

NEW

OMRON

LED Lighting System
3Z4S-LT/LE Series
Datasheet



LED NEXT GENERATION



realizing

This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

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CSN 2-1-0511

Cat. No. Q164-E1-01

Printed in Japan
0708

Next-generation MG-Wave® LED Illumination Combines with the Vision Sensor to Provide New Solutions

Illumination Devices are essential for finding solutions to many of the image-processing tasks of Vision Sensors. With this in mind, we have now combined advanced MG-Wave® LED Illumination from the broad Moritex range of original and innovative products based on superior illumination technologies with Vision Sensor image-processing technologies and know-how accumulated over the years by OMRON.

This powerful collaboration has yielded a variety of optimal solutions to inspection and measurement needs in automated production applications.

A wide range of products allows you to select the optimal Illumination Device for each application.



Index

Strobe Controller	P4
Direct Ring Light	P6
Low Angle Ring Light	P7
Coaxial Light/Simulated Coaxial Episcopic Light	P8
Shadowless Light	P9
Bar Light/Line Light	P10
Dome Light	P11
High-powered Spot LED Light	
IR Light	P12
Direct Backlight	P13
Edge-type Backlight	P14
Square Oblique Light	P15
UV Light	P16
Spot LED Light	P17
Parallel Light	
CCTV Lens	P18
CCTV Lens Option	
Non-telecentric Macro Lens	P19
New Power Supplies for MCEP/MSPP Series	P20
New Power Supplies for MG-Wave Series	P22
Optional Accessories	P25

Strobe Controller

3Z4S-LT MLEK-C080E1LS (for F150-S1A, F160-S2 Camera)
3Z4S-LT MLEK-C100E1TS2 (for FZ Camera)
3Z4S-LT MLEK-C100E1TSX (for ZFX-S/SC Camera)

Combining good Vision Sensor compatibility and excellent cost-performance.



Three Main Features

No need of power supply.

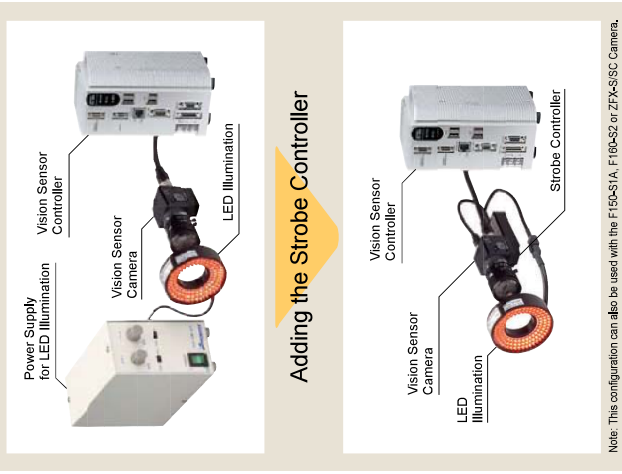
The Strobe Controller operates with power supplied from the Camera Head.

No need of light-emission control.

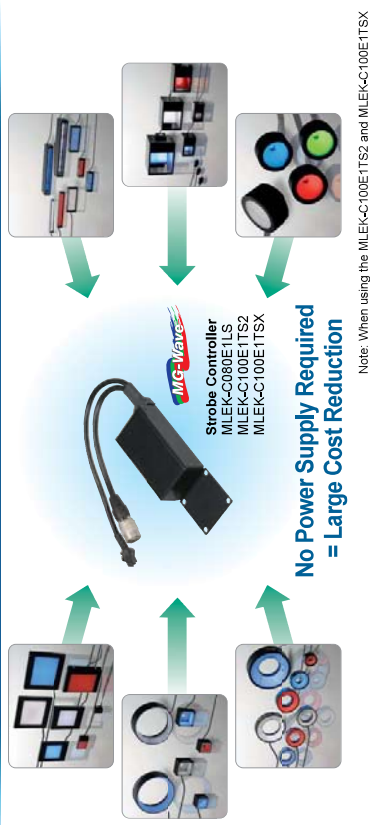
The illumination is turned ON when the Strobe Controller receives a trigger signal from the Camera Head.

Minimal wiring.

Simply connect the Camera and Illumination Device with a single cable.



Illumination Devices up to 1 A (Output current: See note) can be connected.



Ratings and Specifications

• The strobe intensity can be manually adjusted.

Model	3Z4S-LT MLEK-C080E1LS (See note 1.)	3Z4S-LT MLEK-C100E1TS2	3Z4S-LT MLEK-C100E1TSX
No. of outputs	1-channel output	1-channel output	1-channel output
Output current	0.63 A max. (when using 0.8-A illumination) (See note 2.)	1.0 A max. (when using 1.0-A illumination) (See note 2.)	1.0 A max. (when using 1.0-A illumination) (See note 2.)
Output control method	Constant current control	Constant current control	Constant current control
Output form	Strobe output (synchronized with rising edge trigger)	Strobe output (synchronized with rising edge trigger)	Strobe output (synchronized with rising edge trigger)
Output adjustment function	Manual dial only	Manual dial only	Manual dial only
Variable output range	0 to 100%	0 to 100%	0 to 100%
Strobe emission time	6.3 ms (standard)	Automatically set by FZ Controller	Automatically set by ZFX Controller
Strobe emission delay time	10 μs max. (at max. setting) 10 μs max. (at max. setting)	10 μs max. (at max. setting) 10 μs max. (at max. setting)	10 μs max. (at max. setting) 10 μs max. (at max. setting)
Allowable ON duty	100%	100%	100%
Usage environment	Indoor use at a max. altitude of 2,000 m, with no inflammable or corrosive gases present, and no adhesion of foreign matter	Indoor use at a max. altitude of 2,000 m, with no inflammable or corrosive gases present, and no adhesion of foreign matter	Indoor use at a max. altitude of 2,000 m, with no inflammable or corrosive gases present, and no adhesion of foreign matter
Ambient temperature and humidity	0 to 45°C, 80% up to 31°C and then dropping linearly to 50% at 40°C	0 to 45°C, 80% up to 31°C and then dropping linearly to 50% at 40°C	0 to 45°C, 80% up to 31°C and then dropping linearly to 50% at 40°C
Storage temperature and humidity	-20 to 85°C, 20 to 80% humidity (with no condensation)	-20 to 85°C, 20 to 80% humidity (with no condensation)	-20 to 85°C, 20 to 80% humidity (with no condensation)
Mounting method	Connected and mounted to F150-S/SC or F150-S/SC Camera	Connected and mounted to F150-S/SC or F150-S/SC Camera	Connected and mounted to ZFX-S/SC Camera
Cooling method	Natural air cooling	Natural air cooling	Natural air cooling
Degree of protection	IP30 (IEC 60529)	IP30 (IEC 60529)	IP30 (IEC 60529)
Weight	Approx. 80 g	Approx. 80 g	Approx. 80 g
Extension Cable (purchased separately)	M4RCB4 (1.1 m) (4-pin Extension Cable) (indicate length in the 2 square boxes (L1, L2): L1=1m, L2=2m, L3=3m)	M4RCB4 (1.1 m) (4-pin Extension Cable) (indicate length in the 2 square boxes (L1, L2): L1=1m, L2=2m, L3=3m)	M4RCB4 (1.1 m) (4-pin Extension Cable) (indicate length in the 2 square boxes (L1, L2): L1=1m, L2=2m, L3=3m)

