.h.h.h.h.h.h. .h.h.h.h.h.h magic .h.h.h.h.h.h .h.h.h.h.h.h .h.h.h.h.h.h.







Worlds of light

Individual lighting solutions 4
Halemeier advantages 8
Product overview 14



Linear lights

Linear lights

20





ChannelLine profiles





Spotlights





Switch systems





Ballasts / leads

Ballasts
Leads
100



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Simply. Perfect. Solutions.

The brand **magic** by HALEMEIER is the light for professional furniture construction. For more than 25 years we have been setting standards in innovation, service and design. The requirements of our customers motivate us to exceed ourselves again and again. We develop individual solutions for your diverse requirements.

Our in-house laboratory guarantees all relevant certifications for your products. It goes without saying that our LED technology is state-of-theart. Another decisive advantage is the complete compatibility of all components of our product range.

Fast and easy handling of the components allows you to fully concentrate on your core tasks: The development and design of new furniture.

Partnership, loyalty and trust are basic values that we try to bring into practice every day.

Let us inspire you! it's **magic**



Individual lighting solutions



Steffen Rumler, Managing Director

Sven Lubahn, R&D

Simply close to the customer

Only together with our customers, employees and suppliers, can we be successful in the long term - simple as that!

Designing and implementing practical, innovative solutions that meet our customers' needs is what drives us every day.

Listen, ask, understand. We always find a solution to every challenge, to get better and better together.



Individual solutions Plug-and-play compatibility of all components. Unlimited combination possibilities. No electro-technical expertise required.

To make yourself Meter and roll goods to combine independently. Precisely cut to size. No loss of material.

In-house development Products are designed, developed and tested in-house. The result is the highest quality 'Engineered in Germany'.



Sustainability Our products comply with the strict Ecodesign Directive of the European Union. The use of the latest generation of components guarantees you continuous improvements in efficiency.

5 years warranty* We are absolutely sure of the quality of our products. Use our guarantee to pass on this confidence to your customers. *on selected luminaires

Own test laboratory Always on the safe side. Our in-house test laboratory guarantees all relevant certifications.





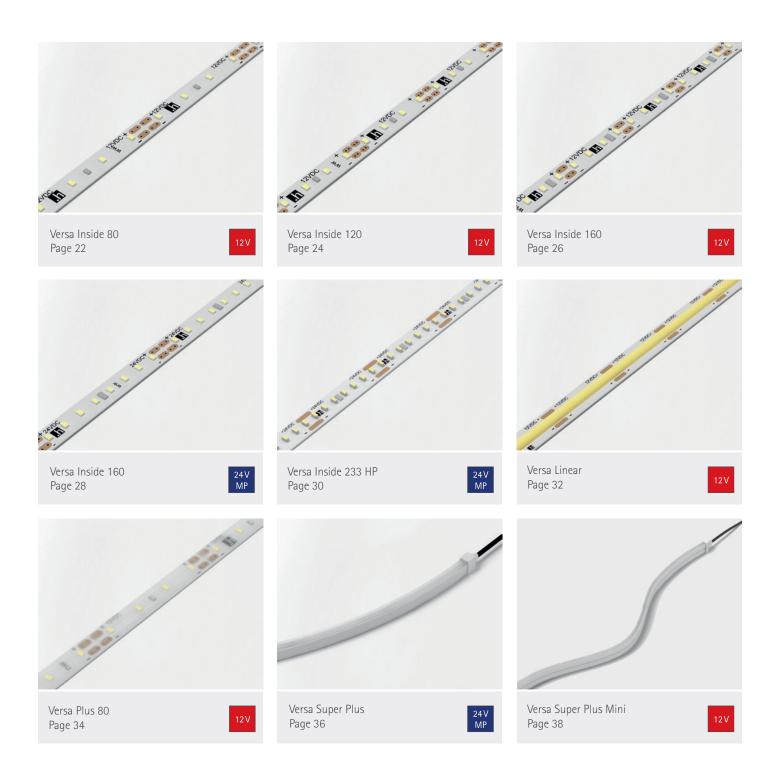




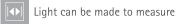


Linear lights

Product range overview

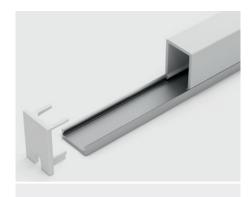


All lights can be cut to size

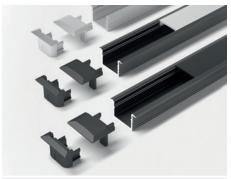


ChannelLine profiles

Product range overview



ChannelLine A Page 44



ChannelLine B Page 45



ChannelLine C Page 46



ChannelLine D Page 47



ChannelLine i Page 48



Channel Line i2 Page 49



Channel Line L Page 50



Channel Line M Page 51



ChannelLine Sensor PIR Page 52

All lights can be cut to size



Spotlights

Product range overview







Sign Plus Ø 68 mm Page 58





MultiLite Flood Ø 58 mm Page 60





EcoPower L Ø 68 mm Page 62

Page 56



StarPoint Flood Ø 30 mm Page 64

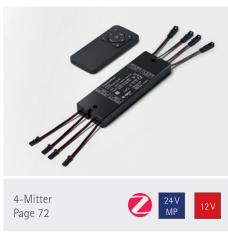




SideSpot Ø 35 mm Page 66

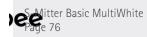
Switch systems

Product range overview

















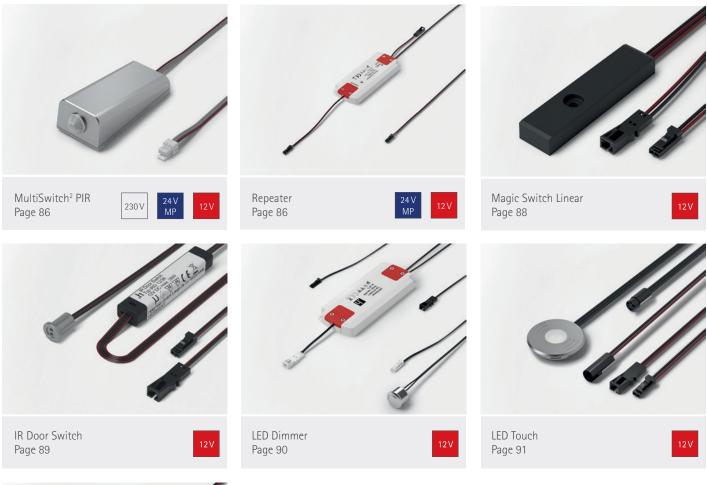




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Switch systems

Product range overview





Ballasts & leads

Product range overview



Electronic ballasts 12 Volt DC Page 96



Electronic ballasts 24 Volt DC Page 98



Leads 12 Volt DC Page 100





Leads 24 Volts DC Page 101





USB socket Page 102



24 V MP



Linear lights

Overview of Versa	a strips				
Model	Versa Inside 80	Versa Inside 120	Versa Inside 160	Versa Inside 233 HP	
				. Lig. auto Lig. auto Lig.	
Voltage	12 V	12 V	12 V 24 V MP	24 V MP	
Illuminance at a distance of 50 cm	360 lux	525 lux	700 lux	1500 lux	
Output per m	4.8 W/m	7.2 W/m	9.6 W/m	24 W/m	
Luminous flux per m	600 lm/m	900 lm/m	1200 lm/m	2200 lm/m	
Light source efficiency	125 lm/W	125 lm/W	125 lm/W	90 lm/W	
Light colour*	XW WW NW CW MW	XW WW NW CW MW	ww nw cw mw	ww cw	
Colour rendering/CRI	RA > 90 (R9 > 60)				
Strip length	5000 mm,	10000 mm	3000 mm (12 Volt) 1200 mm, 5000 mm (24 Volt) 10000 mm (12 Volt)	3000 mm, 10000 mm	
Max. length at a stretch	7000 mm	5000 mm	3750 mm (12 Volt DC) 5000 mm (24 Volt DC)	10000 mm	
LEDs per m	80	120	160	233	
Can be cut every	50 mm	33 mm	25 mm (12 Volt DC) 50 mm (24 Volt DC)	30 mm	
Direct connector		36 362 11 (10 piec	ces)		
Flexible connector 50 mm		36 363 11 (10 piec	ees)		
Flexible connector 150 mm		36 364 11 (10 piec	ces)	no connectors permitted	
Feeder for sections with clip connector	36 33	35 01	36 365 01 (12 Volt DC) 36 366 01 (24 Volt DC)		
Soldering cable with LED plug-in system	39 297 38 (130 mm) 36 248 01 (1800 mm) 36 247 01 (1800 mm) (12 Volt DC, max. 36 Watt) (24 Volt DC, max. 72 Watt)			(1800 mm)	
Width / Height			7.5 mm / 2 mm		
IP rating			IP 20		
Page	Page 22	Page 24	Page 26/28	Page 30	

Versa Linear (COB) Versa Plus 80 Versa SuperPlus Versa SuperPlus Mini
Iluminance at a istance of 50 cm 550 lux 300 lux 155 lux 80 Lux Interpretation of 50 cm 10 W/m 4.8 W/m 7.5 W/m 6 W/m Interpretation of 50 cm 100 W/m 4.8 W/m 7.5 W/m 6 W/m Interpretation of 50 cm 1000 lm/m 480 lm/m 400 lm/m 150 lm/m Interpretation of 50 cm 100 lm/W 100 lm/W 53 lm/W 115 lm/W Interpretation of 50 cm 100 lm/W 100 lm/W WW NW WW NW Interpretation of 50 cm 1200 mm, 3000 mm 1200 mm, 5000 mm 1200 mm, 5000 mm Interpretation of 5000 mm 1200 mm, 5000 mm 1200 mm, 5000 mm 5000 mm
Iluminance at a istance of 50 cm 550 lux 300 lux 155 lux 80 Lux Integration of 50 cm 10 W/m 4.8 W/m 7.5 W/m 6 W/m Integration of 50 cm 100 W/m 4.8 W/m 7.5 W/m 6 W/m Integration of 50 cm 100 W/m 480 Im/m 400 Im/m 150 Im/m Integration of 50 cm 100 Im/W 100 Im/W 53 Im/W 115 Im/W Integration of 50 cm 100 Im/W 100 Im/W WW NW WW NW Integration of 50 cm 1200 mm, 3000 mm 1200 mm, 5000 mm 1200 mm, 5000 mm Integration of 5000 mm 1200 mm, 5000 mm 1200 mm, 5000 mm 5000 mm
stance of 50 cm 550 lux 300 lux 155 lux 80 Lux nutput per m 10 W/m 4.8 W/m 7.5 W/m 6 W/m numinous flux per m 1000 lm/m 480 lm/m 400 lm/m 150 lm/m night source efficiency 100 lm/W 100 lm/W 53 lm/W 115 lm/W night colour XW WW NW WW NW WW NW WW NW nolour rendering/CRI RA > 90 (R9 > 60) RA > 80 RA > 80 RA > 80 trip length 1200 mm, 3000 mm 5000 mm 2500 mm 1200 mm, 5000 mm nax. length 2500 mm 2500 mm 5000 mm 5000 mm
uminous flux per m 1000 lm/m 480 lm/m 400 lm/m 150 lm/m ight source efficiency 100 lm/W 100 lm/W 53 lm/W 115 lm/W ight colour XW WW NW NW NW WW NW WW NW WW NW olour rendering/CRI RA > 90 (R9 > 60) RA > 80 RA > 80 RA > 80 trip length 1200 mm, 3000 mm 5000 mm 2500 mm 1200 mm, 5000 mm Max. length 3600 mm 5000 mm 3500 mm 5000 mm
ight source efficiency 100 lm/W 100 lm/W 53 lm/W 115 lm/W ight colour
ight colour
Solour rendering/CRI RA > 90 (R9 > 60) RA > 80 R
1200 mm, 3000 mm 5000 mm 1200 mm, 5000 mm 1200 mm, 5000 mm 5000 mm
10000 mm 25000 mm 25000 mm 1200 mm, 5000 mm 5000 mm 5000 mm 5000 mm 5000 mm
EDs per m LED not visible 80 LED not visible
an be cut every 25 mm 50 mm 38 mm 50 mm
irect connector 36 358 01 (1 piece)
lexible connector 0 mm no connectors permitted
lexible connector 50 mm 36 360 01 (1 piece)
eeder for sections vith clip connector
oldering cable with 39 297 38 (130 mm) 36 248 01 (1800 mm) FD plug-in system (12 Volt DC, max. 36 Watt)
Vidth / Height 8 mm / 2 mm 7.5 mm / 3.5 mm 8.3 mm / 12 mm 4 mm / 8 mm
P rating IP 20 IP 44 IP 65** IP44
age Page 32 Page 34 Page 36 Page 38

^{**} only in the potted area of the luminaires





Versa Inside 80

Advantages

- ▶ 30 % more uniform light distribution
- ▶ 30 % more efficient
- ▶ 30 % more light

Features

▶ Lead on both sides for the 5000 mm length (one cut, two lights), see drawing

Examples of use

- ▶ Universal application
- ▶ Accent lighting in the living area

Order information

- ▶ Feeders and/or solder leads needed for the 10 m roll
- ▶ For selection see Versa- and ChannelLine overview

Technical details

Versa Inside 80

	MultiWhite*	XtraWarm	WarmWhite	NeutralWhite	CoolWhite
5000 mm (max. 24 W)	56 001 33	56 001 43	56 001 13	56 001 03	56 001 23
10000 mm (max. 4.8 W/m)	56 001 31	56 001 41	56 001 11	56 001 01	56 001 21

Accessories**

	1 piece	10 piece
Direct connector	-	36 362 11
Flexible connector 50 mm	-	36 363 11
Flexible connector 150 mm	-	36 364 11
Feeder 1800 mm for sections	36 365 01	-
Soldering lead 130 mm for sections	39 297 38	-
Soldering lead 1800 mm for sections	36 248 01	-
LED ballast 15 W with Australian plug	31 026 01	-
LED ballast 30 W with Australian plug	30 221 01	-
M1 extension lead 1800 mm	36 768 01	-
M1 3-way distributor 180 mm	36 852 01	-

* MultiWhite accessories required

Surface-mounted light Luminaire type: Type of lighting: Accent lighting Operating voltage: 12 V DC Light colours: XtraWarmWhite/ WarmWhite/

