



Component Systems

for Lighting Applications

Distribution Catalogue 2019

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LED Drivers

These LED drivers are designed for residential lighting applications
 Current range: 300 mA to 1050 mA
 Electronic short-circuit protection
 Overload protection
 Protection against "no load" operation
 Degree of protection: IP20

RESIDENTIAL

Output current DC	Power (W)		Ref. No	Dimming	Casing	Dimensions LxVxH (mm)
	min.	max.				
300 mA	6.0	12.0	186709	—	K51.1	115x45x25
	6.0	12.0	186711	Phase cut	K51.1	115x45x25
350 mA	2.9	7.0	186342	—	K51	81.6x42.5x23
	1.1	8.8	186519	—	K29	65x30.7x21.5
	0.7	11.0	186679	—	K39	128x37x28
	2.9	12.6	186341	—	K52	122.8x45x19
	11.2	18.0	186415	Phase cut	K53	153x41.4x32
500 mA	5.6	20.0	186431	—	K52	122.8x45x19
	20.0	30.0	186430	—	K53	153x41.4x32
	10.5	15.0	186591	—	K51.1	115x45.4x25
	6.5	10.0	186448	Phase cut	K52	122.8x45x19
700 mA	4.0	15.0	186349	—	K52	122.8x45x19
	1.0	16.0	186680	—	K39	128x37x28
	15.0	21.5	186592	—	K51.1	115x45x25
	2.0	5.6	186348	—	K51	81.6x42.5x23
	1.4	17.0	186681	—	K39	128x37x28
	11.2	18.0	186450	Phase cut	K53	153x41.4x32
	5.6	20.3	186350	—	K52	122.8x45x19
	15.4	25.0	186416	Phase cut	K53	153x41.4x32
1050 mA	22.4	36.0	186451	Phase cut	K53	153x41.4x32
	21.0	30.1	186593	—	K26.1	103x67x30
	28.0	38.5	186594	—	K26.1	103x67x30
	2.1	20.0	186682	—	K39	128x37x28
	21.0	31.5	186351	—	K53	153x41.4x32
	31.5	45.2	186595	—	K26.1	103x67x30

K29



K39



K51



K51.1



K52



K53



K26.1



Discover our different LED solutions



Evolve50

Spot Ø 50 mm high performance
 Interchangeable optics

ILine and SoftLine

Extra-flat spots for built-in applications (e.g. furniture)
 Available in IP20 and IP54
 Plug and play kit with driver available

Tiny

Spot Ø 30 mm extra-flat for built-in applications (e.g. furniture)
 Consumption: 1 W, luminous flux: 140 lm
 Plug and play kit with driver available

LED Drivers

These LED drivers are designed for retail lighting applications

Current range: 300 mA to 1400 mA

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

SELV

SHOP

Output current DC	Power (W)		Ref. No	Dimming	Casing	Dimensions LxWxH (mm)
	min.	max.				
300 mA	3.0	16.2	186763	DALI, PUSH	K33.3	129.5x42.5x30
350 mA	3.5	18.9	186763	DALI, PUSH	K33.3	129.5x42.5x30
400 mA	4.0	21.6	186763	DALI, PUSH	K33.3	129.5x42.5x30
450 mA	4.5	24.3	186763	DALI, PUSH	K33.3	129.5x42.5x30
500 mA	5.0	27.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
	12.5	28.5	186531	—	K2.1	129.5x42.5x30
550 mA	5.5	29.7	186763	DALI, PUSH	K33.3	129.5x42.5x30
600 mA	6.0	32.4	186763	DALI, PUSH	K33.3	129.5x42.5x30
	15.0	34.2	186531	—	K2.1	129.5x42.5x30
650 mA	6.5	35.1	186763	DALI, PUSH	K33.3	129.5x42.5x30
700 mA	7.0	37.8	186763	DALI, PUSH	K33.3	129.5x42.5x30
	17.5	40.0	186531	—	K2.1	129.5x42.5x30
	21.0	30.1	186593	—	K26.1	103x67x30
750 mA	7.5	38.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
800 mA	8.0	38.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
	20.0	34.4	186532	—	K2.1	129.5x42.5x30
850 mA	8.5	38.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
900 mA	9.0	38.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
	18.0	38.7	186208	1–10 V	K3	129.5x42.5x30
925 mA	23.1	39.8	186532	—	K2.1	129.5x42.5x30
950 mA	9.5	38.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
	23.8	40.9	186654	—	K33.1	129.5x42.5x30
1000 mA	10.0	38.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
	25.0	43.0	186654	—	K33.1	129.5x42.5x30
1050 mA	10.5	38.0	186763	DALI, PUSH	K33.3	129.5x42.5x30
	26.3	45.0	186532	—	K2.1	129.5x42.5x30
	26.3	45.2	186654	—	K33.1	129.5x42.5x30
	21.0	45.1	186208	1–10 V	K3	129.5x42.5x30
1200 mA	24.0	51.6	186208	1–10 V	K3	129.5x42.5x30
1400 mA	28.0	60.2	186208	1–10 V	K3	129.5x42.5x30

K33.1



K33.3



K2.1



K3



K26.1



Discover our different LED solutions



Evolve111 and Next111

Spot Ø 111 mm high performance

Interchangeable optics

Available in black or white

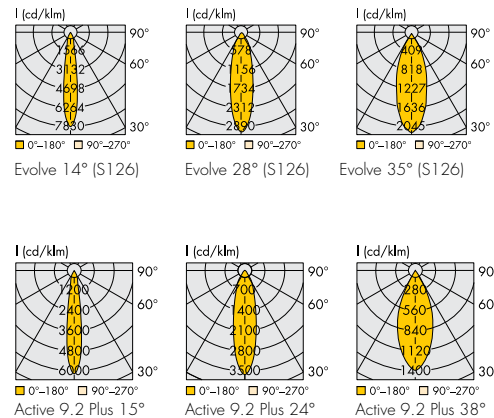
2000 lm or 4000 lm

LEDSpots Evolve 111 and Active 9.2 PLUS

LEDSpot with optics, heat sink and connection leads
 Colour temperature: 2700 K, 3000 K and 4000 K
 Dimensions (ØxH): Evolve 111: Ø111 x 61.8 mm
 Active 9.2 PLUS: Ø50 x 80.95 mm



