

Coaxial Lights

MSU series

Refer to our website for product details.



You can also use your smartphone or cell phone.

For quick access.

Provides light with high parallelism using original lighting technology



Applications Inspection for fine damage on glossy surfaces, character recognition on glossy surfaces, etc.

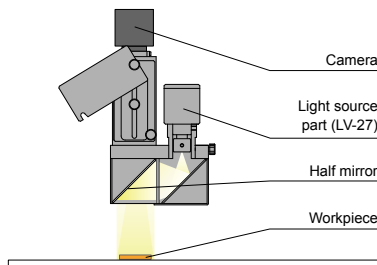
Features

Provides collimated lighting created using a special lens. It is perfect for extracting tiny scratches, damage, or dents on mirror surfaces. The included lens can be used for convergent light.

We accept custom orders. Please feel free to inquire.

- Shape modifications
- Brightness increases
- Changes in wavelength, etc.

Example configuration (MSU-10)



Imaging example: Exterior imaging of button cell batteries



LED Coaxial Light



With the Coaxial Light, it is possible to reduce surface reflection and form an image of the engraved text.

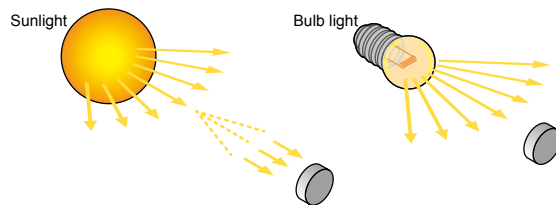
MSU-30X20RD2



Not only is the image of the engraved text more clear than with the Coaxial Light, fine differences in the surface can also be imaged.

Collimated light optical unit MSU series

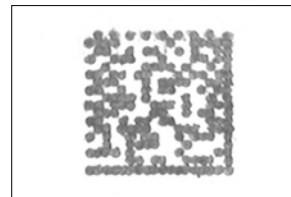
Light illuminated from a normal light source moves in a straight line while radially diffusing. Collimated light refers to light where one point of light illuminated from a source at infinitely far distance, such as the sun, hits any surface from the same angle. The MSU series is an optical unit developed by applying the principle of collimated light.



Extracts damage, scratches, and dents on mirror workpieces

This optical unit is effective for inspections that were difficult using conventional image processing, such as extracting shallow and tiny scratches, damage and dents, and reading barcodes on mirror workpieces.

Imaging of 2-dimensional code



Using an LED Light allows for high performance, stable, and low-cost imaging. This is an applied product that melds lighting technology design with optical design.

For details about the procedure for usage, refer to the material "How to Use the MSU Series" on our website. You can download this information from the product website page.

Various technical documents available.

- 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/>

LDR2	
LDR2-LA	Direct Lighting
LDR-LA1	
SQR	
SQR-TP	
HPR2	
LFR	Diffused Lighting
LKR	
FPR	
FPQ2	
LDL2	
LDLB	Direct Lighting
HLDL2	
HL	
TH2 (5 types)	
TH	
LFL	
HPD2	
LDM2	Diffused Lighting
LAV	
PDM	
LFX3	
LFX3-PT	
LFX2	
LFV3	
MSU	Collimated Lighting
MFU	
PF	Stroke Lighting
HLDL-IP/ IQ/HSL-PCL	Water-proof
UV2	Ultraviolet Lighting
UV	
LNSP-UV-FN	
IR2	Infrared Lighting
IU	Intensely Coaxial
HLV2	
LV	
LSP	Spot Lighting, Etc.
HFS/HFR	
HLV2-NR	
HLV2-3M-RGB-3W	
PFB1	
PFB2	
LNLP	
LNLP2	
LNLP	Convergent Lighting
LNLP-FN	
LN/LN-HK	
LNLD	
LND2	
HLND	
LT	Diffused Lighting
LNV/HLDN	
LNDG	
LNIS2	Oblique-Axis Lighting
LNIS	
LNIS-FN	
Telecentric Lens	Lenses
Macro Lens	

Lineup

Model name	LED color	Power consumption	Peak wavelength/ correlated color temperature	Options	Extension cables	Recommended Control Units	Weight
MSU-10RD2	Red	24 V / 0.8 W	630 nm	-	FCB*4 Straight Cable FCB-W 2-branch Cable FCB-F 4-branch Cable FRCB Robot Cable	PD3 CC-ST-1024 PSB POD*3	275 g
MSU-10SW2	White	24 V / 0.4 W	5,500 K				
MSU-10BL2	Blue	24 V / 0.4 W	470 nm			PD3*1 CC-ST-1024 PSB POD*3	2,000 g
MSU-30RD2	Red	24 V / 0.8 W	630 nm				
MSU-30BL2	Blue	24 V / 0.4 W	470 nm			PD3 CC-ST-1024 PSB POD*3	540 g
MSU-30X20RD2*1	Red	24 V / 0.8 W	630 nm				
MSU-30X20SW2	White	24 V / 0.5 W	5,500 K			PD3 CC-ST-1024 PSB POD*3	9,920 g
MSU-30X20BL2	Blue	24 V / 0.5 W	470 nm				
MSU-30X20GR2	Green	24 V / 0.5 W	525 nm			PD3 CC-ST-1024 PSB POD*3	12,700 g
MSU-100RD2	Red	24 V / 0.8 W	630 nm				
MSU-100SW2	White	24 V / 0.4 W	5,500 K			PD3*2 CC-ST-1024 PSB*2 POD*3	13,000 g
MSU-130RD2	Red	24 V / 0.8 W	630 nm				
MSU-130SW2-CL	White	24 V / 0.4 W 24 V / 4.6 W	5,500 K				

