

LEDLINE FLEX SMD RGBW

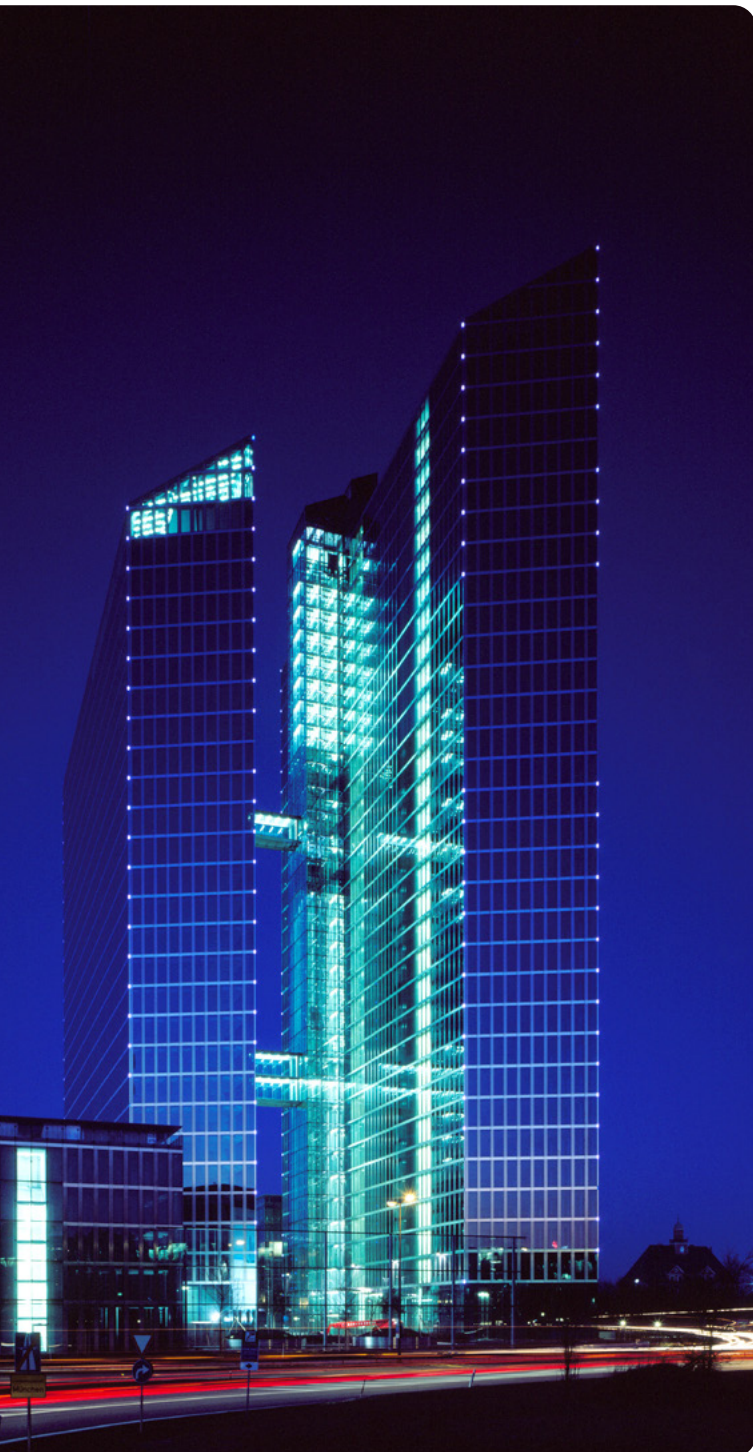


LEDLINE FLEX SMD RGBW

WU-M-636-RGB+8xx - 18 W/m

Typical Applications

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



LEDLine Flex SMD RGBW

- **FLEXIBLE SMD LINE MODULE**
with low mounting height and self-adhesive rear panel
- **COLOUR MIXING DUE TO RGBW SMDS**
- **LOW HEAT DEVELOPMENT**
- **LOW COLOUR TOLERANCE: 4-STEP MacAdam**
(for white channel)
- **SERVICE LIFETIME: 50,000 H (L70/B50)**