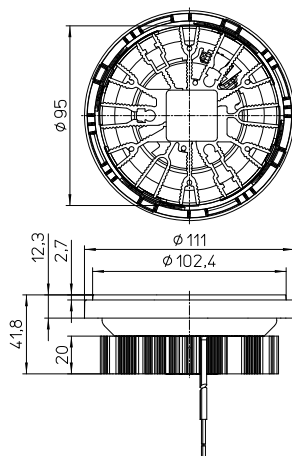
Beam angle	Colour temperature	Ref. No. Black	Luminous flux	Power
Evolve 111 - High performance LED Spot 111 mm				
14°	3000 K	567629	2120 lm at 500 mA	17.1 W
	4000 K	567632	2190 lm at 500 mA	17.1 W
28°	3000 K	567630	2145 lm at 500 mA	17.1 W
	4000 K	567633	2215 lm at 500 mA	17.1 W
35°	3000 K	567631	2200 lm at 500 mA	17.1 W
	4000 K	567634	2270 lm at 500 mA	17.1 W
Active 9.2 PLUS - High performance LED Spot 50 mm				
15°	2700 K	567155	950 lm at 500 mA	8.9 W
	3000 K	567158	985 lm at 500 mA	8.9 W
	4000 K	567160	1025 lm at 500 mA	8.9 W
24°	2700 K	567156	935 lm at 500 mA	8.9 W
	3000 K	567159	975 lm at 500 mA	8.9 W
	4000 K	567161	1015 lm at 500 mA	8.9 W
38°	2700 K	567157	925 lm at 500 mA	8.9 W
	3000 K	566860	965 lm at 500 mA	8.9 W
	4000 K	567162	1005 lm at 500 mA	8.9 W



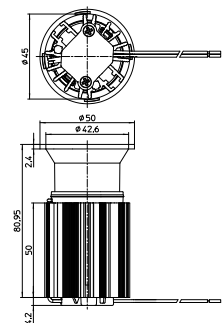
The above represents a small part of the available product line including,
 Evolve111 up to 3700 Lumens
 NEXT111 up to 3820 Lumens
 Active Plus up to 1815 Lumens



Evolve 111



Active 9.2 PLUS



LED Emergency Kits

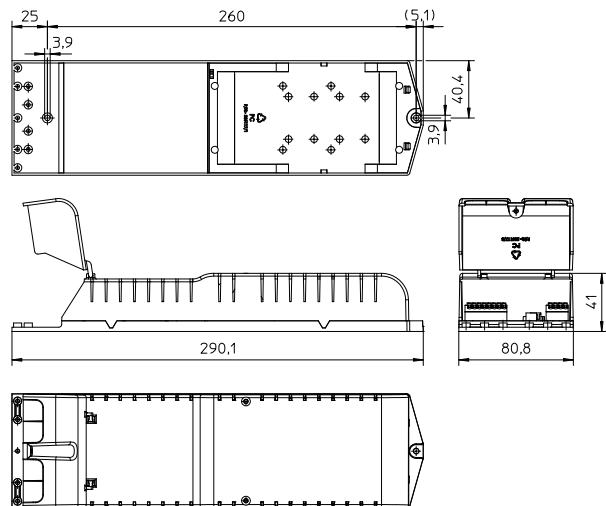
Emergency Complete

With self-diagnostic function and built-in LiFePO4 rechargeable battery
 For emergency lighting for 1 or 3 hours with independent operation
 Ambient temperature: 5 to 50 °C
 Mains voltage: 220–240 V ± 10%
 Mains frequency: 50–60 Hz
 Output voltage: 55 V
 Output power in emergency operation: 2.5–3 W
 For luminaires protection class I and II
 Degree of protection: IP20
 SELV
 Surge protection: 3.75 kV



Type	Ref. No.	Battery type	Operating time	Min. luminous flux in emergency operation	Output voltage range	max.
K68 – Dimensions (LxWxH): 290.1x80.8x41 mm						
EMCc 180.019	186817	3.2 V/4.5 Ah C	3 h	250 lm	12–55 V	60 V

* A 100 lm/W per LED unit



LED Drivers

These LED drivers are designed for linear lighting applications (offices, supermarkets, etc.)

Current range: 250 mA to 700 mA

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

LINEAR

Output current DC	Power (W)		Ref. No.	Dimming	Casing	Dimensions LxWxH (mm)
	min.	max.				
250 mA	21.0	47.0	186712	—	K7.2	275x33x21.5
350 mA	20.0	40.0	186444	—	M10	359x30x21
	42.0	79.0	186443	—	M10	359x30x21
	21.0	42.0	186446*	DALI, PUSH	M10	359x30x21
	42.0	77.0	186445*	DALI, PUSH	M10	359x30x21
	0.7	14.0	186229	—	K21	146.7x21x18
	22.8	45.0	186713	—	K7.2	275x33x21.5
	32.9	65.0	186760	—	K7.2	275x33x21.5
500 mA	20.0	40.0	186444	—	M10	359x30x21
	40.0	85.0	186443	—	M10	359x30x21
	21.0	42.0	186575*	DALI, PUSH	M10	359x30x21
	42.0	84.0	186577*	DALI, PUSH	M10	359x30x21
	8.5	15.0	186529	—	M6.1	359x30x21
600 mA	19.0	38.0	186714	—	K7.2	275x33x21.5
	10.2	18.0	186529	—	M6.1	359x30x21
	700 mA	11.9	21.0	186529	—	M6.1
700 mA	19.6	40.0	186444	—	M10	359x30x21
	21.0	42.0	186576*	DALI, PUSH	M10	359x30x21
	42.0	84.0	186443	—	M10	359x30x21
	42.0	84.0	186578*	DALI, PUSH	M10	359x30x21
	23.1	45.0	186715	—	K7.2	275x33x21.5
	27.3	54.0	186716	—	K7.2	275x33x21.5

* Adjustable output current with iProgrammer (Ref. No. 186428)

Output current DC	Power (W) max.	Ref. No.	Current selection	Casing	Dimensions LxWxH (mm)
100–400 mA	45.0	186697	NFC	M7.1	280x30x21
	85.0	186699	NFC	M7.1	280x30x21
400–800 mA	45.0	186698	NFC	M7.1	280x30x21
	85.0	186700	NFC	M7.1	280x30x21
iProgrammer NFC		186646			

K21



K7.2



M6.1



M7.1



M10



Discover our different LED solutions



AluFix

High performance integration strips
Length: 305 mm to 1429 mm
Various caps and optics available



W2 Gen. 3 + Optics

Built-in LED module for luminaire integration
Length: 140 mm to 1120 mm
Various optics available

LED Drivers

These LED drivers are designed for industrial lighting applications
 Current range: 700 mA to 2800 mA
 Electronic short-circuit protection
 Overload protection
 Protection against "no load" operation
 Degree of protection: IP20 or IP67

