

## LED SPOTS

### FLATLINE

CONSTANT-VOLTAGE  
AND CONSTANT-CURRENT



## CONVENIENT LED TECHNOLOGY

As the perfect replacement for halogen spots, these LEDSpots are ideal for use in furniture and shelves.

The constant-voltage supply offers an easy and simple connection system. The current-driven version offers the highest performance. FlatLine LEDSpots have an homogeneous light distribution, and have a very low built-in height with only 14 mm.

### Complete LEDSpots with frame

- Replacement for Halogen lamps 20–35 W
- Flat LED spot with frame based on SMD modules
- For built-in into cooker hoods and wooden shelves

### Typical applications for LEDSpots

- Replacement of residential spots with G4 lamps
- Furniture lighting
- Marking paths, stairs, etc.
- Retail lighting

## LEDSpot FlatLine 24 V DC

**Complete LEDSpot equipped with heat sink, leads and metal frame**

### Technical notes

Constant voltage: 24 V DC

Metal frame, round

For cut-out: Ø 56 mm

LEDSpot with 6 LEDs (LCH043)

Beam angle: 60°

With plug

Snap-in clips or springs for easy installation

Degree of protection: IP20

(front part: IP44)

Allowed ambient temperature:

0 to 35 °C

Allowed storage temperature: -30 to 60 °C

Lumen maintenance L70/B50:

50,000 hrs. (T<sub>c</sub> = 70 °C)

CRI: 80

Weight: 40 g

Packaging unit: 45 pcs.

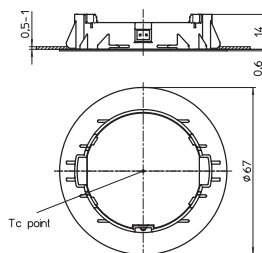
### Cable set

Length: 250 mm

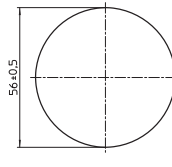
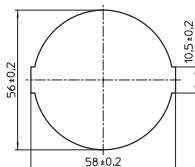
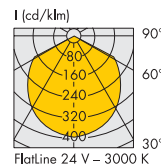
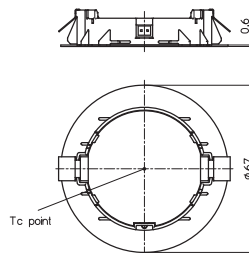
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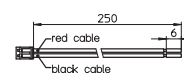
### Plastic snap-in clips



### Metal snap-in springs



### Cable set



Type	Description	Ref. No.		Colour	Correlated colour temperature K	Max. power consumption W	Typ. luminous flux* lm	Typ. CRI R <sub>a</sub>	light intensity at 24 V Candela	Energy efficiency at 24 V
		with metal clips	with plastic clips							
<b>LCH-043 – 6 LEDs</b>										
LCH043	Flat 2835 3000K bin min P9	on request	<b>564252</b>	warm white	2870...3200	1.6	140	80	55	A++
LCH043	Flat 2835 4000K bin min P9	on request	<b>564253</b>	neutral white	3850...4250	1.6	140	80	55	A++

Emission data at T<sub>j</sub> = 80 °C | \* Measurement tolerance of luminous flux: ± 5% | Further colour temperatures on request

### LED constant-voltage converters 24 V

You will find more information about our LED drivers on our website: [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)

Capacity range 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	Dimensions LxWxH mm
<b>IP20</b>								
20	220–240	0–0.85	<b>186129</b>	ComfortLine	100.000	65	Screw terminals	182x42x18
30	220–240	0–1.25	<b>186624</b>	EasyLine	50.000	70	Screw terminals	153x41.4x32
60	220–240	0–2.5	<b>186625</b>	EasyLine	50.000	75	Screw terminals	180x52x30
75	220–240	0–3.125	<b>186626</b>	EasyLine	50.000	80	Screw terminals	180x52x30
120	220–240	0–5	<b>186627</b>	EasyLine	50.000	80	Screw terminals	300x40x30
<b>IP67</b>								
30	220–240	0–1.25	<b>186633</b>	EasyLine	50.000	70	Preassembled leads	131x42x34
75	220–240	0–3.125	<b>186432</b>	EasyLine	50.000	70	Preassembled leads	155x49x32
100	220–240	0–4.2	<b>186433</b>	EasyLine	50.000	70	Preassembled leads	206x68.6x37
150	220–240	0–6.25	<b>186434</b>	EasyLine	50.000	70	Preassembled leads	206x68.6x37