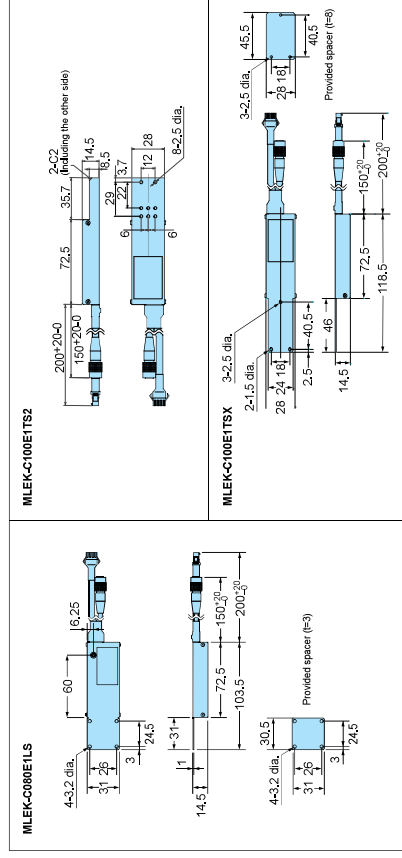
Note 1: Illumination marked "•" in the Connection to Strobe Controller column of the Model Number Legend table can be used.

Note 2: Depends on the illumination used.

Note 3: Strobe intensity adjustment and variable ranges.

Dimensions

(Unit: mm)



Direct Ring Light

MDRL Series

Model Number Legend

3Z4S-LT MDRL-C * ○ ○ ○
Luminescent color (Red=R, Green=G, Blue=B, White=W)
Internal diameter of the ring (mm)



List of Models

Model	Dimension	Luminescent Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MDRL-CR10	A	Red	0.11		080	○
MDRL-CG10	A	Green	0.17		080	○
MDRL-CB10	A	Blue	0.17	50	080	○
MDRL-CW10	A	White	0.17		080	○
MDRL-CR16	B	Red	0.24		080	○
MDRL-CG16	B	Green	0.37	65	080	○
MDRL-CB16	B	Blue	0.37		080	○
MDRL-CW16	B	White	0.37		080	○
MDRL-CR28	C	Red	0.20		080	○
MDRL-CG28	C	Green	0.31	65	080	○
MDRL-CB28	C	Blue	0.31		080	○
MDRL-CW28	C	White	0.31		080	○
MDRL-CR31	D	Red	0.36		080	○
MDRL-CG31	D	Green	0.55	130	080	○
MDRL-CB31	D	Blue	0.55		080	○
MDRL-CW31	D	White	0.55		080	○
MDRL-CR35	E	Red	0.34		080	○
MDRL-CG35	E	Green	0.52	150	080	○
MDRL-CB35	E	Blue	0.52		080	○
MDRL-CW35	E	White	0.52		080	○
MDRL-CR36	F	Red	0.36		080	○
MDRL-CG36	F	Green	0.55	120	080	○
MDRL-CB36	F	Blue	0.55		080	○
MDRL-CW36	F	White	0.55		080	○
MDRL-CR50	G	Red	0.64		080	○
MDRL-CG50	G	Green	0.96	180	230	×
MDRL-CB50	G	Blue	0.96		230	×
MDRL-CW50	G	White	0.96		230	×
MDRL-CR55	H	Red	1.12		230	×
MDRL-CG55	H	Green	1.55	520	230	×
MDRL-CB55	H	Blue	1.55		230	×
MDRL-CW55	H	White	1.55		230	×

* Production by order

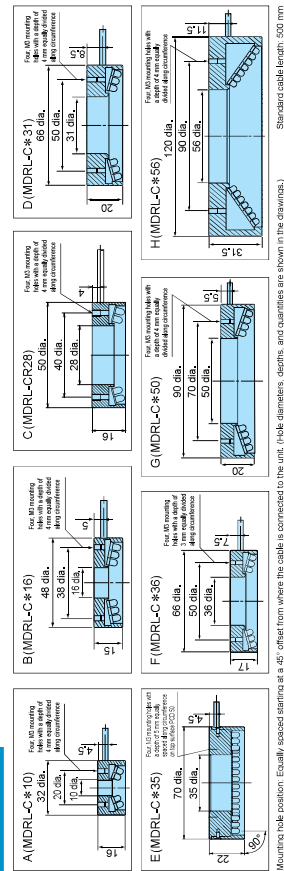
Diffusion and Polarizing plates are available to prevent the vignetting of image.

The recommended working distance is 60 mm or larger, but if a reflective surface is being illuminated, the working distance can be as long as 200 mm.

Options

For detail, See "Adapter: MAD Series" on page 25.

Dimensions



Mounting hole position: Equally spaced starting at a 45° offset from where the cable is connected to the unit. (Hole diameters, depths, and quantities are shown in the drawings.) Standard cable length: 500 mm.

Low Angle Ring Light

MLRL Series

Model Number Legend

3Z4S-LT MLRL-C * ○ ○ ○
Luminescent color (Red=R, Green=G, Blue=B, White=W)
Internal diameter of the ring (mm)



List of Models

Model	Dimension	Luminescent Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MLRL-CR25	A	Red	0.15		080	○
MLRL-CG25	A	Green	0.24		080	○
MLRL-CB25	A	Blue	0.24	70	080	○
MLRL-CW25	A	White	0.24		080	○
MLRL-CR46	B	Red	0.17		080	○
MLRL-CG46	B	Green	0.27	80	080	○
MLRL-CB46	B	Blue	0.27		080	○
MLRL-CW46	B	White	0.27		080	○
MLRL-CR48	C	Red	0.30		080	○
MLRL-CG48	C	Green	0.47	110	080	○
MLRL-CB48	C	Blue	0.47		080	○
MLRL-CW48	C	White	0.47		080	○
MLRL-CR68	D	Red	0.57		080	○
MLRL-CG68	D	Green	0.61	190	080	○
MLRL-CB68	D	Blue	0.61		080	○
MLRL-CW68	D	White	0.61		080	○
MLRL-CR100	E	Red	0.56	230	230	×
MLRL-CG100	E	Green	1.03	320	230	×
MLRL-CB100	E	Blue	1.03		230	×
MLRL-CW100	E	White	1.03		230	×

* Production by order

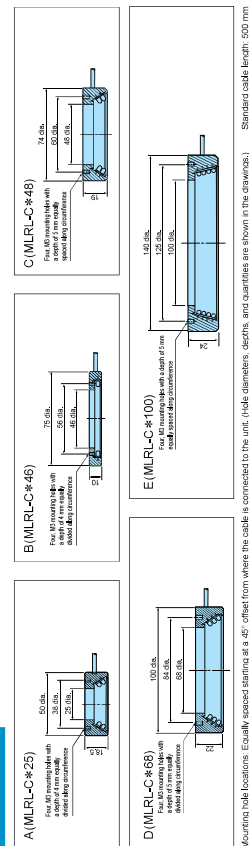
Options

Good for producing more uniform illumination than with direct lighting and for reducing glare and reflections.