INDUSTRIAL

Output current DC	Power (W)		Ref. No.	Dimming	Casing	Dimensions LxWxH (mm)
	min.	max.				
700 mA	24.5	50.0	186452	—	M56	185.5x49.4x40.6
	59.5	112.0	186299	DALI, PUSH	M36	149.5x75x30
	59.5	112.0	186300	DALI, PUSH	K38	210x83x32
	59.5	112.0	186297	—	M36	149.5x75x30
	59.5	112.0	186298	—	K38	210x83x32
1050 mA	36.8	75.0	186453	—	M56	185.5x49.4x40.6
	89.3	126.0	186303	DALI, PUSH	M36	149.5x75x30
	89.3	126.0	186304	DALI, PUSH	K38	210x83x32
	89.3	126.0	186301	—	M36	149.5x75x30
1400 mA	42.0	100.0	186454	—	M58	216x68.6x46.3
	51.0	122.4	186455	—	M58	216x68.6x46.3
2100 mA	94.5	150.0	186456	—	M58.1	206x68.6x37
2400 mA	108.0	172.8	186510	—	M58.1	206x68.6x37
2800 mA	126.0	200.0	186477	—	M58.1	206x68.6x37

M36



K38



M56



M58



M58.1



Discover our different LED solutions



Industry Kit

LED solution for industry / storage, etc.
 Various optics available
 6500 lm / 100,000 hrs / IP65

Compact Industrial HighBay LED Luminaire

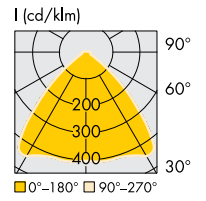
Easy installation due to plug and play solution
 Integrated LED driver
 Mains voltage: 220-240 V, 50-60 Hz
 Power factor: > 0.9
 Long service life: > 50,000 h (L80/B10)
 Dimensions (LxVxH): 324x327x115 mm
 Casing: aluminium
 Permissible operating temperature: -10 to 40 °C
 Storage temperature allowed: -30 to 60 °C
 Colour accuracy initially: 3 SDCM



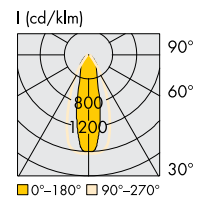
INDUSTRIAL

Type	Ref. No.	Colour	Correlated colour temperature	Max. power	Type luminous flux and efficiency	Beam angle	Typ. CRI Ra
Beam angle: 90°							
VS-L-0115-840-90°-100W-CM-DA	568130	neutral white	4000 K	98 W	13800 lm 141 lm/W	90°	80
VS-L-0115-840-90°-100W-CM	568342	neutral white	4000 K	98 W	13800 lm 141 lm/W	90°	80
VS-L-0115-840-90°-70W-CM	568343	neutral white	4000 K	67 W	10000 lm 150 lm/W	90°	80
VS-L-0115-850-90°-100W-CM-DA	568346	cool white	5000 K	98 W	13800 lm 141 lm/W	90°	80
VS-L-0115-850-90°-100W-CM	568347	cool white	5000 K	98 W	13800 lm 141 lm/W	90°	80
VS-L-0115-850-90°-70W-CM	568348	cool white	5000 K	67 W	10000 lm 150 lm/W	90°	80
Beam angle: HighRack							
VS-L-0115-840-HR-100W-CM-DA	568227	neutral white	4000 K	98 W	13800 lm 141 lm/W	HighRack	80
VS-L-0115-840-HR-100W-CM	568344	neutral white	4000 K	98 W	13800 lm 141 lm/W	HighRack	80
VS-L-0115-840-HR-70W-CM	568345	neutral white	4000 K	67 W	10000 lm 150 lm/W	HighRack	80
VS-L-0115-850-HR-100W-CM-DA	568349	cool white	5000 K	98 W	13800 lm 141 lm/W	HighRack	80
VS-L-0115-850-HR-100W-CM	568350	cool white	5000 K	98 W	13800 lm 141 lm/W	HighRack	80
VS-L-0115-850-HR-70W-CM	568351	cool white	5000 K	67 W	10000 lm 150 lm/W	HighRack	80

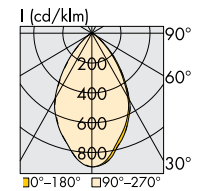
* Tolerance of luminous flux and efficiency: ± 10% | ** 60° beam angle also available