LED Properties: Spectral Distribution ► P.306

Extension Cables ► P.296

Control Unit Selection Guide ► P.243

List of Control Unit Specifications ► P.245

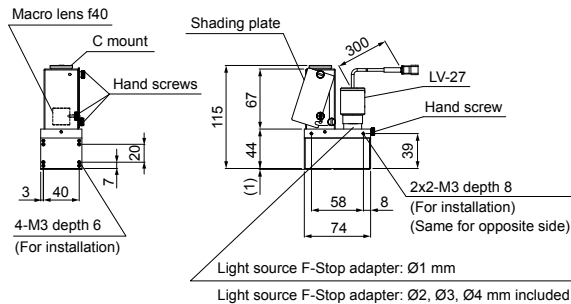
*1 This red light cannot be used with the PD3-5024-4-SI or PD3-5024-4-ET Control Unit.

*2 The MSU-130SW2-CL is equipped with two Light Units. Use a 2-channel Control Unit.

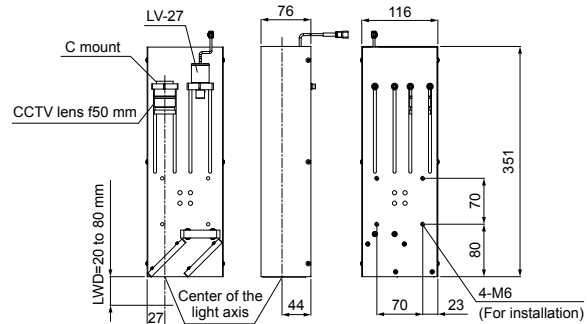
*3 For information on the combination of Light Units and POD-series Control Unit, please refer to our website. <http://www.ccs-grp.com/lnkqr/pod>

Dimensions (mm)

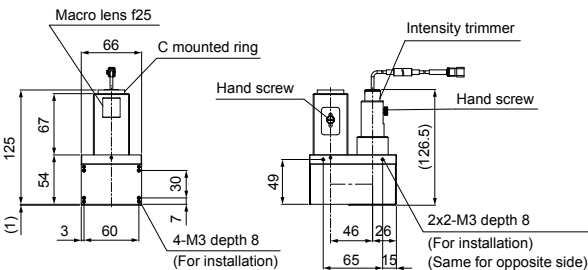
MSU-10RD2/SW2/BL2



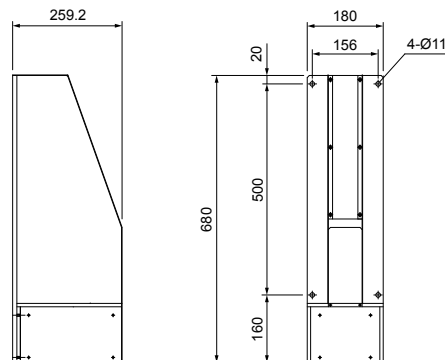
MSU-30RD2/BL2



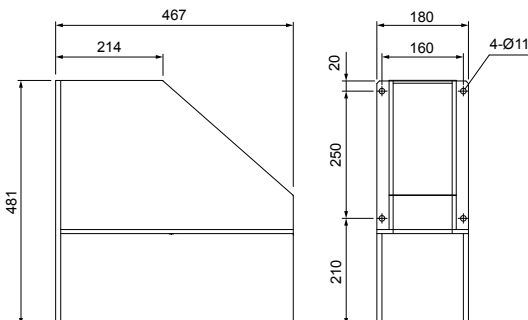
MSU-30X20RD2/SW2/BL2/GR2



MSU-100RD2/SW2



MSU-130RD2/SW2-CL



Reference chart for the field of vision (Estimate)

Using a 1/3 inch sensor camera

Model name	Field of vision	WD
MSU-10	7.5 mm	58 mm
MSU-30	18.7 mm	50 mm
MSU-30X20	15 mm	24 mm
MSU-100	60 mm	50 mm

Regarding reference field of vision
This is an estimate to help you select a Light Unit, and
individual units may vary from the data listed above depending
on your imaging conditions.

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

You can inquire using
our website.

Requests for
Light Unit
Selection

Requests for
Loan
Products

Requests for
Estimates

Requests for
a Catalog

Product
Inquiries

Other
Inquiries

Inquire on our website here.
<http://www.ccs-grp.com/contact/>

Direct Lighting	LDR2
	LDR2-LA
	LDR-LA1
	SQR
	SQR-TP
Diffused Lighting	HPR2
	LFR
	LKR
	FPR
	FPQ2
Direct Lighting	LDL2
	LDLB
	HLDL2
	HL
	TH2 (5 types)
	TH
	LFL
	HPD2
	LDM2
	LAV
Diffused Lighting	PDM
	LFX3
	LFX3-PT
	LFX2
	LFV3
Collimated Lighting	MSU
	MFU
Strobe Lighting	PF
Water-proof Lighting	HLDR-IP/ IQ/HSL-PCL
Ultraviolet Lighting	UV2
	UV
	LNSP-UV-FN
Infrared Lighting	IR2
Intensity Control	IU
	HLV2
	LV
	LSP
	HFS/HFR
	HLV2-NR
	HLV2-3M-RGB-3W
	PFBR
	PFB2
Convergent Lighting	LNLP
	LNSP2
	LNSP
	Coaxial Units
	LNSP-FN
	LN/LN-HK
Diffused Lighting	LNSD
	LDN2
	HLND
	LT
	LNV/HLDN
Oblique-Angled Lighting	LDNG
	LNIS2
	LNIS
	LNIS-FN
Lenses	Telecentric Lens
	Macro Lens