NeutralWhite/ CoolWhite/ MultiWhite RA >90; R9 >60 600 lm/m Light source efficiency: 125 lm/W

Life span: 40,000 h (L70) Power consumption: 4.8 W/m Max. length

Colour rendering:

Luminous flux:

at a stretch: 7 m

Dimmable: Yes/PWM/Smart.home

Number of LEDs: 80/m 120° Beam angle: Half value angle: 70°

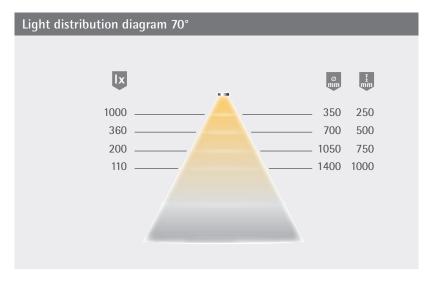
Supply lead:

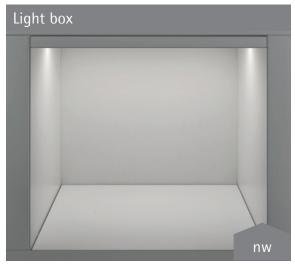
1800 mm Plug connector: LED mini connector M1

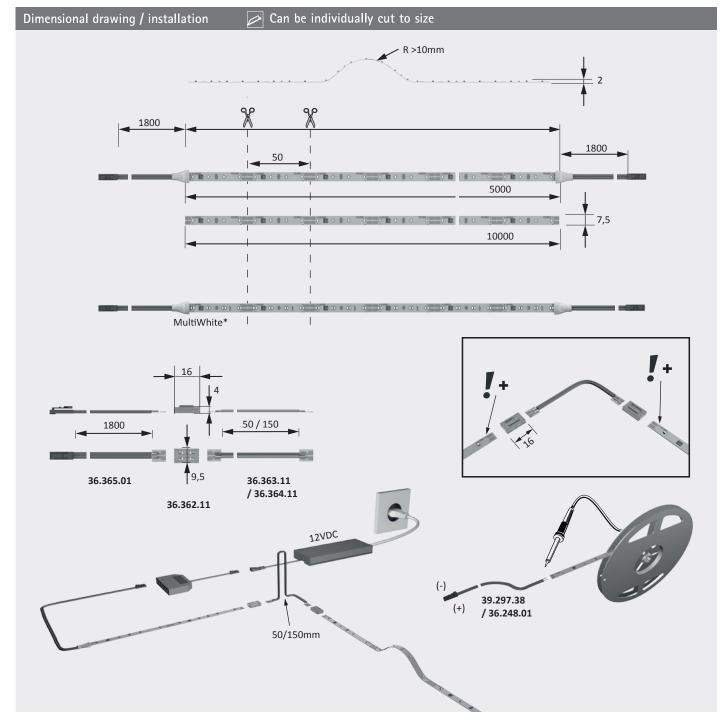
(max. 36 W)

Protection rating: IP 20 LED ballast Connection to:

^{**} Further accessories in section Switch systems









Versa Inside 120

Advantages

- ▶ 30 % more uniform light distribution
- ▶ 30 % more efficient
- ▶ 30 % more light

Features

▶ Lead on both sides for the 5000 mm length (one cut, two lights), see drawing

Examples of use

- ▶ Perfect for interior cabinet lighting
- ▶ Accent lighting in bright surroundings

Order information

- ► Feeders and/or solder leads needed for the 10 m roll
- ► For selection see Versa- and ChannelLine overview

Technical details

Versa Inside 120

	MultiWhite*	XtraWarm	WarmWhite	NeutralWhite	CoolWhite
5000 mm (max. 36 W)	56 002 33	56 002 43	56 002 13	56 002 03	56 002 23
10000 mm (max. 7.2 W/m)	56 002 31	56 002 41	56 002 11	56 002 01	56 002 21

Accessories*

	1 piece	10 piece
Direct connector	-	36 362 11
Flexible connector 50 mm	-	36 363 11
Flexible connector 150 mm	-	36 364 11
Feeder 1800 mm for sections	36 365 01	-
Soldering lead 130 mm for sections	39 297 38	-
Soldering lead 1800 mm for sections	36 248 01	-
LED ballast 15 W with Australia plug	31 026 01	-
LED ballast 30 W with Australia plug	30 221 01	-
M1 extension lead 1800 mm	36 768 01	-
M1 3-way distributor 180 mm	36 852 01	-

* MultiWhite accessories required

Luminaire type: Surface-mounted light Type of lighting: Functional lighting /

accent lighting
Operating voltage: 12 V DC
Light colours: XtraWarmWhite/

WarmWhite/ NeutralWhite/ CoolWhite/ MultiWhite RA >90: R9 >60

Colour rendering: RA >90; R9 >60 Luminous flux: 900 lm/m Efficiency light source: 125 lm/W Lifespan: 40,000 h (L70) Power consumption: 7.2 W/m

Max. length

at a stretch: 5 m

Dimmable: Yes/PWM/Smart.home

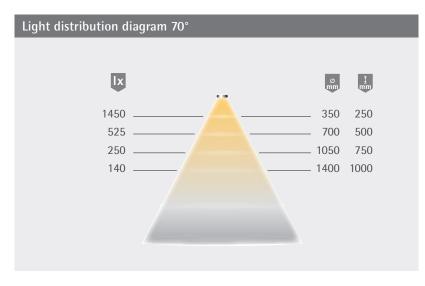
LED count: 120/m
Beam angle: 120°
Half value angle: 70°

Test marks and symbols: C€ ₩ ◈ ♥♥
Protection rating: IP 20

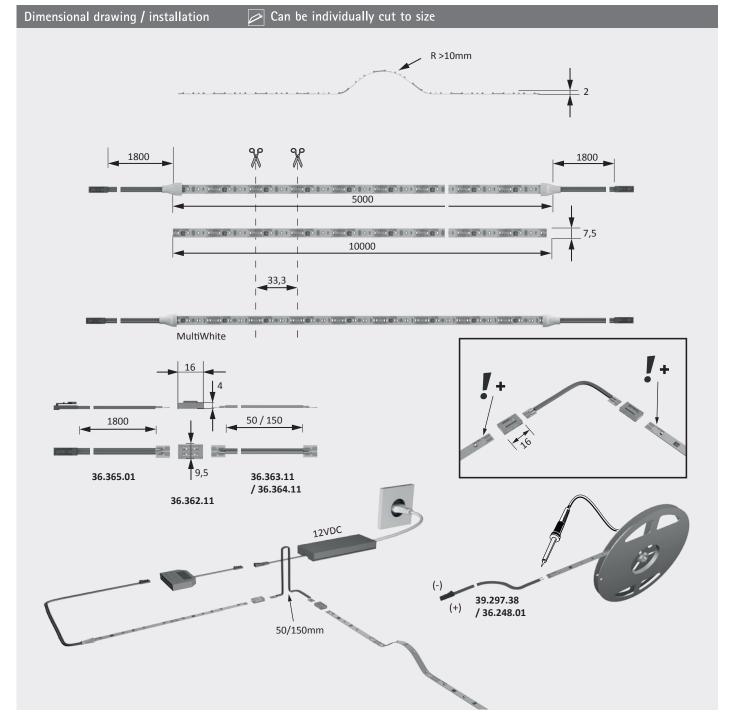
Supply lead: 1800 mm
Plug connector: LED mini connector M1

(max. 36 W) LED ballast

Connection to: LED balla











Versa Inside 160 / 12 Volt DC

Advantages

- ▶ 30 % more uniform light distribution
- ▶ 30 % more efficient
- ▶ 30 % more light

Features

- ► Lead on both sides for the 3000 mm length (one cut, two lights), see drawing
- ➤ Same brightness as Versa Inside 160 (24 Volt DC)

Examples of use

▶ Ideal for task and functional lighting

Order information

- ► Feeders and/or solder leads needed for the 10 m roll
- ► For selection see Versa- and ChannelLine overview

Technical details

Versa Inside 160

	MultiWhite*	WarmWhite	NeutralWhite	CoolWhite
3000 mm (max. 28.8 W)	56 003 32	56 003 12	56 003 02	56 003 22
10000 mm (max. 9.6 W/m)	-	56 003 11	56 003 01	56 003 21

Accessories*

	1 piece	10 piece
Direct connector	-	36 362 11
Flexible connector 50 mm	-	36 363 11
Flexible connector 150 mm	-	36 364 11
Feeder 1800 mm for sections	36 365 01	-
Soldering lead 130 mm for sections	39 297 38	-
Soldering lead 1800 mm for sections	36 248 01	-
LED ballast 15 W with Australia plug	31 026 01	-
LED ballast 30 W with Australia plug	30 221 01	-
M1 extension lead 1800 mm	36 768 01	-
M1 3-way distributor 180 mm	36 852 01	-

Luminaire type: Surface-mounted light Type of lighting: Function lighting/

Operating voltage: Light colours: accent lighting
12 V DC
WarmWhite/
NeutralWhite/
CoolWhite/
MultiWhite

Colour rendering: RA >90; R9 >60 Luminous flux: 1200 lm/m Light source efficiency: 125 lm/W Lifespan: 40,000 h (L70) Power consumption: 9.6 W/m

Max. length

Connection to:

at a stretch: 12V - 3.75 m
Dimmable: Yes/PWM/Smart.home

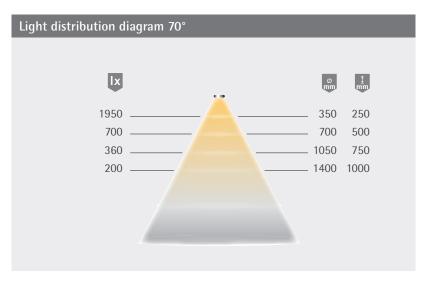
Number of LEDs: 160/m Beam angle: 120° Half value angle: 70°

Test marks and symbols: C € ₩ ♥ ♥ Protection rating: IP 20
Supply lead: 1800 mm

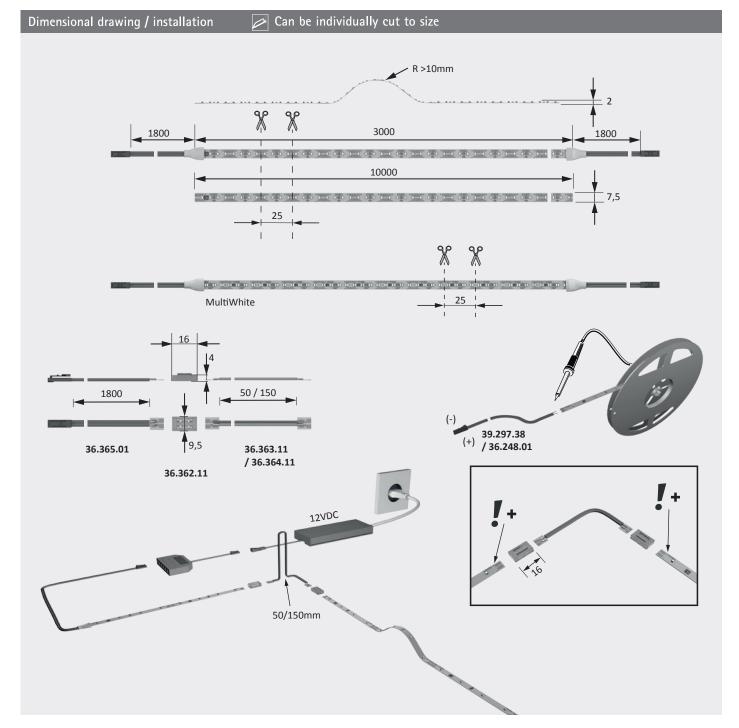
Supply lead: 1800 mm
Plug connector: LED mini connector M1

(max. 36 W) LED ballast

^{*} MultiWhite accessories required









Versa Inside 160 / 24 Volt DC

Advantages

- ▶ 30 % more uniform light distribution
- ▶ 30 % more efficient
- ▶ 30 % more light

Features

- ▶ Lead on both sides for the 5000 mm length (one cut, two lights), see drawing
- ▶ Same brightness as Versa Inside 160 (12 Volt DC)

Examples of use

▶ Perfect for indirect room lighting

Order information

- ▶ Feeders and/or solder leads needed for the 10 m roll
- ▶ For selection see Versa- and ChannelLine overview

Technical details

Versa Inside 160

	WarmWhite	NeutralWhite	CoolWhite
1200 mm (max. 11.5 W)	56 006 12	56 006 02	56 006 22
5000 mm (max. 48 W)	56 006 13	56 006 03	56 006 23

Accessories*

	1 piece	10 piece
Direct connector (max. 72 W)	-	36 362 11
Flexible connector 50 mm (max. 72 W)	-	36 363 11
Flexible connector 150 mm (max. 72 W)	-	36 364 11
Feeder 1800 mm for sections (max. 72 W)	36 366 01	-
MP2 extension lead 1800 mm	36 177 01	
LED ballast with Australia plug (75 W)	30 222 01	-
MP2 2-way distributor	39 422 51	-
MP2 6-way distributor	36 996 01	-

Luminaire type: Surface-mounted light Type of lighting: Functional lighting / accent lighting 24 V DC Operating voltage: WarmWhite/ Light colours:

NeutralWhite/ CoolWhite

RA >90; R9 >60 Colour rendering Luminous flux: 1200 lm/m Light source efficiency: 125 I/W Life span: 40,000 h (L70) 9.6 W/m Power consumption:

Max. length at a stretch:

Connection to:

5 m Yes/PWM/Smart.home Dimmable:

Number of LEDs: 160/m Beam angle: 120° 70°

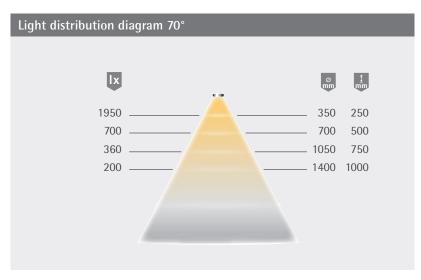
Half value angle: Test mark and symbols: Protection rating: Supply lead:

