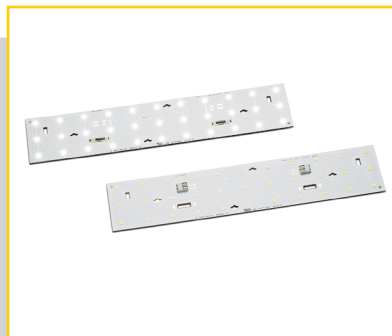


LED LINE SMD W5.5 3R COMFORT

WU-M-526-SH (280 MM)

WU-M-536-SH (566 MM)



LED LINE SMD W5.5 3R COMFORT

WU-M-526-SH / WU-M-536-SH

Typical Applications

Built-in luminaires/general illumination

- Office lighting
- Retail, corridor and shelf lighting
- T5/T8 replacement as built-in module
- Furniture lighting
- Backlighting for advertising

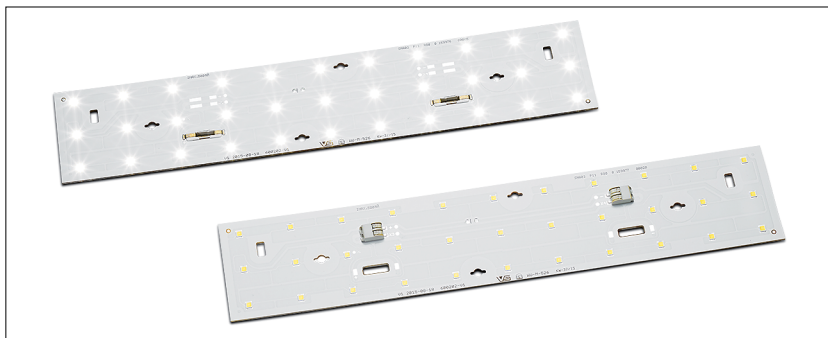
LED Line SMD W5.5 3R Comfort

- **LONG SERVICE LIFE TIME: 90,000 H (L80, B10)**
- **HIGHLY EFFICIENT: UP TO 201 LM/W AT T_p = 50 °C**
- **LENGTH: 280 MM, 566 MM**
- **FLEXIBLE LIGHT DISTRIBUTION BY DIFFERENT OPTICS**

LED Line SMD W5.5 3R Comfort

Technical Notes

- LED built-in module for integration into luminaires
- Dimensions:
WU-M-526-SH: 280x55 mm
WU-M-536-SH: 566x55 mm
- Driving current: 150 mA / 250 mA / 350 mA / 500 mA / 700 mA
- On-board push terminal system
- Beam angle: 120°
- Colour tolerance: 3-step MacAdam



Typical Light Distribution Curve

Data are available in .ldt format for download under www.vossloh-schwabe.com.

Suitable Optics

Please visit our homepage for details for suitable 3R optics W5.5:

www.vossloh-schwabe.com/en/products/optics-reflectors/linear-optics/linear-optics-3r-for-smd-w55

Electrical Characteristics

at $t_p = 50\text{ °C}$

Type	No. of LEDs	Temperature Coefficient mV/K	Voltage DC (V)					Power consumption (W)				
			150 mA V	250 mA V	350 mA V	500 mA V	700 mA V	150 mA W	250 mA W	350 mA W	500 mA W	700 mA W
WU-M-526-SH	33	-12.24	29.4	29.9	30.8	32.0	33.2	4.4	7.5	10.8	16.0	23.2
WU-M-536-SH	66	-24.48	58.7	59.9	61.5	64.1	66.3	8.8	15.0	21.5	32.0	46.4

Voltage and power tolerance: $\pm 10\%$

Use of external LED constant current driver required.

