

L05032R LED Driver 33W, 15-48 Vdc, 500 - 1050 mA L1MID105S-33E

Engineered for Best Fixture Performance

Fulham LumoSeries LED drivers are designed to efficiently power and control LED solutions for general lighting applications. System reliability is enhanced by features that protect the connected LED module.

Reduced ripple current and thermal derating. In the coming years LEDs will continue to increase in efficiency, creating new challenges for OEMs. With Fulham LumoSeries LED drivers, flexibility in luminaire design is assured thanks to adjustable output currents.



A versatile driver with small form factor and high voltage output ideally suited for COB arrays and LED strips.

Engineered for Performance

- Industry leading efficiency
- Excellent EMC behavior
- Very high power factor

Engineered for Reliability

- Thermal protection (automatic current limiter)
- Short and open circuit protection, overload and overvoltage protection

Engineered for Simplicity

- High quality low cost product with low inrush current and high efficiency

5 year warranty

Fulham LumoSeries takes pride in the quality of its products. We not only develop all products in house, they are also produced to ensure guaranteed reliability and performance. Fulham LumoSeries drivers come with the assurance of a 5 year warranty. After all, with typical LED lifetimes of 50,000 hours, it is critical to have a power supply with equal reliability.



Product features

- Wide output voltage range 15 – 48 Vdc
- Wide range of current settings 500 – 1050 mA
- Max inrush current 0.904 A
- Thermal protection: dimming instead of switch off
- Open circuit output voltage protection
- Up to 90 % efficiency across a wide range of loads
- Power factor 0.97
- ENEC certified
- Engineered and Manufactured in Europe
- SELV

Certificates and standards

- ENEC05, CE
- EN55015 / EN61000-3-2 / EN61347-2-13 / EN61347-1 / EN61547 / EN62384 / SELV

Classifications



* Class II, enhanced insulation, when used with strain relieve.
** Class II, reinforced insulation, when built in without strain relieve.

Specific technical data

Type	Efficiency at full load	Output current	Output voltage range	Open circuit output voltage	Max. output power	Dimming
L05032R	90 %	500 - 1050 mA	15 - 48 Vdc	50 Vdc	33 W	No

Technical data

Rated supply voltage	220-240 Vac
Input voltage	180-240 Vac / 150-375 Vdc*
Mains frequency	50/60 Hz
Output current tolerance	7% (1050 - 700mA) 10% (650 - 500 mA)
100 Hz ripple current	51% @ 1050mA 39% @ 650mA
Power factor at full load	0.97
Nominal line current at 240 Vac	160 mA
Startup time	< 300ms
Warm up time to 95% of light output	< 200ms
Output isolation	SELV
Surge protection (diff. / comm.)	2 kV / 6 kV
IP classification	IP 20
Circuit lifetime	50,000 hrs at Tc max.
Case dimensions	110 x 52 x 23,5 mm
Case material	Polyamide 6 (PA6)

* External DC fuse required

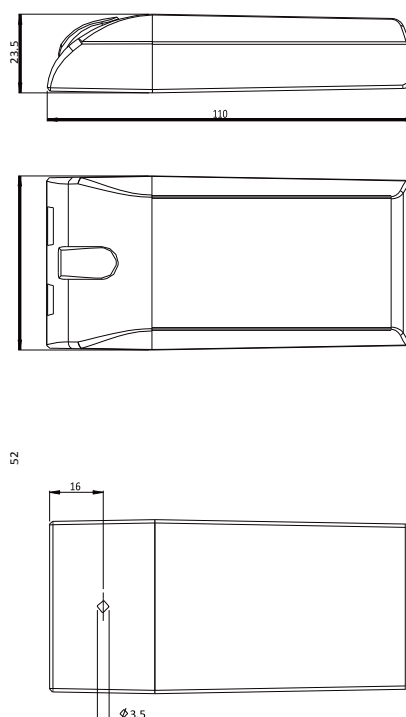
Inrush current

Mains max. peak inrush at full load	0.220A per driver on phase 60° (average starting angle)* 0.904A per driver on phase 90° (worst case starting angle)* 0.396A per driver on phase 60° (average starting angle)** 0.868A per driver on phase 90° (worst case starting angle)**
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** Tested at 240 Vac 1 driver connected, with TTI HA1600A analyzer.

* Tested at 240 Vac 10 drivers parallel connected, with TTI HA1600A analyzer.