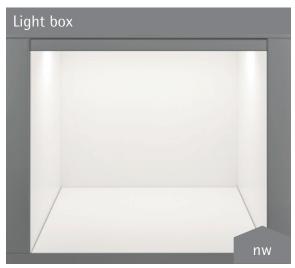
C€ EK ⊕ WW IP 20 1800 mm

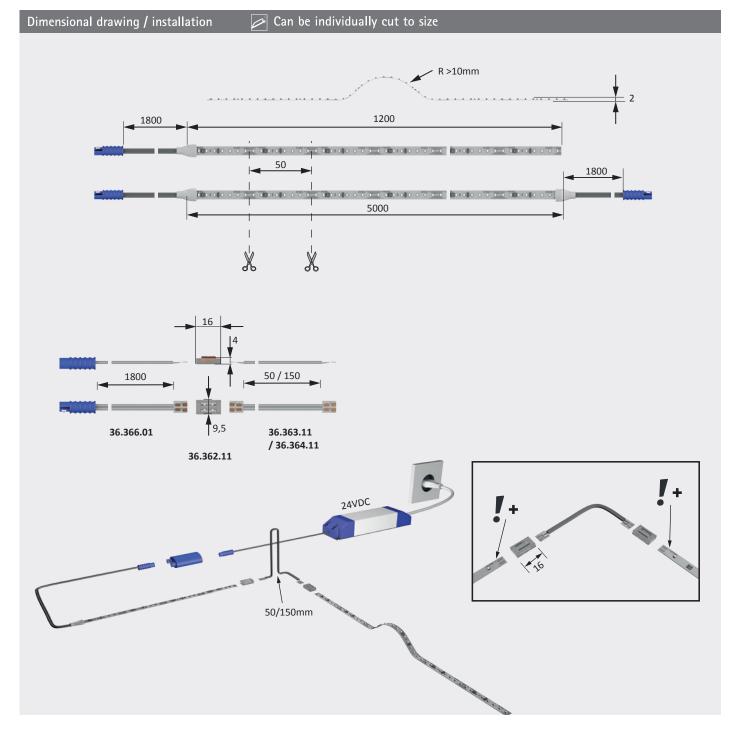
LED-MultiPlug MP2 Plug connector:

(max. 192 W) LED ballast

^{*} Further accessories in section Switch systems











Versa Inside 233 HP

Advantages

- ▶ Very close LED spacing: 233 LED/m
- ▶ Can be shortened every 30 mm
- ▶ Flexible, self-adhesive

Features

- ▶ Homogeneous illumination of all ChannelLine profiles
- ▶ Lead on both sides for the 3000 mm length (one cut, two lights)
- ▶ Low installation height

Examples of use

- ▶ Luminaire design for high lighting requirements
- ▶ Must be used with aluminium profiles
- ▶ Clamped connections not permitted

Order information

- ▶ Soldering leads are required for the 10 m roll
- ► For selection see Versa- and ChannelLine Overview

Technical details

Versa Inside 233 HP

	WarmWhite	CoolWhite
3000 mm (max. 72 W)	55 844 14	55 844 24
10000 mm (max. 24 W/m)	55 844 11	55 844 21

Accessories*

Feeder for soldering 1800 mm for sections (max. 72 W)	36 247 01
Feeder for soldering 130 mm for sections (max. 72 W)	36 247 02
Feeder for soldering 1800 mm for sections (max. 150 W)	39 416 01
Feeder for soldering 130 mm for sections (max. 150 W)	39 416 02
LED ballast with Australia plug (75 W)	30 222 01
MP2 extension lead 1800 mm	36 177 01
MP2 2-way distributor	39 422 51
MP2 6-way distributor	36 996 01

Luminaire type: Surface-mounted light
Type of lighting: Functional lighting
Operating voltage: 24 V DC
Light colours: WarmWhite/
CoolWhite

Colour rendering: RA >90; R9 >70
Luminous flux: 2200 lm/m
Light source efficiency: 90 lm/W
Life span: 40,000 h (L70)
Power consumption: 24 W/m

Max. length

at a stretch: 3 m

Dimmable: Yes/PWM/Smart.home

Number of LEDs: 233/m
Beam angle: 120°
Half value angle: 70°
Test mark and symbols: C€ \ ♥♥

Protection rating: IP 20

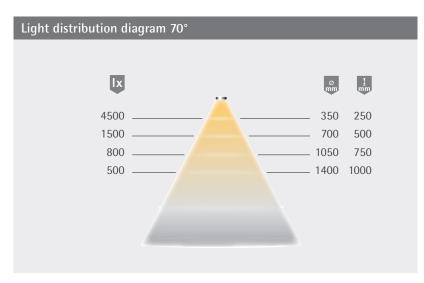
Plug connector: LED MultiPlug MP2

(max. 192 W)

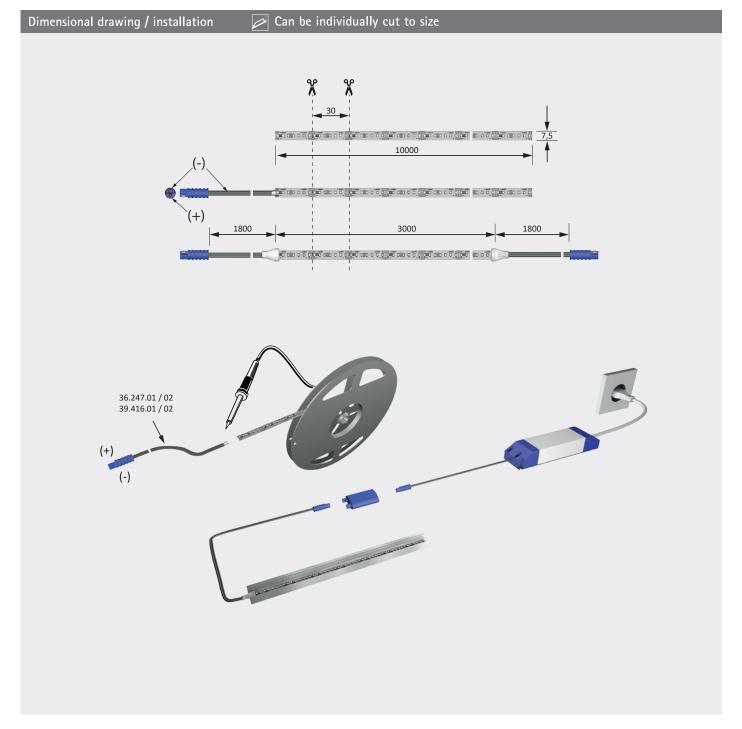
(max. 192 W) LED ballast

Connection to: LED ball

^{*} Further accessories in section Switch systems









Versa Linear

Advantages

- ▶ Extremely uniform, homogeneous luminous surface
- ▶ Equally suited for unctional and accent lighting
- ▶ Perfect results even in flat profiles

Features

- ▶ Homogeneous illumination in ChannelLine profiles
- ▶ For 3000 mm length power supply from two sides (one cut, two lights), see drawing
- ▶ COB (Chip-On-Board) with continuous phosphor coating

Examples of use

- ▶ Especially for flat ChannelLine profiles
- ▶ Ideal for ChannlLine I, I2 and M
- ▶ Suitable for applications where the light source is visible e.g. frame lighting on mirror cabinet

Order information

- ▶ Soldering leads are required for the 10 m roll
- ▶ Colour uniformity (chromaticity) may vary
- ▶ For selection see Versa- and ChannelLine

- Overview

Versa Linear (COB technology)

	XtraWarm	WarmWhite	NeutralWhite
1200 mm (max. 12 W)	56 009 42	56 009 12	56 009 02
3000 mm (max. 30 W)	56 009 43	56 009 13	56 009 03
10000 mm (max. 10 W/m)	56 009 41	56 009 11	56 009 01

Accessories*

	1 piece
Direct connector COB	36 358 01
Flexible connector 50 mm COB	36 359 01
Flexible connector 150 mm COB	36 360 01
Feeder 1800 mm for sections COB	36 361 01
Soldering lead 130 mm for sections (max. 72 W)	39 297 38
Soldering lead 1800 mm for sections (max. 72 W)	36 248 01
LED ballast 15 W with Australia plug	31 026 01
LED ballast 30 W with Australia plug	30 222 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01

Luminaire type: Type of lighting:

Technical details

Surface-mounted light Function lighting/ Accent lighting

Operating voltage: Light colours:

12 V DC XtraWarmWhite/ WarmWhite/

NeutralWhite Colour rendering: Luminous flux: Light source efficiency:

RA >90; R9 >60 1000 lm/m 100 lm/W 40,000 h (L70)

10 W/m

Life span: Power consumption: Max. length

3.6 m

at a stretch: Dimmable: Yes/PWM/Smart.home

Number of LEDs: 480/m Beam angle: 120° 70°

Half value angle: Test mark and symbols: Protection rating:

CE CK ® WW IP 20

Supply lead:

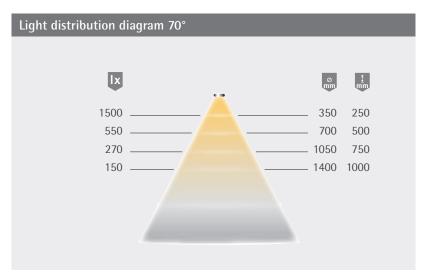
1800 mm LED mini connector M1

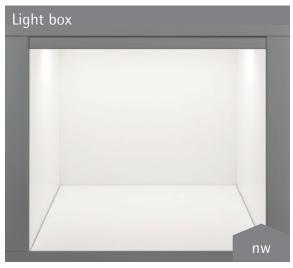
Plug connector:

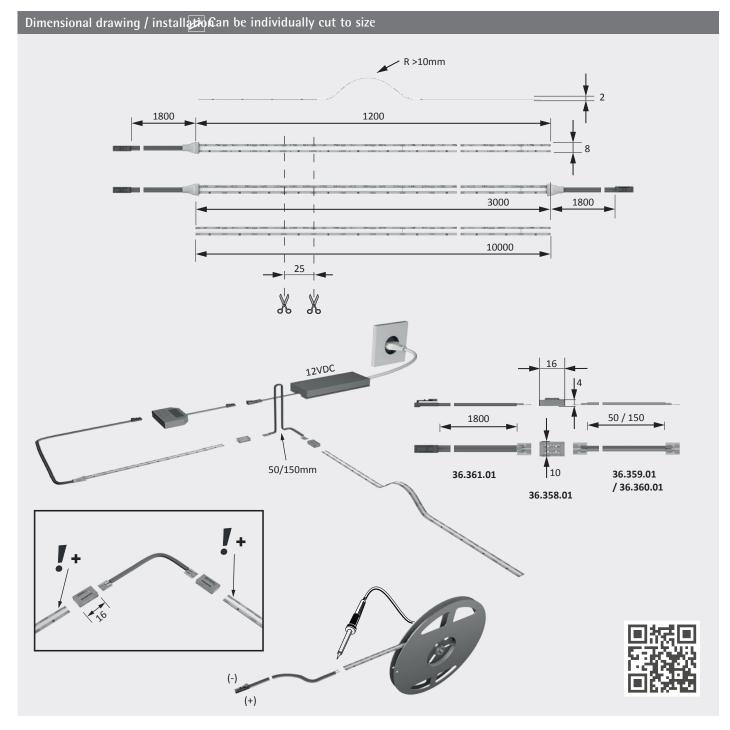
(max. 36 W) LED ballast

Connection to:

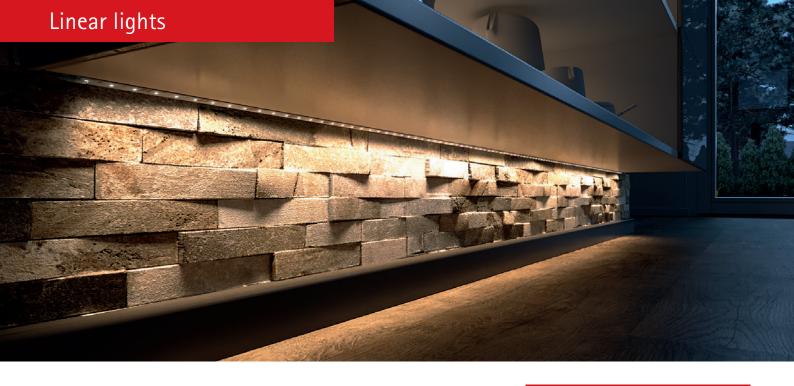
^{*} Further accessories in section Switch systems











Versa Plus 80

Advantages

- ▶ 30 % more uniform light distribution
- ▶ 30 % more efficient
- ▶ 30 % more light

Features

- ▶ Protection against splash water (suitable for damp locations)
- ► Lead on both sides for the 5000 mm length (one cut, two lights), see drawing

Examples of use

- ▶ Ideal under wall cabinets and in front of plinths
- ▶ Accent lighting e.g. on bed headboards
- ▶ Indirect lighting in unprotected areas

Order information

► For selection see Versa- and ChannelLine Overview

Technical details

Versa Plus 80

	WarmWhite	NeutralWhite	CoolWhite
5000 mm (max. 24 W)	56 004 13	56 004 03	56 004 23

Accessories***

LED ballast 15 W with Australia plug	31 026 01
LED ballast 30 W with Australia plug	30 221 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01

Luminaire type:
Type of lighting:
Operating voltage:
Light colours:

Surface-mounted light
Accent lighting
12 V DC
WarmWhite/
NeutralWhite/
CoolWhite/

 $\begin{array}{lll} \mbox{Colour rendering:} & \mbox{RA} > \!\! 90 \\ \mbox{Luminous flux:} & \mbox{480 lm/m} \\ \mbox{Light source efficiency:} & \mbox{100 lm/W} \\ \mbox{Life span:} & \mbox{40,000 h (L70)} \\ \mbox{Power consumption:} & \mbox{4.8 W/m} \\ \end{array}$

