

# LED DOWNLIGHTS

HIGH QUALITY  
COB TECHNOLOGY



## LED-DOWNLIGHTS

### 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 are fully compatible with existing conventional downlight infrastructure, and are the perfect choice for both new and replacement markets.

#### ■ PRIME K L

- COB technology
- High efficiency of up to 140 lm/W
- Slim design for easy installation in low false ceiling
- High colour rendering index CRI:  $\geq 85$



■ **LONG SERVICE LIFE TIME: UP TO 100,000 hrs.**

■ **UP TO 140 L/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"

### Indoor LED recessed mounted downlight with aluminium reflector

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)

Use of external LED constant current driver

Operating current range: up to 700 mA

Voltage range: 30–40 V DC

Colour accuracy initially: 2 SDCM

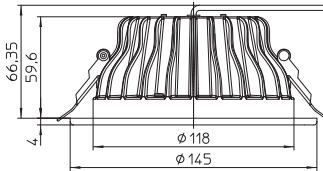
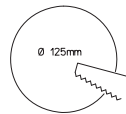
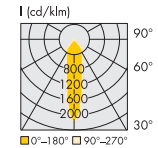
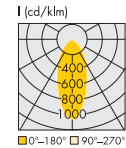
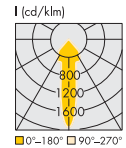
Operating life at  $t_a = 25^\circ\text{C}$



**IP44**  
(front)



**MADE IN GERMANY**



Lumen maintenance	350 mA in hrs.	500 mA in hrs.	700 mA in hrs.
L90/B10	95,000	91,000	86,000
L80/B10	> 100,000	> 100,000	> 100,000
L70/B10	> 100,000	> 100,000	> 100,000

### Electrical Characteristics

Type	Typ. voltage DC (V)			Typ. power consumption (W)		
	350 mA	500 mA	700 mA	350 mA	500 mA	700 mA
All types	33.6	34.6	37.2	11.8	17.3	25

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

### Maximum Ratings

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

Type	Max. operating current mA	Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	
All types	700	0	+30	-40	+105	1200

### Optical Characteristics

Type	Ref. No.	Colour	Correlated colour temperature K	Typ. luminous flux* (lm) and efficiency* (lm/W) at						Beam angle $^\circ$	Typ. CRI $R_a$	UGR**
				350 mA		500 mA		700 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
<b>Clear glass</b>												
DL-PRIME-K-4L-830-20-C	<b>566391</b>	warm white	3000	1570	133	2170	125	2915	117	20	85	24.3
DL-PRIME-K-4L-840-20-C	<b>566392</b>	neutral white	4000	1620	137	2240	129	3010	120	20	85	24.4
DL-PRIME-K-4L-850-20-C	<b>566393</b>	cool white	5000	1640	139	2265	131	3040	122	20	85	24.4
<b>Frost glass</b>												
DL-PRIME-K-4L-830-45-D	<b>566394</b>	warm white	3000	1315	111	1820	105	2445	98	45	85	25.6
DL-PRIME-K-4L-840-45-D	<b>566395</b>	neutral white	4000	1360	115	1880	109	2525	101	45	85	25.7
DL-PRIME-K-4L-850-45-D	<b>566396</b>	cool white	5000	1375	117	1900	110	2550	102	45	85	25.8
<b>Half frost glass</b>												
DL-PRIME-K-4L-830-25-SD	<b>566397</b>	warm white	3000	1510	128	2090	121	2805	112	25	85	22.6
DL-PRIME-K-4L-840-25-SD	<b>566398</b>	neutral white	4000	1560	132	2160	125	2900	116	25	85	22.7
DL-PRIME-K-4L-850-25-SD	<b>566399</b>	cool white	5000	1575	133	2180	126	2925	117	25	85	22.7

\* Production tolerance of luminous flux and efficiency:  $\pm 10\%$  | \*\* at operating current of 500 mA

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"

### Indoor LED recessed mounted downlight with aluminium reflector

Reflector: Ø 165 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)

Use of external LED constant current driver

Operating current range: up to 700 mA

Voltage range: 30–40 V DC

Colour accuracy initially: 2 SDCM

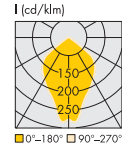
Operating life at  $t_a = 25^\circ\text{C}$



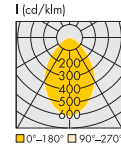
**IP44**  
(front)



