# How to Choose a CCS Controller

### Need to know

- 1. Which lights will be connected to the controller
- 2. Voltage of lights
  - a. If no voltage is provided the light is current driven and needs a current controller
  - b. This document will focus on 24V lights only
- 3. Wattage of lights
- 4. Applicable or recommended controller series

# How to Select the Model

After selecting the desired controller series based on the light unit's recommended controllers, the next step is to select a controller model that is the right size for the lights.

#### Steps:

- 1. Confirm light(s) are 24V
- 2. Count total number of channels
- 3. Calculate total wattage of all lights
- 4. Check controller specifications for number of channels
- 5. Check controller specifications for applicable light unit (rated)
- 6. Check controller specifications for desired communication and illumination methods



# Example: 2 LDL2-242X30RD2

A controller that is large enough for (2) LDL2-242X30RD2 lights that will be strobed while the camera is taking an image and has Ethernet communication.

- 1. Confirm light(s) are 24V: Yes
- 2. Total number of channels: 2
- 3. Total wattage of all lights: 38W + 38W = 76W
- 4. Check controller specifications for number of channels: 2 or 4 channel options available
- 5. Check controller specifications for applicable light unit (rated): 60W or 120W options available - 120W version is required as the total wattage is more than 60W
- 6. Check controller specifications for desired communication and illumination methods: Ethernet communication and strobe lighting method

#### Lights

Model Name <sup>11</sup>	Input Voltage	Power Consumption				Extension	Recommended
		RD (Red)	SW*² (White)	BL (Blue)	Option	Cables	Control Units
			•	• •			
LDL2-242X30002(-WD) 1	24 V	38 W 3	38 W	38 W			
LDL2-290X3002(-WD)	24 V	46 W	46 W	46 W			PD4 PD3
LDL2-314X30002(-WD)	24 V	50 W	50 W	50 W		POD*5	POD*5

### PD4 Controller

Model name	PD4-6024-4-E	PD4-6024-2-E	PD4-12024-2-E	PD4-12024-4-E					
Input voltage (rated)	AC 100 to 240 V(±10 %)								
Lighting method	Continuous Strobe lighting (m o 6 ive)								
Drive method	Constant-voltage system								
Intensity control method	PWM control								
No. of channels	4 channels	2 channels	4 2 channels	4 channels					
Applicable light unit (rated)	Light units with 24 VDC in (SM connector: on		Light units with 24 VDC input, Total channels 120 W 5 (SM connector: one 60 W connector, EL connector: one 120 W connector) *When using EL connector: L1 (CH1), L2(CH2)						
PWM frequency	125 kHz								
Power consumption (typ.)	152	VA	168 VA						
Frequency	50/60 Hz								
Output voltage (rated)	DC 24 V								
Intensity setting	1,024 step								
External control	6 Ethernet comm_TCP/IP UDP/IP (CCS Command Comm, PLCCOM Comm (MC Protocol · FINS Command))								
Operating temperature and humidity	Temperature: 0 to 40°C, Humidity: 20% to 85% (with no condensation) Altitude: 2,000 m max., protective ground class: class I, pollution degree: 2, indoor use only								
Storage temperature and humidity	Temperature: -20 to 60°C, Humidity: 20% to 85% (with no condensation)								
Cooling method	Natural air cooling								
Material/Surface processing	Steel sheet, cover thickness: 1.6 mm, chassis thickness: 1.0 mm, black (leather satin)								
Weight	1.5 kg max.								
Accessories	One hardware manual, one Power Terminal Block Cover, two M4 screws for the cover, one 2-m-long 3-prong AC power cable with ground terminal *1, one Trigger Terminal Block								



### Best controller is PD4-12024-2-E