Diffusion ring



Dimensions



Mounting hole position: Equally spaced starting at a 45° offset from where the cable is connected to the unit. (Hole diameters, depths, and quantities are shown in the drawings.) Standard cable length: 500 mm.

Coaxial Light/Simulated Coaxial Episcopic Light

MCEL Series
MSCL series

Model Number Legend

Coaxial
3Z4S-LT MCEL-C * 0 0 0 0 0
Luminescent color (Red=R, Green=G, Blue=B, White=W)

Simulated Coaxial
3Z4S-LT MSCL-C * 0 0 0 0 0 - *
Luminescent color (Red=R, Green=G, Blue=B, White=W) Box height Revision code



List of Models

Lineup of Coaxial Light

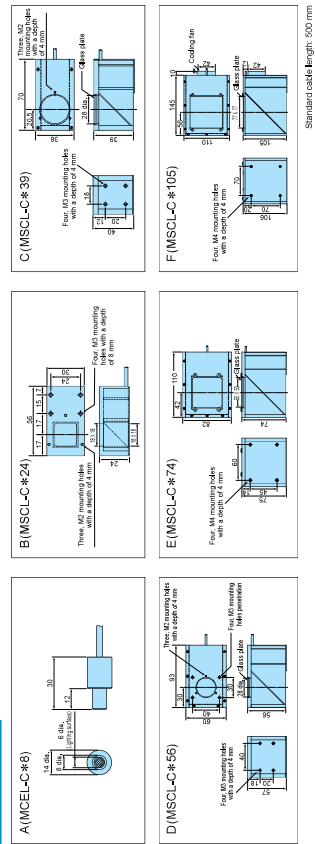
Model	Dimension	Luminescent Color	Max. rated current P/M (A)	Weight (g)	Power supply	Connection to strobe controller
MCEL-CR8	A	Red	0.04		080	X
MCEL-CG8	A	Green	0.03	35	080	X
MCEL-CB8	A	Blue	0.03		080	X
MCEL-CW8	A	White	0.03		080	X

Lineup of Simulated Coaxial Episcopic Light

Model	Dimension	Luminescent Color	Max. rated current P/M (A)	Weight (g)	Power supply	Connection to strobe controller
MSCL-CR24	B	Red	0.09		080	C
* MSCL-CG24	B	Green	0.20	110	080	C
MSCL-CB24	B	Blue	0.20		080	C
MSCL-CW24	B	White	0.20		080	C
MSCL-CR9	C	Red	0.16		080	C
* MSCL-CG9	C	Green	0.31	160	080	C
MSCL-CB9	C	Blue	0.31		080	C
MSCL-CW9	C	White	0.31		080	C
MSCL-CR48	D	Red	0.23		080	C
* MSCL-CG48	D	Green	0.66	320	080	C
MSCL-CB48	D	Blue	0.66		080	C
MSCL-CW48	D	White	0.66		080	C
MSCL-CR74-B	E	Red	0.62		080	X
* MSCL-CG74-B	E	Green	1.11	520	230	X
MSCL-CB74-B	E	Blue	1.11		230	X
MSCL-CW74-B	E	White	1.11		230	X
MSCL-CR105-B	F	Red	2.14		230	X
* MSCL-CG105-B	F	Green	2.07	920	230	X
MSCL-CB105-B	F	Blue	2.07		230	X
MSCL-CW105-B	F	White	2.07		230	X

*Always run the cooling fan to prevent heat buildup.
*The maximum cable length (MSCL200CL) is required for the hidden fan. This is in addition to the normal Extension Cable. [Click here to see details.](#)
* Production by order

Dimensions



Shadowless Light

MSRL Series
MSLL Series
MSQL Series

Model Number Legend

Shadowless
3Z4S-LT MSRL-C * 0 0 0 0 0
Luminescent color (Red=R, Green=G, Blue=B, White=W)

Shadowless Low Angle Ring
3Z4S-LT MSLL-C * 0 0 0 0 0
Luminescent color (Red=R, Green=G, Blue=B, White=W)

Shadowless Low Angle Square
3Z4S-LT MSQL-C * 0 0 0 0 0
Luminescent color (Red=R, Green=G, Blue=B, White=W)



List of Models

Line up of Shadowless

Model	Dimension	Luminescent Color	Max. rated current P/M (A)	Weight (g)	Power supply	Connection to strobe controller
MSRL-CR20	A	Red	0.32		080	C
* MSRL-CG20	A	Green	0.50	140	080	C
MSRL-CB20	A	Blue	0.50		080	C
MSRL-CW20	A	White	0.50		080	C
MSRL-CR33	B	Red	0.45		080	C
* MSRL-CG33	B	Green	0.69	210	080	C
MSRL-CB33	B	Blue	0.69		080	C
MSRL-CW33	B	White	0.69		080	C
MSRL-CR44	C	Red	0.57		080	C
* MSRL-CG44	C	Green	0.80	270	080	C
MSRL-CB44	C	Blue	0.80		080	C
MSRL-CW44	C	White	0.80		080	C

Line up of Shadowless Low Angle Ring

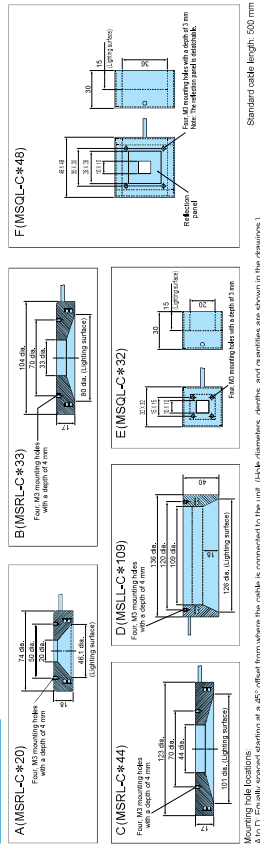
Model	Dimension	Luminescent Color	Max. rated current P/M (A)	Weight (g)	Power supply	Connection to strobe controller
MSLL-CR109	D	Red	0.62		080	C
* MSLL-CG109	D	Green	1.10	320	230	X
MSLL-CB109	D	Blue	1.10		230	X
MSLL-CW109	D	White	1.10		230	X