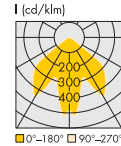
**MADE IN GERMANY**



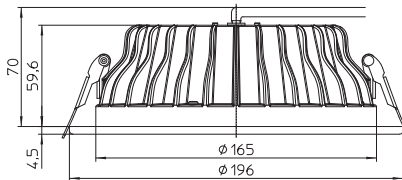
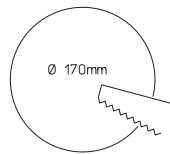
Clear



Frost



Half frost



Lumen maintenance	350 mA in hrs.	500 mA in hrs.	700 mA in hrs.
L90/B10	95,000	91,000	86,000
L80/B10	> 100,000	> 100,000	> 100,000
L70/B10	> 100,000	> 100,000	> 100,000

### Electrical Characteristics

Type	Typ. voltage DC (V)			Typ. power consumption (W)		
	350 mA	500 mA	700 mA	350 mA	500 mA	700 mA
All types	33.6	34.6	37.2	11.8	17.3	25

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

### Maximum Ratings

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

Type	Max. operating current mA	Ambient temperature range °C min.   °C max.		Storage temperature range °C min.   °C max.		Max. allowed repetitive peak current mA
		0	+30	-40	+105	
All types	700	0	+30	-40	+105	1200

### Optical Characteristics

Type	Ref. No.	Colour	Correlated colour temperature K	Typ. luminous flux* (lm) and efficiency* (lm/W) at						Beam angle °	Typ. CRI $R_a$	UGR**
				350 mA		500 mA		700 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
<b>Clear glass</b>												
DL-PRIME-K-6-L-830-75-C	<b>566400</b>	warm white	3000	1570	133	2170	125	2915	117	75	85	24.8
DL-PRIME-K-6-L-840-75-C	<b>566401</b>	neutral white	4000	1620	137	2240	129	3010	120	75	85	25.0
DL-PRIME-K-6-L-850-75-C	<b>566402</b>	cool white	5000	1640	139	2265	131	3040	122	75	85	25.0
<b>Frost glass</b>												
DL-PRIME-K-6-L-830-75-D	<b>566403</b>	warm white	3000	1315	111	1820	105	2445	98	75	85	26.1
DL-PRIME-K-6-L-840-75-D	<b>566404</b>	neutral white	4000	1360	115	1880	109	2525	101	75	85	26.2
DL-PRIME-K-6-L-850-75-D	<b>566405</b>	cool white	5000	1375	117	1900	110	2550	102	75	85	26.3
<b>Half frost glass</b>												
DL-PRIME-K-6-L-830-100-SD	<b>566406</b>	warm white	3000	1510	128	2090	121	2805	112	102	85	25.9
DL-PRIME-K-6-L-840-100-SD	<b>566407</b>	neutral white	4000	1560	132	2160	125	2900	116	102	85	26.1
DL-PRIME-K-6-L-850-100-SD	<b>566408</b>	cool white	5000	1575	133	2180	126	2925	117	102	85	26.1

\* Production tolerance of luminous flux and efficiency:  $\pm 10\%$  | \*\* at operating current of 700 mA

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## Prime K L – 8"

### Indoor LED recessed mounted downlight with aluminium reflector

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)

Use of external LED constant current driver

Operating current range: up to 1050 mA

Voltage range: 30–40 V DC

Colour accuracy initially: 2 SDCM

Operating life at  $t_a = 25\text{ °C}$

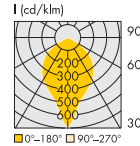
Lumen maintenance	700 mA in hrs.	900 mA in hrs.	1050 mA in hrs.
L90/B10	90,000	86,000	82,000
L80/B10	> 100,000	> 100,000	> 100,000
L70/B10	> 100,000	> 100,000	> 100,000



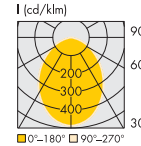
**IP44**  
(front)



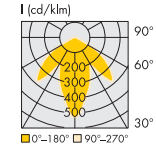
**MADE IN GERMANY**



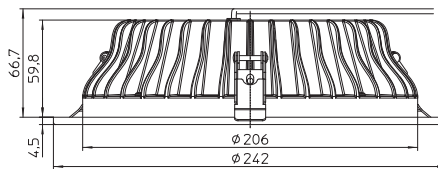
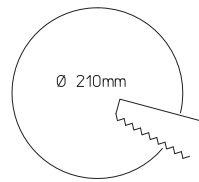
Clear



Frost



Half frost



### Electrical Characteristics

Type	Typ. voltage DC (V)			Typ. power consumption (W)		
	700 mA	900 mA	1050 mA	700 mA	900 mA	1050 mA
All types	34	34,8	35,3	23,8	31	37