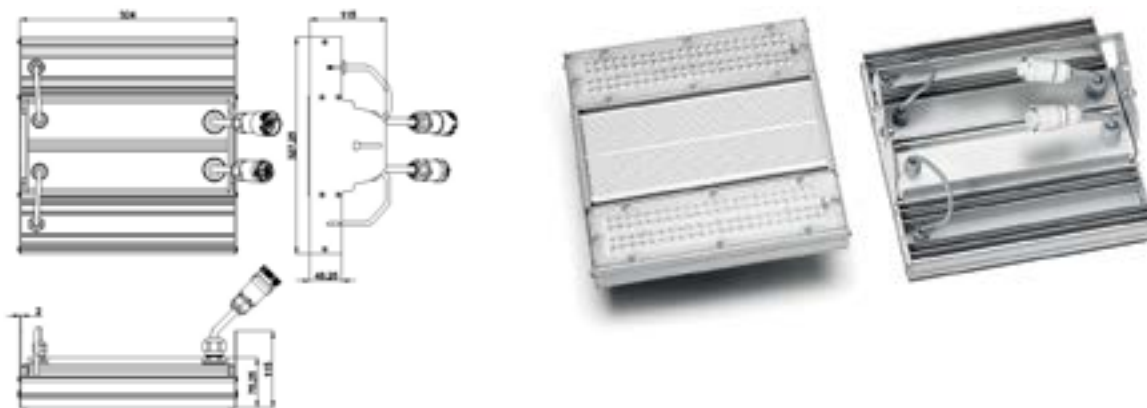
Wide 90°

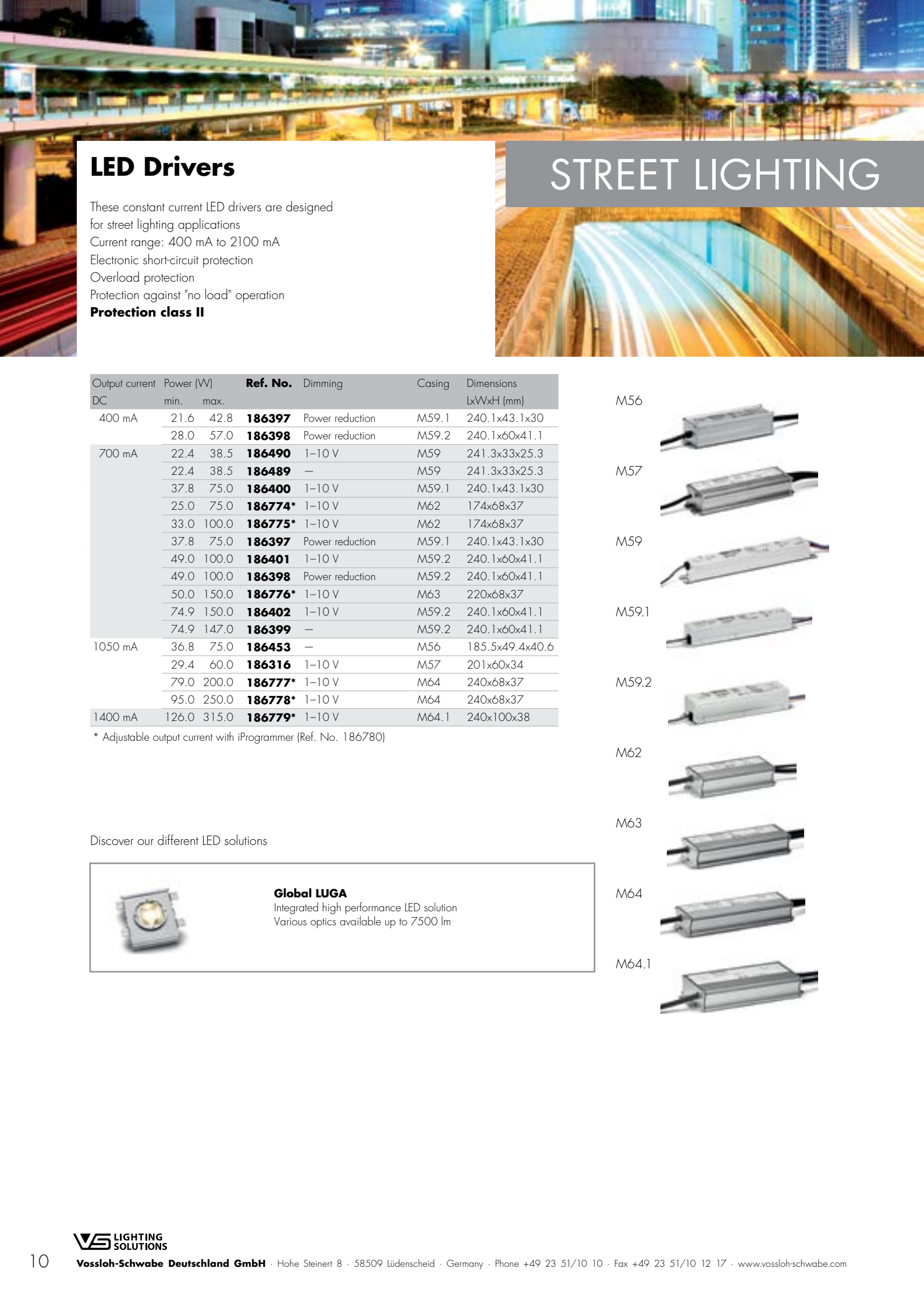


High Rack



* Wide 60°





LED Drivers

These constant current LED drivers are designed for street lighting applications
 Current range: 400 mA to 2100 mA
 Electronic short-circuit protection
 Overload protection
 Protection against "no load" operation

Protection class II

STREET LIGHTING



Output current DC	Power (W)		Ref. No.	Dimming	Casing	Dimensions LxWxH (mm)
	min.	max.				
400 mA	21.6	42.8	186397	Power reduction	M59.1	240.1x43.1x30
	28.0	57.0	186398	Power reduction	M59.2	240.1x60x41.1
700 mA	22.4	38.5	186490	1-10 V	M59	241.3x33x25.3
	22.4	38.5	186489	—	M59	241.3x33x25.3
	37.8	75.0	186400	1-10 V	M59.1	240.1x43.1x30
	25.0	75.0	186774*	1-10 V	M62	174x68x37
	33.0	100.0	186775*	1-10 V	M62	174x68x37
	37.8	75.0	186397	Power reduction	M59.1	240.1x43.1x30
	49.0	100.0	186401	1-10 V	M59.2	240.1x60x41.1
	49.0	100.0	186398	Power reduction	M59.2	240.1x60x41.1
1050 mA	50.0	150.0	186776*	1-10 V	M63	220x68x37
	74.9	150.0	186402	1-10 V	M59.2	240.1x60x41.1
	74.9	147.0	186399	—	M59.2	240.1x60x41.1
	36.8	75.0	186453	—	M56	185.5x49.4x40.6
	29.4	60.0	186316	1-10 V	M57	201x60x34
1400 mA	79.0	200.0	186777*	1-10 V	M64	240x68x37
	95.0	250.0	186778*	1-10 V	M64	240x68x37
	126.0	315.0	186779*	1-10 V	M64.1	240x100x38

* Adjustable output current with iProgrammer (Ref. No. 186780)

M56



M57



M59



M59.1



M59.2



M62



M63



M64



M64.1



Discover our different LED solutions



Global LUGA
 Integrated high performance LED solution
 Various optics available up to 7500 lm

LED Converters

12, 24 and 48 V

These constant voltage LED converters are designed for 12 V, 24 V and 48 V lighting systems
 Output: up to 200 W
 Electronic short-circuit protection
 Overload protection
 Protection against "no load" operation
 Degree of protection: IP20 / IP67

Protection class II SELV

Voltage output	IP	Power (W) max.	Ref. No.	Casing	Dimensions LxVxH (mm)
12 V DC	IP20	6.0	186412	K51	81.6x42.5x23
		12.0	186204	K39.1	103,5x36x22
		20.0	186620	K52	132x45x19
		60.0	186621	K55.1	180x52x30
		75.0	186622	K55.1	180x52x30
	IP67	100.0	186623	K60	300x40x30
		30.0	186628	K52.1	131x42x34
		75.0	186629	K53.1	155x50x32
		100.0	186630	K58.1	206x69x37
		150.0	186631	K58.1	206x69x37
24 V DC	IP20	20.0	186129	K62	182x42x18
		30.0	186624	K53	153x41x32
		60.0	186625	K55.1	180x52x30
		75.0	186626	K55.1	180x52x30
		120.0	186627	K60	300x40x30
	IP67	180.0	186717	K61	345x50x35
		30.0	186633	K52.1	131x42x34
		75.0	186432	K30.2	155x49x32
		100.0	186433	M58.1	206x68,6x37
		150.0	186434	M58.1	206x68,6x37
48 V DC	IP20	75.0	186691	K55.1	180x52x30
		120.0	186692	K60	300x40x30

Discover our different LED solutions





AluLED
Ultra thin LED strip IP20 and IP67
Various lengths and colour temperatures
24 V

LEDLine Flex
LED strip IP00 or IP67
Various connection accessories
24 V

SoftLine
Extra-flat spots for builtin applications (e.g. furniture)
Available in IP20
Plug and play kit with driver available

12, 24 & 48 V



AluLED – Linear LED Modules

For protected outdoor applications under humid conditions (without direct UV exposure) or indoor applications
 Plug and play (end-to-end module connection) includes fixation clips

