

## DOWNLIGHT FIXTURES K L



### DOWNLIGHT PRIME K L WITH SEPARATE LED DRIVER

#### LED Recessed Mounted Downlight

Use of modern LED technology in conventional downlight applications provides an optimal light distribution and extended life time all at an affordable price.

VS LED downlights with separate LED driver are fully compatible with existing conventional downlight infrastructure, and are the perfect choice for both new and replacement markets.

#### ■ PRIME K L WITH SEPARATE LED DRIVER

- COB technology
- High efficiency of up to 135 lm/W
- Slim design for easy installation in low false ceiling
- High colour rendering index CRI:  $\geq 85$
- Enclosed LED driver



■ **LONG SERVICE LIFE:**  
UP TO 100,000 hrs. (L80/B10)

■ **WITH SEPARATE DRIVER**

■ **UP TO 135 LM/W**

■ **HIGH QUALITY COB TECHNOLOGY**

■ **5 YEARS GUARANTEE**  
more information under [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)

■ **MADE IN GERMANY**



## Prime K L – 4" 17 W

**Indoor LED recessed mounted downlight with aluminium reflector**  
**With enclosed separate LED driver for direct connection to mains voltage**

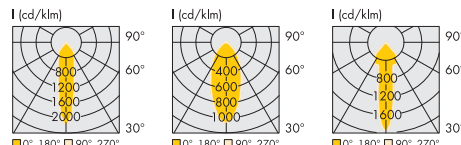
Mains voltage: 220–240 V ±10%, 50–60 Hz  
 Power factor: > 0.95%  
 Flicker: < 1%, Ripple: < 1%  
 Reflector: Ø 118 mm, aluminium  
 Material: aluminium diecast  
 Powder coating: epoxid  
 Flange colour: white (RAL 9003)  
 Front part: glass  
 Degree of protection: IP44 (casing: IP20, front part: IP44)  
 Allowed operating temperature: 0 to 30 °C  
 Allowed storage temperature: –30 to 60 °C  
 Typ. colour accuracy initially: 2 SDCM

### Safety features of LED driver

Protection against transient main peaks up to 1 kV (between L and N)  
 Electronic short-circuit protection  
 Overload and overtemperature protection  
 Protection against "no load" operation  
 Degree of protection: IP20, Protection class II, SELV

### Applied Standards

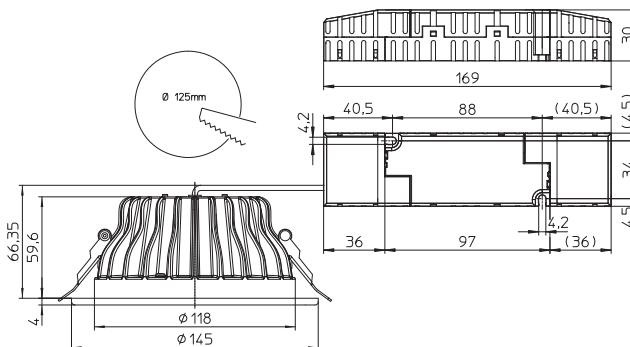
- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008
- EN 62493:2010
- EN 55015:2013
- EN 61000-3-2:2014
- EN 61000-3-3:2013
- EN 61547:2009



Distance (m)	Clear (lx)	Frost (lx)	Half frost (lx)
1 m	1945	1065	2170
2 m	485	265	540
3 m	215	115	240

20-C\*      45-D\*      25-SD\*

\* E<sub>true</sub> = Φ<sub>data sheet</sub> · E<sub>nominal</sub> : 1000  
 E<sub>true</sub> for example 566418 with 3 m distance  
 215 lx · 2240 lm : 1000 = 481 lx