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

### Maximum Ratings

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

Type	Max. operating current mA	Ambient temperature range °C min.   °C max.		Storage temperature range °C min.   °C max.		Max. allowed repetitive peak current mA
		0	+30	-40	+105	
All types	1050	0	+30	-40	+105	1200

### Optical Characteristics

Type	Ref. No.	Colour	Correlated colour temperature K	Typ. luminous flux* (lm) and efficiency* (lm/W) at						Beam angle °	Typ. CRI R <sub>a</sub>	UGR**
				700 mA		900 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
<b>Clear glass</b>												
DL-PRIME-K-8-L-830-70-C	<b>566409</b>	warm white	3000	3130	132	3920	126	4475	121	70	85	25.2
DL-PRIME-K-8-L-840-70-C	<b>566410</b>	neutral white	4000	3240	136	4050	131	4630	125	70	85	25.4
DL-PRIME-K-8-L-850-70-C	<b>566411</b>	cool white	5000	3265	137	4090	132	4670	126	70	85	25.4
<b>Frost glass</b>												
DL-PRIME-K-8-L-830-90-D	<b>566412</b>	warm white	3000	2630	111	3290	106	3760	102	88	85	26.8
DL-PRIME-K-8-L-840-90-D	<b>566413</b>	neutral white	4000	2720	114	3400	110	3885	105	88	85	26.9
DL-PRIME-K-8-L-850-90-D	<b>566414</b>	cool white	5000	2740	115	3430	111	3920	106	88	85	26.9
<b>Half frost glass</b>												
DL-PRIME-K-8-L-830-105-SD	<b>566415</b>	warm white	3000	3015	127	3775	122	4310	116	105	85	27.2
DL-PRIME-K-8-L-840-105-SD	<b>571119</b>	neutral white	4000	3120	131	3900	126	4460	121	105	85	27.3
DL-PRIME-K-8-L-850-105-SD	<b>571123</b>	cool white	5000	3145	132	3935	127	4500	122	105	85	27.4

\* Production tolerance of luminous flux and efficiency:  $\pm 10\%$  | \*\* at operating current of 900 mA

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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"	17 W	2 x 13 W
Prime K L – 6"	25 W	2 x 18 W
Prime K L – 8"	31 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.

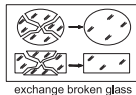
 Indoor operation

 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

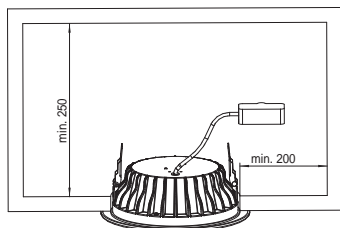
- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage ([www.vossloh-schwabe.com](http://www.vossloh-schwabe.com)). We will be happy to send you these conditions upon request.
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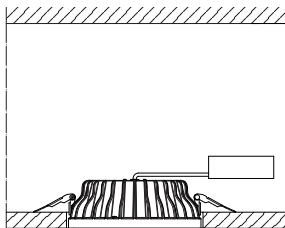
## Prime K L

### Safety and assembly information for LED downlights

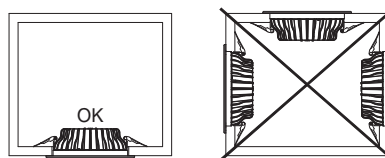
#### Built-in



#### Assembly



#### Correct position



## LED Constant Current Drivers

Max. output W	Ref. No.	Version	Output current mA	Output voltage DC V	Casing	Dimensions LxBxH (mm)	Max. service lifetime/casing temperature Std.	$t_c$ (°C)
<b>PrimeLine</b>								
24	<b>186465</b>	DALI/PUSH	350	14-34	K2.1	103.6 x 67.4 x 31	100,000	65
	<b>186573</b>		500					
	<b>186574</b>		700					
37	<b>186503</b>	DALI/PUSH	350	30-53	K3.2	123.4 x 79.4 x 32.6	100,000	65
	<b>186571</b>		500					
	<b>186572</b>		700					
<b>ComfortLine</b>								
24	<b>186279</b>	1-10 V	700	14-34	K2.1	103.6 x 67.4 x 31	100,000	65
22	<b>186684</b>	on/off	400-500	25-43	K33	169 x 43 x 30		60
30	<b>186685</b>		600-700					65
39	<b>186686</b>		800-900					70
45	<b>186687</b>		950-1050					70
<b>EasyLine</b>								
28.5	<b>186531</b>	on/off	500	25-57	K2.1	103.6 x 67.4 x 31	50,000	70
34.2			600					
40			700					
34.4	<b>186532</b>		800	25-43				
39.8			925					
45			1050					

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