



# LINEAR FLEX BASIC HL

## LFBHL-SC000-24V-6D167-20



### PRODUCT DESCRIPTION

- Voltage-based, flexible LED module
- Ideal for colourful, decorative, and industrial lighting purposes
- Suitable for sign lighting or illuminated advertisements
- Available in red, green, blue, yellow
- Service life of >36.000 hours
- Double layer circuit board with optimised thermal management
- Fixed using self-adhesive 3M adhesive tape

### TECHNICAL DATA/OVERVIEW

<b>Operating voltage</b>	24 VDC
<b>Nominal capacity / m</b>	28,8 W
<b>Nominal capacity / segment</b>	1,44 W
<b>LED type</b>	SMD 5050
<b>LED spacing</b>	16,7 mm
<b>LED quantity / m</b>	120
<b>Cut size</b>	50 mm / 6 LED
<b>Dimensions (l x w x h)</b>	5000 x 20 x 2 mm
<b>Service life</b>	>36.000 h / L70
<b>Tc point temperature</b>	Tc max. +70 °C
<b>Ambient temperature</b>	-25 ... +50 °C
<b>ESD classification</b>	Testing severity level 1



### CONNECTION-RELATED INFORMATION

<b>Pad dimensions (l x w)</b>	2 x 2 mm
<b>Quantity of pads</b>	2
<b>Max. wire cross section</b>	0,75 mm <sup>2</sup>
<b>Max. assembly length [m]</b>	5



### FULFILMENT OF STANDARDS

EN 62031	IEC 62717	DIN 5510-2
EN 62471	EN 45545, -1, -3	CE / RoHS



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### SPECIFIC DATA OVERVIEW

Item no.	Light colour	LED type	Dimming	Operating voltage
9009244	Red	SMD 5050	PWM (pulse width modulation)	24 VDC
9009245	Yellow	SMD 5050	PWM (pulse width modulation)	24 VDC
9009246	Green	SMD 5050	PWM (pulse width modulation)	24 VDC
9009247	Blue	SMD 5050	PWM (pulse width modulation)	24 VDC

### PHOTOMETRIC DATA

Item no.	Light colour	Typical wavelength	Wavelength tolerance	Typical luminous flux / m	Luminous flux tolerance	CRI (Ra)	Beam angle
9009244	Red	625 nm	620 nm - 630 nm	841 lm	± 20 %	-	120°
9009245	Yellow	587 nm	584 nm - 590 nm	840 lm	± 20 %	-	120°
9009246	Green	522 nm	520 nm - 525 nm	2003 lm	± 15 %	-	120°
9009247	Blue	467 nm	465 nm - 470 nm	464 lm	± 32 %	-	120°



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### ELECTRICAL DATA

Item no.	Nominal voltage	Typical capacity / m	Typical current / m	Current tolerance
9009244	24 VDC	28,8 W	1,20 A	± 6 %
9009245	24 VDC	28,8 W	1,20 A	± 6 %
9009246	24 VDC	29,1 W	1,21 A	± 6 %
9009247	24 VDC	27,8 W	1,16 A	± 8 %

### THERMAL DATA

Item no.	Service life	Rated service life	tc rated	tp rated	Ambient temperature	Storage temperature
9009244	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009245	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009246	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C
9009247	>36.000 h	L70 B10	70 °C	65° C	-25 ... +50 °C	-20 ... +65 °C

### FURTHER INFORMATION

Item no.	Max. feed-in length	Max. bending radius	IP rating	Water protection	Fixture
9009244	5000 mm	30 mm	IP 00	—	self-adhesive
9009245	5000 mm	30 mm	IP 00	—	self-adhesive
9009246	5000 mm	30 mm	IP 00	—	self-adhesive
9009247	5000 mm	30 mm	IP 00	—	self-adhesive

### PRODUCT KEY DESCRIPTION

LFBML	SW800	24V	5S100	20
category	photometrical Code	voltage- / current-based	layout code	protection class