LEDLine Flex SMD RGBW

Technical Notes

- Extremely flexible SMD line module
- Dimensions of the entire LEDLine Flex SMD RGBW (LxW): 5010 x 12 mm
- 300 SMDs divisible in 50 single-steps (100 mm à 6 SMDs)
- Power consumption per meter: 18 W/m
- Each SMD contains 4 LED chips in red, green, blue and white
- Wide beam angle (120°)
- Voltage supply: 24 V DC
- Soldered wires on one side: 200 ± 10 mm



Electrical Characteristics

at $t_p = 25\text{ °C}$

Type	Number of SMD pcs.	Typ. forward current* (A)				Typ. forward voltage* DC V	Typ. power consumption* (W)			
		Red	Green	Blue	White		Red	Green	Blue	White
WU-M-636-RGB+8xx	300	0.96	0.96	0.78	0.98	24	23	23.5	18.7	23.3

All stated values refer to a total length of 5 m | * Measurement tolerance: ± 10%

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 t_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.
WU-M-636-RGB+8xx	22.8	25.2	-20	+85	-20	+40	-20	+60

Optical Characteristics

at $t_p = 25\text{ °C}$

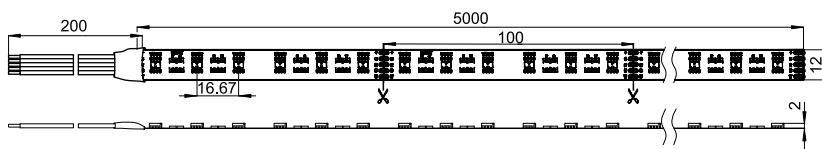
Type	Ref. No.	Colour	Dom. wavelength (nm) / CCT (K)				Typ. luminous flux* (lm)				Beam angle °	CRI (White) R_a
			Red	Green	Blue	White	Red	Green	Blue	White		
WU-M-636-RGB+840	569825	RGB(NW)	622	525	468	4000	695	1815	365	2420	120	> 80
WU-M-636-RGB+857	569826	RGB(CW)	622	525	468	5700	695	1815	365	2420	120	> 80

All stated values refer to a total length of 5 m | * Measurement tolerance of luminous flux: ± 10%

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.

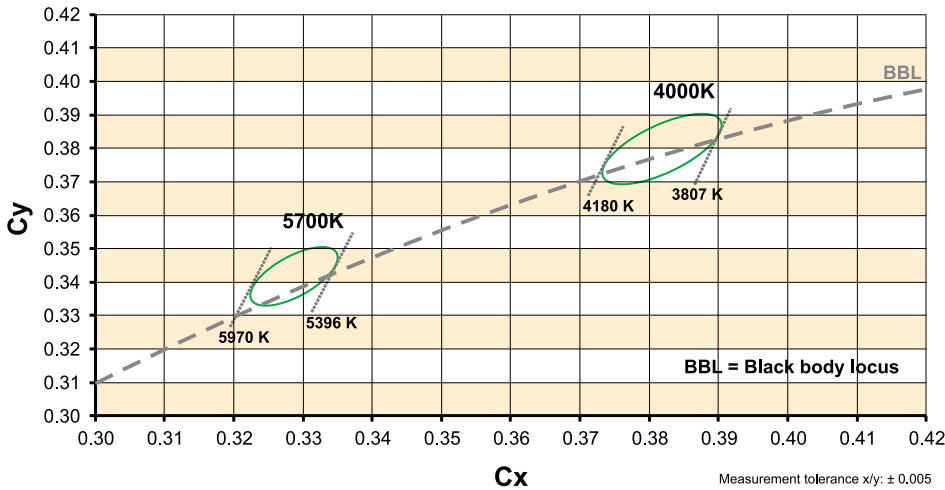
Mechanical Dimensions



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

LEDLine Flex SMD RGBW

Bins (White channel)



Accessories

5-pole clamp connectors for LEDLine Flex SMD RGBW
 For easy solderless electrical connection
 Supply voltage: 24 V
 Current: < 3.5 A
 Operating temperature: -10 to +40 °C

