

The D5 driver series is a step-down constant current source designed for driving high power LEDs. Standard output currents available are 350 mA and 700 mA to make this driver compatible with a wide range of LED applications.

With so many different low voltage LED components available in the market, it is often a real challenge to piece together luminaires with compatible drivers and controllers, and more challenging again to ensure the system is correctly wired. Using remote drivers often means the LEDs have no protection from incorrect wiring or voltage, short circuit or over temperature conditions. For several years Lumascope has included integral, low voltage drivers in its compact LED luminaires to overcome these issues. The D5 driver series offers a compact, integral driver for low voltage LED luminaires that solves these problems, and now includes some amazing new features.

Being so compact, the D5 drivers fit inside any luminaire, providing protection to the LEDs by sensing operating temperatures on the LED board and in the driver itself, shutting down the power to the LEDs if a high temperature condition is detected and auto-restarting when it is safe to do so. The D5 driver series also has the ability to dim via analog (0-10 V) and digital signals (PWM). Regardless of the control signal, the LEDs are dimmed on a 14-bit PWM resolution, providing exceptional control and the capability to 'fade-to-black' with no color shift.

### Electrical

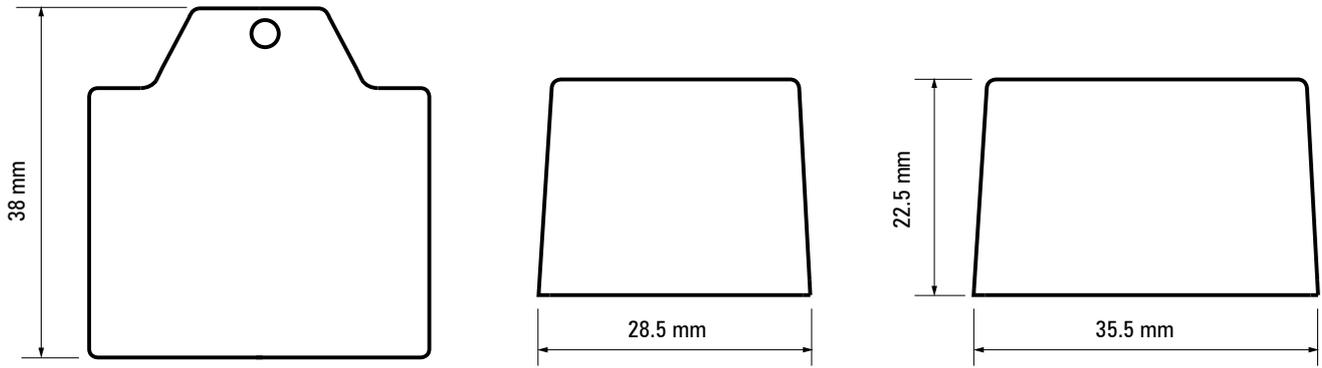
<b>Input Voltage</b>	12 Vac or 12-24 Vdc
<b>Output Current Options</b>	350 mA, 700 mA
<b>Wattage</b>	Up to 6 W
<b>Channels</b>	1
<b>Vf of LEDs</b>	Up to 12 V
<b>Efficacy</b>	90% maximum

