Digital Overdrive Controller

Digital Overdrive Controller [SAG Series]

General purpose lineup from models to high-performance models!

C E
8bit   **0-5V**
※ Only SAG-30M2-VI is supported

An overdrive controller that can be directly connected to Leimac standard LED illuminations without any modifications.
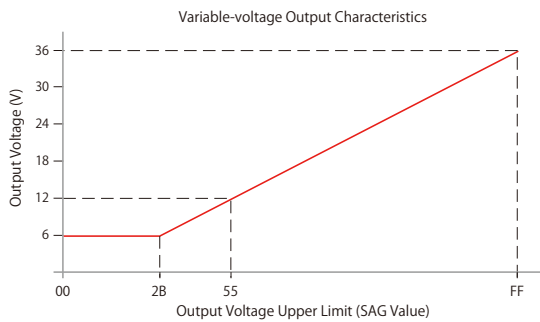
It can emit light directly by an external trigger.

With 256-step voltage variable control, it achieves high reproducibility and compactness in its design.

- Ideal for high-speed motion imaging applications, as they allow easy synchronization of LED illumination and camera exposure timing.
- Due to the low heat generation of the LED elements, it ensures longer lifespan and stable light output.
- You can choose the model according to your inspection needs.
- It can be connected to most Leimac standard illuminations.

Voltage Characteristics (SAG-30M2-VI)

The lower output voltage value has been improved from 12V to 6V, allowing for a wider range of output control at lower power levels.

Variable-voltage Output Characteristics

Output Voltage (V) vs Output Voltage Upper Limit (SAG Value): 00, 2B, 55, FF; values 6, 12, 18, 24, 30, 36

External Analog Output Control Linearity Improvement (SAG-30M2-VI)

- The range from 6V to the output voltage upper limit (SAG value) can be adjusted using an external input voltage of 0V to 5V.
- It maintains high linearity across the entire range of external input voltage from 0V to 5V (with pulse output 0=off,accuracy up to 100mV or below) .

External Analog Output Control Linearity

Output Voltage (V) vs External Input Voltage (V): 0,1,2,3,4,5; values 6,12,18,24,30,36; SAG Value: FF; SAG Value: AA
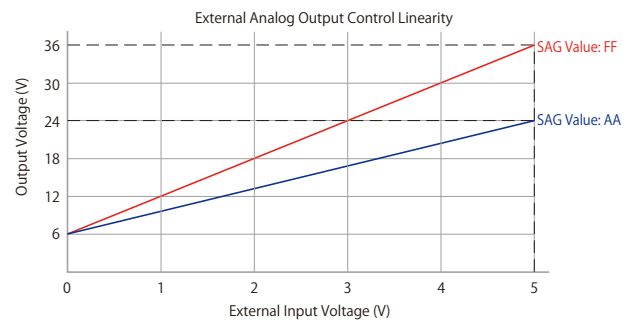
Compact Casing Design

Compared to the previous model, SAG-30M2-VI achieves a volume reduction of 64%, and SAG-30M2-PI achieves a volume reduction of 72%, making it more compact.

40mm reduced
40mm reduced
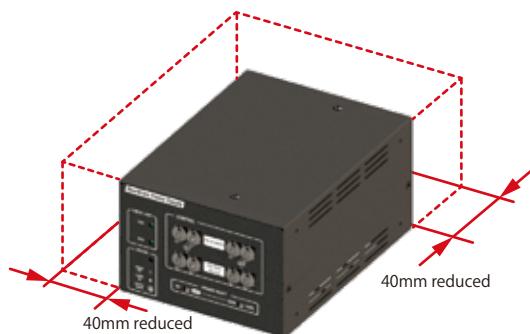
Supports Both Horizontal and Vertical installation (SAG-30M2-VI)

By changing the position of the rubber feet, you can switch the orientation from horizontal to vertical.

Smooth installation, regardless of the location.

Leimac CHALLENGE & HIGH QUALITY

Model	SAG-30M2-VI	SAG-30M2-PI
Number of Outpt Channels	2CH	2CH
Connectable Illumintion Specifications	Maximum 30W/CH rated voltage 12V products (For each CH, use up to 9Ao-p) Total of both channels not exceeding 30W	Maximum 15W/CH rated voltage 12V products (For each CH, use up to 9Ao-p) Total of both channels not exceeding 30W
Input Power	AC100～240V 80VA 50/60Hz	AC100～240V 45VA 50/60Hz
Max. Output Voltage (SAG value)	DC 6-36V (256-Step Variable)	12-36V (256-Step Variable)
Output Current	9Ao-p	9Ao-p
Pulse Width Setting	Internal: 10μs to 990μs (in 10μs steps) External: 10μs to 1ms	Internal: 10μs to 990μs (in 10μs steps)
Variable-voltage Output Range	Variable within the range of Min. output (approx. 6V) to the output voltage upper limit (SAG value).	Variable within the range of Min. output (approx. 12V) to the output voltage upper limit (SAG value).
External Trigger Responsiveness	Less than 3μs	Less than 2μs
Variable-voltage Output Responsiveness	6V → 36V: Less than 150ms 36V → 6V : Approx.15s (Under no-load)	12V → 36V: Less than 110ms 36V → 12V : Approx.110s
Internal Control Function	Variable output voltage and pulse width by switch operation	Variable output voltage and pulse width by switch operation
External Control Function	Synchronization control via analog 0-5V input Variable-voltage output(6V～SAG value)	Synchronization control via 8-bit parallel communication Variable-voltage output(12V～SAG value)
Synchronization Control Function	Synchronization control by external trigger signal	Synchronization control by external trigger signal
Protection Function	Overload detection and interlock function (Disabling trigger signal when the pulse duty exceeds 5%)	Over-current detection and interlock function (Disabling trigger signal when the pulse duty exceeds 5%)
Exterior Diagram	1	2

