LEDLINE FLEX SMD INDOOR

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WU-M-555-IP00 – 6.5 W/m (> 800 lm/m)
WU-M-556-IP00 – 10.8 W/m (> 1400 lm/m)

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

LEDLine Flex SMD Indoor

■ **FLEXIBLE SMD LINE MODULE**
with low mounting height and self-adhesive rear panel

■ **ON-BOARD CURRENT REGULATION**
for garantueed constant luminous flux on long feed-in length

■ **HIGHLY EFFICIENT: UP TO 139 LM/W**

■ **AVAILABLE IN DIFFERENT COLOUR TEMPERATURES**

■ **LOW COLOUR TOLERANCE: 3-STEP MacAdam**

■ **SERVICE LIFETIME: 36,000 H (L70/B50)**

■ **INVERSE-POLARITY PROTECTION**

LEDLine Flex SMD Indoor

Technical Notes

- Extremely flexible SMD line module
- Low heat developement
- Dimensions of the entire LED Line Flex SMD
- Indoor: LxW = 5000 x 10 mm
- 6,5 W/m: divisible in 30 single-steps (166.7 mm à 7 SMDs)
- 10,8 W/m: divisible in 50 single-steps (100 mm à 7 SMDs)
- Wide beam angle (120°)
- Voltage supply: 24 V DC
- Soldered wires on one side: 150 ± 10 mm

Electrical Characteristics

at t_p = 25 °C

Type	Step length	Number of LEDs/m	Forward current*	Forward voltage DC*	Power*
	mm		mA/m	V	W/m
WU-M-555 – 6.5 W/m					
All types	166.7	42	270	24	6.5
WU-M-556 – 10.8 W/m					
All types	100	70	450	24	10.8

Measurement tolerance of forward current: ± 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.
All types	23	25	−20	+65	−20	+50	−20	+85

Optical Characteristics

at t_p = 25 °C

Type	Ref. No.	Colour	Colour temperature*	Luminous flux* (lm/m)		Beam angle*	CRI
			K	min.	typ.	°	R_a
WU-M-555 – 6.5 W/m							
WU-M-555-827	**566965**	warm white	2700	740	820	120	> 80
WU-M-555-830	**563465**	warm white	3000	765	850	120	> 80
WU-M-555-840	**563466**	neutral white	4000	800	890	120	> 80
WU-M-555-857	**563467**	cold white	5700	810	900	120	> 80
WU-M-556 – 10.8 W/m							
WU-M-556-827	**566966**	warm white	2700	1250	1380	120	> 80
WU-M-556-830	**563468**	warm white	3000	1290	1430	120	> 80
WU-M-556-840	**563469**	neutral white	4000	1330	1480	120	> 80
WU-M-556-857	**563471**	cold white	5700	1350	1500	120	> 80

Colour measurement tolerance: ± 10% | Colour tolerance: 3 MacAdam

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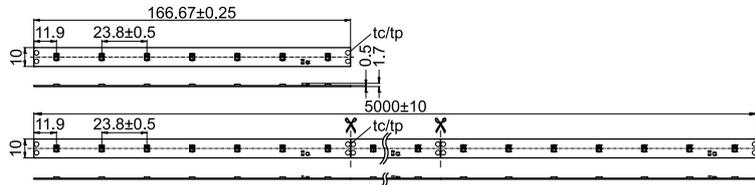
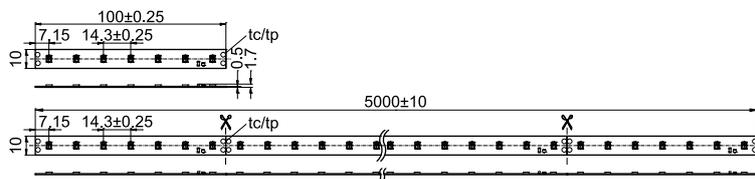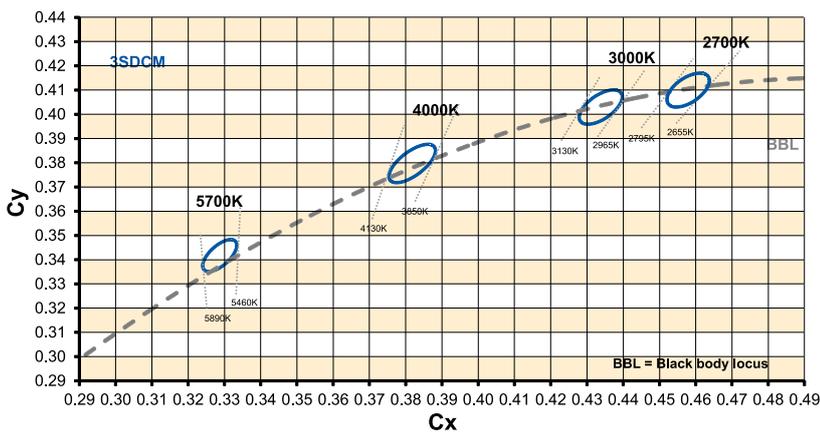# LEDLine Flex SMD Indoor