Power supply: 24 V, max. 70 W in total per module
 Service life: 50,000 h (L70/B20)
 Design: extra-flat (6 mm), easy to install
 Other colours: 2700 K, 6000 K and RGB on request

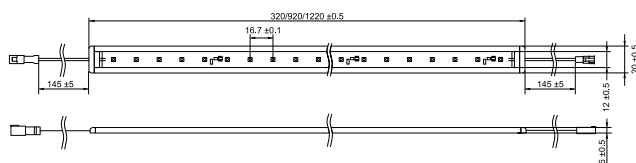
For outdoor applications IP67

Colour temperature	Length	Ref. No.	Luminous flux	Power
3000 K	320 mm	561698	240 lm	3.4 W
	920 mm	561699	720 lm	10.1 W
	1220 mm	561700	960 lm	13.5 W
4000 K	320 mm	571136	300 lm	3.4 W
	920 mm	571137	900 lm	10.1 W
	1220 mm	571138	1200 lm	13.5 W

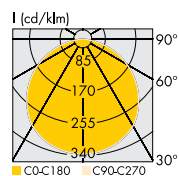
For indoor applications IP20

Colour temperature	Length	Ref. No.	Luminous flux	Power
3000 K	320 mm	571145	230 lm	3.4 W
	920 mm	571146	690 lm	10.1 W
	1220 mm	571147	920 lm	13.5 W
4000 K	320 mm	571133	250 lm	3.4 W
	920 mm	571134	750 lm	10.1 W
	1220 mm	571135	1000 lm	13.5 W

* LED converters 24 V see page 12



AluLED



Feed-in connector, lead length: 25 cm
Ref. No. 543426

PCB to PCB connector, lead length: 50 cm
Ref. No. 543427

Shrink caps
Ref. No. 571150 transparent
Ref. No. 571151 black

LEDLine Flex SMD

LEDLine Flex SMD Advanced

Extremely flexible
 Low heat development
 Self-adhesive rear panel
 Integrated ESD protection diode: up to 2000 V
 Expected service life: 50,000 h (L90/B10)
 Made in Germany
 Voltage supply: 24 V
Roll: 4 mtrs

LED LINE FLEX

Type	Ref. No.	Colour	Correlated colour temperature	Typ. luminous flux (lm/m) and efficiency (lm/W)				Power at t_p	
				at $t_p = 25^\circ\text{C}$		at $t_p = 50^\circ\text{C}$		25 °C	50 °C
				lm/m	lm/W	lm/m	lm/W	W/m	W/m
FlexLED-4m-22K-4000lm	571184	warm white	2200 K	1060	94	915	91	11.3	10.1
FlexLED-4m-27K-4800lm	571185	warm white	2700 K	1320	117	1140	113	11.3	10.1
FlexLED-4m-30K-4800lm	571186	neutral white	3000 K	1340	120	1160	115	11.3	10.1
FlexLED-4m-40K-4800lm	571183	neutral white	4000 K	1400	125	1200	120	11.3	10.1
FlexLED-4m-50K-4800lm	571187	cool white	5000 K	1400	124	1180	118	11.3	10.1
FlexLED-4m-65K-4800lm	571188	cool white	6500 K	1430	127	1230	123	11.3	10.1

Colour tolerance: 3 MacAdam | Tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 80



LEDLine Flex SMD Indoor

Flexible SMD Line
 On-board current regulation
 Highly efficient: up to 139 lm/W
 Expected service life: 36,000 h (L70/B50)
 Made in China
 Voltage supply: 24 V
Roll: 5 mtrs

Type	Ref. No.	Colour	Correlated colour temperature	Typ. luminous flux		Number of LEDs	Power	Beam angle	CRI R_a
				min. lm/m	max. lm/m				
6.5 W/m									
WU-M-555-827	566965	warm white	2700 K	740	820	42	6,5	120	> 80
WU-M-555-830	563465	warm white	3000 K	765	850	42	6,5	120	> 80
WU-M-555-840	563466	neutral white	4000 K	800	890	42	6,5	120	> 80
WU-M-555-857	563467	cool white	5700 K	810	900	42	6,5	120	> 80
10.8 W/m									
WU-M-556-827	566966	warm white	2700 K	1250	1380	70	10,8	120	> 80
WU-M-556-830	563468	warm white	3000 K	1290	1430	70	10,8	120	> 80
WU-M-556-840	563469	neutral white	4000 K	1330	1480	70	10,8	120	> 80
WU-M-556-857	563471	cool white	5700 K	1350	1500	70	10,8	120	> 80

Colour tolerance: 3 MacAdam | Tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 80

LEDLine Flex SMD IP67

Voltage supply: 24 V
Roll: 5 mtrs

Type	Ref. No.	Colour	Correlated colour temperature	Typ. luminous flux		Number of LEDs	Power	Beam angle	CRI R_a
				min. lm/m	typ. lm/m				
WU-M-616-830	567891	warm white	3000 K	770	900	60	10	120	> 80
WU-M-616-840	567892	neutral white	4000 K	850	1000	60	10	120	> 80
WU-M-616-857	567893	cool white	5000 K	850	1000	60	10	120	> 80

Colour tolerance: 3 MacAdam | Tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI R_a : > 80

LED converters 24 V see page 12



LED Modules for Mains Voltage

Direct connection to 230 V mains (no additional operating device required)

For replacements of compact fluorescent lamps in ceiling luminaires, downlights, etc...

Quick and easy installation

With integrated heat sink

For luminaires of protection class II

Power factor: > 0.9

100% instant light

IP54 version: pre-wired 30 cm

IP20 version: push-in terminals

READYLINE



Power	Colour	Protection cover	Luminous flux typ.	Ref. No.	Ref. No.
				IP20	IP54
8.7 W	warm white	transparent	820 lm	567656	567670
		mat	720 lm	567657	567671
	warm white	transparent	850 lm	567658	567672
13 W	warm white	transparent	1260 lm	550438	555875
		mat	1150 lm	551986	556753
	warm white	transparent	1290 lm	551987	556755
		mat	1210 lm	551988	556756
17.5 W	warm white	transparent	1550 lm	553828	—
		mat	1340 lm	553829	—
	warm white	transparent	1590 lm	553830	—
		mat	1350 lm	553831	—