Typ	Ref. No.	Colour	Correlated Colour temperature K	Power consumption W	Typ. luminous flux* (lm) and efficiency (lm/W) lm lm/W	Beam angle °	Typ. CRI R <sub>a</sub>	UGR	System output W
<b>Clear glass</b>									
DL-PRIME-K-4-L17-830-20-C	<b>566417</b>	warm white	3000	17	2200 129	20	85	24	20
DL-PRIME-K-4-L17-840-20-C	<b>566418</b>	neutral white	4000	17	2272 133	20	85	24	20
DL-PRIME-K-4-L17-850-20-C	<b>566419</b>	cool white	5000	17	2295 134	20	85	24	20
<b>Frost glass</b>									
DL-PRIME-K-4-L17-830-45-D	<b>566420</b>	warm white	3000	17	1999 117	45	85	26	20
DL-PRIME-K-4-L17-840-45-D	<b>566421</b>	neutral white	4000	17	2064 121	45	85	26	20
DL-PRIME-K-4-L17-850-45-D	<b>566422</b>	cool white	5000	17	2086 122	45	85	26	20
<b>Half frost glass</b>									
DL-PRIME-K-4-L17-830-25-SD	<b>566423</b>	warm white	3000	17	2129 124	25	85	23	20
DL-PRIME-K-4-L17-840-25-SD	<b>566424</b>	neutral white	4000	17	2198 129	25	85	23	20
DL-PRIME-K-4-L17-850-25-SD	<b>566425</b>	cool white	5000	17	2221 130	25	85	23	20

\* Production tolerance of luminous flux, voltage and power consumption: ±10%

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



## Prime K L – 6" 25 W

**Indoor LED recessed mounted downlight with aluminium reflector**  
**With enclosed separate LED driver for direct connection to mains voltage**

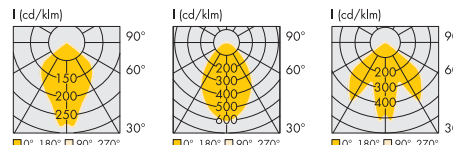
Mains voltage: 220–240 V ±10%, 50–60 Hz  
 Power factor: > 0.95%  
 Flicker: < 1%, Ripple: < 1%  
 Reflector: Ø 206 mm, aluminium  
 Material: aluminium diecast  
 Powder coating: epoxid  
 Flange colour: white (RAL 9003)  
 Front part: glass  
 Degree of protection: IP44 (casing: IP20, front part: IP44)  
 Allowed operating temperature: 0 to 30 °C  
 Allowed storage temperature: –30 to 60 °C  
 Typ. colour accuracy initially: 2 SDCM

### Safety features of LED driver

Protection against transient main peaks up to 1 kV (between L and N)  
 Electronic short-circuit protection  
 Overload and overtemperature protection  
 Protection against "no load" operation  
 Degree of protection: IP20, Protection class II, SELV

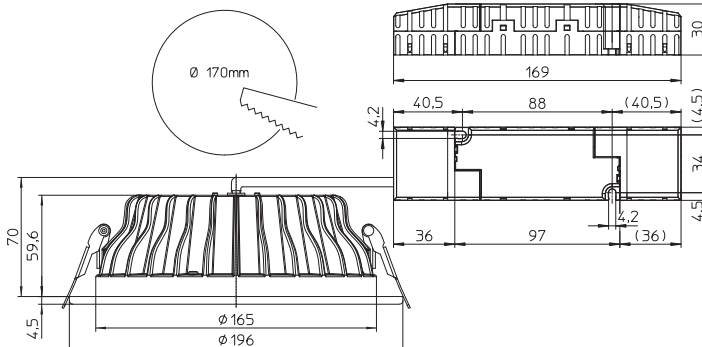
### Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008
- EN 62493:2010
- EN 55015:2013
- EN 61000-3-2:2014
- EN 61000-3-3:2013
- EN 61547:2009



Light intensity (lux)	75-C*	75-D*	100-SD*
1 m	51	610	485
2 m	3.01	150	120
3 m	4.52	65	50

\* Etrue = Φdata sheet · Enominal : 1000  
 Etrue for example 566427 with 3 m distance  
 75 lx · 3010 lm : 1000 = 226 lx



