



HIGH-G LED

Acceleration Resistant Onboard LED Luminaires

Crash tests are particularly challenging for onboard lights. Impact resistant design is critical to reliable performance. With the new HIGH-G LED series, Atlas offers new state-of-the-art LED technology of outstanding robustness. New HIGH-G LED luminaires are one of the smallest and brightest onboard solutions available in the market, ideal for confined spaces.

Benefits:

- Very bright LED luminaires with 12000 lm / 24000 lm / 48000 lm
- Small and compact for confined spaces
- Acceleration resistance up to 200 G
- Easy to group and position
- Wide 120° beam angle useful for short distances; 50° narrow beam to highlight small details
- Starts instantly without warm-up time
- Minimal heat radiation to object guarantees reliable test configuration
- No UV-Emission
- Synchronization up to 10,000 fps
- Color temperature ca. 6000 K
- Dimmable

HIGH-G LED-Systems are specially designed to match the requirements of modern mobile onboard illumination to support high-speed photography within crash test vehicles or crash simulation applications.

16 LEDs have been combined to make a 4x4 LED-module. These modules are available as single or double arrays and offer beam angles of 120° without lenses and 50° with. Simple grouping and positioning of HIGHG luminaires makes it easy to illuminate any onboard detail with the needed light intensity.

There are compact space-saving Accu Controllers for connecting up to 8 / 16 / 40 HIGH-G LED. Various connecting cables and extensions make HIGH-G LED easy to handle.

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Technical Lighting

HIGH-G LED Series



HIGH-G 4420
Single array
beam angle 120°



HIGH-G 4423
Double array
beam angle 120°



HIGH-G 4425
Quadruple array
beam angle 50°



HIGH-G 4421
Double array
beam angle 120°



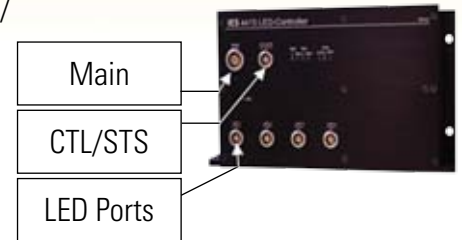
HIGH-G 4422
Single array
beam angle 50°

HIGH-G LED Controller

HIGH-G luminaires are managed and supplied via controllers. Control will be done via TTL/ CMOS sync input, opto-isolated I/O signals for "start" and "ready" as well as a TCP / IP interface.

For best practice of luminaire positioning and camera alignment the controllers have a power reduced continuous light function.

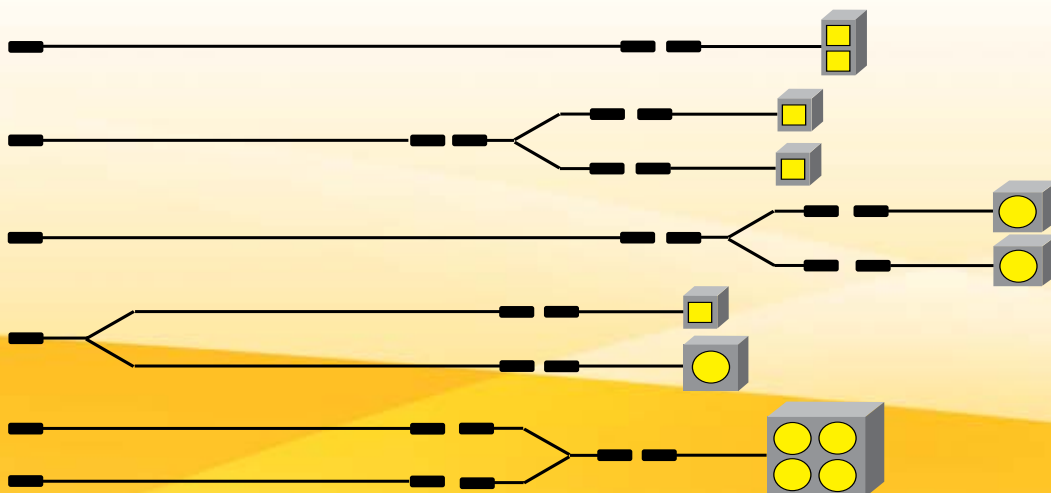
For actual crash testing, the flashlight mode becomes important. Via the controller, all HIGH-G LED can be operated in flashlight mode synchronized with the cameras. This highly reduces the heat load of the LEDs and allows approximately one minute operation at 100%.