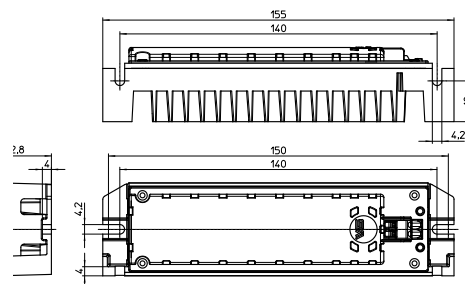


Cord grip with 2 screws for LED modules with heat sink Ref. No. 552039

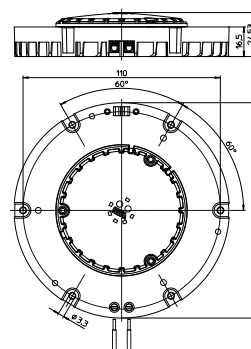
Lighting examples



With heat sink



With heat sink and screw terminals



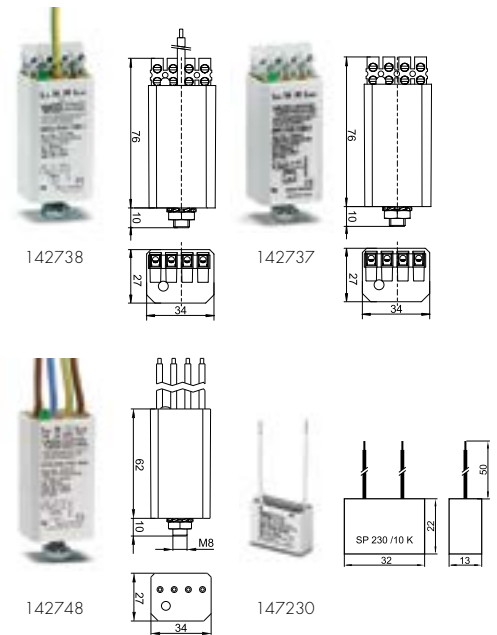
Luminaire Protection and Power Adjustment

Type 3 protection devices against voltage spikes caused by the switching of inductive loads or by atmospheric discharges like lightning on the net or on the ground.

Equipped with LED indicator (except 147230)

PROTECTION

Ref. No.	Installation	Safety max.	Impulse voltage max.	Discharge current (8/20 µs)	
				I _N	I _{max}
142738	Luminaire class I	16 A	10,000 V	5,000 A	10,000 A
142737	Luminaire class II	16 A	10,000 V	5,000 A	10,000 A
142748	Luminaire class I	16 A	10,000 V	5,000 A	10,000 A
147230	Luminaire class II	—	10,000 V	5,000 A	10,000 A

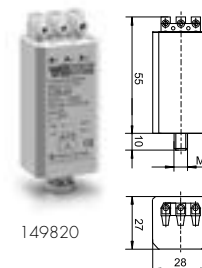


Inrush Current Limiter

Due to their capacitive nature, electronic operating devices generate high inrush currents. By temporarily activating a limiting resistor, the inrush current is reduced to an uncritical value.

Several electronic devices can be connected downstream under consideration of the maximum permissible continuous current of the inrush current limiter. As a result, the load per circuit breaker (MCB) can be increased by at least 2.5 fold.

The ESB thus prevents any automatic circuit breakers from being triggered or any damage from being caused to upstream relay contacts.









Ref. No.	Safety max.	Period of limitation	Power consumption
149820	6 A	aprox. 18 ms	0.25 W

Light Management Systems for Indoor Applications

LICS INDOOR

- Management and control of DALI dimmable ballasts and LED drivers
- Quick and easy installation
- Flexible configuration without additional tools or computer
- Sensor for motion detection and/or brightness detection
- Push function (On/OFF/variation) with a simple push button
- Timer function
- DALI bus: standard power line, no polarity

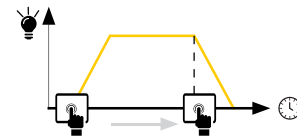
Control functions	Light Controller		Other components			
Type	XS	S	Sensor	Sensor	Sensor	Extender
Ref. No.	186220	186210	186320	186321	186322	186194
						
Control options	Group	Group	Surface mount	Installation for false ceiling	Mounting in luminaire	(Increase the number of ballasts/drivers per group)
Number of devices (ballasts, Extender LiCS, sensor HB)	max. 10	max. 64	—	—	—	—
Number of multi-sensors	max. 4	max. 36	—	—	—	—

Functions of Light Controller XS and S

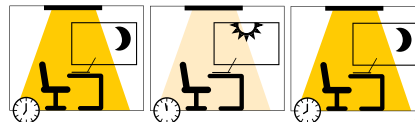
FUNCTION ON/OFF
with push button



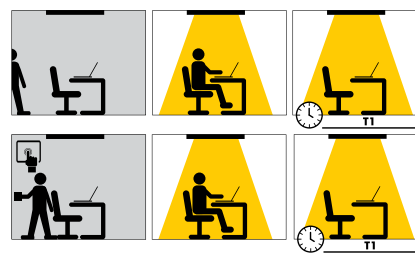
FUNCTION PUSH



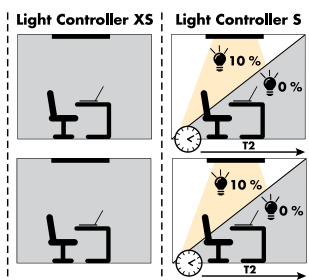
CONSTANT LIGHT CONTROL
The artificial light is adjusted according to the level of natural light



MODE AUTOMATIC
Sensor function: Light on/off
Light Controller S: 2 light levels defined without push button



MODE SEMI-AUTOMATIC
Push button function: Light on
Sensor function: Light off
Light Controller S: 2 light levels defined without push button



Blu2Light – Intelligent, Wireless Light Management Bluetooth®

Blu2Light self-healing mesh system for lighting applications
Wireless control with Smartphone or tablet PC (via Bluetooth®)
Quick and easy setup
Security concept for professional applications
Dynamic white (tuneable white), RGBW, DALI DT8, etc.
Open communication log ready for IoT integration
Cloud service option

BLU2LIGHT

Blu2Light

Blu2Light





BLU2LIGHT

1 Registration of the different components of the project via the tablet application



Each Blu2Light component has its unique QR code

2 Easy configuration via tablet application

Multiple configuration possibilities:

- Scenes
- Sequences
- Times
- Sensors (movement and/or brightness)
- Push buttons
- Beacons
- LiNA Touch (virtual push buttons)



3 Simplified use



LiNA Connect and LiNA Touch
(tablet PC and Smartphone application)



B2L - Connect
(recessed for 2 push buttons)



B2L - Switch S4
(EnOcean module with 4 push buttons)

Blu2Light – Smart Lighting

Examples of applications

BLU2LIGHT



Office – light temperatures / daylight control



Industry – warehouse with motion detection



Restaurant/ Lounge – colour control to optimise ambience



Shop – beacons that transmit information to consumers

Blu2Light – Intelligent Wireless Lighting Management

Blu2Light is the first fully open Blu2Light mesh system for the professional lighting market that, in addition to a multitude of functions for lighting management, also provides the luminaire manufacturer with an IoT solution with maximum system security.