Max. length

at a stretch: 5 m

Dimmable: Yes/PWM/Smart.home

Number of LEDs: 80/m Beam angle: 120° Half value angle: 70°

Test mark and symbols: C€ ≅ ♦ ♥♥♥
Protection rating: IP 44 (Only in the

IP 44 (Only in t

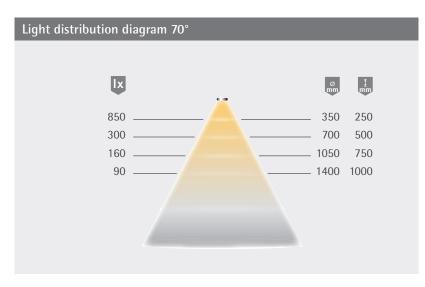
Supply lead: 1800 mm

Plug connector: LED mini connector M1

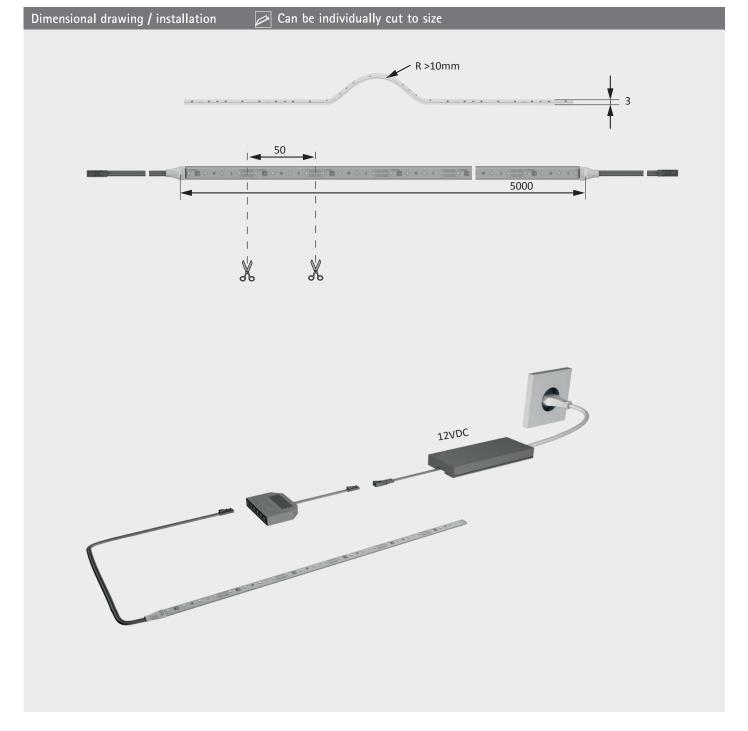
(max. 36 W) LED ballast

Connection to:

^{***} Further accessories in section Switch systems











Versa SuperPlus

Advantages

- ▶ Evenly illuminated area
- ▶ Lateral bending direction (see drawing)
- ▶ Flush mounting possible
- ▶ Can be individually cut to size

Features

- ▶ Protection against water jets from all directions (IP 65)
- ▶ Suitable for damp locations
- ▶ Supply lead on both sides (one cut, two lights), see drawing

Examples of use

- ▶ Round counters
- ▶ Decorative surfaces with visible curves
- ▶ Particularly narrow cabinet interior lighting

Order information

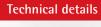
▶ Packaging unit consists of 1 piece Versa, 2 end caps and a silicone tube for sealing in wet room applications

Versa Super Plus

	WarmWhite
2500 mm (max. 18.8 W)	55 815 11

Accessories*

LED ballast 15 W with Australia plug	31 026 01
LED ballast 30 W with Australia plug	30 221 01
MP2 2-way distributor	39 422 51
MP2 6-way distributor	36 996 01





Luminaire type: Surface-mounted light Type of lighting: Accent lighting Operating voltage: 24 V DC Light colours: WarmWhite

RA >80 Colour rendering: Luminous flux: 400 lm/m 53 lm/W Light source efficiency: 40,000 h (L70) Life span: Power consumption: 7.5 W/m

Max. length at a stretch:

Supply lead:

Yes/PWM/Smart.home Dimmable: 120°

Beam angle: Half value angle:

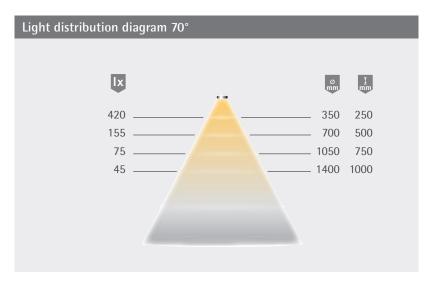
Test marks and symbols: C∈ ₩ ۞ ♥♥ Protection rating: IP 65 (Only in the

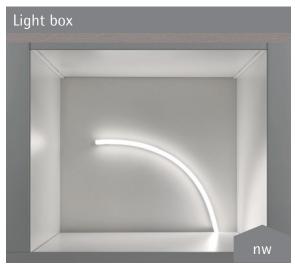
> gated area) 2 x 1800 mm LED MultiPlug MP2

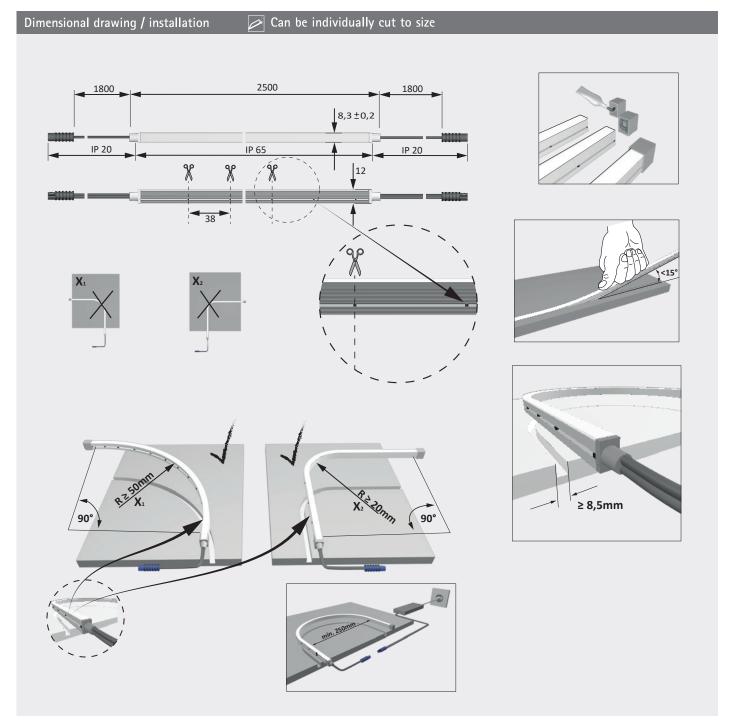
Plug connector: (max. 192 W)

Connection to: LED ballast

^{*} Further accessories in section Switch systems









Versa SuperPlus Mini

Advantages

- ▶ Evenly illuminated area
- ▶ Lateral bending direction (see drawing)
- ▶ Flush mounting possible
- ▶ Can be individually cut to size

Features

- ▶ Protection against water jets from all directions
- ▶ Suitable for damp locations (IP 44)
- ▶ Supply lead on both sides (one cut, two lights), see drawing

Examples of use

- ▶ Round counters
- ▶ Decorative surfaces with visible curves
- ▶ Particularly narrow cabinet interior lighting

Technical details

Versa Super Plus Mini

	WarmWhite	NeutralWhite
1200 mm (max. 7.2 W)	55 864 12	55 864 02
5000 mm (max. 30 W)	55 864 13	55 864 03

Accessories*

LED ballast 15 W with Australia plug	31 026 01
LED ballast 30 W with Australia plug	30 221 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01

Luminaire type: LED surface-mounted/ recessed light

Type of lighting: Operating voltage: Light colours:

Accent lighting 12 V DC WarmWhite/ NeutralWhite RA >80

Colour rendering: Luminous flux: Luminaire efficiency: Light source efficiency: 115 lm/W Life span: Power consumption:

40,000 h (L70) 6 W/m

150 lm/m

25 lm/W

Max. length at a stretch:

5 m

Dimmable: Yes/PWM/Smart.home Beam angle: 120°

Half value angle: Test mark and symbols: C∈ ₩ ۞ ♥♥ Protection rating:

70° IP 44 (Only in the

Supply lead: Plug connector:

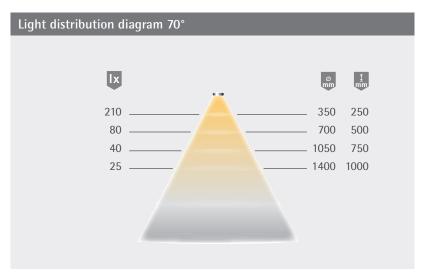
gated area) 2 x 1800 mm LED mini

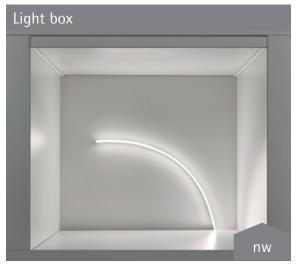
M1 plug connector

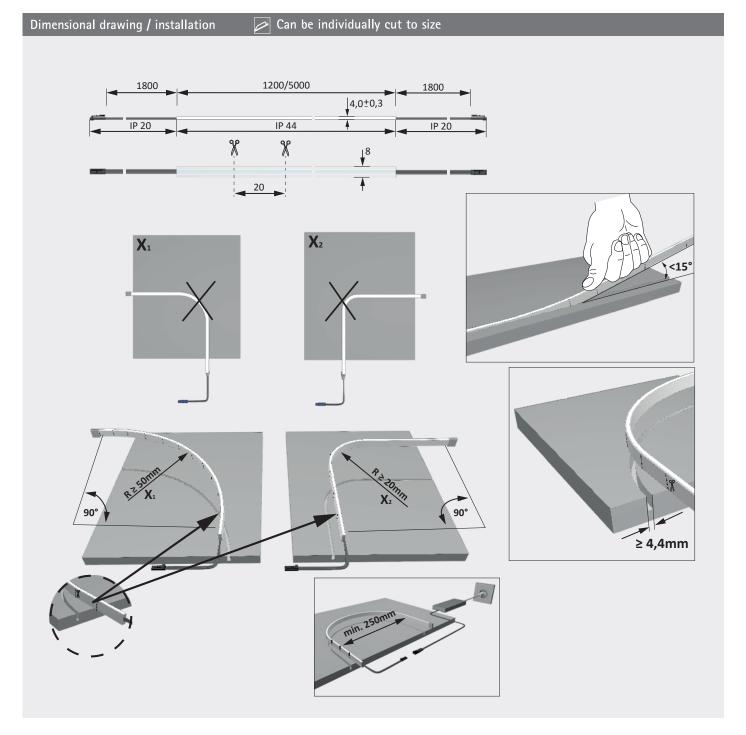
Connection to:

LED ballast

^{*} Further accessories in section Switch systems











ChannelLine profiles

Description of the different cover profiles

Black cover:

In switched off state, blends perfectly with aluminium. Very modern look. But influences light quantity and colour.

Opal cover:

The light is diffused, thus avoiding glare and, with a suitable combination of profile and strip, no LED light points are visible. The special material of the **Magic** covers hardly changes the light colour of the LED. Brightness is lost due to the diffusion effect.

Clear coverage:

Enables maximum light output or brightness, LEDs are visible, care must be taken to avoid glare.



ChannelLine profiles

High quality recessed profile High quality recessed profile Homogeneous and glare-free light line. Can be used at sight level Can be used at sight level Workship for flush mounting. Dr for flush mounting Dr for flush mounting. Dr for flush mounting actiones or top shelves, miror fame lighting. Dr for flush mounting. Dr for flush installation. Dr	Model		ChannelLine A	ChannelLi	ne B	ChannelLi	ine C / D	M	ChannelLi	ne i / i2
High quality recessed profile the deprecessed profile										
High quality recessed profile the deprecessed profile	Cover		Onal	Onal	Rlack	Clear	Onal	Black	Onal	Rlack
worktops backlighting worktops backlighting backlighting worktops backlighting backlighting worktops backlighting worktops backlighting backlighting worktops backlight worktops backlighting worktops backlight worktop	Advantages		High quality recessed profile Homogeneous and glare- free light line	High quality of profile B with filigre	deep recessed	High-quality ted profile C with filigre	flat recessed/si	I .	High-quality trecessed/surfaprofile 2 with filigree	filigree ice-mounted e profile trim
15% 15%	Applications / pr	oduct features	worktops	the floor Kitchen niche shelves, mirro	es or top				cabinets or sh	elves
Type of lighting Accent light	Light transmissio	on	90%	65%	15%	85%	70 %	20%	70%	20%
Type of lighting	Half-value angle	alf-value angle		60°		60°		60°		
Versa 80 Type of lighting Accent light Light point visibility Invisible Invisible Invisible Invisible Visible Invisible Accent Ignt Invisible Invisible Invisible Invisible Invisible Invisible Accent Ignt	Versa 40	Type of lighting	Accent light	Accent light	Accent light		Accent light		Accer	nt light
Type of lighting Accent light			Low	Vis	ible		Visible		Visible	
Light point visibility Type of lighting Accent/functional light Accent light Visible Versa 160 Type of lighting Functional light Functional light Functional light Accent light Functional light Accent light Functional light Accent light Light point visibility Invisible Invisible	Versa 80	Type of lighting	Accent light	Accer	nt light		Accent light		Accer	nt light
Type of lighting			Invisible				Visible		Vis	ible
Versa 160 Type of lighting Functional light Light point visibility Type of lighting Functional light Invisible Invisible Invisible Invisible Invisible Invisible Invisible Visible Invisible Invisible Visible Visible Visible Visible Visible Visible Visible Visible Invisible Visible Invisible	Versa 120	Type of lighting	Accent/functional light		Accent light	Accent/fur	nctional light	Accent light		Accent lig
Type of lighting Functional light Functional light Accent light Functional light Accent light Functional light Accent light Functional light Accent light Functional light Functional light Visible Invisible Visible Invisible Visible Invisible Functional light Functional light Functional light Functional light Functional light Invisible		- '	Invisible	Invisible	Invisible	Vi	sible	Visible	Vis	ible
visibility Versa 233 HP Type of lighting Functional light Functional light Functional light Functional light Functional light Visible Invisible Invisible Invisible Invisible Accent/func-	Versa 160	Type of lighting	Functional light		Accent light	Functio	onal light	Accent light		Accent lig
Type of lighting Functional light Functional light Functional light Functional light Light point visibility Invisible Invisible Visible Invisible Invisible Invisible Accent/func-Accent light			Invisible	Invisible	Invisible	Visible	lnvi	isible	Vis	ible
visibility invisible invisible visible invisible invisib	/ersa 233 HP	Type of lighting	Functional light	Functio	nal light		Functional ligh	nt		Functiona light
Accent lia			Invisible	Invi	Invisible Visible Invisible		Invisible	Invisible		
										Accent ligl