Connections

LED-Con controllers work with Lemos FGA.2B.318 for power supply, Ethernet and sync. For HIGH-G luminaires there are Lemos FGG.1B.306 plugs.

Possible connector schemes:



- Extensions:
 Y-Cable 0.3 m: 4 m / 6 m, for single or double arrays and Y-Cable
 Y-Cable 4 m: split-cable short for single arrays HIGH-G 4420 / 4422
 Y-Cable 0.5 m: split-cable long for single arrays HIGH-G 4420 / 4422
 split-cable for HIGH-G 4425

Technical Data

HIGH-G LED	HIGH-G LED 4420	HIGH-G LED 4421	HIGH-G LED 4423	HIGH-G LED 4422	HIGH-G LED 4425
Luminous flux	12000 lm	24000 lm	24000 lm	12000 lm	48000 lm
Beam angle	120°	120°	120°	50°	50°
Power	120 W	240 W	240 W	120 W	480 W
Color temperature	6000 K	6000 K	6000 K	6000 K	6000 K
Acceleration resistance	200 G	200 G	200 G	100 G	100 G
LxWxH (mm)	30 x 32 x 33	54 x 30 x 30	106 x 34 x 16	54 x 54 x 24	108 x 108 x 45
Weight	0.06 kg	0.13 kg	0.13 kg	0.12 kg	1.00 kg

Controller	LED-Con 4414	LED-Con 4415	LED-Con 4416
Charge supply	48 V (Battery pack), integrated charge controller for external 48 V supply	48 V (Battery pack), integrated charge controller for external 48 V supply	48 V (Battery pack), integrated charge controller for external 48 V supply
LED Ports	6 (each 2x120 W HIGH-G or 1x 240 W HIGH-G)	4 (each 2x120 W HIGH-G or 1x 240 W HIGH-G)	10 (each 2x120 W HIGH-G or 1x 240 W HIGH-G)
LED Output Connection	Lemos FGG.1B.306	Lemos FGG.1B.306	Lemos FGG.1B.306
Power control on Controller	50% Continuous light (without Sync signal)		
Power control per Interface	settings 25%, 50%, 100%, (duty cycle ≤ 50%)		
Synchronization Signal	TTL/CMOS input		
Sync Connector	BNC		
Interface	Ethernet		
Ready Signal	Optoisolated output		
Start Signal	Optoisolated input		
Mode Input	<ul style="list-style-type: none"> • Triggering on increasing flank of sync input • Triggering on decreasing flank of sync input • NO SYNC/Lights ON: In case of missing sync-signal luminaires ON in 50% mode • NO SYNC/Lights OFF: luminaires OFF without sync signal; control via Interface 		
Acceleration Resistance	200 G		
Ambient Temperature	0 - 50 °C		
LxWxH (cm)	23.5 x 16.5 x 10.0	20.5 x 13.0 x 0.75	27.0 x 11.0 x 16.0
Weight	5.6 kg	2.8 kg	6.1 kg
Housing	Aluminum, black anodized; KT-Mount		

Accessories

Power supply	For charging LED-Con Accu controllers. Input 230 V, output 48 V DC
PC software	Basis software for LED-Con Accu controllers
Sync generator	Stationary sync signal generator for cameras and LED modules. 19", 1 RU

Ident-Nr.

Item Number	Product Name
09544289	HIGH-G 4420
09544091	HIGH-G 4421
09544092	HIGH-G 4422
09545387	HIGH-G 4423
09545202	HIGH-G 4425
09544291	LED-Con 4414
09544292	LED-Con 4415
09544881	LED-Con 4416



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