Line up of Shadowless Low Angle Square

Model	Dimension	Luminescent Color	Max. rated current P/M (A)	Weight (g)	Power supply	Connection to strobe controller
MSQL-CR32	E	Red	0.09		080	C
* MSQL-CG32	E	Green	0.14	80	080	C
MSQL-CB32	E	Blue	0.14		080	C
MSQL-CW32	E	White	0.14		080	C
MSQL-CR46	F	Red	0.13		080	C
* MSQL-CG46	F	Green	0.20	120	080	C
MSQL-CB46	F	Blue	0.20		080	C
MSQL-CW46	F	White	0.20		080	C

* Production by order

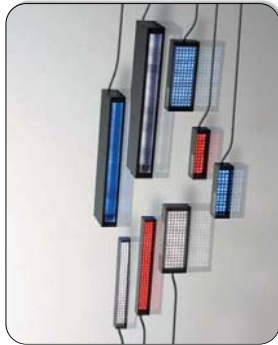
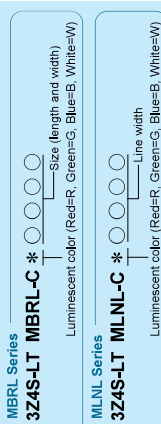
Dimensions



Bar Light/Line Light

MBRL Series
MLNL Series

Model Number Legend



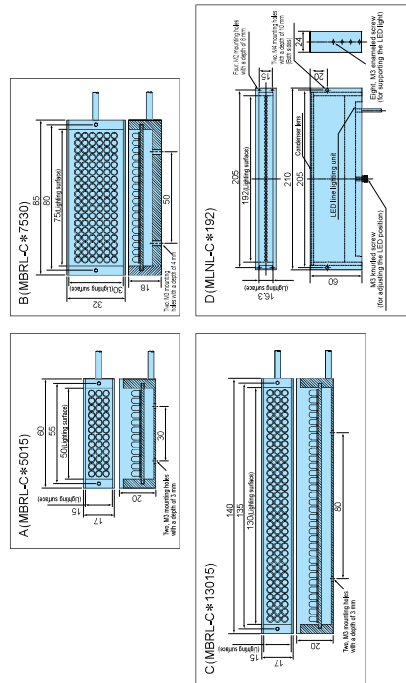
List of Models

Model	Dimension	Luminous Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MBRL-CR015	A	Red	0.13		000	○
* MBRL-CG015	A	Green	0.26	50	000	○
MBRL-CB015	A	Blue	0.26		000	○
MBRL-CW015	A	White	0.26		000	○
* MBRL-CG750	B	Green	0.52	120	000	○
MBRL-CB750	B	Blue	0.52		000	○
MBRL-CW750	B	White	0.52		000	○
* MBRL-CG13015	C	Green	0.32		000	○
MBRL-CB13015	C	Blue	0.53	85	000	○
MBRL-CW13015	C	White	0.53		000	○

Lineup of Line Light

Model	Dimension	Luminous Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MLNL-CR192	D	Red	0.18		000	○
* MLNL-CG192	D	Green	0.36	420	000	○
MLNL-CB192	D	Blue	0.36		000	○
MLNL-CW192	D	White	0.36		000	○

Dimensions



Mounting hole locations:
A to C: Arranged around the center of the mounting surface.
D: Arranged around the center of the mounting surface.

Standard cable length: 500 mm

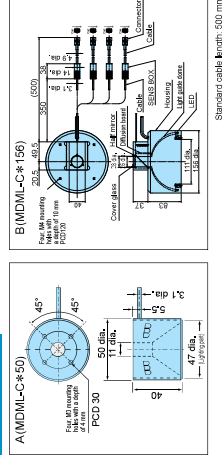
Dome Light

MDML Series

Model Number Legend



Dimensions



List of Models

Model	Dimension	Luminous Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MDML-CR50	A	Red	0.24		000	○
* MDML-CG50	A	Green	0.27	130	000	○
MDML-CB50	A	Blue	0.27		000	○
MDML-CW50	A	White	0.27		000	○
MDML-CR150	B	Red	1.16	230	230	×
MDML-CG150	B	Green	1.46	1800	230	×
MDML-CB150	B	Blue	1.46		230	×
MDML-CW150	B	White	1.46		230	×

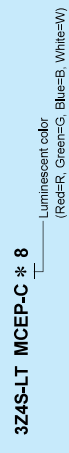
* Production by order

Standard cable length: 500 mm

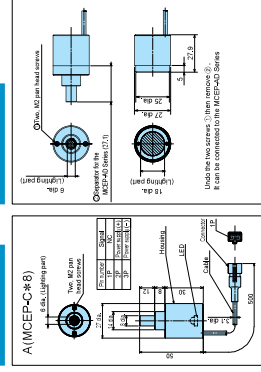
High-powered Spot LED Light

MCEP Series

Model Number Legend



Dimensions



Standard cable length: 500 mm

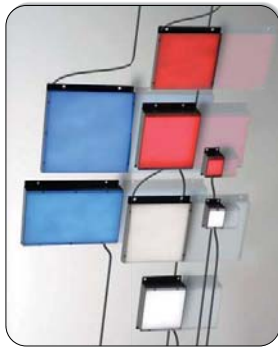
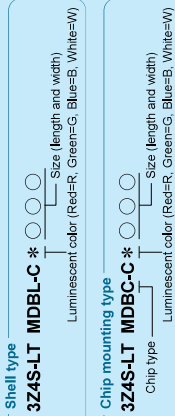
List of Models

Model	Dimension	Luminous Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MCEP-CR8	A	Red	620.5 ~ 645mm	0.35	000	×
MCEP-CG8	A	Green	525 ~ 535mm	0.35	50	×
MCEP-CB8	A	Blue	470 ~ 480mm	0.35	000	×
MCEP-CW8	A	White	All	5000 ~ 6000K	0.35	×

* The dominant wavelength of visible color according to JIS color coordinates. There are differences in the luminous color for the dominant wavelengths of these LEDs. Color may appear to be different even for the same model number.