ChannelLine A

Advantages

- ▶ High quality recessed profile
- ▶ Homogeneous and glare-free light line
- ▶ Can be installed at sight level

Features

- ▶ Homogeneous light line with Versa Inside from 80 LED/m
- ▶ Beam angle in installed condition is approx. 35°

Examples of use

- ► Edge lighting for kitchen countertops or vertically between fronts
- ▶ Backlighting for low or sideboards

Order information

- ▶ Use of feeders and connectors possible in profile
- ▶ For selection see ChannelLine overview

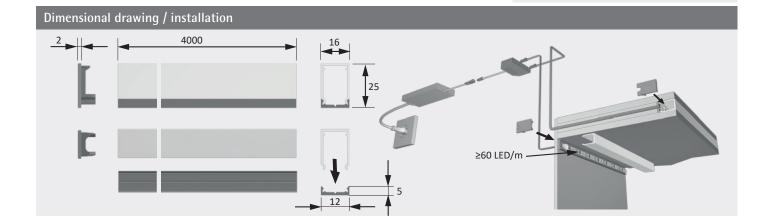


ChannelLine A

	Opal
4000 mm	38 817 02
End cap (2 units per set)	25 567 01

Recommended for:

Versa Inside 80 Versa Inside 120





ChannelLine B

Advantages

- ▶ High quality deep recessed profile
- ▶ With filigree profile trim
- ▶ Cover is attachable from above or retractable from the side

Features

- ▶ New Opal cover 30% more light and and only slight change in light colour
- ► Homogeneous light line with Versa Inside from 120 LED/m
- ▶ Wide beam angle of approx. 100°

Examples of use

- ▶ Interior cabinet lighting in the floor
- ▶ Kitchen niche or top
- ▶ Shelves

Order information

- ▶ Use of feeders and connectors in the profile possible
- ► To increase the luminosity, two Versa Inside can be attached side by side
- ▶ For selection see ChannelLine overview



Recommended for:

Versa Inside 120 Versa Inside 160

ChannelLine B

	Alu/Opal	Black/Opal
3000 mm	55 871 02	55 871 06
End cap (set of 2) lacquered	25 568 01	25 568 05
End cap type 2 (set of 2) lacquered	25 785 01	25 785 05
Built-in spring ChannelLine B (set of 2)	25 536 01	25 536 01

Type 2 Type 1 7,5 26 15,5 15,5 15,5



ChannelLine C

Advantages

- ▶ High quality flat recessed profile
- ▶ With filigree profile trim
- ▶ Cover can be attached from above or from the side

Features

- ▶ New opal cover 30% more light and and only slight change in light colour
- ► Homogeneous light line with Versa Inside from 160 LED/m
- ▶ Wide beam angle of approx. 110°

Examples of use

- ▶ Interior cabinet lighting in the floor
- ▶ Kitchen niche or top
- ▶ Shelves

Order information

- ▶ Use of feeders and connectors in the profile possiblea
- ► To increase the luminosity, two Versa Inside can be attached side by side
- ▶ For selection see ChannelLine overview

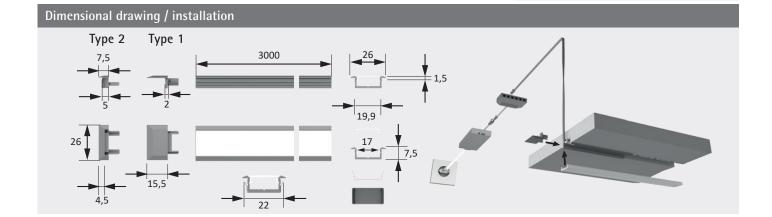
Technical details

Recommended for:

Versa Inside 120 Versa Inside 160

ChannelLine C

	Alu/Opal	Alu/Clear	Black/Opal	Black / Black
3000 mm	55 872 02	55 661 12	55 872 06	55 872 08
End cap (set of 2) lacquered	25 569 01	25 569 01	25 569 05	25 569 05
End cap type 2 (set of 2) lacquered	25 786 01	25 786 01	25 786 05	25 786 05
Built-in spring ChannelLine C (set of 2)	25 536 01	25 536 01	25 536 01	25 536 01





ChannelLine D

Advantages

- ▶ High-quality flat recessed/surface-mounted profile
- ▶ For flush mounting
- ▶ Cover can be attached from above or from the side

Features

- ▶ New opal cover 30% more light and and only slight change in light colour
- ▶ Homogeneous light line with Versa Inside from 160 LED/m with opal diffuser
- ▶ Very wide beam angle of approx. 110°

Examples of use

- ▶ Flush with the inside of the cabinet
- ▶ Retrofitting in niches

Order information

- ▶ Use of feeders and connectors in the profile possible
- ► To increase the luminosity, two Versa Inside can be attached side by side
- ▶ For selection see ChannelLine overview

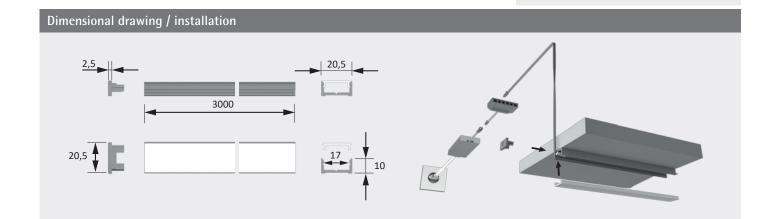


ChannelLine D

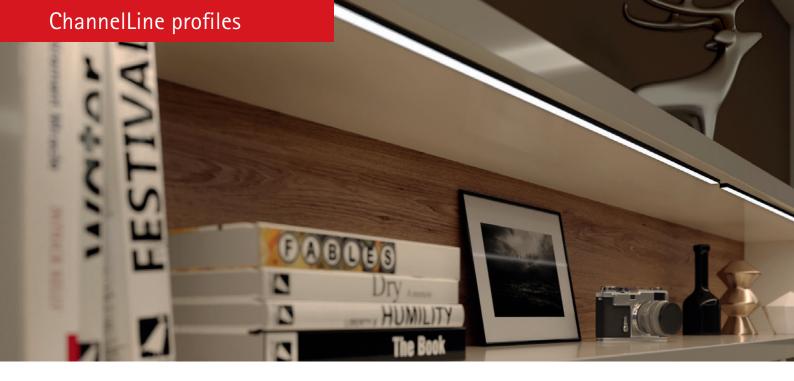
	Alu/Opal	Alu/Clear	Black/Opal	Black / Black
3000 mm	55 873 02	55 662 12	55 873 06	55 873 08
End cap (set of 2) lacquered	25 570 01	25 570 01	25 570 05	25 570 05

Recommended for:

Versa Inside 120 Versa Inside 160







ChannelLine i

Advantages

- ▶ High-quality recessed/surface-mounted profile
- ▶ Almost rimless illuminated surface
- ▶ For flush mounting
- ▶ Filigree profile for thin materials

Features

- ▶ New opal cover 30% more light and and only slight change in light colour
- ▶ Homogeneous light line with Versa Inside from 233 LED/m
- ▶ Very wide beam angle of approx. 100°

Examples of use

- ▶ Flush with cabinet sides or shelves
- ▶ Retrofitting in niches

Order information

▶ For selection see ChannelLine overview

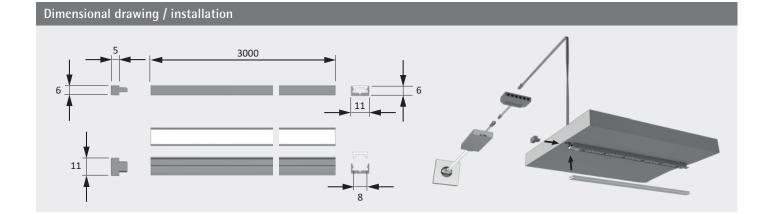


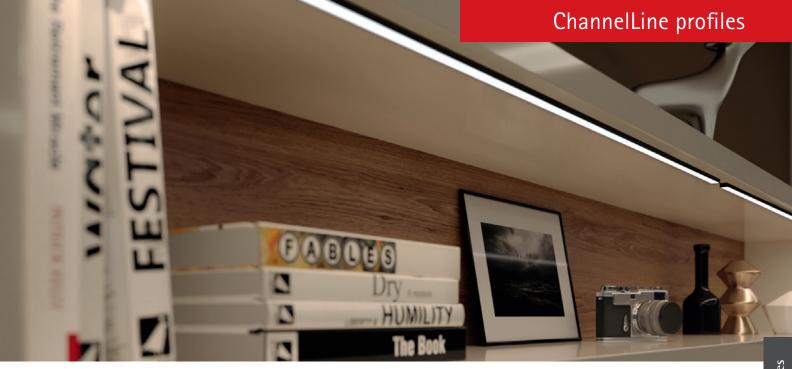
Recommended for:

Versa Inside 233 HP

ChannelLine i

	Alu/Opal	Black/Opal	Black / Black
3000 mm	55 874 02	55 874 06	55 874 08
End cap (set of 2) lacquered	25 563 01	25 563 05	25 563 05





ChannelLine i2

Advantages

- ▶ High quality recessed profile
- ▶ With filigree profile trim
- ▶ Glare-free and concentrated light emission
- ▶ Filigree profile for thin materials

Features

- ▶ New Opal cover 30% more light and and only slight change in light colour
- ► Homogeneous light line with Versa Inside from 160 LED/m with opal cover
- ▶ Narrow beam angle of approx. 35°

Examples of use

- ▶ Accent lighting in display cabinets or shelves
- ▶ Stairs

Order information

▶ For selection see ChannelLine overview



ChannelLine i2

	Alu/Opal	Black/Opal
3000 mm	55 887 02	55 887 06
End cap (set of 2) lacquered	25 799 01	25 799 05

Recommended for:

Versa Inside 160 Versa Inside 233 HP Versa Linear



Dimensional drawing / installation 8,5 2000 / 3000





ChannelLine L

Advantages

- ▶ Recessed profile with chrome-plated design strip
- ▶ Glare-free light emission

Features

- ▶ Homogeneous light line with Versa Inside from 80 LED/m
- ▶ Plastic profile

Examples of use

- ▶ Wardrobe halo lighting
- ▶ Mirror frame lighting



ChannelLine L

3000 mm

Opal Versa Ins

55 759 02

Versa Inside 80 Versa Inside 120

Recommended for:

Dimensional drawing / installation 2000 / 3000 mm (a) Isolated the second of the sec

ChannelLine M

Advantages

- ▶ Filigree inlet profile in anodised aluminium
- ▶ Glare-free and angled light emission
- ▶ No light loss due to cover

Features

- ▶ Homogeneous light line with Versa Linear
- ▶ Unidirectional beam angle of approx. 90°

Examples of use

▶ Interior cabinet lighting as a functional or accent lighting

Order information

- ▶ Only suitable for 8 mm wide Versa
- ▶ For selection see ChannelLine overview

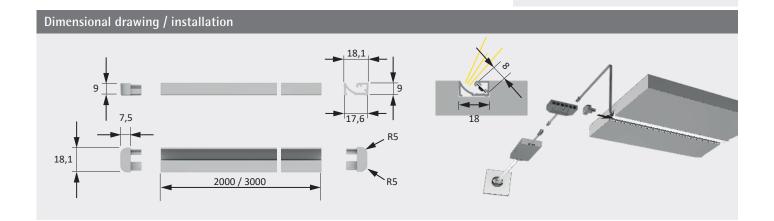


ChannelLine M

	Aluminium
3000 mm	55 760 02
End cap (set of 2) lacquered	25 984 01

Recommended for:

Versa Linear







ChannelLine Sensor PIR

Advantages

- ▶ Motion sensor for insertion into the profile
- ▶ Responds to heat and movement

Features

▶ Direct installation in the ChannelLine profile

Examples of use

▶ For ChannelLine B, C, D

Order information

▶ Also suitable for MultiWhite Versa



ChannelLine PIR Motion Sensor

ChannelLine sensor 12 V DC

30 170 01

Operating voltage: 12 V DC
Max. switching power: 36 W
Test marks and symbols: C € ♥ ♥♥
Sensing angle: 120°
Range: 2 m
Stay-'ON' time: 30 seconds
Supply lead: 1800 mm
Standby: < 0.5 W

Dimensional drawing / installation

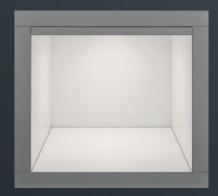






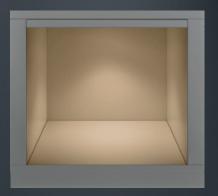
Wide beam LitePanel 68

LitePanel creates bright light – into the furthest corners of the furniture.



StarPoint Flood

Powerful LED light with small beam angle.



Spotlights

Outwardly small, but big in luminosity

Our spotlights are small in size but big in performance: in relation to their size, they impress with excellent light output.

Built into ceilings or furniture, they shine with accentuated, focused or pointed light.