BLU2LIGHT

Overview of integrated components with Bluetooth® technology

App (iOS/Android)			
Built-in devices	Blu2Light Connect ME Ref. No. 186768 	Blu2Light MultiSensor XS Ref. No. 186706 	Blu2Light MultiSensor XL Ref. No. 186800 
Switches	Blu2Light Connect Ref. No. 186731 	Blu2Light Switch S4 Ref. No. 186773 	
Power supply for existing DALI applications to make them ready for Blu2Light	Blu2Light Power Supply For up to 10 DALI drivers Ref. No. 186693 	Extender 64 For up to 64 DALI drivers Ref. No. 186667 	





Technical data

Type	Connect ME Ref. No. 186768	MultiSensor XS Ref. No. 186706	MultiSensor XL Ref. No. 186800
Communication	Blu2Light mesh network	Blu2Light mesh network	Blu2Light mesh network
Control output	DALI in acc. with IEC 62386	DALI in acc. with IEC 62386	DALI in acc. with IEC 62386
Power supply	via DALI bus	via DALI bus	via DALI bus
Power consumption	max. 0.24 W (max. 15 mA at 16 V)	max. 0.24 W (max. 15 mA at 16 V)	max. 0.24 W (max. 15 mA at 16 V)
Frequency range	2402–2480 MHz	2402–2480 MHz	2402–2480 MHz
Output	< 10 mW EIRP	< 10 mW EIRP	< 10 mW EIRP
Ambient temperature t_a	0–50 °C	0–50 °C	0–50 °C
Degree of protection	IP20	IP20	IP20
Protection class	II	II	II
Weight	30 g	35 g	40 g
Light sensor	—	0–1000 lx, V(λ) compensated	0–1000 lx, V(λ) compensated
Motion sensor	—	PIR detection range 0.1 to max. 5.7 m (temperature dependent)	PIR detection range 0.1 to max. 12 m (temperature dependent)
Detection range	—	At a typical installation height of 2.5 m, results in a detection range with diameter of approx. 6 m (at 20 °C)	At a typical installation height of 12 m, results in a detection range with diameter of approx. 15 m (at 20 °C)
Connection terminals	Push-in terminals: 0.5–1.5 mm ²	Push-in terminals: 0.5–1.5 mm ²	Screw terminals: 0.75–2.5 mm ²
Casing	Polycarbonate, white	Polycarbonate, white	Polycarbonate, white
Dimensions	Ø 40 x H 40 mm (with cord grip)	Ø 40 x H 43.8 mm	L 103 x W 36 x H 32 mm




Components for Tubular Fluorescent Lamps

FLUORESCENT


Electronic ballasts for T8 lamps (G13 base)

Output	Super Compact Warm start	Super Slim Warm start	Standard Instant start	Standard Warm start
				
1x18 W	188665	188666	188136	188704
2x18 W	—	—	188136	188705
4x18 W	—	—	—	188744
1x30 W	—	—	188137	—
2x30 W	—	—	188137	—
1x36 W	—	—	188137	188704
2x36 W	—	—	188137	188705
1x58 W	—	—	188130	188706
2x58 W	—	—	188130	188707


Electronic ballasts for T5 lamps (G5 base)

Output	Super Compact Warm start	Super Slim Warm start	Standard Warm start
			
1x4 W	188661	188662	—
1x6 W	188661	188662	—
1x8 W	188661	188662	—
1x13 W	188661	188662	—
1x14 W	188663	188664	188093
2x14 W	—	—	188094
3x14 W	—	—	188438
4x14 W	—	—	188438
1x21 W	188663	188664	188093
2x21 W	—	—	188094
1x24 W	188665	188666	188140
2x24 W	—	—	188616
3x24 W	—	—	183039
4x24 W	—	—	183039
1x28 W	—	—	188093
2x28 W	—	—	188094
1x35 W	—	—	188093
2x35 W	—	—	188094
1x39 W	—	—	188140
2x39 W	—	—	188616
1x49 W	—	—	188095
2x49 W	—	—	188617
1x54 W	—	—	188142
2x54 W	—	—	188618
1x80 W	—	—	188144
2x80 W	—	—	188619

Lampholders for T8 lamps

Base/ Type	Lampholder
	
G13	100593
G13+Starter attachment	100598
G13	101685
G13	101784
G13+Starter attachment	101785
Clip T8	100442
Starter attachment	100069

Electromagnetic ballasts for T8 lamps (G13 base)





Output	Electromagnetic ballasts
	
1x18 W	538549*
1x30 W	500435
1x36 W	534807
1x58 W	504081

*Capacitor available to suit




Components for Compact Fluorescent Lamps

COMPACT FLUO


Electronic ballasts for compact fluorescent lamps with base 2G7 and G24q (4-pin lamps only)

Output	Super Compact	Super Slim	Standard – built-in	Standard – independent
				
1x5/7/9/10/11 W	188661	188662	–	–
1x13 W	188663	188664	188698	188712
2x9/11/13 W	–	–	188698	188712
1x18 W	188663	188664	188699	188713
2x18 W	–	–	188699	188713
1x26 W	188667	188668	188700	188714
2x26 W	–	–	188700	188714
1x32 W	–	–	188700	188714
2x32 W	–	–	188643	–
1x42 W	–	–	188700	188714
2x42 W	–	–	188643	–



Electronic ballasts for compact fluorescent lamps with base 2G10/2G11

Output	Super Compact	Super Slim	Standard – built-in
			
1x18 W	188665	188666	188140
2x18 W	–	–	188616
1x24 W	188665	188666	188140
2x24 W	–	–	188616
1x36 W	–	–	188140
2x36 W	–	–	188616
1x40 W	–	–	188140
2x40 W	–	–	188616
1x55 W	–	–	188144
2x55 W	–	–	188618
1x80 W	–	–	188144
2x80 W	–	–	188619


Electromagnetic ballasts for compact fluorescent lamps (2-pin lamps only)

Output	Electromagnetic ballasts
	
1x5/7/9/11 W	164335
2x5/7/9 W	169622
1x13 W	500705
1x18 W	500620
1x26 W	545405

Lampholders for compact fluorescent lamps TC-D/TC-T and TC-DEL/TC-TEL

Output	TC-D / TC-T	TC-DEL / TC-TEL
		
10/13 W	G24d-1/GX24d-1 527790	G24q-1/GX24q-1 527794
18 W	G24d-2/GX24d-2 527791	G24q-2/GX24q-2 527795
26 W	G24d-3/GX24d-3 527792	G24q-3/GX24q-3 527796
26/32/42 W	–	GX24q-3/-4 527800

