SmartView

FLAT DOME LIGHT

Flat Dome Light is designed for incident, homogenous illumination where a traditional large Dome Light is hard to be placed. Using this light you can meet various vision tasks including surface inspection, homogenous PCB boards illumination, incident illumination of glossy objects and surfaces and large area lighting.

- ROUGH, METAL HOUSING
- HOMOGENIC LIGHT FIELD
- ANALOG ILLUMINATION INTENSITY CONTROL
- DIGITALLY CONTROLLED TIMING OF STROBE PULSES

CONFIGURATION

ordering code

FL	160	R
Flat Dome light	Ø of Active Area	wavelength

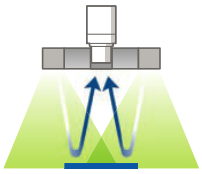
FL-160

model series	wavelength
FL-160W	CTR 5000 k
FL-160IR	850 nm
FL-160HR	660 nm
FL-160R	630 nm
FL-160G	528 nm
FL-160B	470 nm
FL-160UV	405|385|365 nm

FL-330

model series	wavelength	
FL-330W	CTR 5000 k	
FL-330IR	850 nm	comming soon
FL-330HR	660 nm	comming soon
FL-330R	630 nm	comming soon
FL-330G	528 nm	comming soon
FL-330B	470 nm	comming soon
FL-330UV	405|385|365 nm	comming soon

WAYS OF USE



BASIC ELECTRIC PARAMETERS

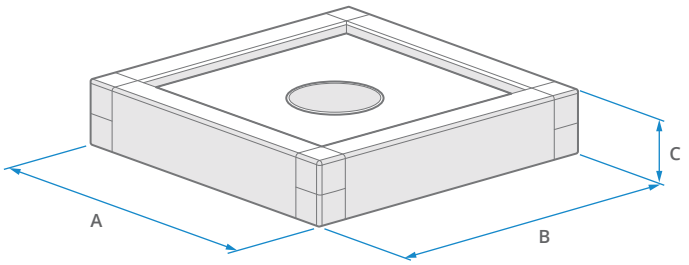
Model		FL-160W	FL-160IR	FL-160HR	FL-160R	FL-160G	FL-160B	FL-160UV
Voltage Span	U_n	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V
Nominal Voltage	U_{jm}	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Nominal Current	I_{jm}	1 A	comming soon					
Max. Current	I_{max}	1,8 A	comming soon					
Input	P	24 W	comming soon					
Trigger Voltage [2]	U_{trig}	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V
Trigger Current [2]	I_{trig}	2,3 mA	2,3 mA	2,3 mA	2,3 mA	2,3 mA	2,3 mA	2,3 mA
Analog Dimming [2]	U_{EN}	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V
PWM Dimming [2]	U_{EN}	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]
Strobe Voltage [3]	U_{Str}	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V
Strobe Current [3]	I_{Str}	1,9 mA	1,9 mA	1,9 mA	1,9 mA	1,9 mA	1,9 mA	1,9 mA

Model		FL-330W	FL-330IR	FL-330HR	FL-330R	FL-330G	FL-330B	FL-160UV
Voltage Span	U_n	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V	12 - 28 V
Nominal Voltage	U_{jm}	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Nominal Current	I_{jm}	3 A	comming soon					
Max. Current	I_{max}	3,6 A	comming soon					
Input	P	72 W	comming soon					
Trigger Voltage [2]	U_{trig}	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V	≥ 10 - 24 V
Trigger Current [2]	I_{trig}	2,3 mA	2,3 mA	2,3 mA	2,3 mA	2,3 mA	2,3 mA	2,3 mA
Analog Dimming [2]	U_{EN}	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V	≥ 2,7 .. ≤ 10 V
PWM Dimming [2]	U_{EN}	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]	> 10 V .. ≤ 24 V [3]
Strobe Voltage [3]	U_{Str}	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V	3 - 24 V
Strobe Current [3]	I_{Str}	1,9 mA	1,9 mA	1,9 mA	1,9 mA	1,9 mA	1,9 mA	1,9 mA

1. PWM maximal rate is 40 kHz
2. EN (Enable) trigger signal values, (M8 3-pin connector – pin number 4)
3. Control voltage and current (STROBO) M8 connector - pin number 2

DIMENSIONS AND WEIGHT

Model	A length (mm)	B width (mm)	C height (mm)
FL-160...	199	199	40
FL-330...	370	370	40

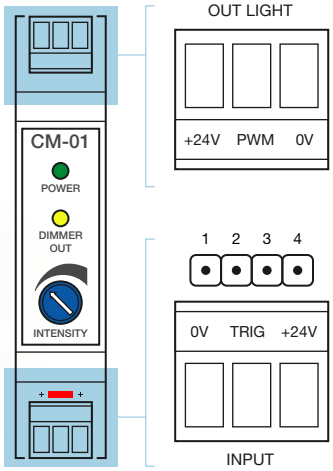


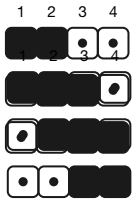
OVERALL BASIC INFORMATION

Technical data	
IP category	IP50
Protection category	III
Ambient temperature	-20 – +40˚C
Isolation resistance	500 V
Housing material	duralumin

CONTROLLER CM–01

Universal illumination intensity controller
Trigger signal input





TERMINAL BOX OUTPUT "OUT LIGHT " – LIGHT CONNECTION

Terminal +24 V light positive pole
Terminal PWM PWM signal
Terminal 0 V light negative pole

TERMINAL BOX INPUT "INPUT " – POWER SUPPLY AND CONTROL SIGNAL CONNECTION

Terminal +24 V positive pole of 24 V DC Power Supply
Terminal 0 V negative pole of 24 V DC Power Supply
Terminal TRIG trigger signal from camera, PLC, etc.

CM-01 MODE OPTION

1 – 2 Enable – constant light
2 – 3 Not used
1 – 2 Invert trig – light during log 0 signal

CONNECTOR PIN ASSIGNMENT

Connector M8 4-Pin	Wire color	Signal potential
1	Brown	drive signal for segment 1
2	White	drive signal for segment 2
3	Blue	drive signal for segment 3
4	Black	drive signal for segment 4

ACCESSORIES INCLUDED

Straight cable 5 m

OPTIONAL ACCESSORIES

Polarized foil, angular cable 5 m

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