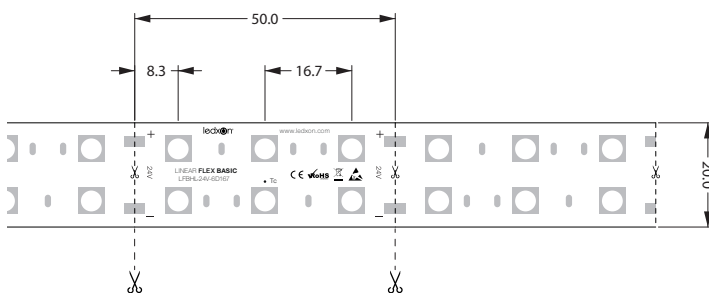
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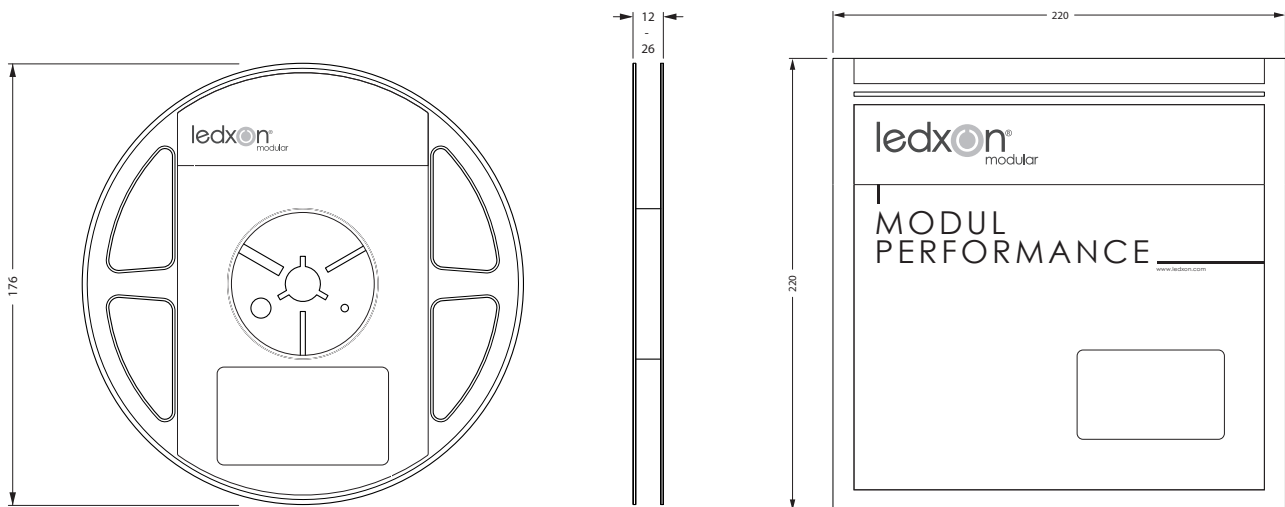
### DIMENSIONS

Item no.	Length	Width	Height	Cut size	LED / cut size	LED / m	LED spacing
9009244	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm
9009245	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm
9009246	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm
9009247	5000 mm	20 mm	2 mm	50 mm	6 pcs.	120 pcs.	16,7 mm



### ORDER INFORMATION

Item no.	Item description	Packaging unit (PU)	Ordering unit (OU)	Weight gross / PU	Dimensions / PU length x width x height
9009244	LFBHL-SC625-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm
9009245	LFBHL-SC589-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm
9009246	LFBHL-SC525-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm
9009247	LFBHL-SC470-24V-6D167-20	1 roll = 5 m	1 metre	240 g	240 mm x 220 mm x 28 mm





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### INFORMATION ON SERVICE LIFE

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The maximum  $T_c/T_p$  temperature is a crucial factor for the service life information relating to ledxon LED modules.

If the permitted limits are exceeded, this shall significantly reduce the service life and may even result in the destruction of the modules.

The expected service life of >36,000 hours represents a purely statistical parameter. (L70/B10 at  $T_p = 65^\circ\text{C}$ )

For optimum operation of ledxon LED modules, we recommend installation only on rigid and stationary surfaces.

The heatsink must provide for sufficient heat dissipation such that the maximum permitted temperature is not exceeded at the  $T_c$  point.

The temperatures at the  $T_c$  point must be measured in accordance with the specifications stated in EN 60598-1.

### INFORMATION ON PHOTOMETRIC AND ELECTRICAL DATA

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Capacity coordinates and tolerances in accordance with CIE 1931

Measurement environment temperature:  $t_a = 25^\circ$

Measurement tolerance for colour coordinates (x / y) +/- 0.005

Tolerance range of photometric and electrical data +/-10%

The maximum permitted operating voltage must not be exceeded. Otherwise a reduction in service life or a failure may occur.

All ledxon LED modules can be dimmed using PWM (pulse width modulation).

### SAFETY AND INSTALLATION INFORMATION

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When installing flexible LED modules, the maximum permitted bend radius must not be fallen short of.

Bending these modules laterally results in damage to the printed circuit board.

In order to ensure optimum adherence for the double-sided 3M adhesive tape, ledxon recommends installing the modules only on dry, clean surfaces that are free of grease, oil and silicone. ledxon does not accept any liability for the correct adhesion of the LED modules.

When installing ledxon LED modules, standard ESD safety precautions must be complied with.

ledxon flexible LED modules are delivered without cabling. These modules are electrified by soldering leads onto

the soldering pads provided. The maximum permitted cable cross-section must be observed in this process. Here, the soldering

temperature of  $270^\circ\text{C}$  for a maximum of 10 seconds must not be exceeded. ledxon modules that are equipped with LED types SMD

5050 and 5630 are subject to photobiological risk group 1.