

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: ≥ 85



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

■ **UP TO 140 LM/W**

■ **HIGH QUALITY COB TECHNOLOGY**

■ **5 YEARS GUARANTEE**

more information under 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 $t_a = 25\text{ °C}$

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

Applied Standards

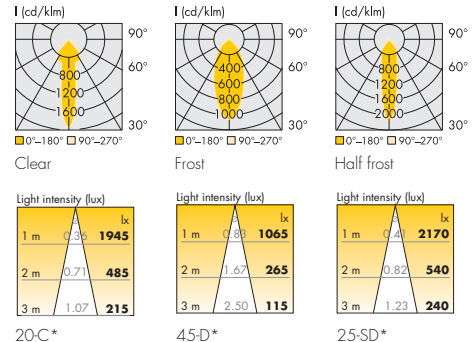
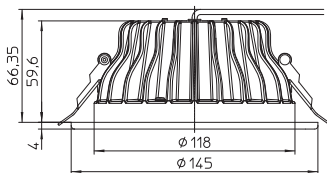
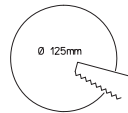
- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008



IP44
(front)

MADE IN GERMANY

CE
EAC



20-C* 45-D* 25-SD*

* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 566392 at 500 mA / 3 m distance
 $215\text{ lx} \cdot 2240\text{ lm} : 1000 = 481\text{ lx}$

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	35.7	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			

Clear glass

DL-PRIME-K-4-L-830-20-C	566391	warm white	3000	1570	133	2170	125	2915	117	20	85	24.3
DL-PRIME-K-4-L-840-20-C	566392	neutral white	4000	1620	137	2240	129	3010	120	20	85	24.4
DL-PRIME-K-4-L-850-20-C	566393	cool white	5000	1640	139	2265	131	3040	122	20	85	24.4

Frost glass

DL-PRIME-K-4-L-830-45-D	566394	warm white	3000	1315	111	1820	105	2445	98	45	85	25.6
DL-PRIME-K-4-L-840-45-D	566395	neutral white	4000	1360	115	1880	109	2525	101	45	85	25.7
DL-PRIME-K-4-L-850-45-D	566396	cool white	5000	1375	117	1900	110	2550	102	45	85	25.8

Half frost glass

DL-PRIME-K-4-L-830-25-SD	566397	warm white	3000	1510	128	2090	121	2805	112	25	85	22.6
DL-PRIME-K-4-L-840-25-SD	566398	neutral white	4000	1560	132	2160	125	2900	116	25	85	22.7
DL-PRIME-K-4-L-850-25-SD	566399	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)

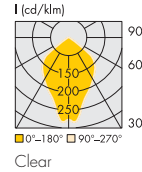
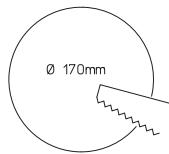
Use of external LED constant current driver
 Operating current range: up to 700 mA
 Voltage range: 30–40 V DC
 Colour accuracy initially: 2 SDCM
 Operating life at $t_a = 25^\circ\text{C}$



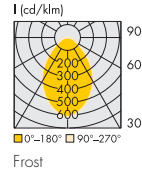
IP44
(front)

MADE IN GERMANY

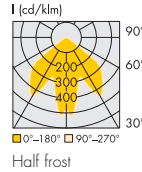
CE
EAC



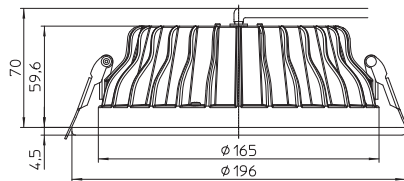
Light intensity (lux)	1 m	2 m	3 m
75°-C*	675	165	75



Light intensity (lux)	1 m	2 m	3 m
75-D*	610	150	65



Light intensity (lux)	1 m	2 m	3 m
100-SD*	485	120	50



* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 566401 at 700 mA / 3 m distance
 $75\text{ lx} \cdot 3010\text{ lm} : 1000 = 226\text{ lx}$

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

Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008

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	35.7	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 $^\circ\text{C}$		Storage temperature range $^\circ\text{C}$		Max. allowed repetitive peak current mA
		min.	max.	min.	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				

Clear glass

DL-PRIME-K-6-L-830-75-C	566400	warm white	3000	1570	133	2170	125	2915	117	75	85	24.8
DL-PRIME-K-6-L-840-75-C	566401	neutral white	4000	1620	137	2240	129	3010	120	75	85	25.0
DL-PRIME-K-6-L-850-75-C	566402	cool white	5000	1640	139	2265	131	3040	122	75	85	25.0