### Features

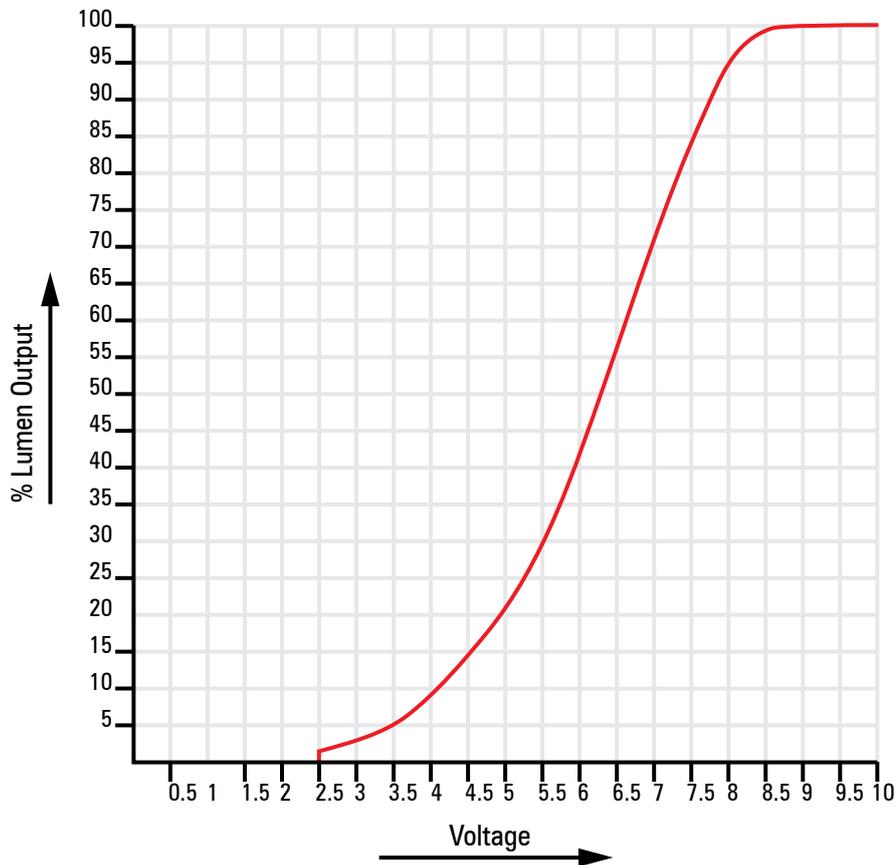
- **Inbuilt EMI filter**
- **External dimming controls:**
  - > PWM control signal
    - Frequency: 100-1000 Hz
    - Current: 2 mA max
    - Invert the dimming cycle by inverting the signal cable inputs
    - Max signal voltage: 24 Vdc
  - > 0-10 V Analogue Control Signal:
    - Current Sinking type (Compatible with current sourcing dimmer type)
    - Current: 2 mA maximum
    - Invert the dimming cycle by inverting the signal cable inputs
    - Maximum signal voltage: 24 Vdc
- **Internal Dimming Controls**
  - > Dimming by cycling power on/off (refer installation instructions supplied with Lumascope fittings fitted with D5 series drivers)
- **Protections**
  - > Open circuit and short circuit protection
  - > Thermal protection for driver (maximum case temperature 80 °C)
  - > Thermal protection for LED array (105 °C on the LED array)
  - > Auto restart after cool down -20 °C typically (temperature hysteresis)
- **Other Features**
  - > Configurable to be backwards compatible to Lumascope older generation T4 driver series
  - > Factory re-settable



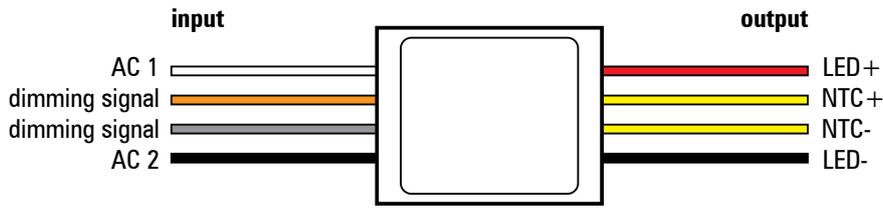
Dimensions



0-10 V Dimming vs Lumen Output



Wiring Diagram



Dimming Signal Wiring Configuration

Dimming Signal Wire Colours	Dimming Signal Source		
	0-10 V signal source controller	Lumascade proprietary PWM controllers	Third party PWM controllers
orange	signal positive	signal positive	signal negative
grey	signal negative	signal negative	signal positive

Note: The driver cannot be dimmed with internal dim mode if it is being dimmed by an external dimming signal.  
 To re-enable internal dimming the external signal should first be physically disconnected and then reverted to factory setting.  
 With external dimming control, to achieve inverted control of the dimming cycle, the signal input connections need to be reversed.