Analog 0-5V Dimming Control Cable
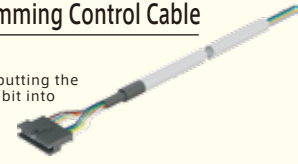
IC-SA-EV Series
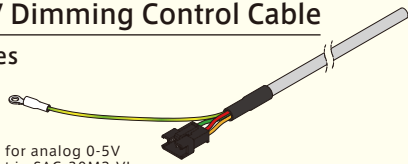
This is the cable used for analog 0-5V dimming control input in SAG-30M2-VI.

Parallel Communication Dimming Control Cable
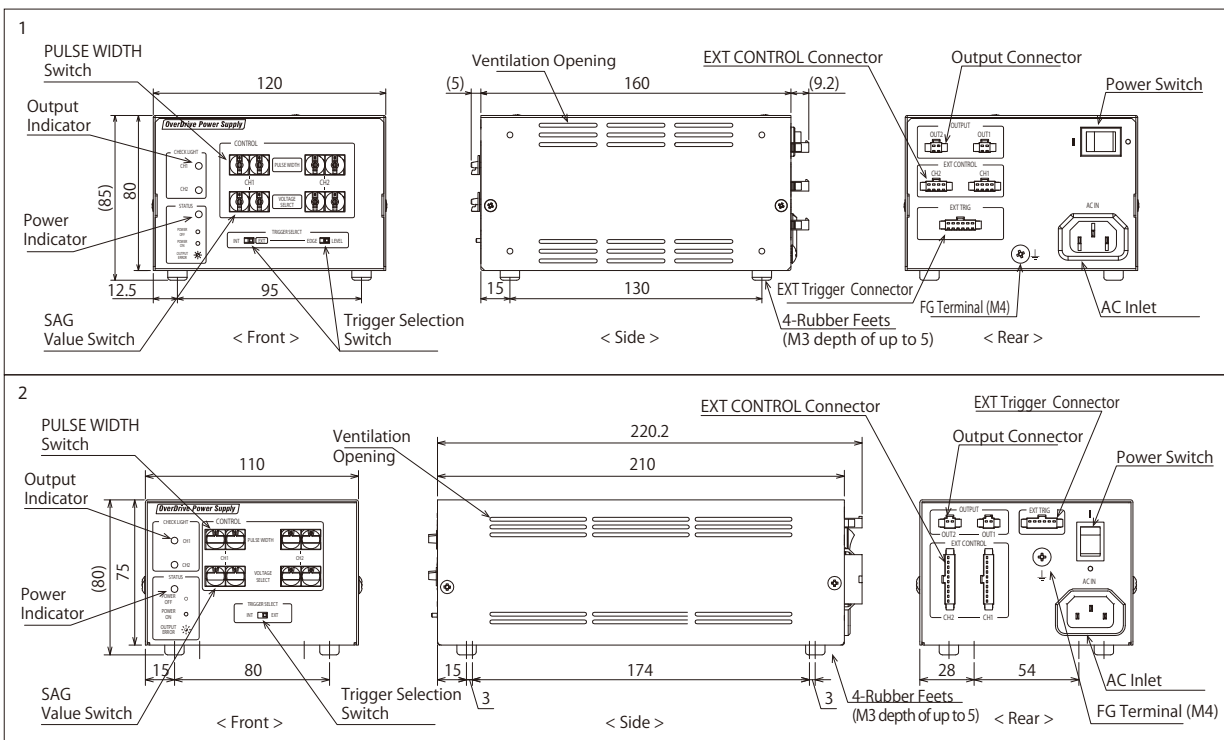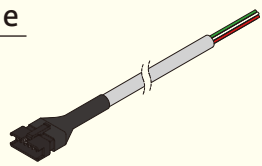
IC-ET-C01 Series

This is the control cable used for inputting the external control signal of parallel 8-bit into SAG-30M2-PI.

External Trigger Cable

IC-SA-D Series

This is the cable used for inputting the external trigger signal in the SAG Series.

1

PULSE WIDTH Switch
Output Indicator
Power Indicator
SAG Value Switch
Trigger Selection Switch
120
(85) 80
12.5   95
< Front >
Ventilation Opening
(5) 160 (9.2)
15 130
< Side >
EXT CONTROL Connector
Output Connector
Power Switch
EXT Trigger Connector
4-Rubber Feets (M3 depth of up to 5)
FG Terminal (M4)
AC Inlet
< Rear >

2

PULSE WIDTH Switch
Output Indicator
Power Indicator
SAG Value Switch
Trigger Selection Switch
110
(80) 75
15 80
< Front >
Ventilation Opening
220.2
210
15 174 3
3
< Side >
EXT CONTROL Connector
EXT Trigger Connector
Output Connector
Power Switch
28 54
4-Rubber Feets (M3 depth of up to 5)
FG Terminal (M4)
AC Inlet
< Rear >