Frost glass

DL-PRIME-K-6-L-830-75-D	566403	warm white	3000	1315	111	1820	105	2445	98	75	85	26.1
DL-PRIME-K-6-L-840-75-D	566404	neutral white	4000	1360	115	1880	109	2525	101	75	85	26.2
DL-PRIME-K-6-L-850-75-D	566405	cool white	5000	1375	117	1900	110	2550	102	75	85	26.3

Half frost glass

DL-PRIME-K-6-L-830-100-SD	566406	warm white	3000	1510	128	2090	121	2805	112	102	85	25.9
DL-PRIME-K-6-L-840-100-SD	566407	neutral white	4000	1560	132	2160	125	2900	116	102	85	26.1
DL-PRIME-K-6-L-850-100-SD	566408	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

Applied Standards

- EN 60598-1:2015
- EN 60598-2-2:1989
- EN 60598-2-2:2012
- EN 62471:2008

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.

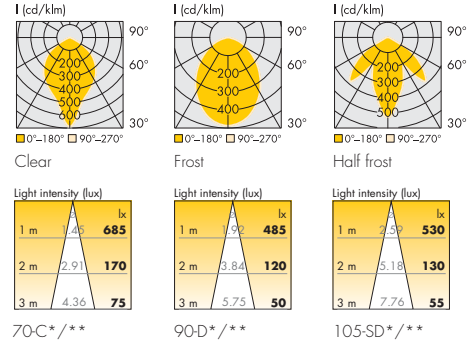
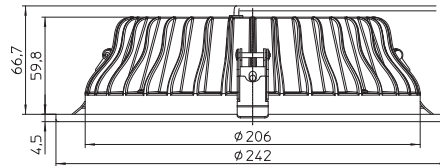
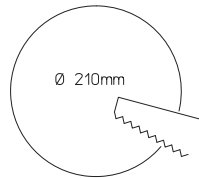
Type	Max. operating current mA	Ambient temperature range °C min. / °C max.		Storage temperature range °C min. / °C max.		Max. allowed repetitive peak current mA
		0	+30	-40	+105	
All types	1050	0	+30	-40	+105	1200

Optical Characteristics

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

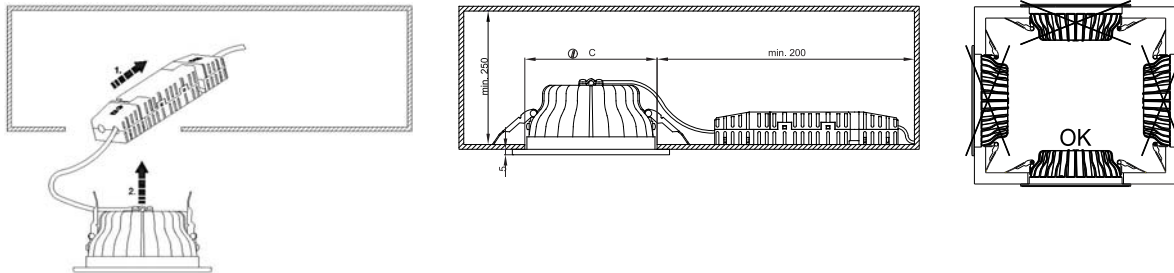
The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.



* $E_{true} = \Phi_{data\ sheet} \cdot E_{nominal} : 1000$
 E_{true} for example 566410 at 900 mA / 3 m distance
 $75\text{ lx} \cdot 4050\text{ lm} : 1000 = 304\text{ lx}$

Prime K L

Safety and assembly information for LED downlights



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)		
PrimeLine										
24	186465	DALI/PUSH	350	14-34	K2.1	103.6 x 67.4 x 31	100,000	65		
	186573		500							
	186574		700							
37	186503	DALI/PUSH	350	30-53	K3.2	123.4 x 79.4 x 32.6	100,000	65		
	186571		500							
	186572		700							
38	186763	DALI/PUSH	1050	10-36	K33.3	146.5 x 43.2 x 30.1	100,000	75		
ComfortLine										
24	186279	1-10 V	700	14-34	K2.1	103.6 x 67.4 x 31	100,000	65		
22	186651*	on/off	400-500	25-43	K33.1	169 x 43 x 30		60		
30	186652*		600-700					65		
39	186653*		800-900					70		
45	186654*		950-1050					70		
EasyLine										
28.5	186531	on/off	500	25-57	K2.1	103.6 x 67.4 x 31	50,000	70		
34.2			600							
40			700							
34.4			186532						800	25-43
39.8			925							
45	1050									

* Cord grip 186690 for protection class II required

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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.

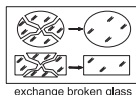
 Indoor operation

 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 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). We will be happy to send you these conditions upon request.

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