Direct Backlight

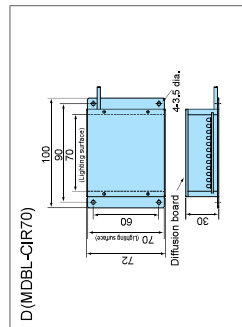
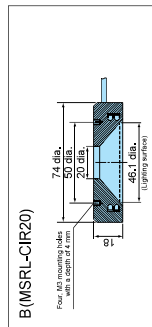
Model Number Legend



List of Models

Lineup of Shell type	Model	Dimension	Lineuscent Color	Max. rated current (F/A)	Weight (g)	Power supply	Connection to globe controller
Lineup of Shell type	MBDL-CR25	A	Red	0.14		090	○
	★ MBDL-CG25	A	Green	0.27		090	○
	MBDL-CB25	A	Blue	0.27	60	090	○
	MBDL-CW25	A	White	0.27		090	○
	MBDL-CR70	B	Red	0.46		090	○
	★ MBDL-CG70	B	Green	0.96	190	230	×
	MBDL-CB70	B	Blue	0.96		230	×
	MBDL-CW70	B	White	0.96		230	×
	MBDL-CR100	C	Red	1.43		230	×
	★ MBDL-CG100	C	Green	1.55		230	×
	MBDL-CB100	C	Blue	1.55	290	230	×
	MBDL-CW100	C	White	1.55		230	×
Lineup of Shell type	MBDL-CR180100	D	Red	2.30		230	×
	★ MBDL-CG180100	D	Green	2.30	520	230	×
	MBDL-CB180100	D	Blue	2.30		230	×
	MBDL-CW180100	D	White	2.30		230	×

Model CB70	
Model CB70	B

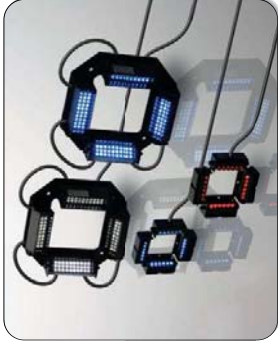


Technical drawing of a cable tray cross-section. The drawing shows a blue tray with a white top surface. Dimensions are indicated: a total width of 601, a top flange width of 40, and two circular holes with a diameter of 4.5. The top surface is labeled 'ion board'. A note on the right states 'Standard cable length: 500 mm'.

Square Oblique Light

Model Number Legend

3Z4S-LT MDQL-C * ○ ○ ○ ○ ○
 — External size
 Luminescent color (Red=R, Green=G, Blue=B, White=W)

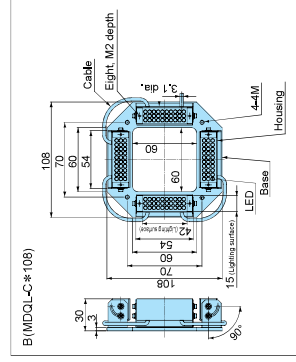
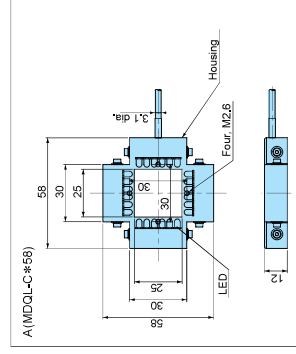


List of Models

Model	Dimension	Luminescent Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MDQL-CR58	A	Red	0.09		080	○
* MDQL-CG58	A	Green	0.17	55	080	○
MDQL-CB58	A	Blue	0.17		080	○
MDQL-CW58	A	White	0.17		080	○
MDQL-CR108	B	Red	0.42		080	○
* MDQL-CG108	B	Green	0.64	210	230	X
MDQL-CB108	B	Blue	0.64		230	X
MDQL-CW108	B	White	0.64		230	X

* Production by order

Dimensions



Standard cable length: 500 mm

Edge-type Backlight

Model Number Legend

3Z4S-LT MEBL-C * ○ ○ ○ ○ ○
 — Size (length and width)
 Luminescent color (Red=R, Green=G, Blue=B, White=W)

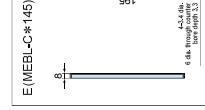
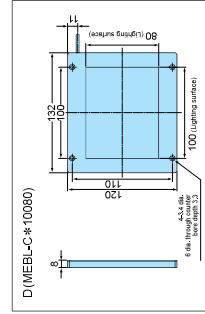
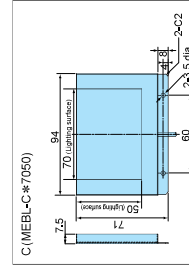
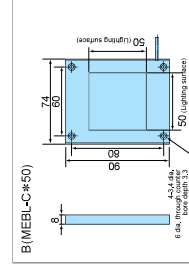
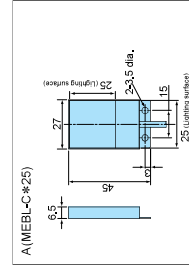


List of Models

Model	Dimension	Luminescent Color	Max. rated current IFM (A)	Weight (g)	Power supply	Connection to strobe controller
MEBL-CR25	A	Red	0.03		080	○
* MEBL-CG25	A	Green	0.04	45	080	○
MEBL-CB25	A	Blue	0.04		080	○
MEBL-CW25	A	White	0.04		080	○
MEBL-CR50	B	Red	0.17		080	○
* MEBL-CG50	B	Green	0.29	110	080	○
MEBL-CB50	B	Blue	0.29		080	○
MEBL-CW50	B	White	0.29		080	○
MEBL-CR750	C	Red	0.15		080	○
* MEBL-CG750	C	Green	0.25	140	080	○
MEBL-CB750	C	Blue	0.25		080	○
MEBL-CW750	C	White	0.25		080	○
MEBL-CR1000	D	Red	0.32		080	○
* MEBL-CG1000	D	Green	0.57	230	080	○
MEBL-CB1000	D	Blue	0.57		080	○
MEBL-CW1000	D	White	0.57		080	○
MEBL-CR145	E	Red	0.45		080	○
* MEBL-CG145	E	Green	0.8	460	080	○
MEBL-CB145	E	Blue	0.8		080	○
MEBL-CW145	E	White	0.8		080	○

* Production by order

Dimensions



Standard cable length: 500 mm

UV Light

Model Number Legend

3Z4S-LT M □ □ **L** - **C UV** ○ ○ ○ ○

See the explanation of each series model.

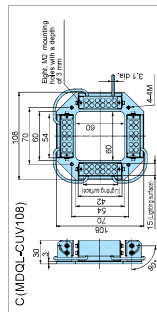
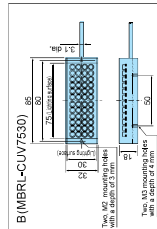
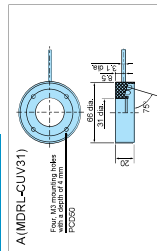
DR=Direct ring
BR=Bar
DS=Square oblique

Luminescent color (Ultra violet=UV)

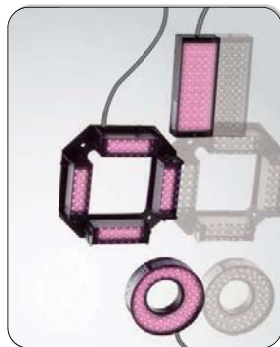
List of Models

Model	Dimension	Unimetric Color	Max. rated current (F/A)	Weight (g)	Power supply	Consider to this article
MDRL-CUV751	A	Ultraviolet	0,36	130	060	○
MBRL-CUV7530	B	Ultraviolet	0,36	120	060	○
MDQL-CUV708	C	Ultraviolet	0,36	210	060	○

Dimensions



Mounting hole locations:
 A. Equally spaced starting at a 45° offset from where the cable is connected to the unit. (Hole diameters, depths, and quantities are shown in the drawings.)
 B. Arranged around the center of the mounting surface.