Maximum Ratings

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

Type	Operating current (mA)	Operation temperature range at t_c point		Storage temperature range		Max. allowed repetitive peak current mA
		°C min.	°C max.	°C min.	°C max.	
WU-M-526-SH/-536-SH	700	-20	+80	-20	+85	900

Operating Life

L80/B10

in hours at measured temperature at t_p point

Type	150 mA			250 mA			350 mA			500 mA			700 mA		
	40 °C	50 °C	80 °C	40 °C	50 °C	80 °C	40 °C	50 °C	80 °C	40 °C	50 °C	80 °C	40 °C	50 °C	80 °C
All Types	>90,000	>90,000	>85,000	>72,000	>72,000	>56,000	>72,000	>72,000	>54,000	>72,000	>72,000	>54,000	>36,000	>36,000	>36,000

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LED Line SMD W5.5 3R Comfort

Optical Characteristics

at $t_p = 50\text{ }^\circ\text{C}$; without secondary optics

CRI $R_a > 80$

Type	Ref. No. Connection		Colour	Correl. colour temp.* K	Luminous flux** (lm) and efficiency (lm/W) at										Photometric code	
	Top (TC)	Bottom (BC)			150 mA		250 mA		350 mA		500 mA		700 mA		150, 250, 350, 500 mA	700 mA
					typ. lm	typ. lm/W	typ. lm	typ. lm/W	typ. lm	typ. lm/W	typ. lm	typ. lm/W	typ. lm	typ. lm/W		
Module length: 280 mm																
WU-M-526-SH-TC/BC-830	571792	571793	warm white	3000	840	190	1385	185	1915	178	2695	168	3655	157	830/349	
WU-M-526-SH-TC/BC-835	573077	572554	neutral white	3500	850	193	1400	187	1940	180	2725	170	3700	159	835/349	
WU-M-526-SH-TC/BC-840	571794	571795	neutral white	4000	885	201	1460	195	2025	188	2850	178	3865	167	840/349	
WU-M-526-SH-TC/BC-850	571796	572939	cool white	5000	885	201	1460	195	2025	188	2850	178	3865	167	850/349	
WU-M-526-SH-TC/BC-865	571797	573059	cool white	6500	865	196	1425	191	1980	184	2780	173	3770	162	865/349 /359	
Module length: 566 mm																
WU-M-536-SH-TC/BC-830	571800	571801	warm white	3000	1675	190	2765	185	3835	178	5390	168	7315	157	830/349	
WU-M-536-SH-TC/BC-835	573078	573499	neutral white	3500	1695	193	2800	187	3880	180	5450	170	7395	159	835/349	
WU-M-536-SH-TC/BC-840	571802	571803	neutral white	4000	1775	201	2925	195	4055	188	5700	178	7735	167	840/349	
WU-M-536-SH-TC/BC-850	571804	573891	cool white	5000	1775	201	2925	195	4055	188	5700	178	7735	167	850/349	
WU-M-536-SH-TC/BC-865	571805	573184	cool white	6500	1730	196	2855	191	3955	184	5560	173	7545	162	865/349 /359	

* Colour tolerance: 3-step McAdams | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$

Minimum order quantity (packaging unit): 24 pcs.

Optical Characteristics

at $t_p = 50\text{ }^\circ\text{C}$; without secondary optics

CRI $R_a > 90$

Type	Ref. No. Connection		Colour	Correl. colour temp.* K	Luminous flux** (lm) and efficiency (lm/W) at										Photometric code	
	Top (TC)	Bottom (BC)			150 mA		250 mA		350 mA		500 mA		700 mA		150, 250, 350, 500 mA	700 mA
					typ. lm	typ. lm/W	typ. lm	typ. lm/W	typ. lm	typ. lm/W	typ. lm	typ. lm/W	typ. lm	typ. lm/W		
Module length: 280 mm																
WU-M-526-SH-TC/BC-930	571798	571837	warm white	3000	715	162	1180	157	1630	152	2295	143	3115	134	930/349	
WU-M-526-SH-TC/BC-940	571799	571838	neutral white	4000	745	170	1235	165	1710	159	2400	150	3260	140	940/349	
WU-M-526-SH-TC/BC-950	572164	572757	cool white	5000	745	170	1235	165	1710	159	2400	150	3260	140	950/349	
WU-M-526-SH-TC/BC-965	572949	573489	cool white	6500	720	163	1185	158	1645	153	2310	144	3135	135	965/349 /359	
Module length: 566 mm																
WU-M-536-SH-TC/BC-930	571806	571839	warm white	3000	1430	162	2355	157	3265	152	4590	143	6225	134	930/349	
WU-M-536-SH-TC/BC-940	571807	571840	neutral white	4000	1495	170	2465	165	3420	159	4805	150	6520	140	940/349	
WU-M-536-SH-TC/BC-950	572165	on request	cool white	5000	1495	170	2465	165	3420	159	4805	150	6520	140	950/349	
WU-M-536-SH-TC/BC-965	on request	on request	cool white	6500	1435	163	2370	158	3285	153	4620	144	6270	135	965/349 /359	

