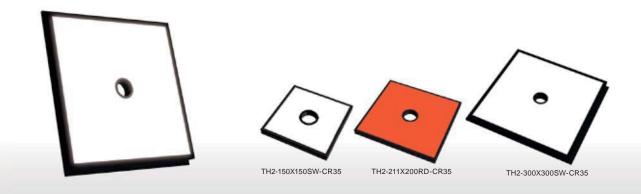
# **Diffused Lighting**

# Flat Lights

TH2-CR Series

**Camera-Window Type** 

# Provide a light from the same axis as the camera

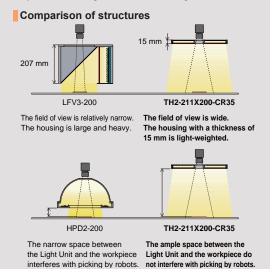


Applications

Inspection of FIPG sealing material on metal components, inspection for stains and foreign materials in disposable diapers, reading engraved text on piston ring, robot picking, etc.

#### Illumination from the Same Axis as the Camera

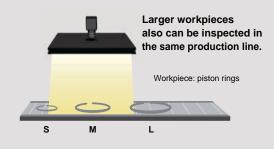
Flat Lights with a camera window at the center of the emitting surface. They do not serve as a back light but provide a light from the same axis as the camera in the way the Dome Lights and Coaxial Lights do.



### Uniform Illumination of a Wide Range

These Light Units have a wider emitting surface compared to that of the Coaxial Lights and Dome Lights. This enables uniform illumination of a wide range.

#### Applicable to a wide range of workpiece sizes



#### Product lineup

The available LED color is white or red.

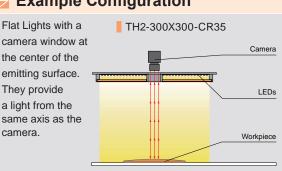
Three sizes of emitting surface: 150 x 150 mm,
211 x 200 mm, and 300 x 300 mm.

These Light Units can deal with a wide variety of inspection contents.

### Custom Orders



### Example Configuration





LDR2

LKR

FPR

FPQ2

LDL2 Lighting HTDF3

> TH LFL HPD2 LDM2

LAV PDM LFX3 LFX3-P1

MFU Strobe Lighting

IR2

ΙU

HLV2 LV LSP

HFS/HFR HLV3-NR HLV3-3M-RGB-4 HLV2-NR HLV2-3M-RGB-3W PFBR

PFB3 LNLP LNSP2 LNSP

Son

Direct Lighting LDR-LA1 SQR SQR-TF HPR2

Diffused L

### Imaging Example: Imaging FIPG Sealing Material on Metal Components



Workpiece image



FIPG sealing material on metal components

#### TH2-300X300SW-CR35





The above sample workpiece has been made specifically for sample imaging and is not the one for actual inspection.

can be imaged.

### Imaging Example: Imaging Stains and Foreign Materials in Disposable Diapers



Workpiece image



Disposable diapers

TH2-300X300SW-CR35



The foreign material on the surface is imaged.

The above sample workpiece has been made specifically for sample imaging.

### Imaging Example: Imaging Engraved Text on Textured Metal Surfaces



Workpiece image



Textured metal

TH2-150X150SW-CR35



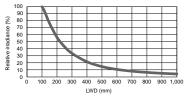
The engraved text is clearly imaged.

### Data: Relative Irradiance Graph and Uniformity (Representative Example)

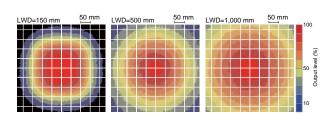
#### TH2-300X300SW-CR35

Relative irradiance graph<sup>1</sup> (LWD characteristics) \*2

- \*1 Irradiance on the optical axis



#### Uniformity (Relative irradiance)



You can inquire using our website.

Light Unit

Free Product

Product Details

Discontinued

www.hours-web.com

The data included is for reference only. Actual values may vary.