Spot Led Light

Model Number Legend

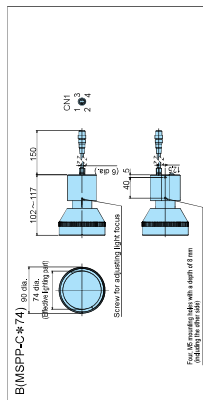
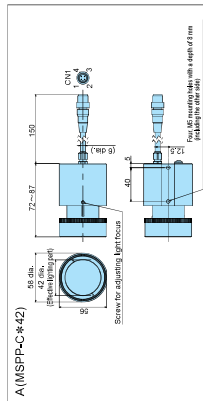
3Z4S-LT MSPP-C * ○ ○ ○
 _____ Effective size (Lighting part)
 _____ Luminescent color (Red=R, White=W)

List of Models

Wide projection

[illegible]

Dimensions



Always connect a Conversion Cable (3Z4S-LT M-RCB301XS) when connecting the power supply.

Parallel Light

MCBP Series

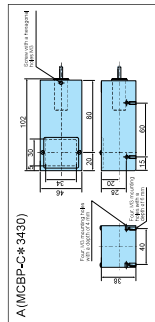
Model Number Legend

3Z4S-LT MCBP-C* ○○○○○○
Size (length and width)
Luminescent color (Red=R, White=W)

List of Models

Model	Dimension	Subagent CPU	Max. rated current (A)	Weight (g)	Power supply	Conversion to stable container
* MC-BP-CG3430	A	Green	0.07		080	X
MC-BP-CB3430	A	Blue	0.07	260	080	X
MC-BP-CW3430	A	White	0.07		080	X

Dimensions



CCTV Lens

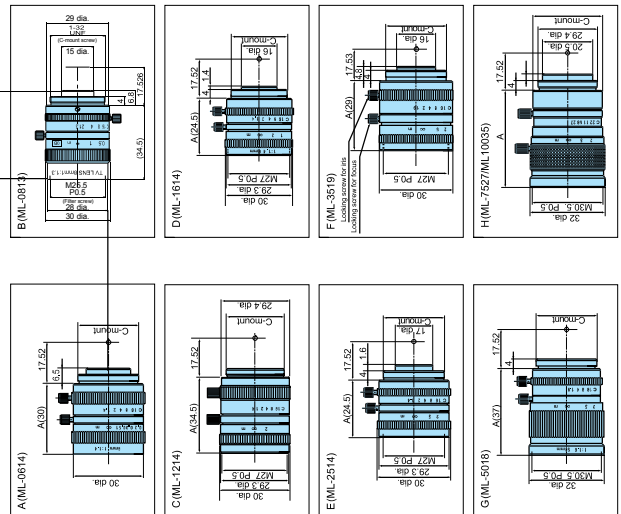
ML Series



List of Models

Model	Dimension	Focal distance (mm)	F-number (F No.)	Field of view (V x H)	Closest distance (m)	Filter screw	Weight (g)	Total length (mm)	Maximum compound CCD	Camera Mount
324S-LE ML-0814	A	8	F1.4 - Close	42.3° x 34.6°	0.2	M27 P0.5	60	30	1/2 inch	
324S-LE ML-0813	B	8	F1.3 - Close	45.0° x 37.6°	0.3	M25.5 P0.5	60	34.5	2/3 inch	
324S-LE ML-1214	C	12	F1.4 - Close	21.9° x 29.0°	0.4	M27 P0.5	40	24.5	2/3 inch	C-Mount
324S-LE ML-1614	D	16	F1.4 - Close	23.0° x 30.4°	0.4	M27 P0.5	40	24.5	2/3 inch	
324S-LE ML-2514	E	25	F1.4 - Close	21.6° x 28.5°	0.5	M27 P0.5	45	29	1 inch	
324S-LE ML-3519	F	35	F1.8 - Close	10.9° x 14.4°	1	M27 P0.5	60	37	2/3 inch	
324S-LE ML-5018	G	50	F2.7 - Close	7.9° x 10.3°	1	M27 P0.5	65	43.5	2/3 inch	
324S-LE ML-7527	H	75	F3.5 - Close	4.9° x 6.5°	1	M27 P0.5	65	43.5	2/3 inch	
324S-LE ML-10035		100	F3.5 - Close	3.9° x 5.1°	1	M27 P0.5	65	43.5	2/3 inch	

Dimensions



CCTV Lens option

ML Series

Polarizing Filter

Model
324S-LE ML-PL270
324S-LE ML-PL255
324S-LE ML-PL305

Close-up Ring

Model	Length (mm)
324S-LE ML-EXR*	*Close-up Ring (0.5, 1, 2.5, 5, 10, 20, 40)

*These Close-up Rings are also available individually. Order using the following model number, replacing the box with the desired length. 324S-LE ML-EXR-1.

Rear Converter Lens

Configuration	Model
1	324S-LE ML-1.5X
2	324S-LE ML-2X
3	324S-LE ML-2.5X
4	324S-LE ML-3X
5	324S-LE ML-4X

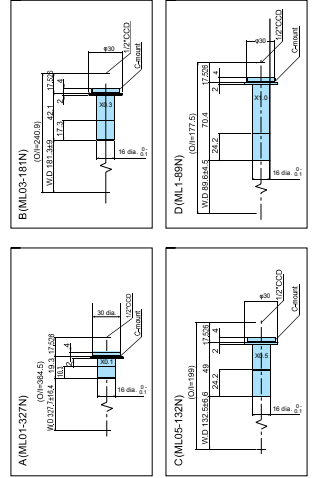
Non-telescopic Macro Lens

ML-N Series

List of Models

Model	Dimension	Weight (g)	Depth of field (mm)	Resolution	TV dispersion
324S-LE ML-N27N	A	0.1	4.71	364.5	327.7
324S-LE ML-N27N	B	0.3	5.11	240.9	181.3
324S-LE ML-N27N	C	0.5	5.08	199	132.5
324S-LE ML-N27N	D	1.0	5.82	177.5	89.6

Dimensions



NEW MLEP Series

Model Number Legend

NEW MLEP Digital Series

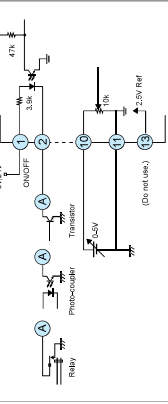
Models are available with a digital light adjustment and for either one or three channels. A wide voltage input (100 to 240 VAC) is supported, along with CE Marking.