* Colour tolerance: 3-step McAdams | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$

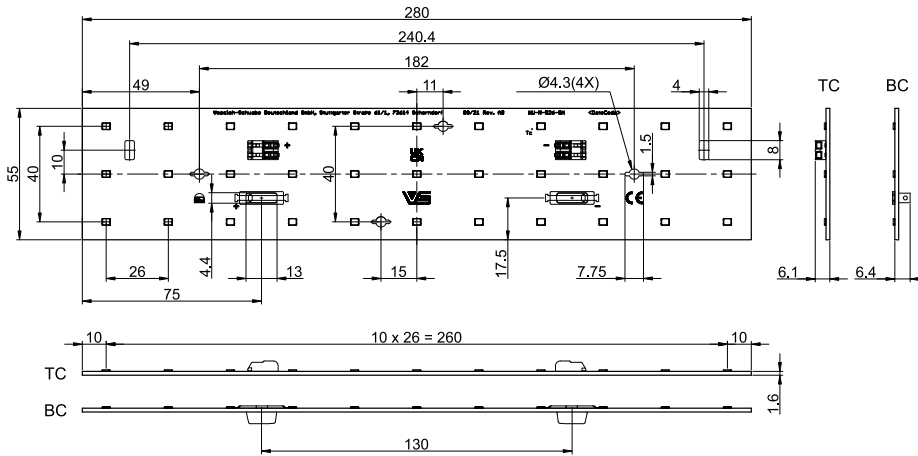
Minimum order quantity (packaging unit): 24 pcs.

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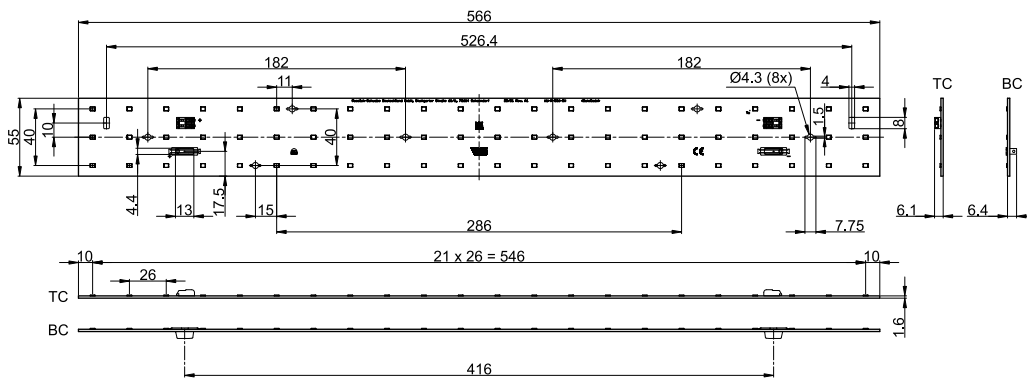
LED Line SMD W5.5 3R Comfort