Lampholders for compact fluorescent lamps TC-L

Base	TC-L
	
2G11	101485

Components for Discharge Lamps

DISCHARGE



Street lighting

Ref. No.	Type / description	Output	Comments
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Electromagnetic ballasts for metal halide / high pressure sodium lamps

500122	NAHJ 35.485 230/240 V, 50 Hz	35 W	
506528	NAHJ 70.158 120 V, 50 Hz	70 W	
161707	NAHJ 100.941 230/240 V, 50 Hz	100 W	
178177	NAHJ 250.340 240 V, 50 Hz	250 W	
500402	NAHJ 400.737 240 V, 50 Hz – A2	400 W	



Superimposed ignitors for lamps 70 to 400 W (for ballasts with 2 mains voltage tapping)

140597	Z 400 MK	70 to 400 W	HS 70 W with base E27: take Z70
141582	Z 400 MK D20 (automatic cut-out)	70 to 400 W	Protection in event of defective lamps or at the lamp's service life end



140430	Z 1000 S	250 to 1000 W	
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536380	6 µF 250 V	for 35 W	
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Pulse ignitors for lamps 35 to 1000 W (for ballasts with 3 mains voltage tapping)

142784	PZ 1000 K D20	35 to 1000 W	Longer conductor distance: up to 10 m
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Capacitors for electromagnetic ballasts (above mentioned ballasts)

140497	Z 2000 S/400 W	1000 to 2000 W	
536383	12 µF 250 V	for 70 / 100 W	
536387	20 µF 250 V	for 150 W	
536390	32 µF 250 V	for 250 W	
500322	50 µF 250 V	for 400 W	



Interior Lighting

Ref. No.	Type / description	Output	Comments
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Independent electronic ballasts for metal halide lamps (for installation in false ceiling)

183033	EHXc 35.325 220–240 V – HID M3	35 W	Requires no starter or capacitor, reduced consumption, lamp life increased
183036	EHXc 70.326 220–240 V – HID M3	70 W	
183046	EHXc 150G.334 220–240 V – HID K31	150 W	



Control gear units for metal halide and high pressure sodium lamps (for installation in false ceiling)

Protection class II

536201*	VNAHJ35PZTG	1 x 35 W	Easy and fast installation: requires only mains voltage and lamp connection; lead length to the lamp: max. 10 m
536202*	VNAHJ70PZTG	1 x 70 W	
536203*	VNAHJ100PZTG	1 x 100 W	
536204*	VNAHJ150PZTG	1 x 150 W	

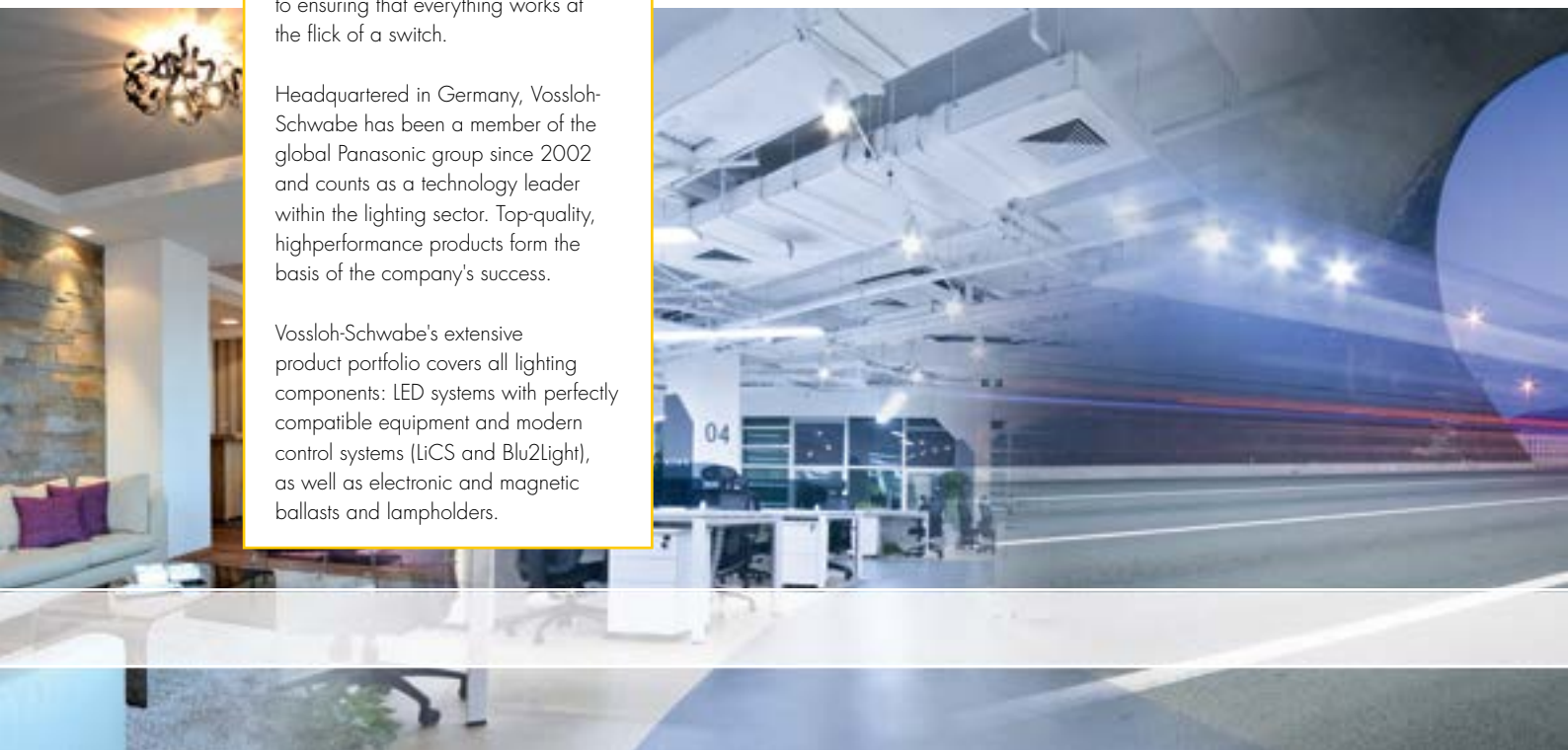


* AQR FPS for fitted line side 3 core flex and plug and road side round earth socket.

Whenever an electric light goes on around the world, Vossloh-Schwabe is likely to have made a key contribution to ensuring that everything works at the flick of a switch.

Headquartered in Germany, Vossloh-Schwabe has been a member of the global Panasonic group since 2002 and counts as a technology leader within the lighting sector. Top-quality, highperformance products form the basis of the company's success.

Vossloh-Schwabe's extensive product portfolio covers all lighting components: LED systems with perfectly compatible equipment and modern control systems (LiCS and Blu2Light), as well as electronic and magnetic ballasts and lampholders.



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