Ratings and Specifications

Model	MIEP-A035H1 LRD-100W	MIEP-A035H1 LRD-200V	MIEP-A070W1 LRD-100V	MIEP-A070W1 LRD-200V	MIEP-A035W3 LRD-100V	MIEP-A035W3 LRD-200V	MIEP-A070W3 LRD-100V	MIEP-A070W3 LRD-200V
AC Type	100V	200V	100V	200V	100V	200V	100V	200V
Output	Single-channel out put max.350 mA	Single-channel out put max.700 mA	Single-channel out put max.700 mA	Single-channel out put max.700 mA	3-channel out put for each channel max.350 mA	3-channel out put for each channel max.350 mA	3-channel out put for each channel max.700 mA	3-channel out put for each channel max.700 mA
Dimension								
Input voltage	A				B			
Input current	100 ~ 240V AC 50 / 60Hz 0.35A (at AC 100/240V)				100 ~ 240V AC 50 / 60Hz 0.35/0.25 A (at AC 100/240V)			
Surge current	20A or lower (at 100V AC) 40A or lower (at 240V AC) 0 to 445 C				20A or lower (at 100V AC) 40A or lower (at 240V AC) 0 to 445 C			
Operating temperature	Continuous DC output				Continuous DC output			
Output system	Constant current control (the current can be changed)				Constant current control (the current can be changed)			
Output control system	Supported (8bit digital)				Supported (for each channel, 8bit digital)			
External light control	Supported (photocoupler insulation)				Supported (photocoupler insulation)			
Lighting error function	Natural air cooling				Supported (photocoupler insulation)			
Cooling system	Natural air cooling				Supported (photocoupler insulation)			
Installation	Horizontal installation on the rubber supports at the bottom of the unit				Horizontal installation on the rubber supports at the bottom of the unit			
Weight	Approximately 0.9kg				Approximately 1.1kg			

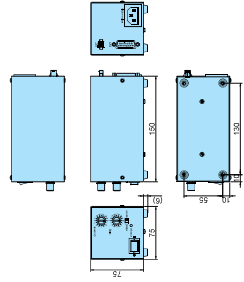
Connection Specifications

MLEP-A035W*LRD/MLEP-A070W*LRD



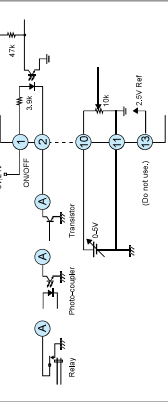
Dimensions

A(MLEP-A035W1LRD/MLRP-A070W1LRD)



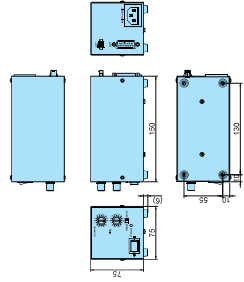
Connection Specifications

MLEP-A035W*LRD/MLEP-A070W*LRD



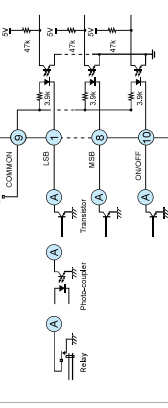
Dimensions

A(MLEP-A035W1LRD/MLRP-A070W1LRD)



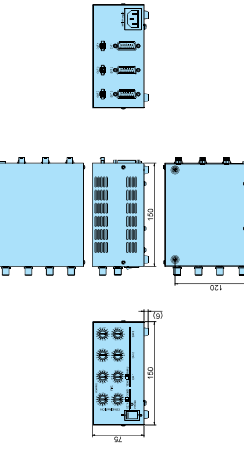
Connection Specifications

MLEP-A035W*LRD/MLEP-A070W*LRD



Dimensions

B(MLEP-A035W3LRD/MLEP-A070W3LRD)



New Power Supplies for MG-Wave Series

These new power supplies are designed specifically for MG-Wave Constant-current LED Lights (except for the MCEP Series). Even when combining with an LED Light from the broad lineup and possible applications, you can select the ideal Constant-current Power Supply for the required current consumption. The Power Supplies suppress heat generation and will make the most of the characteristics of any of the LED Light. External output controls and other features are also provided.

A080/230W Analog Series (Total current: 0.8 A or 2.3 A)

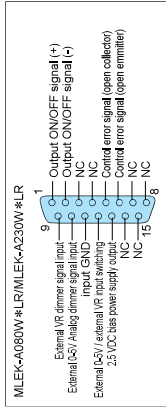
Models are available with an analog light adjustment and for either one or two channels. A wide voltage input (100 to 240 VAC) is supported, along with CE Marking.

Ratings and Specifications

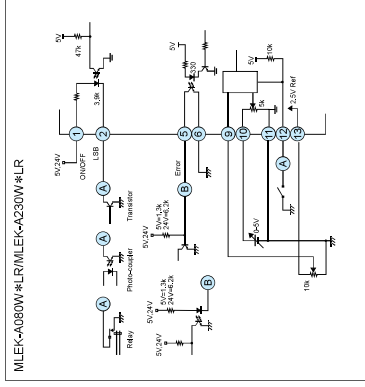
Model	MLEK-A080W1LR-100V	MLEK-A080W2LR-100V	MLEK-A080W2LR-200V	MLEK-A080W2LR-200V
AC Type	100V	100V	200V	200V
Output	Single-channel output of 0.8A (for connection to all lights except the MCEP Series)			
Input voltage	100~240V AC 50/60Hz			
Dimension	A			
Input current	0.3/0.15A (at AC 100/240V)			
Surge current	15A or lower (at 100V AC) 35A or lower (at 240V AC)			
Operating temperature	0 to +45°C			
Output system	Continuous DC output			
Output control system	Constant current control (the current can be changed)			
External light control	Supported (0 to 5V)			
Lighting on/off function	Supported (photoresistor insulation)			
Error output	Supported (photoresistor insulation, control error)			
Cooling system	Natural air cooling			
Installation	Horizontal installation on the rubber supports at the bottom of the unit			
Weight	Approximately 1.1kg			

Model	MLEK-A230W1LR-100V	MLEK-A230W1LR-200V	MLEK-A230W2LR-200V	MLEK-A230W2LR-200V
AC Type	100V	100V	200V	200V
Output	Single-channel output of 2.3A (for connection to all lights except the MCEP Series)			
Input voltage	100~240V AC 50/60Hz			
Dimension	A			
Input current	0.7/0.4A (at AC 100/240V)			
Surge current	15A or lower (at 100V AC) 35A or lower (at 240V AC)			
Operating temperature	0 to +45°C			
Output system	Continuous DC output			
Output control system	Constant current control (the current can be changed)			
External light control	Supported (0 to 5V dimmer signal / External VR input)			
Lighting on/off function	Supported (photoresistor insulation)			
Error output	Supported (photoresistor insulation, control error)			
Cooling system	Forced air cooling			
Installation	Horizontal installation on the rubber supports at the bottom of the unit			
Weight	Approximately 1.1kg			