Mechanical Dimensions SMD Board

WU-M-526-SH-TC/-BC



WU-M-536-SH-TC/-BC

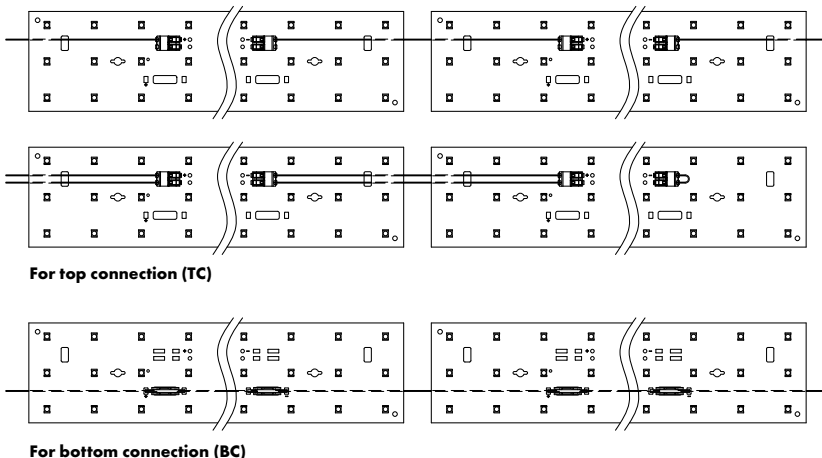


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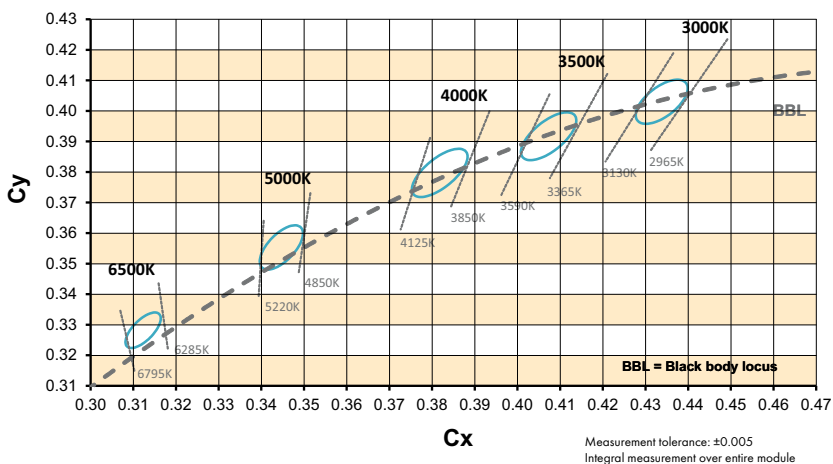
LED Line SMD W5.5 3R Comfort

Connection Examples

- The number of modules that can be connected in series depends on the available output voltage of the LED driver.
- The clearance and creepage distances are designed for working voltages up to 700 V DC (basic insulation) and 300 V DC (reinforced insulation).
- Max. diameter of screw head (M4): 8 mm
- The modules are connected in series in both wiring examples.



Bins



Linear LED Constant Current Drivers

Please visit our homepage for details for suitable LED constant current drivers: www.vossloh-schwabe.com

LED Line SMD W5.5 3R Comfort

Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- Consider safety regulations acc. EN 60598 in the luminaire design, especially when the operating LED driver is not galvanic isolated.
 - In mode of operation regard to sufficient isolation.
 - Live parts must not be touched in operation mode.
- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- Adequate anti-static electricity measures, including the use of conductive shoes, ionizers, work bench grounding, wrist straps, flooring and stools should be used.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - avoid any pressure on the light emitting surface
- Safe operation only possible by the use of external constant current sources (I_{max} . see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
- The module can be fixed with M4 screws. Fixation only with flat or cylinder head screws (M4) /countersunk screws)
Max. torque: 1.2 Nm (M4)
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- For interconnection the LED modules is equipped with push-in terminals (WAGO 2060 for top side connection and WAGO 2070 for bottom side connection).
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- The following points must be observed when connecting LED modules in parallel:
 - All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
 - Owing to differing forward biases, there can be a difference of up to 10% in brightness between modules connected in parallel.
- To ensure problem-free operation, the specified maximum temperature at the t_p point (see "Operating Life") must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.



- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognised as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Due to the manufacturing process, the PCBs of the LED assembly modules can have sharp edges and corners. Care must therefore be taken during handling and installation to avoid injury.
- For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceed the permitted touchable value.
- 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
- The photobiological safety of the LED modules must be classified into risk groups in accordance with EN 62471
Rating in accordance with IEC / TR 62778: risk group 1

CCT K	Max. operating current for risk group 1 mA	E threshold for higher operating currents to be risk group 1 lx
≤ 4000	951	1221
5000	783	1009
6500	564	597

Applied Standards

EN 62031

LED modules for general lighting – Safety specifications



EN 62471

Photobiological safety of lamps and lamp systems

Product Guarantee

- 5 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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