Coaxial Units LNSP-FN LN/LN-HK

Diffused Lighting LT LNV LNDG LNIS2 LNIS

LNSD LND2 HLND

LNIS-FN Telecentric Lens

Macro Lens

FPQ2 LDL2

MSU

LT LNV LNDG LNIS2 LNIS LNIS-FN Telecentric Lens Macro Lens

# **TH2-CR** Series





### Lineup

Model name	LED color	Power consumption	Peak wavelength / correlated color temperature	Options	Extension cables	Recommended Control Units	Weight	
TH2-150X150RD-CR35	Red	24 V / 30 W	635 nm	Bracket	FCB <sup>12</sup> Straight Cable  FCB-W <sup>3</sup> 2-branch Cable  FCB-F 4-branch Cable  FRCB Robot Cable	250 a		
TH2-150X150SW-CR35	White	24 V / 30 W	5,800 K			PD3 POD'1	350 g	
TH2-211X200RD-CR35	Red	24 V / 63 W	635 nm	Str	500 510	PD3-10024-8 POD-22024-4-PEI <sup>-1</sup> PSB4-30024-PEI	550 g	
TH2-211X200SW-CR35	White	24 V / 62 W	5,800 K		FCB-EL2 Straight Cable			
TH2-300X300RD-CR35	Red	24 V / 83 W	635 nm		FCB-W-EL2 2-branch Cable		2,700 g	
TH2-300X300SW-CR35	White	24 V / 84 W	5,800 K					
Extension Cables ▶ P.308				Control Unit Sel	Control Unit Selection Guide ▶ P.251 List of Control Unit Specifications ▶ P.253			

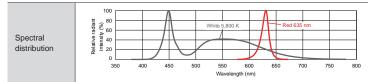
<sup>\*1</sup> The cables with a model name that ends with "-ME7", "-EL2", "-PF", or "-PF-EL9" are not included \*2 The cables with a model name that ends with "-EL2" are not included.

Light Units with a 500 x 500 mm emitting surface are available for custom orders.

We also accept custom orders for the size of the camera window, LED color (blue, infrared, or other color), etc.

Please feel free to contact your sales representative for details.

### **LED Properties**



Offers you the most suitable lens filter for each wavelength. For details about the lens filter, refer to P.299.

Be sure to read the "Instruction Guide" included with the product before use and follow the safety precautions upon use. The data included is for reference only. Actual values may vary.

### **Options**



This is a dedicated bracket for affixing the TH2 series Light Units. The TH2 series can be affixed in four points.

#### Bracket

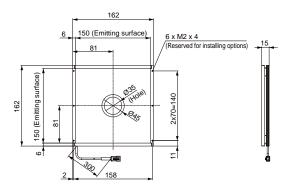
Model name	Applicable Light Unit (Common for all colors)		
BK-TH-LE12	Installation bracket common to all TH2 models (includes 4)		

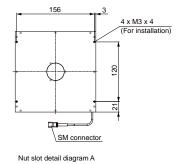
P.305

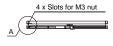


## **Dimensions (mm)**

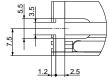
#### TH2-150X150RD-CR35/SW-CR35



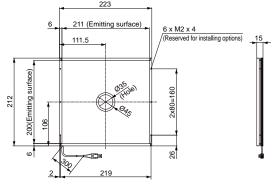


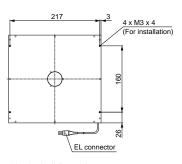






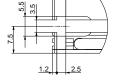
#### TH2-211X200RD-CR35/SW-CR35



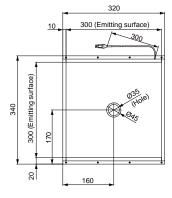


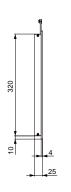


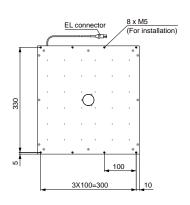
Nut slot detail diagram A



#### TH2-300X300RD-CR35/SW-CR35







You can change the connectors of the Light Unit cable. Choose between M12 connectors and flying leads. Refer to P.5 for details.



Direct Lighting LDR2-LA LDR-LA1 SQR SQR-TF HPR2 Diffused Lighting LFR LKR FPR FPQ2 LDL2

LDR2

LDLB HLDL2 HL TH LFL HPD2

LDM2 LAV PDM LFX3 LFX3-P1 MSU MFU Strobe Lighting

Ultraviolet Clighting UN2 UNSP-UV-FN

Unfrared Lighting L Control L HLV3

HLV2

LV LSP HFS/HFR HLV3-NR HLV3-3M-RGB-4 HLV2-NR HLV2-3M-RGB-3W PFBR PFB3

LNLP Convergent Lighting LNSP2 LNSP Coaxial Units LNSP-FN LN/LN-HK LNSD

Diffused Lighting HLND LT LNV LNDG LNIS2

LND2

Deligue Angled Lighting LNIS2 LNIS2 LNIS LNIS-FN Telecentric Lens

Macro Lens