

LEDLINE FLEX SMD PROFESSIONAL

HIGH BRIGHTNESS



LEDLINE FLEX SMD PROFESSIONAL – HIGH BRIGHTNESS

WU-M-465

Typical Applications

- Illumination of complex structures
- Marking paths, stairs, etc.
- Furniture lighting
- Light advertising
- Entertainment, shop design
- Architectural illumination

LEDLine Flex SMD Professional High Brightness

- **EXTREMELY FLEXIBLE LINE MODULE WITH SMD LEDs**
- **ON-BOARD VOLTAGE STABILISATION GUARANTEES HOMOGENEOUS LUMINOUS FLUX OVER THE ENTIRE LENGTH**
- **AVAILABLE IN DIFFERENT COLOUR TEMPERATURES**
- **LOW MOUNTING HEIGHT**
- **LOW HEAT DEVELOPMENT**
- **SELF-ADHESIVE REAR PANEL**
- **INTEGRATED ESD PROTECTION DIODE**
- **EXPECTED LIFETIME 50,000 H (L70/B10)**
- **INVERSE-POLARITY PROTECTION**

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Technical Notes

- Dimensions of the entire LED Line Flex SMD Professional: LxW = 3200 x 10.5 mm
- With 280 SMDs divisible in 40 single-steps (80 mm ÷ 7 SMDs)
- Wide beam angle (120°)
- Voltage supply: 24 V DC
- Soldered wires, on one side: 200 mm
- Voltage-stabilised thanks to on-board current sources



Electrical Characteristics

at ambient temperature $t_p = 50\text{ °C}$

Type	Ref. No.	Colour	Number of LEDs	Current* A	Voltage DC* V	Power* W
WU-M-465-xxK	All types	All colour	280	1.7	24	40.8

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the module.

Type	Voltage DC*		Operation temperature range at I_c point		Ambient temperature range for operation		Storage temperature range	
	V min.	V max.	°C min.	°C max.	°C min.	°C max.	°C min.	°C max.
All types	23.5	25	-20	+65	-20	+50	-20	+85

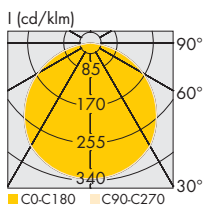
Optical Characteristics

at ambient temperature $t_p = 50\text{ °C}$

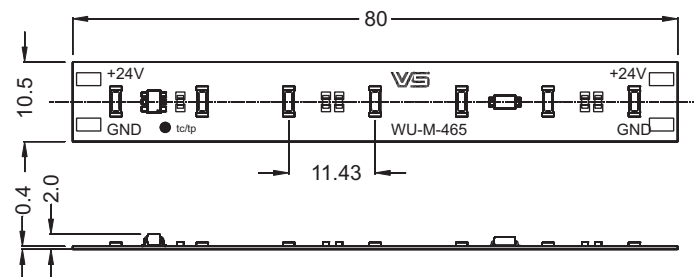
Type	Ref. No.	Colour	Colour temperature* K	Luminous flux* lm	Beam angle* °	CRI
WU-M-465-27K	554932	warm white	2700 -55/+90	3500	120	> 80
WU-M-465-30K	554933	warm white	3000 -50/+125	3600	120	> 80
WU-M-465-40K	554934	neutral white	4000 -165/+105	3800	120	> 80
WU-M-465-50K	554935	white	5000 -130/+150	3900	120	> 80
WU-M-465-65K	554936	cold white	6500 -265/+220	3900	120	> 80

* On account of the complex manufacturing process of the modules, the above values only represent statistical variables.
The values do not necessarily correspond exactly to the actual parameters of every single product, which can vary from the typical specification.

Light Distribution Curves



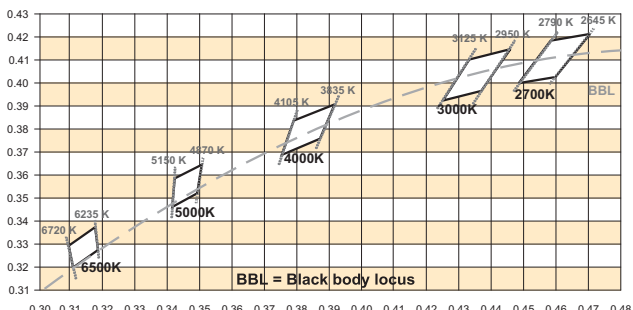
Mechanical Dimensions



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.
Please find further detailed information at www.vossloh-schwabe.com.

LEDLine Flex SMD Professional – High Brightness

Bins



Assembly and Safety Information

- LED modules and all PCB components must not be subjected to undue mechanical stress.
- The LEDLine Flex SMD Professional High Brightness must not be operated in rolled-up condition.
- The circuit path must not be damaged or interrupted.
- Operation only with power supply units that feature the following protection:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
 - SELV
- The maximum output of the power supply must be observed.
- Please ensure standard ESD (electrostatic discharge) protection measures are employed when handling and installing LED modules. Electrostatic discharge can damage LEDs.
- The modules are not protected against dust or moisture. When LED modules are operated in unduly moist or dusty environments, care must be taken to ensure each module is built into a protective casing in compliance with the correct IP classification or provided with corrosion protection. Damage caused by moisture and/or corrosion will not be recognised as a material or manufacturing defect.
- LEDLine Flex SMD Professional High Brightness is always modules can be carefully separated at 80 mm intervals using a pair of scissors (in the middle of the connection pads for wires, see drawing).
- Expected lifetime: 50,000 h (L70/B10) at $t_p = 50\text{ °C}$ or 40,000 h (L70/B10) at $t_p = 65\text{ °C}$
- Each LEDLine Flex SMD Professional High Brightness is backed by adhesive transfer tape (3M Adhesive Transfer Tape 9485) for easy assembly. Please observe the manufacturer's technical data provided at www.3M.com/converter. Products equipped with adhesive transfer tape must only be applied to dry and clean surfaces that are free from grease, oil, silicone or other soiling. It is therefore recommended to clean the substrate with isopropyl alcohol (IPA). Please ensure a full-surface bond over the entire contact area when sticking the module to the substrate.

The following substances are regarded as critical for creating an adhesive bond:

- Polyefins (polyethylene, polypropylene)
- Rubber
- Powder-coated materials
- Silicone rubber
- Teflon

For optimum adhesive bonding, a temperature of approx. 27 °C should be ensured during installation. In addition, firm pressure must be exerted on the PCB (but NOT on the SMD components).

- Owing to the varying application options and different types of surface as well as ambient conditions, VS accepts no liability for the quality of the adhesive bond achieved when mounting these products. Prior to sticking a VS product care must be taken to check whether the material in question is actually suitable for the intended purpose under consideration of all possible application-relevant influences. Supplementary holders must be used if necessary.
- The product must be stored no longer than 12 months (in packed condition) at approx. 20 °C and up to 50 % relative humidity in order to ensure optimal bonding.
- Contacts are created by soldering the leads onto the soldering pads (labelled 24 V ±). The soldering temperature must not exceed 260 °C. The maximum soldering time is 10 seconds.
- LEDLine Flex modules are exclusively designed for mounting on rigid and unchangeable surfaces. In addition, such surfaces must ensure sufficient thermal dissipation as the upper temperature limit at the t_c/t_p point must never be exceeded during operation. The module must not be mounted on flexible substrates as the LED module would be damaged when the substrate bends.
- During installation the bending radius must not fall below 25 mm. On sharp edges the LEDLine Flex SMD Professional may only be bent at a position where no electronic components are mounted. The module can be damaged if it is bent in a crosswise direction.

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