LitePanel 68

Advantages

- ▶ Modern luminaire in discreet design
- ▶ Low installation depth
- ▶ 100 % homogeneous luminous surface

Features

- ▶ High light output in relation to size
- ▶ Recessed luminaire for 68 mm mounting diameter
- ▶ Wide beam without shadows

Examples of use

- ▶ Shelves
- ▶ Display cabinets
- ▶ Kitchen midway sections

Order information

- ▶ MultiWhite control for colour adjustment
- ▶ With direct connection to an electronic ballast, the light colour is XtraWarmWhite (2700K)
- ▶ Use at least two luminaires per meter of kitchen niche

LitePanel 68

	MultiWhite*
Black	32 348 35
Stainless steel look, anodised	32 348 39
A . * **	
Accessories**	
S-Mitter Basic MultiWhite Smart Set	31 123 01
LED ballast 30 W with Australia plug	30 221 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01



Luminaire type: LED recessed light Type of lighting: Functional / accent lighting

Surface finish: Black/

stainless steel look

12 V DC Operating voltage: Light colour: MultiWhiteColour rendering: RA >80 Luminous flux: 290 lm Luminaire efficiency: 67 lm/W Light source efficiency: 84 lm/W Life span: 40,000 h (L70)

Power consumption: 4.3 W Dimmable:

Beam angle:

Half value angle:

36 125 01

Protection rating: IP 20 Installed diameter: 68 mm Supply lead: 1800 mm Plug connector:

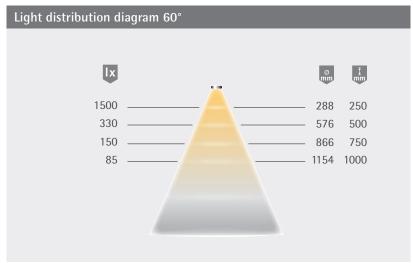
Connection to:

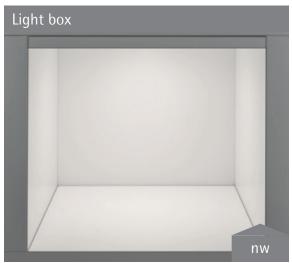
M1 6-way distributor 2000 mm

Yes/PWM/Smart.home 90° 60° LED mini M1 plug connector LED ballast

^{*} MultiWhite accessories required

^{**} Further accessories in section Switch systems





Dimensional drawing / installation Ø68 1800 Ø8 1,5 MultiWhite



Sign Plus

Advantages

▶ Classic model

▶ Lamp in retro design

Features

- ▶ Wide beam angle
- ▶ Shadow-free illumination
- ▶ Recessed light with 68 mm installed diameter

Examples of use

▶ Flat shelves

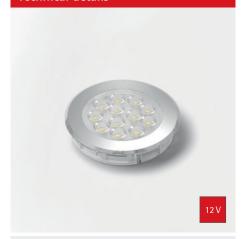
Sign Plus

	WarmWhite	NeutralWhite	CoolWhite
Aluminium look – single light	32 977 16	32 977 06	32 977 26
Aluminium look - 3 Ligh Set incl. ballast	40 143 16	40 143 06	40 143 26

Accessories*

Surface-mounted housing	36 151 06
LED ballast 15 W with Australia plug	31 026 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01
M1.6-way distributor 2000 mm	36 125 01

Technical details



Luminaire type: Type of lighting:

Surface finish: Operating voltage:

Light colour:

Colour rendering index CRI: Energy efficiency:

Life span: Power consumption: Dimmable: Beam angle: Test marks and

symbols: Protection rating: Installed diameter: Supply lead: Plug connector:

Connection to:

LED recessed light Functional /

accent lighting Aluminium look 12 V DC

WarmWhite/ NeutralWhite/CoolWhite

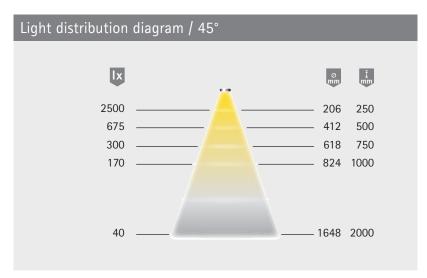
45°

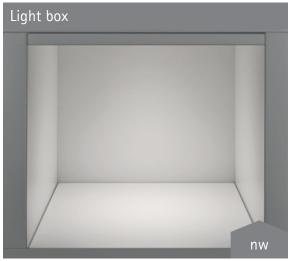
67 lm/W 30,000 h (L70) 2.3 W Yes

C € 5 ∰ ∰ ∰ IP 20 68 mm 1800 mm LED mini

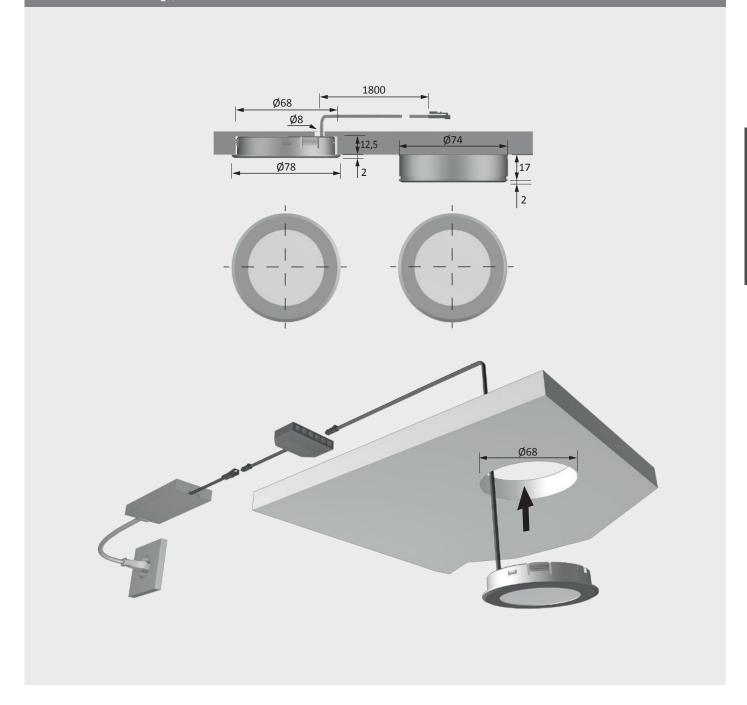
M1 plug connector LED ballast

^{*} Further accessories in section Switch systems

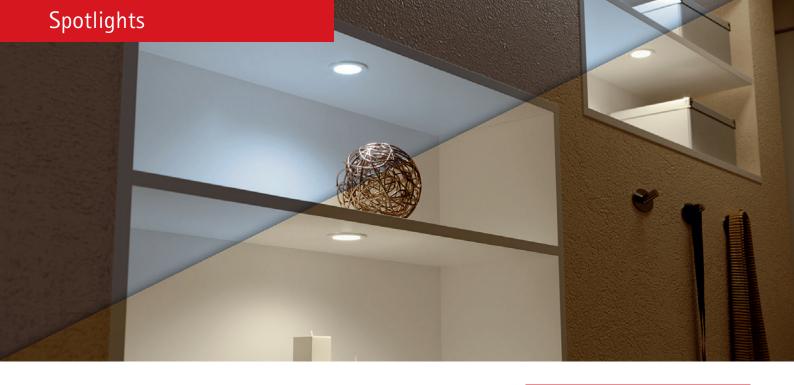




Dimensional drawing / installation







MultiLite Flood

Advantages

- ▶ Available in many surfaces
- ▶ Evenly illuminated area
- ▶ Simple timeless design

Features

- ▶ High light output in relation to size
- ▶ Plug-in connection on housing
- ▶ Recessed luminaire for 58 mm mounting diameter

Examples of use

- ▶ Shelves
- ▶ Display cabinets
- ▶ Kitchen midway sections

Order information

- ▶ Luminaire and cover ring must be ordered separ-
- ▶ For a kitchen niche use at least two luminaires per meter
- ▶ With direct connection of a MultiWhite luminaire to an electronic ballast, the light colour is XtraWarmWhite (2700K)

N.A. . 141\A/I. 14 - *

MultiLite Flood

	Willtivvnite"	vvarmvvnite
Individual light	32 066 31	32 150 11
Accessories**		

Cover ring – aluminium look	25 175 26
Cover ring - chrome, matte	25 175 16
Cover ring - stainless steel look	25 175 09
Cover ring - black matt	25 175 05
LED ballast 30 W with Australia plug	30 221 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01
M1 6-way distributor 2000 mm	36 125 01

Technical details



Luminaire type: Type of lighting: LED recessed light Functional/ accent lighting

Surface finish:

Aluminium look/ chrome 12 V DC

Operating voltage: Light colour: Colour rendering:

Luminous flux:

WarmWhite/ MultiWhite RA >85 240 lm 60 lm/W

Luminaire efficiency: Light source efficiency: Life span:

70 lm/W 40,000 h (L70)

Power consumption: Dimmable:

4 W Yes/PWM/Smart.home

Beam angle: Half value angle: Test mark and symbols: C € 법 ◈ 쌩쌩 Protection rating:

90° 60°

IP 44 Installed diameter: 58 mm Supply lead: 2000 mm Plug connector:

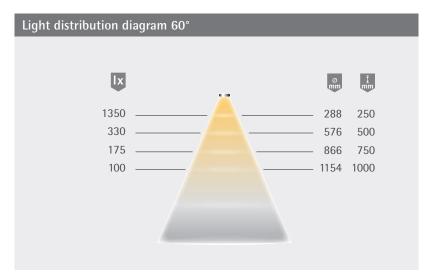
M1 plug connector

LED ballast

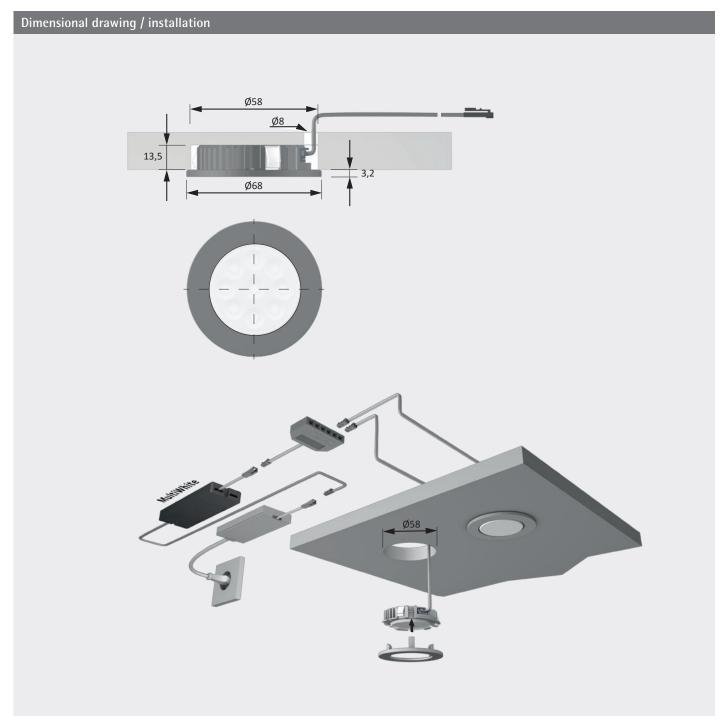
Connection to:

^{*} MultiWhite accessories required

^{**} Further accessories in section Switch systems











EcoPower L

Advantages

- ▶ Entry-level recessed spotlight
- ▶ Compact light

Features

- ▶ For 68 mm mounting diameter
- ▶ Wide beam without shadows

Examples of use

- ▶ Shelves
- ▶ Display cabinets
- ▶ Kitchen midway sections

Order information

- ► For a kitchen niche at least two luminaires per meter
- ▶ With direct connection of a MultiWhite luminaire to an electronic ballast, the light colour is XtraWarmWhite (2700K)

EcoPower L

	MultiWhite*	WarmWhite	NeutralWhite
Stainless steel look	32 144 39	32 144 19	32 144 09
Black	32 144 35	32 144 15	32 144 05

Accessories**

LED ballast 30 W with Australia plug	30 221 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01
M1 6-way distributor 2000 mm	36 125 01



Luminaire type:
Type of lighting:

Surface finish:

LED recessed light
Functional /
accent lighting
Stainless steel look/

face finish: Stainless steel black

Operating voltage: 12 V DC
Light colour: WarmWhite/
NeutralWhite/
MultiWhite

Colour rendering: RA > 80
Luminous flux: 230 lm
Luminaire efficiency: 72 lm/W
Light source efficiency: 94 lm/W
Life span: 40,000 h (L70)
Power consumption: 3.2 W

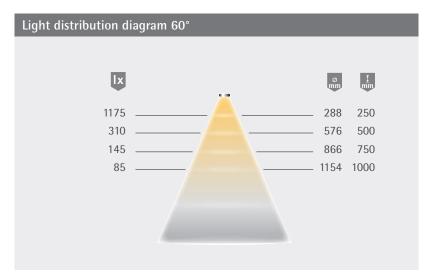
Dimmable: Yes/PWM/Smart.home

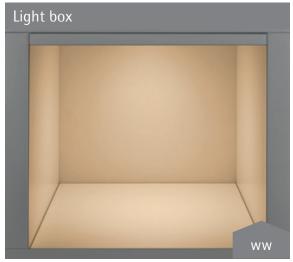
Beam angle: 90° Half value angle: 60°

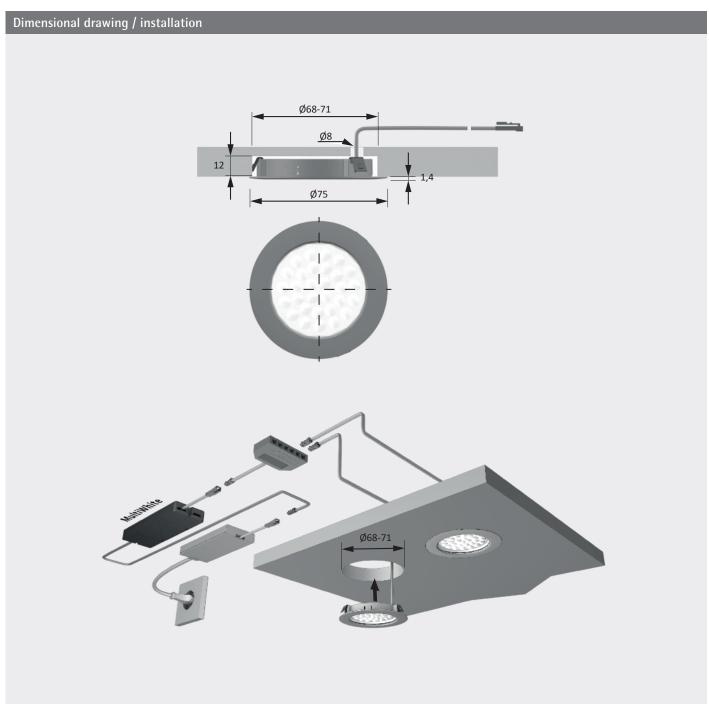
M1 plug connector Connection to: LED ballast

