

Duris P5 16 Strip Deep Blue

ILS-P516-0150-DEBL-SC201-W2.

Product Overview

At the heart of each Duris P5 Strip are 16 Duris P5 family LEDs from OSRAM Opto Semiconductors. These are new and mid-power LEDs, which are ideal for efficient and homogeneous lighting applications. The Duris P5 Strip has been designed specifically to work with Extruded Linear Remote Phosphor; the pin point spacing between LED to LED allows zero spotting when using the phosphor. The combination of a small/medium lumen package, a wide beam angle and a compact footprint is perfect for uniform light distribution. Available with 200mm wires as standard.

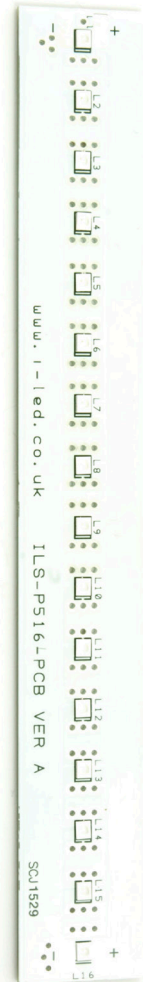
Applications

- General Lighting
- Decorative Lighting
- Task Lighting
- Shelf Lighting
- Retail and Entertainment Lighting

Technical Features

- Strips contain Duris P5 LEDs with high efficacy and a wide beam angle
- Up to 50,000 Hour lifetime to 70% of original brightness
- Size of printed circuit board (L x W x H) : 150mm x 20mm x 1.6mm
- Secondary Lens can be fitted - check options in suitable Lens and Reflector section
- Suitable Heat Sinks available - check options in Heat Sink section
- Matching Power Supply available - check options in Power Supply section Strips can be linked together to produce longer chains
- Current range 30 to 250mA
- Matching Power Supply available - check options in Power Supply section
- The layout of the PCB is 2 parallel chains of 8 LEDs meaning current with split 2 ways when connected to a LED driver

*This datasheet should be read in conjunction with the relevant OSRAM Opto Semiconductors data on the LED used



Important Information and Precautions

- The Duris Strip LEDs, when powered up are very bright. Thus it is advised that you do not look directly at it. Turn the Duris Strip away from you and do not shine into the eyes of others.
- Do not operate Duris Strip's with a Power Supply with unlimited current. Connection to constant voltage Power Supplies that are not current limited may cause the Duris Strip to consume current above the specified maximum and cause failure or irreparable damage.
- Duris Strip's, when operated, can reach high temperatures thus there is risk of injury if they are touched.
- DO NOT HOT PLUG ON LED SIDE OF POWER SUPPLY.
- DO NOT TOUCH or PUSH on the LED as this can cause irreparable damage

Product Options

ILS PART NUMBER	Colour	Dominant Wavelength*	Typical Wattage §				Forward Voltage	Flux † @ 100mA	Radiance Angle	Relevant OSRAM LED Data
			@150mA	@350mA	450mA	500mA				
ILS-P516-0150-DEBL-SC201-W2.	Deep Blue	455nm	3.6W	8.4W	10.8W	12W	20.8-28.8 volts	2240mW	130° (±65°)	GDDASPA

* Due to the special conditions of the manufacturing processes of LEDs, the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

§ Tolerance +/- 10%

† Measured with 20mS 100mA pulse at 25°c

Minimum and Maximum Ratings

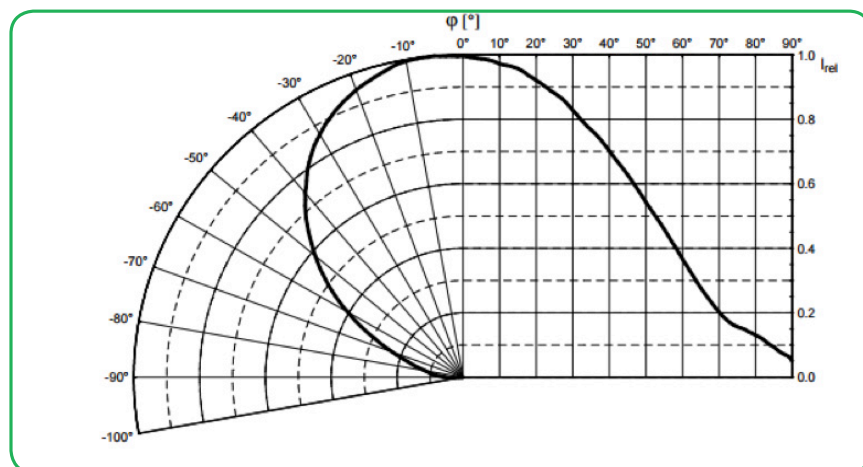
ILS PART NUMBER	Operating Temperature at Tc-Point [°C]*	Storage Temperature [°C]*	Forward Current per chip [mA]*	Reverse Voltage [Vdc]*
ILS-P516-0150-DEBL-SC201-W2.	-40 ... 85 °C	-40°C to + 125°C	250mA	Not designed for reverse voltage

* Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED module.

Exceeding maximum ratings for operating voltage will cause hazardous overload and is likely to destroy the LED module.