Feed-in connector

Dimensions (LxWxH): 15.3x16.5x4.6 mm
 Lead length: 150 mm
 Packaging unit: 100 pcs.
Ref. No.: 570456

Flex-to-Flex Bridge

Dimensions (LxWxH): 15.3x16.5x4.6 mm
 Lead length: 150 mm
 Packaging unit: 100 pcs.
Ref. No.: 570457

Flex-to-Flex connector

Dimensions (LxWxH): 15.3x16.5x4.6 mm
 Packaging unit: 100 pcs.
Ref. No.: 570458



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

LED Constant-voltage Converters 24 V

You will find more information about our LED drivers on our website: www.vossloh-schwabe.com

Max. output W	Mains voltage 50–60 Hz V \pm 10%	Output current A	Ref. No.	Version	Max. service life time hrs.	Service life time at °C	Connection	Casing	Dimensions LxWxH mm	Quantity of LEDLine Flex modules per converter*
IP20										
120	220–240	0–5	186627	EasyLine	60,000	80	Srew terminal	K60	300x40x30	1 x WU-M-636
180	220–240	0–7.5	186717	EasyLine	60,000	75	Srew terminal	K61	345x50x35	2 x WU-M-636
IP67										
100	220–240	0–4.2	186433	EasyLine	50,000	75	Pre-assembled leads	M58.1	206x69x37	1 x WU-M-636
200	220–240	0–8.3	186634	EasyLine	50,000	75	Pre-assembled leads	M58.1	206x69x37	2 x WU-M-636

Please ensure you choose the correct LED converter for the modules in question and that the respective output parameters (current, voltage, wattage) are correct.

* Note: Only parallel drive circuits ensure a safe operation. Serial connection must be avoided.

LEDLine Flex SMD RGBW

Assembly and Safety Information

- LED modules and all PCB components must not be subjected to undue mechanical stress; stick without pressure!
- The LEDLine Flex SMD RGBW 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 (Safety Extra Low Voltage)
- The maximum output of the power supply must be observed.
- The maximum recommended length of a single unit to be driven in series is 5 meters (one complete reel) to ensure consistent output along the complete length. It is possible to increase the total length driven from a single driver by adding additional lengths connected in parallel.
- Only parallel drive circuits ensure a safe operation. A serial connection of modules must be avoided.
- Please ensure standard ESD (electrostatic discharge) protection measures are employed when handling and installing LED modules. Electrostatic discharge can damage LEDs.
- Do not look directly into the bright light source (glare hazard!).
- 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 RGBW modules can be carefully separated at 100 mm intervals using a pair of scissors (in the middle of the connection pads for wires, see drawing).
- Expected lifetime: 50,000 h (L70/B50) at $t_c = 65\text{ °C}$; 35,000 h (L70/B50) at $t_c \text{ max.} = 85\text{ °C}$.
Measure the t_c/t_p temperature at the first solder pad on secondary side of the first module segment, that is connected to the driver (electrical connection).
- For a sufficient heat conduction (cooling), it is recommended to mount the modules onto a heat conductive surface (e.g. aluminium profiles).
- Each LEDLine Flex SMD Professional is backed by adhesive tape (3M Adhesive Tape 200MP) for easy assembly. Please observe the 3M manufacturer's technical data. 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 fullsurface 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 350 °C. The maximum soldering time is 5 seconds.
- LEDLine Flex modules are suitable only for mounting on rigid and solid surfaces. 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 30 mm. On sharp edges the LEDLine Flex SMD RGBW may only once be bent at a position where no electronic components are mounted. Bending in a crosswise direction is not allowed and can damage the module.
- In case of assembly on electric or other conductive surfaces, the LEDLine Flex modules have to be electrically isolated on the rear side before mounting to avoid short-circuit faults.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure. Detailed information can be found in our "Chemical Incompatibility" PDF on our website www.vossloh-schwabe.com

Product Guarantee

- 5 years
(valid for operating temperatures up to $t_c \leq 65\text{ °C}$)
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com).
We will be happy to send you these conditions upon request.

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