^{*} MultiWhite accessories required

^{**} Further accessories in section Switch systems











StarPoint Flood

Advantages

- ▶ Powerful LED spotlight
- ▶ Accentuation by small beam angle
- ▶ Versatile

Features

▶ Recessed light with 30 mm installed diameter

Examples of use

- ▶ Shelves
- ▶ Display cabinets
- ▶ Furniture halo lighting

Technical details

StarPoint Flood

	WarmWhite	NeutralWhite
Chrome	32 146 13	32 146 03

Accessories*

LED ballast 30 W with Australia plug	30 221 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01
M1 6-way distributor 2000 mm	36 125 01

Luminaire type: LED recessed light Type of lighting: Functional / accent lighting Surface finish: chrome 12 V DC Operating voltage: Light colour: WarmWhite/ NeutralWhite Colour rendering: RA >80 95 lm Luminous flux: Luminaire efficiency: 80 lm/W Light source efficiency: 95 lm/W Life span: 40,000 h (L70) Power consumption: 1.2 W Yes/PWM/Smart.home Dimmable: Beam angle: 80°

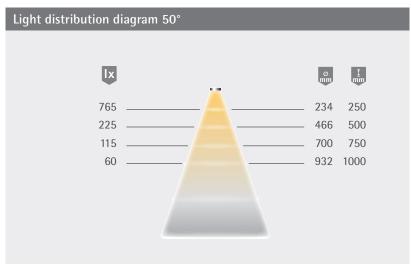
Half value angle: 50° Protection rating: IP 20 Installed diameter: Supply lead:

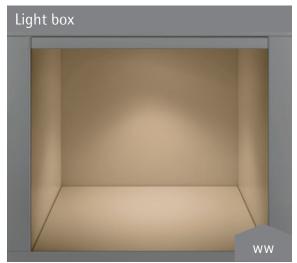
29-32 mm 1800 mm LED mini

Plug connector: M1 plug connector Connection to:

LED ballast

^{*} Further accessories in section Switch systems





Dimensional drawing / installation Ø36





SideSpot

Advantages

- ▶ Accentuation by light from below/side
- ▶ Can be used without glare

Features

- ▶ Oblique light emission
- ▶ Recessed luminaire for 35 mm mounting diameter

Examples of use

- ▶ Shelves
- ▶ Display cabinets
- ▶ Carcase sides and shelves

Order information

▶ With direct connection of a MultiWhite luminaire to an electronic ballast, the light colour is XtraWarmWhite (2700K)

Technical details



12 V

SideSpot

	MultiWhite*	Extra WarmWhite	CoolWhite
Black	32 171 35	32 171 45	32 171 25

Accessories**

S-Mitter Basic MultiWhite Smart Set	31 123 01
LED ballast 15 W with Australia plug	31 026 01
M1 extension lead 1800 mm	36 768 01
M1 3-way distributor 180 mm	36 852 01
M1 6-way distributor 2000 mm	36 125 01

Luminaire type: LED recessed light Type of lighting: Functional/

accent lighting
Surface finish:
Operating voltage:
Light colour:
Black
12 V DC
MultiWhite/

MultiWhite/ XtraWarmWhite/ CoolWhite

Colour rendering: RA >80
Luminous flux: 50 lm
Luminaire efficiency: 30 lm/W
Light source efficiency: 45 lm/W
Life span: 40,000 h (L70)

Power consumption: 1.4 W
Dimmable: Yes/PWM/Smart.home

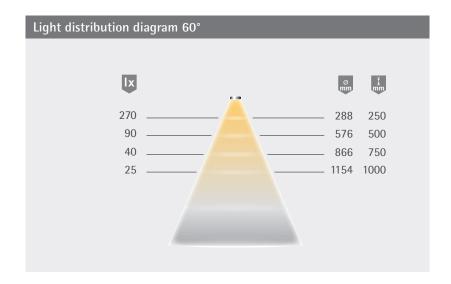
Beam angle: 90° Half value angle: 60°

M1 plug connector

Connection to: LED ballast

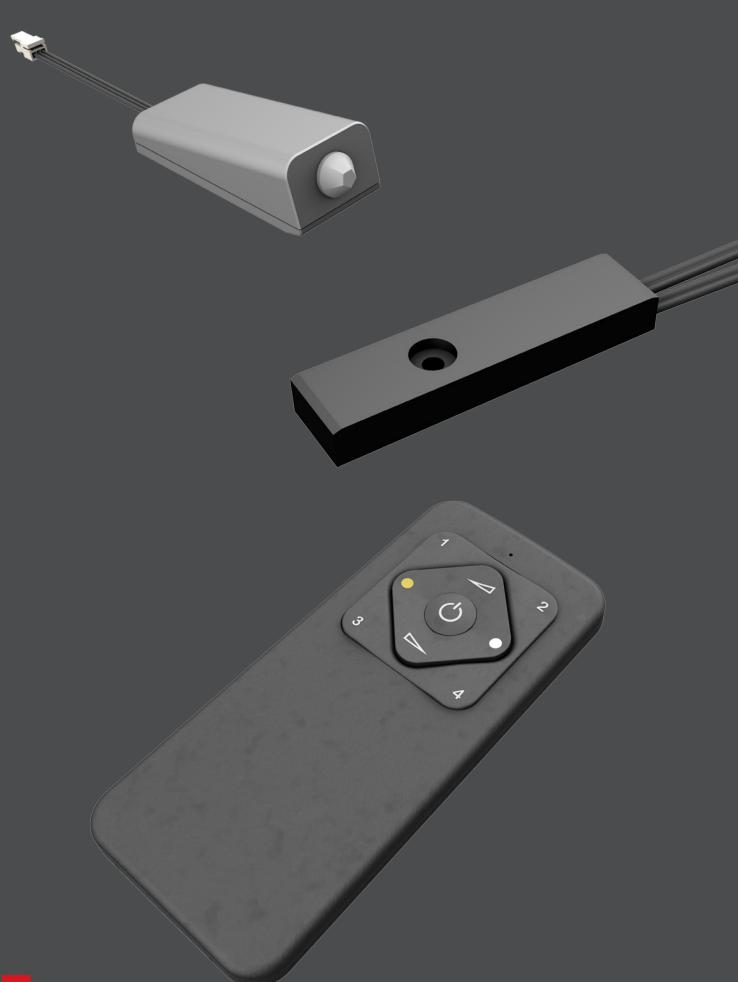
^{*} MultiWhite accessories required

^{**} Further accessories in section Switch systems



Dimensional drawing / installation 1800 Ø35 Ø8 13







Switch systems

The right system for any installation

Gentle dimming of luminaires, suitable lighting scenes or lights that respond to movement:

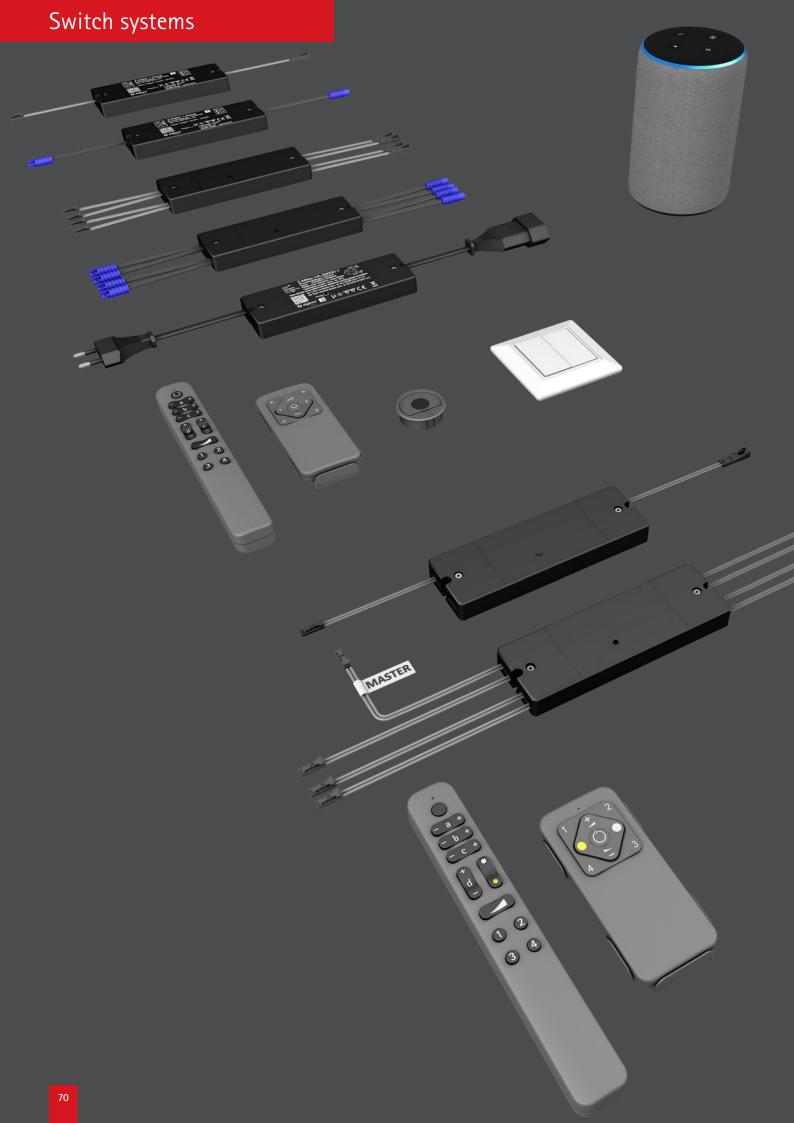
whether smart or conventional, our switch systems provide the right atmosphere at the right time.

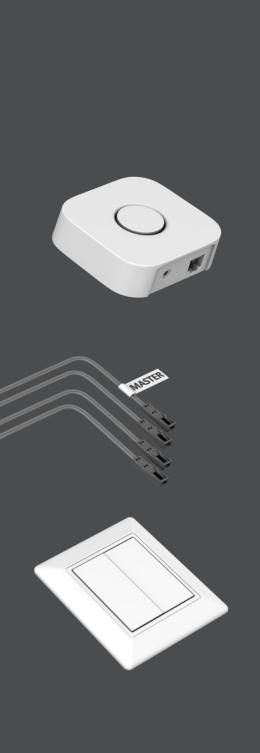
However, our switch systems do not only work via Smart.home or remote control.

Lights can also be switched on automatically with motion sensors or door contact switches.

Of course, they can also be operated with the push of a button.

You can easily operate your furniture lighting or integrate it into your smart home – without any particular technical skills.





Smart receiver

Simply switch smart – in every situation

Our Smart receivers enable simple and intelligent lighting control. They work independently with the Halemeier remote control via Touch-Link or optionally in the Smart Home via Zigbee 3.0 in combination with many other devices from well-known manufacturers in the Zigbee Alliance.

The smart receivers not only receive signals, but also synchronise them wirelessly with each other (mesh). This allows you to set up large lighting systems with several lighting circuits or receivers.

Each smart receiver increases the range and stability of the overall system.



Zigbee controller for controlling lights

- Uses the Zigbee 3.0 protocol
- Supports Zigbee TouchLink
- Adding devices to the self-configuring Zigbee Touchlink network possible
- Compatible with Zigbee Gateway universal products
- Compatible with Zigbee universal remote controls





4-Mitter

Advantages

- ▶ 4-channel wireless switch and dimmer
- ▶ Comfortable light switching
- ▶ Can be integrated in a smart home

Features

▶ Memory function for power failure

Wall mount Smart Basic, magnetic

- ▶ Storage of 2 light scenes
- ▶ Remote control and smart receiver are in the set programmed in the set
- ▶ Set works independently or in smart home network

Order information

- ▶ Set consists of 4-Mitter Smart Remote control and Smart Receiver
- ▶ The Smart.home overview shows how our switch systems can be combined with each other and with third party providers

Technical details

4-Mitter (4-channel wireless switch and dimmer)

4-Mitter Smart Radio Switch Set 12 Volt DC	31 115 01
4-Mitter Smart Radio Switch Set 24 Volt DC	31 116 01
4-Mitter Smart Remote Control	31 117 01
Accessories*	

Transmitter surface: Soft lacquer black

Receiver housing: Black

Max. switching power: 12 Volt DC-4*36W

24 Volt DC-4*72W C € 5 ∰ ⊕ ₩/₩/

Test marks and symbols: Supply lead: Switching lead:

Standby receiver:

Plug connector:

36 257 01

160 mm 160 mm <0.3 W

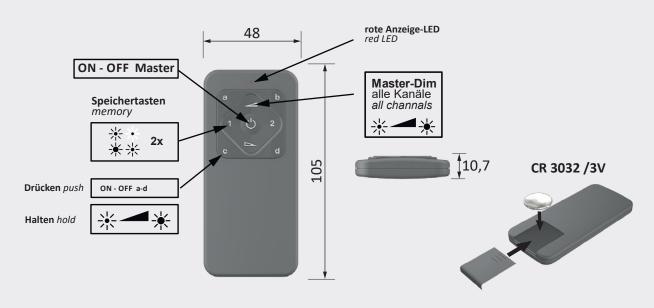
LED Plug connector M1/MP2



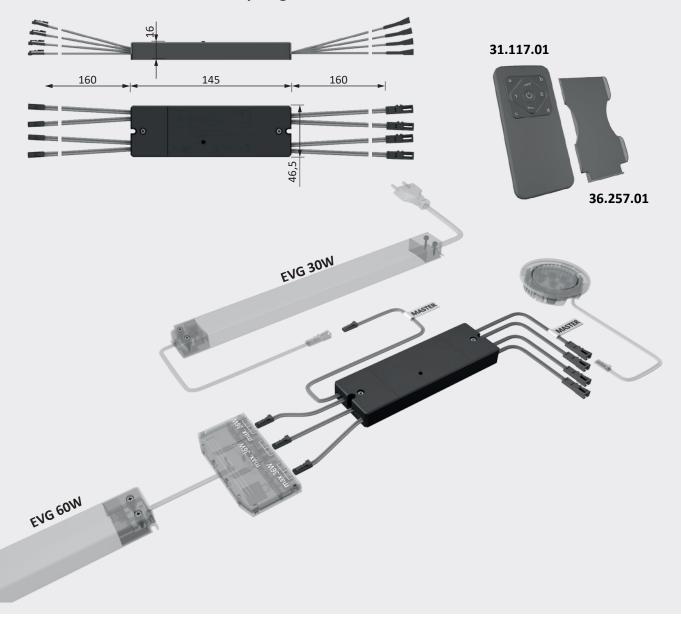
Zigbee controller for controlling lights

- Uses the Zigbee 3.0 protocol
- Supports Zigbee TouchLink
- Adding devices to the self-configuring Zigbee Touchlink network possible
- Compatible with Zigbee Gateway universal products
 Compatible with Zigbee universal remote controls

^{*} Further accessories in section Switch systems/Ballasts and leads



31.101.01 / 31.103.01 Smartempfänger smartreceiver 12VDC / 24VDC







MultiWhite

Always the right light colour

Warm or cool white light? Bright and fresh light for preparing and cooking food. When the dish is ready, the light changes to cosy WarmWhite.