Typ	Ref. No.	Colour	Correlated Colour temperature K	Power consumption W	Typ. luminous flux*(lm) and efficiency (lm/W) lm lm/W	Beam angle °	Typ. CRI Ra	UGR	System output W
<b>Clear glass</b>									
DL-PRIME-K-6-L25-830-75-C	<b>566426</b>	warm white	3000	25	3053 123	75	85	25	28
DL-PRIME-K-6-L25-840-75-C	<b>566427</b>	neutral white	4000	25	3152 127	75	85	25	28
DL-PRIME-K-6-L25-850-75-C	<b>566428</b>	cool white	5000	25	3181 128	75	85	25	28
<b>Frost glass</b>									
DL-PRIME-K-6-L25-830-75-D	<b>566429</b>	warm white	3000	25	2654 107	75	85	26	28
DL-PRIME-K-6-L25-840-75-D	<b>566430</b>	neutral white	4000	25	2741 111	75	85	26	28
DL-PRIME-K-6-L25-850-75-D	<b>566431</b>	cool white	5000	25	2766 112	75	85	26	28
<b>Half frost glass</b>									
DL-PRIME-K-6-L25-830-100-SD	<b>566432</b>	warm white	3000	25	2882 116	102	85	26	28
DL-PRIME-K-6-L25-840-100-SD	<b>566433</b>	neutral white	4000	25	2975 120	102	85	26	28
DL-PRIME-K-6-L25-850-100-SD	<b>566434</b>	cool white	5000	25	3003 121	102	85	26	28

\* Production tolerance of luminous flux, voltage and power consumption: ±10%

Die Werte in diesem Datenblatt können sich aufgrund technischer Innovationen verändern und werden ohne gesonderte Benachrichtigung vorgenommen.

## Prime K L – 8" 31 W

**Indoor LED recessed mounted downlight with aluminium reflector**  
**With enclosed separate LED driver for direct connection to mains voltage**

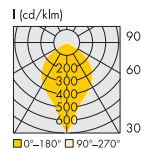
Mains voltage: 220–240 V ±10%, 50–60 Hz  
 Power factor: > 0.95%  
 Flicker: < 1%, Ripple: < 1%  
 Reflector: Ø 206 mm, aluminium  
 Material: aluminium diecast  
 Powder coating: epoxid  
 Flange colour: white (RAL 9003)  
 Front part: glass  
 Degree of protection: IP44 (casing: IP20, front part: IP44)  
 Allowed operating temperature: 0 to 30 °C  
 Allowed storage temperature: –30 to 60 °C  
 Typ. colour accuracy initially: 2 SDCM

### Safety features of LED driver

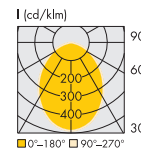
Protection against transient main peaks up to 1 kV (between L and N)  
 Electronic short-circuit protection  
 Overload and overtemperature protection  
 Protection against "no load" operation  
 Degree of protection: IP20, Protection class II, SELV

### Applied Standards

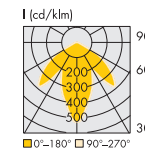
- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008
- EN 62493:2010
- EN 55015:2013
- EN 61000-3-2:2014
- EN 61000-3-3:2013
- EN 61547:2009



Light intensity (lux)	1 m	2 m	3 m
lx	1.45	2.91	4.36
lx	685	170	75

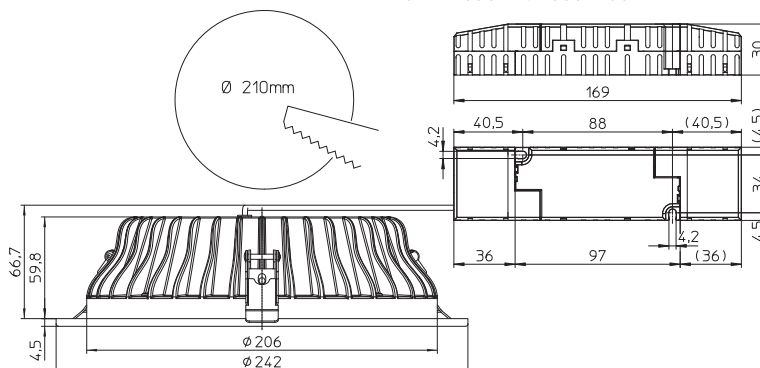


Light intensity (lux)	1 m	2 m	3 m
lx	1.99	3.84	5.75
lx	485	120	50



Light intensity (lux)	1 m	2 m	3 m
lx	2.39	5.18	7.76
lx	530	130	55

\*  $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$   
 $E_{true}$  for example 566436 with 3 m distance  
 $75\ lx \cdot 4050\ lm : 1000 = 304\ lx$