Typical Light Distribution Curves

I (cd/klm)

90°
60°
30°
100
150
200
250
300

☐ 0°–180° ☐ 90°–270°
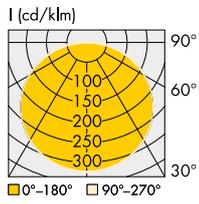
Mechanical Dimensions

WU-M-555

166.67±0.25
11.9 23.8±0.5
tc/tp
10
0.5
1.7

11.9 23.8±0.5
5000±10
tc/tp
10

WU-M-556

100±0.25
7,15 14,3±0.25
tc/tp
10
0.5
1.7

7,15 14,3±0.25
5000±10
tc/tp
10

Bins

3SDCM

2700K
3000K
4000K
5700K

2655K
2795K
2965K
3130K
3650K
4130K
5460K
5890K

BBL

BBL = Black body locus

Cy

Cx

0.29 0.30 0.31 0.32 0.33 0.34 0.35 0.36 0.37 0.38 0.39 0.40 0.41 0.42 0.43 0.44 0.45 0.46 0.47 0.48 0.49

0.29 0.30 0.31 0.32 0.33 0.34 0.35 0.36 0.37 0.38 0.39 0.40 0.41 0.42 0.43 0.44

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LEDLine Flex SMD Indoor

Accessories
2-pole clamp connectors for LEDLine Flex SMD Indoor
For easy solderless electrical connection
Supply voltage: 24 V
Current: < 4 A
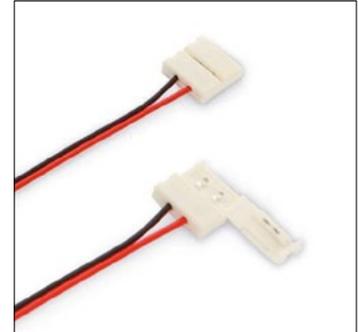Operating temperature: 0–40 °C

Feed-in connector
Dimensions (LxWxH): 15x15.6x5 mm
Lead length: 150 mm
Packaging unit: 100 pcs.
Ref. No.: 568121

Flex-to-Flex connector
Dimensions (LxWxH): 16x15x5 mm
Packaging unit: 100 pcs.
Ref. No.: 568122

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 ±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										**WU-M-**
60	220–240	0–2.5	**186625**	EasyLine	50.000	75	Screw terminals	K55.1	180x52x30	1 x 555 or 1 x 556
75	220–240	0–3.125	**186626**	EasyLine	50.000	80	Screw terminals	K55.1	180x52x30	2 x 555
120	220–240	0–5	**186627**	EasyLine	50.000	80	Screw terminals	K60	300x40x30	3 x 555 or 2 x 556
IP67										**WU-M-**
150	220–240	0–6.25	**186434**	EasyLine	50.000	70	Preassembled leads	M58.1	206x68.6x37	4 x 555
200	220–240	0–8.3	**186634**	EasyLine	50.000	85	Preassembled leads	M58.1	206x68.6x37	6 x 555 or 3 x 556

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.

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LED-Module_LEDLine-Flex_SMD_Indoor_EN – 4/5 – 03/2020

VS LIGHTING SOLUTIONS

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LEDLine Flex SMD Indoor

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 Indoor 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 Indoor modules can be carefully separated at 100 mm (WU-M-556) or 166.7 mm (WU-M-555) intervals using a pair of scissors (in the middle of the connection pads for wires, see drawing).
- Expected lifetime: 36,000 h (L70/B50) at t_p = 65 °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 9080A) 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 330 °C. The maximum soldering time is 1.5 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 25 mm. On sharp edges the LEDLine Flex SMD Indoor may only once be bent at a position where no electronic components are mounted. Benting 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

- 3 years
- 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.

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