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

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

## LEDSpot FlatLine 12 V DC

**Complete LEDSpot equipped with heat sink, leads and metal frame**

### Technical notes

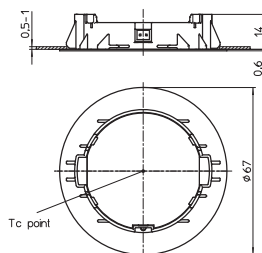
Constant voltage: 12 V DC  
 Metal frame, round  
 For cut-out: Ø 56 mm  
 LEDSpot with 6 LEDs (LCH028)  
 Beam angle: 60°  
 With plug  
 Snap-in clips or springs for easy installation  
 Degree of protection: IP20  
 (front part: IP44)  
 Allowed ambient temperature:  
 0 to 35 °C  
 Allowed storage temperature: -30 to 60 °C  
 Lumen maintenance L70/B50:  
 50,000 hrs. (Tc = 70 °C)  
 CRI: 80  
 Weight: 40 g  
 Packaging unit: 45 pcs.

### Cable set

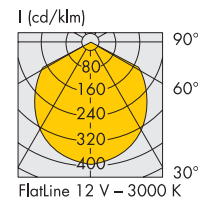
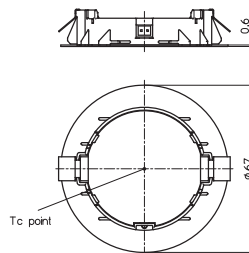
Length: 250 mm  
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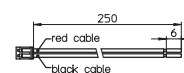
**Plastic snap-in clips**



**Metal snap-in springs**



**Cable set**



Type	Description	Ref. No.		Colour	Correlated colour temperature K	Max. power consumption W	Typ. luminous flux* lm	Typ. CRI Ra	light intensity at 24 V Candela	Energy efficiency at 24 V
		with metal clips	with plastic clips							
<b>LCH-028 – 6 LEDs</b>										
LCH028	Flat 2835 3000K bin min P9	<b>561588</b>	<b>561589</b>	warm white	2870...3200	1,4	110	80	45	A++
LCH028	Flat 2835 4000K bin min P9	<b>561590</b>	<b>561591</b>	neutral white	3850...4250	1,4	110	80	45	A++

Emission data at T<sub>l</sub> = 80 °C | \* Measurement tolerance of luminous flux: ± 5% | Further colour temperatures on request

### LED constant-voltage converters 12 V

You will find more information about our LED drivers on our website: [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)

Capacity range 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	Dimensions LxWxH mm
<b>IP20</b>								
6	220–240	0–0.5	<b>186412</b>	EasyLine	50.000	55	Preassembled leads	81.6x42,5x23
12	220–240	0–1	<b>186204</b>	ComfortLine	100.000	65	Screw terminals	103.5x36x22
20	220–240	0–1.68	<b>186620</b>	EasyLine	50.000	65	Screw terminals	123x45x19
60	220–240	0–5	<b>186621</b>	EasyLine	50.000	70 / 80	Screw terminals	180x52x30
75	220–240	0–6.25	<b>186622</b>	EasyLine	50.000	75	Screw terminals	180x52x30
100	220–240	0–8.4	<b>186623</b>	EasyLine	50.000	70 / 80	Screw terminals	300x40x30
<b>IP67</b>								
30	220–240	0–2.5	<b>186628</b>	EasyLine	50.000	70	Preassembled leads	131x42x34
75	220–240	0–6.25	<b>186629</b>	EasyLine	50.000	70	Preassembled leads	155x50x32
100	220–240	0–8.34	<b>186630</b>	EasyLine	50.000	70	Preassembled leads	206x68.6x37
150	220–240	0–12.5	<b>186631</b>	EasyLine	50.000	70	Preassembled leads	206x68.6x37

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

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## LEDSpot FlatLine 700 mA

**Complete LEDSpot equipped with heat sink, leads and metal frame**

### Technical notes

Constant current: max. 700 mA

Metal frame, round

For cut-out: Ø 56 mm

LEDSpot with 5 LEDs (LCH027)

Beam angle: 60°

With plug

Snap-in clips or springs for easy installation

Degree of protection: IP20

(front part: IP44)

Allowed ambient temperature:

0 to 35 °C

Allowed storage temperature: -30 to 60 °C

Lumen maintenance L70/B50:

50,000 hrs. (t<sub>c</sub> = 70 °C)

CRI: 80

Weight: 40 g

Packaging unit: 45 pcs.