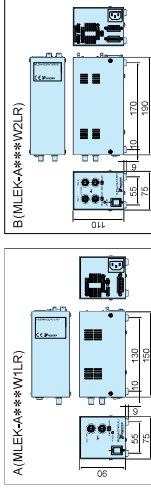
Connection Specifications



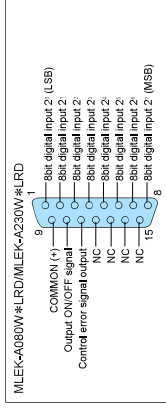
I/O Circuit Diagrams



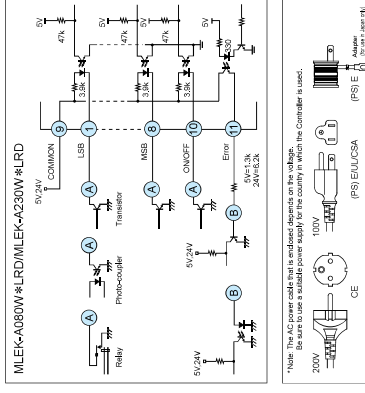
Dimensions



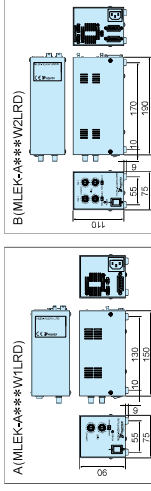
Connection Specifications



I/O Circuit Diagrams



Dimensions



NEW MLEK Series



Model Number Legend

3Z4S-LT MLEK-A ***W*LR* - ***V

AC type
Output channel
Digital type (D)
Maximum output current

A080/230W Digital Series (Total current: 0.8 A or 2.3 A)

Models are available with a digital light adjustment and for either one or two channels. A wide voltage input (100 to 240 VAC) is supported, along with CE Marking.

Ratings and Specifications

Model	MLEK-A080W1LRD-100V	MLEK-A080W1LRD-200V	MLEK-A080W2LRD-100V	MLEK-A080W2LRD-200V
AC Type	100V	200V	100V	200V
Output	Single-channel output of 0.8A (for connection to all lights except the MCEP Series)			
Input voltage	100~240V AC 50/60Hz			
Dimension	A			
Input current	0.3/0.15A (at AC 100/240V)			
Surge current	15A or lower (at 100V AC) 35A or lower (at 240V AC)			
Operating temperature	0 to +45°C			
Output system	Continuous DC output			
Output control system	Constant current control (the current can be changed)			
External light control	Supported (8-bit digital)			
Lighting on/off function	Supported (photoresistor insulation)			
Error output	Supported (photoresistor insulation, control error)			
Cooling system	Natural air cooling			
Installation	Horizontal installation on the rubber supports at the bottom of the unit			
Weight	Approximately 1.1kg			

Model	MLEK-A230W1LRD-100V	MLEK-A230W1LRD-200V	MLEK-A230W2LRD-100V	MLEK-A230W2LRD-200V
AC Type	100V	200V	100V	200V
Output	Single-channel output of 2.3A (for connection to all lights except the MCEP Series)			
Input voltage	100~240V AC 50/60Hz			
Dimension	A			
Input current	0.7/0.4A (at AC 100/240V)			
Surge current	15A or lower (at 100V AC) 35A or lower (at 240V AC)			
Operating temperature	0 to +45°C			
Output system	Continuous DC output			
Output control system	Constant current control (the current can be changed)			
External light control	Supported (8-bit digital)			
Lighting on/off function	Supported (photoresistor insulation)			
Error output	Supported (photoresistor insulation, control error)			
Cooling system	Forced air cooling			
Installation	Horizontal installation on the rubber supports at the bottom of the unit			
Weight	Approximately 1.1kg			

Options for bridging lights with lenses

The following optional adapters are designed to be used with Moritex's lenses.

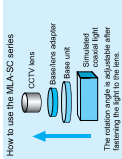
Simulated Coaxial Light/CCTV Lens Adapter: MLA-SC Series

The MLA-SC Series enables small isolated coaxial lights to be mounted at the end of CCTV lenses.

Model	Product type	Compatible light models
MLA-SCB5	Mount base for simulated coaxial lights	MSCL-C-24/30/65
MLA-SCB125	Base/lens adapter for simulated coaxial lights	M25.5 P0.5 lens
MLA-SCM270	Base/lens adapter for simulated coaxial lights	M27 P0.5 lens
MLA-SCM305	Base/lens adapter for simulated coaxial lights	M30.5 P0.5 lens

An asterisk (*) in "compatible light models" refers to any LED color (R,G,B or W) of the light.

*Do not apply any unnecessary load to the lens.

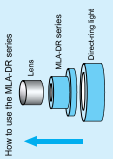


MML/CCTV Lens Adapter

The adapter can be easily used in combination with Moritex's lenses.

Model	Product type	Compatible light models
MLA-DR1616	Lens attachment adapter	MDRL-C*16 and R-16 mm lenses
MLA-DR1725	Lens attachment adapter	MDRL-C*17 and R-25 mm lenses
MLA-DR1730	Lens attachment adapter	MDRL-C*17 and R-30 mm lenses
MLA-DR1M255	Lens attachment adapter	MDRL-C*17 and M25.5 P0.5 lenses
MLA-DR1M270	Lens attachment adapter	MDRL-C*17 and M27 P0.5 lenses
MLA-DR1M305	Lens attachment adapter	MDRL-C*17 and M30.5 P0.5 lenses

An asterisk (*) in "compatible light models" refers to any LED color (R,G,B or W) of the light.



Sharp-cut Filter R64 Series

These files can be attached to the end of a CCTV lens to prevent light interference when using red light.

Model	Product type	Size
ML-R64-25	Sharp-cut filter for mounting to end of lens	M25.5 P0.5 lens
ML-R64-27	Sharp-cut filter for mounting to end of lens	M27 P0.5 lens
ML-R64-30	Sharp-cut filter for mounting to end of lens	M30.5 P0.5 lens

Cables

Model	Cable Diagram	Product type	Applications	Length
M-RCB401L	A	4-pin type extension cable	• For all lights (except the MCEP series)	1m
M-RCB402L	A	4-pin type extension cable		2m
M-RCB403L	A	4-pin type extension cable		3m
M-RCB301L	B	3-pin type extension cable	• For the MCEP series	1m
M-RCB302L	B	3-pin type extension cable		2m
M-RCB303L	B	3-pin type extension cable		3m
M-XS400C	C	Pin type extension cable	• For the MSPP series	2m
M-XS410C	C	Pin type extension cable		5m
M-XS410C	C	Pin type extension cable		10m
M-RCB301XS	D	Pin type MSPP-UL-ER-A071 conversion cable	• For the MSPP series and MLEP-A070	1m
M-RCB001L	E	2-pin type extension cable		1m
M-RCB002L	E	2-pin type extension cable		2m
M-RCB003L	E	2-pin type extension cable	• For power sources for built-in lens	3m
MC-EXC-02	—	Cable for DSUB15 pin external control		2m
MC-EXC-07	—	Cable for DSUB15 pin external control	—	—

Cable Diagrams