Typ	Ref. No.	Colour	Correlated Colour temperature K	Power consumption W	Typ. luminous flux* (lm) and efficiency (lm/W) lm lm/W	Beam angle °	Typ. CRI R <sub>a</sub>	UGR	System output W
<b>Clear glass</b>									
DL-PRIME-K-8-L31-830-70-C	<b>566435</b>	warm white	3000	31	3936 127	70	85	25	34
DL-PRIME-K-8-L31-840-70-C	<b>566436</b>	neutral white	4000	31	4066 132	70	85	25	34
DL-PRIME-K-8-L31-850-70-C	<b>566437</b>	cool white	5000	31	4106 133	70	85	25	34
<b>Frost glass</b>									
DL-PRIME-K-8-L31-830-90-D	<b>571124</b>	warm white	3000	31	3303 107	88	85	27	34
DL-PRIME-K-8-L31-840-90-D	<b>571128</b>	neutral white	4000	31	3424 111	88	85	27	34
DL-PRIME-K-8-L31-850-90-D	<b>571129</b>	cool white	5000	31	3454 112	88	85	27	34
<b>Half frost glass</b>									
DL-PRIME-K-8-L31-830-105-SD	<b>571148</b>	warm white	3000	31	3790 123	105	85	27	34
DL-PRIME-K-8-L31-840-105-SD	<b>571149</b>	neutral white	4000	31	3916 127	105	85	27	34
DL-PRIME-K-8-L31-850-105-SD	<b>571163</b>	cool white	5000	31	3951 128	105	85	27	34

\* Production tolerance of luminous flux, voltage and power consumption: ±10%

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## Prime K L

### Comparison with Compact Fluorescent Lamps



Type	LED	CFL
Service lifetime	100,000 hrs.	10,000 hrs.
Prime K L – 4" + driver	20 W	2 x 13 W
Prime K L – 6" + driver	28 W	2 x 18 W
Prime K L – 8" + driver	34 W	2 x 26 W

### Safety and Installation Instructions

The following instructions must be observed. Non-observance can result in personal injury and damage to property or can destroy both luminaire and/or control gear. In such cases, the manufacturer's liability and any entitlement to warranty claims will be invalidated.


#### General Instructions

- Please read these instructions prior to installation/commissioning and keep them safe for future use.
- Any modification carried out on the luminaire itself will invalidate the manufacturer's liability.
- The luminaire contains integrated and non-exchangeable LED light sources.
- Care must be taken to ensure the luminaire is operated only using the supplied Vossloh-Schwabe control gear and accessories or using an alternative brand of approved control gear.
- Given functional problems, please contact your Vossloh-Schwabe representative.


#### Installation and Operating Instructions


- Depending on the site of operation, the degree of protection will have to be observed during installation.
- Installation of this luminaire may be undertaken only by authorised and suitably trained staff in accordance with any country-specific regulations.
- Installation must be carried out only after disconnecting the device from mains voltage, i.e. in a voltage-free state.
- For trouble-free operation, it is important to ensure that the permissible ambient temperature range is not exceeded.
- Only ever operate the luminaire with all protective covers in place.
- Should the power supply cable be damaged, please scrap the luminaire and/or contact your VS representative.
- Please ensure that the correct supply voltage is applied by checking it against the voltage requirements of the luminaire and the driver.
- Connecting luminaires (LED modules) to supply units that are already connected to the mains can result in long-term damage.
- Touchable luminaire parts can reach high temperatures (risk of burning)!
- Highly flammable materials (e.g. cladding or insulation material) must be kept away from the luminaire.


### Safety Symbols


 Specifies the minimum clearance to flammable materials in the direction of radiation.

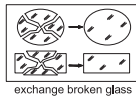
 Indoor operation

 Please ensure that the way the luminaire is positioned means there is no reason to expect anyone could look into it for a longer period of time with less clearance than stated in the datasheet

 Caution: risk of electric shock

 **ESD Schutzmaßnahmen einhalten / Comply with ESD protection measures** Caution: components with a risk of electrostatic charging

 Luminaire/voltage supply unit must not be covered with any thermally insulating materials or similar.