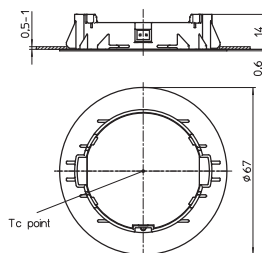
### Cable set

Length: 250 mm

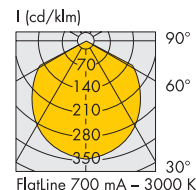
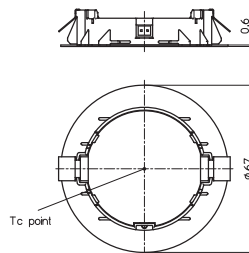
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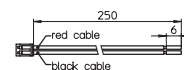
### Plastic snap-in clips



### Metal snap-in springs



### Cable set



Type	Description	Ref. No.		Colour	Correlated colour temperature (K)	Typ. luminous flux* (lm), typ. voltage* (U <sub>yp.</sub> ) and typ. power consumption* (P <sub>el</sub> ) at 700 mA	Typ. CRI R <sub>a</sub>	Light intensity at max. current Candela	Energy efficiency at max. current
		with metal clips	with plastic clips						
<b>LCH-027 - 5 LEDs</b>						P <sub>el</sub> = 2,2 W; U <sub>yp.</sub> = 3,1 V			
LCH027	Flat 757D 3000K bin min P9	<b>561580</b>	<b>561581</b>	warm white	3000	260	80	90	A++
LCH027	Flat 757D 4000K bin min P9	<b>561582</b>	<b>561583</b>	neutral white	4000	270	80	95	A++

Emission data at t<sub>j</sub> = 80 °C | \* Measurement tolerance of luminous flux, voltage, power consumption: ± 5% | Further colour temperatures on request

### LED Driver 700 mA

You will find more information about our LED drivers on our website: [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)

Capacity range W	Output current DC mA	Output voltage DC V	Ref. No.	Version	Dimming	Max. service life time hrs. at 60 °C	Connection	Dimensions LxWxH mm
<b>IP20</b>								
17	700	2-25	<b>186426</b>	ComfortLine	—	100,000	Screw terminals	128x37x28

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

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## Surface Kit with Mounted LEDSpot

To use the surface kit for the LEDSpot FlatLine only the variant with plastic snap-in clips is required.

Metal frame to use LEDSpot as surface mounting spots

Two single pole terminals for electrical connection inside the kit (frame + spot)

Fixation by self tapping screws

Unit: 90 pcs.

**Ref. No.: 554843** Frame colour: silver



## LEDSpot Sets FlatLine

On request, you will receive complete sets that contain the desired number of LEDSpots, a respective number of cable sets and the required LED drivers. Several examples of such sets can be seen to the right.

Contact us – we will gladly support you when it comes to dimensioning your lighting application.



Ref. No.	Sets includes LEDSpot	Frame*	Driver	Lead set	
<b>FlatLine Set – Current-driven</b>					
<b>561733</b>	2 pieces FlatLine 700 mA, 3000 K, 60°, metal snap-in springs	round	silver	186348	inclusive
<b>FlatLine Set – Voltage-driven</b>					
<b>565227</b>	2 pieces FlatLine 12 V, 3000 K, 60°, metal snap-in springs	round	silver	186620	inclusive

\* Square shape or other colours on request

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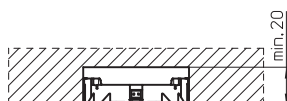
## LEDSpot FlatLine – Installation Instruction

### General safety information

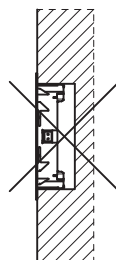
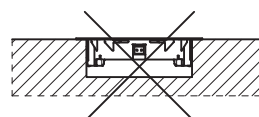
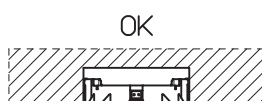
- VS product may only be installed and commissioned by authorised and fully qualified staff.
- These instructions must be carefully read before installing and commissioning the system, as this is the only way to ensure safe and correct handling.
- An external converter in 12 V DC or 24 V DC or an external constant-current driver of max. 700 mA is required.
- Before any work is carried out on the equipment, it must be disconnected from the mains.
- All valid safety and accident-prevention regulations must be observed.
- The products should never be inexpertly opened. Repairs may only be undertaken by the manufacturer.
- Dimming: The dimming characteristics of the installed converter have to be observed.
- The photo biological safety of the LED modules is classified into risk groups in accordance with EN 62471: 2008 and IEC TR 62778: risk group 1.

See drawing and cut out for each product on previous pages

### Built-in



### Correct position



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