

Overdrive power supply

SAG series

Lineup includes everything from general-purpose models to high-end multi-function models.



- Allows easy synchronization of LED light emission and camera exposure timing in high-speed moving image applications.
- As the LED elements generate less heat, the amount of light is stabilized and the lifespan will be longer.
- Choose a model to suit your inspection application.
- Accepts almost all standard lights.
- Light intensity: Overdrive lights are approximately 4 times brighter than normal lights



SAG-30DA



SAG-30DA-PD

SAGW-30DA

General purpose model
LED degradation alarm function

SAG-30DA-PD

High-capacity model
2 channel independent illumination [30W/60W per channel]
External analog 0-5V light control

Power Supply Specifications

Model	SAG-30DA	SAGW-30DA	SAG-30DA-PD
Channel numbers	2CH		2CH
Capacity	30W/2CH		60W[30W×2CH]
Input Voltage	AC100V	AC100~240V	AC100V
Output Voltage	DC 12 to 36V [256-level variable output voltage]		DC 12 to 36V [256-level variable output voltage] [Strobe lighting (output) display function]
Pulse Width Setting	10μs to 990μs [Trimmer setting]		10μs to 990μs [Digital switch setting]
Trigger Response Speed	Approximately 2μs		Approximately 3μs
External Light Control	-		External analog 0-5V IN

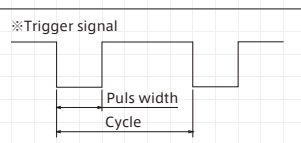
*For details on external control cable, see page 77.

Overcurrent Protection Function

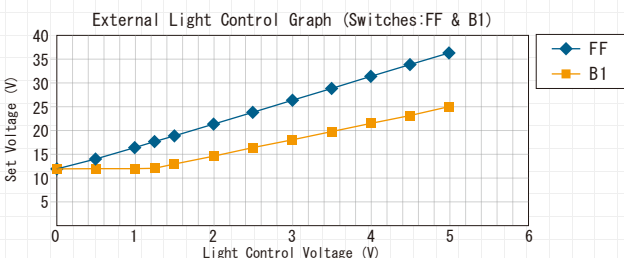
- (1) Overcurrent protection : When the output current reaches 9 A_{o-p}, output decreases. (Output automatically recovers when the next trigger is received.)
- (2) DC trigger protection : Output decreases 1 to 1.2 ms after a trigger is input. (Output automatically recovers 15 ms after it decreases.)
- (3) Unnecessary trigger protection : Unnecessary serial triggers and other triggers are rejected by an interlocking circuit with a duty cycle of about 10:1 to 15:1.

※Specific example of the trigger cycle and pulse width

Time	Frequency(Hz)	Puls width
2.5ms	400	10μs~125μs
10ms	100	10μs~500μs
20ms	50	10μs~1ms
50ms	20	10μs~1ms



Relation between External Light Control Voltage (0-5V) and Output Voltage (Example: SAG-30DA-PD)

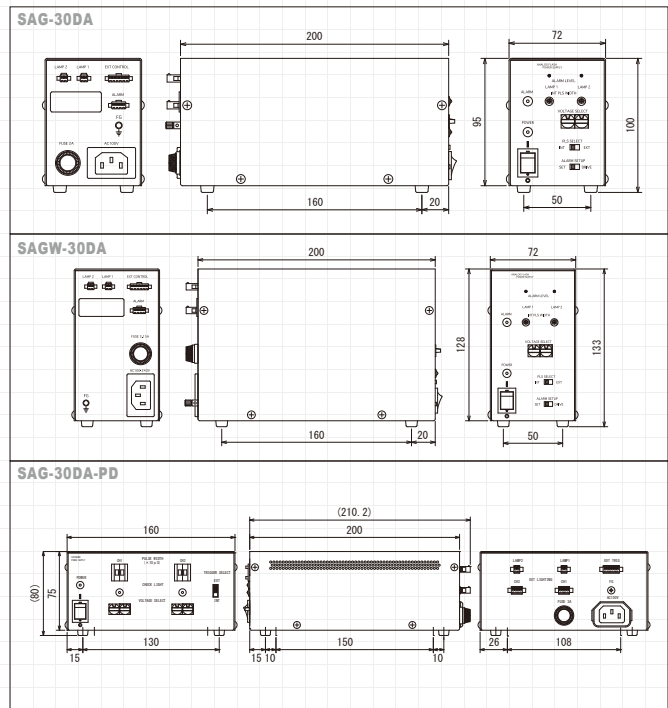


External Light Control

Light Control Method: Overdrive lights emission via external trigger signal
Set the duty cycle of the light emission frequency to 1/20 or less.
*The load used must be a specified LED lighting unit with SAG set within the maximum setting value.

Light control method: (1) Light emission time can be adjusted via pulse width (approximately 10μs to 1ms)
(Switch between INT and EXT using the PLS SELECT switch)
EXT: Lets you adjust light emission time via the pulse width of the external trigger.
INT: Lets you adjust light emission time by setting the volume of the internal pulse width.
(Guaranteed variable range: 10μs to 900μs)
(2) Light intensity can be adjusted by varying the voltage using the VOLTAGE SELECT dials.

Voltage range: DC 12 to 36V (For the relationship between the digital switch's hexadecimal values and voltage, see the section below.)
Note: Digital switch adjusts voltage in 256 levels between DC 12 to 36V.
Output is a constant DC 12V from 00 to 55.
When setting the voltage, do not apply excess current to the LED. Stay within the maximum SAG setting values specified on the next page or listed in the tables on the page for the relevant lighting unit.



Voltage Characteristics