 Any cover with damage must be replaced  
exchange broken glass

### Cleaning Instructions

- Depending on the conditions on site, the luminaire must be cleaned on a regular basis.
- Prior to cleaning the luminaire, please ensure it is disconnected from the mains and is given time to cool down.
- Never use any flammable, abrasive, harsh or corrosive cleaning liquids.
- Once it has cooled down, the luminaire can be cleaned with a damp cloth.
- Let the luminaire dry fully before switching it back on.

Answers to technical questions can be found on our website at [www.vossloh-schwabe.com](http://www.vossloh-schwabe.com) or ask your Vossloh-Schwabe representative.

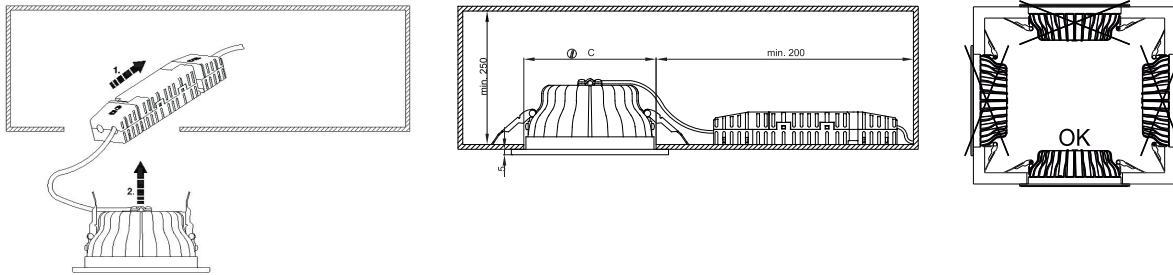
### Product guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage ([www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)). We will be happy to send you these conditions upon request.

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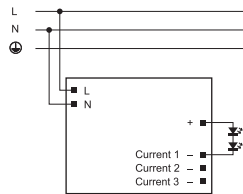
## Downlights Prime K L – Safety and Assembly Information



### Safety and assembly information for LED drivers

#### Electrical installation

- Connection terminals: Push-in terminals for rigid or flexible conductors with a section of 0.2–1.5 mm<sup>2</sup>
- Stripped length: 8.5–10 mm
- Wiring: The mains conductor within the luminaire must be kept short (to reduce the induction of interference).  
Mains and lamp conductors must be kept separate and if possible should not be laid in parallel to one another.  
Max. secondary side lead length: 0.8 m
- Polarity: Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Through-wiring: Is not allowed.
- Parallel wiring: Parallel connection of LED loads is not allowed.
- Wiring diagram:



- No. of LED drivers  
The maximum number of VS LED drivers applies to cases where the devices are switched on simultaneously. Specifications apply to single-pole fuses. The number of permissible drivers must be reduced by 20% for multi-pole fuses. The considered circuit impedance equals 400 mΩ (approx. 20 m [2.5 mm<sup>2</sup>] of conductor from the power supply to the distributor and a further 15 m to the luminaire).

Type	Ref. No.	Automatic cut-out type and possible no. of VS drivers pcs.					
Automatic cut-out type		B 10 A	B 13 A	B 16 A	C 10 A	C 13 A	C 16 A
ECXe 500.242	<b>186651</b>	14	18	23	24	31	38
ECXe 700.243	<b>186652</b>	14	18	22	23	31	38
ECXe 900.244	<b>186653</b>	13	18	22	23	30	37

- To limit capacitive inrush currents the current carrying capacity of each circuit breaker (fuse) can be increased by a factor of 2.5 with the help of our ESB-6K (Ref. No.: 149820) or ESB-16HS (Ref. No.: 149821) inrush current limiters.

#### Selection of automatic cut-outs for VS LED drivers

- Dimensioning automatic cut-outs  
High transient currents occur when an LED driver is switched on because the capacitors have to load. Ignition of LED modules occurs almost simultaneously. This also causes a simultaneous high demand for power. These high currents when the system is switched on put a strain on the automatic conductor cut-outs, which must be selected and dimensioned to suit.
- Release reaction  
The release reaction of the automatic conductor cut-outs comply with VDE 0641, part 11, for B, C characteristics. The values shown in the following tables are for guidance purposes only and are subject to system-dependent change.

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