Dimensions



Maximum number of drivers on automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
L05032R	53	69	85	107	53	69	85	107

Thermal specifications

Ambient temperature range (Ta)	-20 to 45°C*
Maximum case temperature (Tc)	< 85°C
Storage temperature range	-20 to 50°C

* When mounted on a heat conductive surface of at least 100x100x2 mm, otherwise Ta max = 40°C.

Over temperature protection

The LED driver is protected against thermal overload. If the temperature limit is exceeded, the output current is reduced.

Ambient temperature, and cooling

The rated ambient temperature is defined for a driver mounted on a thermally conductive surface of 100cm² for each driver. Always check if the surface is sufficient enough before installing the driver.

When the driver is not cooled, thermal protection might trigger at a lower temperature and the output power will be reduced.

When not mounted on a thermally conductive surface it is recommended to limit the output power at 20W at the maximum rated ambient temperature.

Short-circuit protection

In case of a short circuit the LED driver switches to protection mode. After the removal of the short-circuit the LED driver will recover automatically.

No-load operation

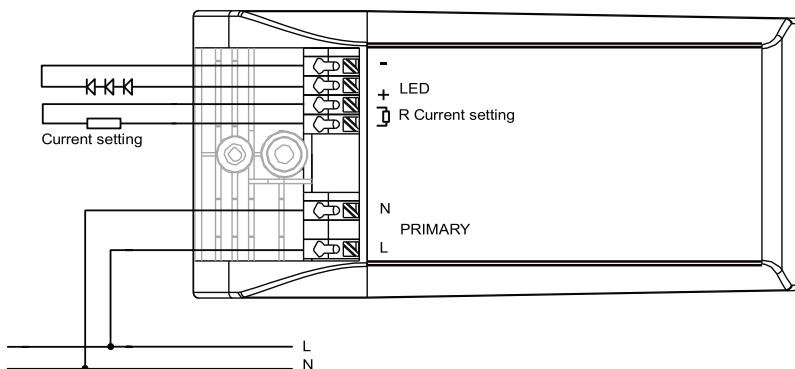
In no-load operation the output voltage will not exceed the specified open circuit output voltage.

LED load

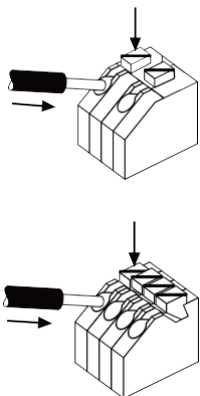
Fulham LumoSeries constant voltage LED drivers are designed to drive passive LEDs, COBs and LED assemblies.

Proper function is not guaranteed when (LED) loads with active components are used.

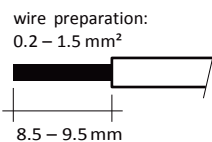
Wiring diagram



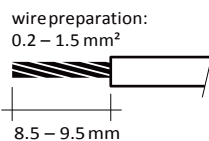
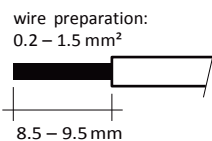
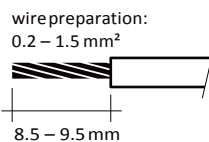
Wiring of device



Solid

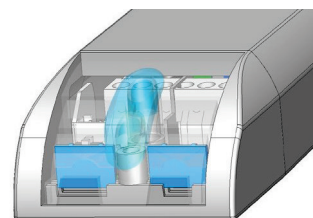


Stranded



Strain relief

The strain relief inserts can be removed to accommodate wiring of larger diameters.



Output current resistor setting

Resistance (kΩ)	Output current (mA)
∞	1050 +/- 7%
470	1025 +/- 7%
220	1020 +/- 7%
150	980 +/- 7%
120	950 +/- 7%
100	930 +/- 7%
82	900 +/- 7%
68	870 +/- 7%
56	830 +/- 7%
47	790 +/- 7%
39	750 +/- 7%
33	700 +/- 7%
27	650 +/- 10%
22	600 +/- 10%
18	550 +/- 10%
15	500 +/- 10%

Ordering data

Part	Part number	Alternate part number	EAN code	Packaging carton	Multibox carton	Weight per piece
L05032R LED Driver 33W, 500 - 1050mA	L05032R	L1MID105S-33E	8718801703694	20 pieces	240 pieces	125 g

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Formerly Lumotech