The temperature of the LED module must be measured at the Tc-Point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Radiation of single LED



Technical Drawing with cables (mm)

Coming Soon

3D drawing files are available on request from ILS. Please call or email

Duris® P5 16 Strip Lens and Reflector Options

The Duris P5 Strip has been primarily designed to work with the Extruded Linear Remote Phosphor from Intematix, ChromaLit Linear enables new and creative designs for high lumen area and decorative lighting systems. Combining the benefits of remote phosphor with a unique delivery system, ChromaLit Linear delivers the uniform, glare free, color consistent lighting associated with remote phosphor systems with the additional benefit of a clean and familiar off state white appearance.



Duris® P5 16 Strip Heat Sink Options

ILS has a series of Aluminium Alloy Heat Sinks to be used with our standard range of PowerStars and PowerClusters. These Heat Sinks are supplied with fixing screws for the light engine and for fixing to a base plate. They also come with Thermal Interface Material (TIM) attached to the top surface. Available in Black, Red, Silver and Blue colour variants. More versions will be introduced over the coming months and we are happy to manufacture custom Heat Sinks to your request.

	Operates under the recommended ILS junction temperature
	Operates under the recommended LED maximum junction temperature
	Not suitable for use
N/A	Heat Sink not designed for use with this product

ILS Product	Current*	No Heat Sink, in free air	ILA-EXTRUSION-01-0150.
Duris® P5 16 Strip	150mA		
	350mA		
	500mA		



*Current halved due to the layout of the strip

Duris P5 18 Strip Power Supply Options

ILS has a comprehensive range of standard Power Supplies. The table below shows the total number of ILS products each Power Supply can drive.

Additional Power Supplies are being introduced so please call us or check our website for the latest offering.

ILS Driver Part No.	Rating	Current	Duris® P5 16 Strip	
IZC015-005F-0067C-QA	5	150mA (75mA)	1	
IZC035-008F-5065C-SA	8	350mA (175mA)	1	
IZC035-008F-5065C-SA	12	350mA (175mA)	1	
IZC035-017F-0067A-SA	17	350mA (175mA)	1	
IZC035-018T-9500A-SA	18	350mA (175mA)	1	
IZC050-018T-9500A-SA	18	500mA (250mA)	1	
IZC035-035F-9067C-QA	35	350mA (175mA)	2	
IZC045-040A-9266C-SA	40	450mA (225mA) dim	2-3	
IZC050-060F-9067C-QA	60	500mA (250mA)	2-3	

Thermal Interface Material Options

ILS have produced a range of high-performance, cost effective Thermal Interface Materials to match perfectly their standard products.

Our product fills the air pockets between the two surfaces, forming a continuous layer to conduct heat away from the LED to the Heat Sink.

ILS offer our TIM in three options – double sided adhesive, single sided adhesive and non-adhesive.

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Product	Non Adhesive	Single Sided Adhesive	Double Sided Adhesive
300x20mm Strip	ILA-TIM-STRIP-300x20-0A	ILA-TIM-STRIP300x20-1A	ILA-TIM-STRIP-300x20-2A.

Other sizes are available, including customised parts

Assembly Information

- The mounting of the Duris® P5 16 Strip has to be on a metal Heat Sink.
- In order to optimise the thermal management, the metal surface needs to be clean (dirt and oil free) and planar for the best contact with the LED module. A thermal grease or heat transfer material is highly recommended.

Safety Information

- The LED module itself and all its components must not be mechanically stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- The mounting of the module is carried out by attaching it at the mounting holes. Metal mounting screws must be insulated with synthetic washers to prevent circuit board damage and possible short circuiting.
- To avoid mechanical damage to the connecting cables, the boards should be attached securely to the intended substrate. Heavy vibration should be avoided.
- Observe correct polarity!
- Depending on the product, incorrect polarity will lead to emission of Red or no light. The module can be destroyed!
- Pay attention to standard ESD precautions when installing the Duris® P5 16 Strip.
- The Duris® P5 16 Strip, as manufactured, have no conformal coating and therefore offer no inherent protection against corrosion.
- Damage by corrosion will not be accepted as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- For outdoor usage, a housing is definitely required to protect the board against environmental influences. The design of the housing must correspond to the IP standards in the application. It is also the responsibility of the user to ensure any housings or modifications keep the Tc junction temperature to within stated ranges.
- To also ease the luminaire/installation approval, electronic control gear for LED or LED modules should carry the CE mark and be ENEC certified. In Europe the declarations of conformity must include the following standards: CE:EC 61374-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61374-2-13 and IEC/EN 62384.
- Depending on the mode of operation, these devices emit highly concentrated, non visible, infrared light which can be hazardous to the human eye. Products which incorporate these devices have to follow the safety precautions given in IEC 60825-1 and IEC 62471.
- The evaluation of eye safety occurs according to the standard IEC 62471:2006 ("photobiological safety of lamps and lamp systems"). Within the risk grouping system of this CIE standard, the LED specified in this data sheet falls into the class "moderate risk" (exposure time 0.25s). Under real circumstances (for exposure time, eye pupils, observation distance), it is assumed that no endangerment to the eye exists from these devices. As a matter of principle, however, it should be mentioned that intense light sources have a high secondary exposure potential due to their blinding effect. As is also true when viewing other bright light sources (e.g. headlights), temporary reduction in visual acuity and afterimages can occur, leading to irritation, annoyance, visual impairment and even accidents, depending on the situation.

For further information please contact ILS

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.