With MultiWhite, light colours and moods can be changed according to requirements – smart wireless solutions make it possible. When you have found your preferred light settings, simply save them so you can call up the same light scenes whenever you want them.

By choosing MultiWhite, you're always on the safe side. If customer wishes or requirements change, you can react completely flexibly with the product.

MultiWhite can also be easily adapted to existing luminaires.





From ExtraWarmWhite to CoolWhite - MultiWhite is always the right choice





S-Mitter Basic MultiWhite

Advantages

- ▶ 1-channel wireless switch and dimmer
- ▶ Stepless adjustment of the light colour from CoolWhite to ExtraWarmWhite
- ▶ Can be integrated in a smart home

Features

- ▶ Memory function for power failure
- ▶ Storage of up to 4 light scenes
- ▶ Remote control and smart receiver are in the set programmed in the set
- ▶ Set works independently or in the smart home network

Order information

- ▶ Set consists of S-Mitter Basic Smart Remote Control and Smart Receiver
- ▶ The Smart.home overview shows how our switch systems can be combined with each other and with third-party suppliers

Technical details

S-Mitter Basic (1-channel wireless switch and dimmer)

S-Mitter Basic MultiWhite Smart Set	31 123 01
S-Mitter MultiWhite Basic Smart Remote Control	31 125 01

Accessories*

Wall mount Smart Basic magnetic 36 257 01

LED lights For use with: Transmitter surface: soft lacquer black Receiver housing: black 12 Volt DC-Max. switching power:

36 W/60 W C € EK ⊕ ₩₩ Test marks and symbols: Supply lead: 160 mm Switching lead: 160 mm Standby receiver: < 0.3 W Plug connector: LED

M1 plug connector

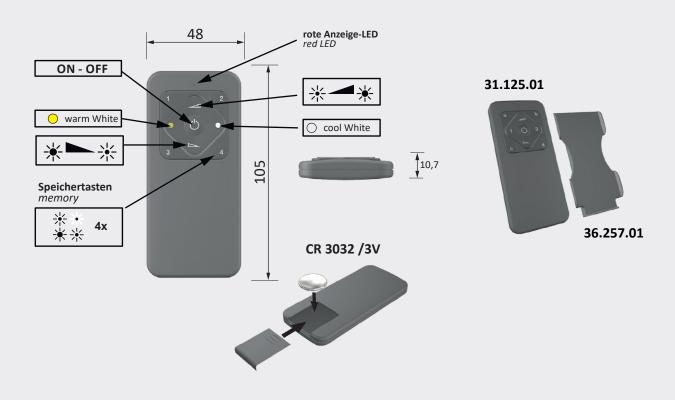


ZigBee controller for the control of MultiWhite lights via 2-wire system

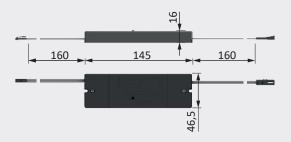
- Uses the Zigbee 3.0 protocol
- Supports Zigbee TouchLink

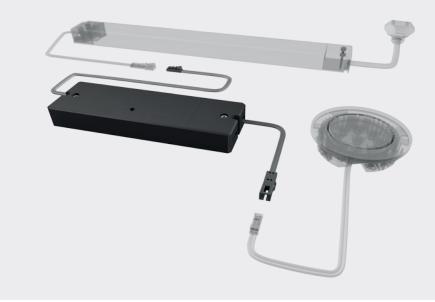
- Adding devices to the self-configuring
 Zigbee Touchlink network possible
 Compatible with Zigbee Gateway universal products
 Compatible with CCT Zigbee universal remote controls

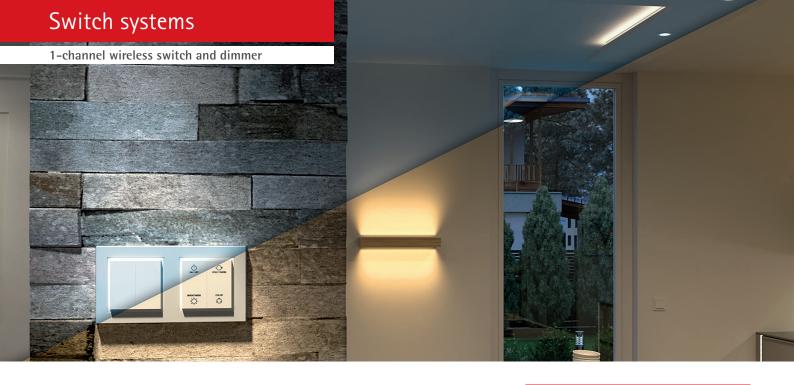
^{*} Further accessories in section Switch systems/Ballasts and leads



31.123.01 **Smartempfänger** *smartreceiver*







Wall switch Smart

Advantages

- ▶ 1-channel wireless switch and dimmer
- ▶ Stepless adjustment of the light colour from CoolWhite to ExtraWarmWhite
- ▶ Can be integrated in a smart home

Features

- ▶ Fits in mounting frames of leading switch manufacturers
- ▶ Does not require drilling for cavity wall box
- ▶ Works with smart receivers or in the smart home network

Order information

- ▶ Can be connected with all 1-channel **Smart Receivers**
- ▶ The Smart.home overview shows how our switch systems can be combined with each other and with third-party suppliers

Technical details



Wall transmitter (1-channel wireless switch and dimmer) 31 126 01

Accessories*

Wall transmitter Smart

Smart Receiver MultiWhite 1-Channel 31 118 01 Surface finish

Wall transmitter:

Receiver housing: Test marks and symbols:

Supply lead:

Switching lead:

Standby receiver:

Plug connector:

White, matt Black

160 mm 160 mm

< 0.3 W LED

M1 plug connector

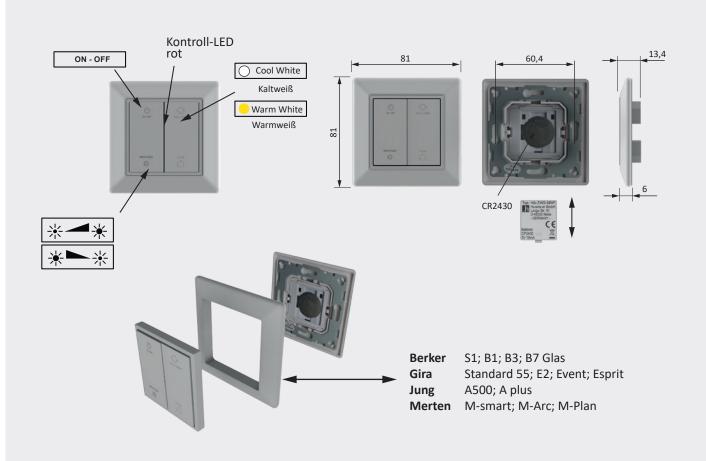


ZigBee controller for the control of MultiWhite lights via 2-wire system

- Uses the Zigbee 3.0 protocol
- Supports Zigbee TouchLink

- Adding devices to the self-configuring
 Zigbee Touchlink network possible
 Compatible with Zigbee Gateway universal products
 Compatible with CCT Zigbee universal remote controls

^{*} Further accessories in section Switch systems/Ballasts and leads



31.118.01

160

145



160





BasicControl MultiWhite

Advantages

- ▶ Entrance-level wired MultiWhite control
- ▶ Light colour change from CoolWhite to ExtraWarmWhite

Features

- ▶ 3-stage dimming function
- ▶ With built-in orientation LED
- ▶ Memory function for power failure

Examples of use

▶ Can also be used for one-time fine adjustment of luminaires installed after an on/off switch

30 775 01



BasicControl MultiWhite

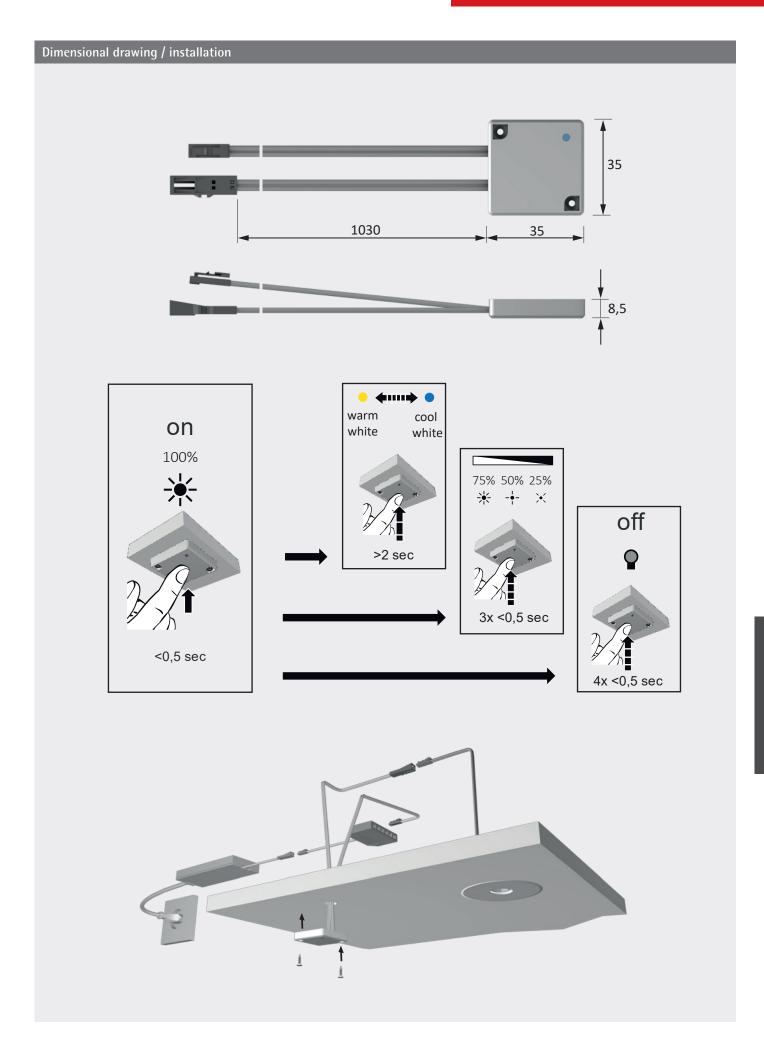
BasicControll MultiWhite

For use with: LED lights Black Surface finish:

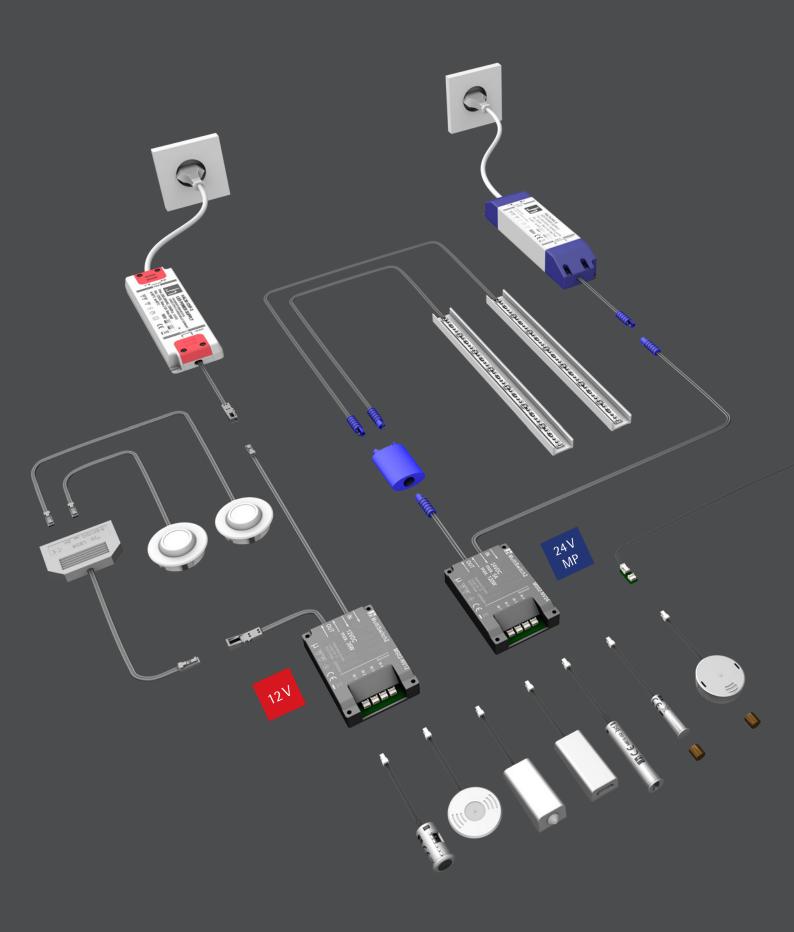
Max. switching power: 12 Volt DC-36 W Test marks and symbols: C € Ł ∰ ⊕ ♥♥♥ Supply lead: 1800 mm Switching lead: 1800 mm to the LED luminaire

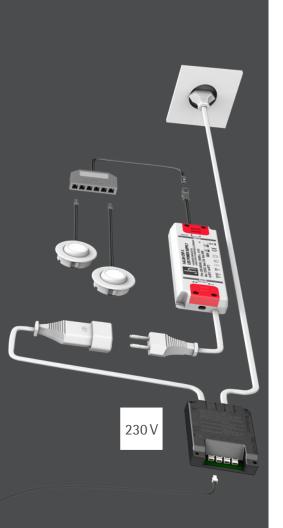
Standby: <0.5 W Plug connector: LED mini

Plug connector M1









MultiSwitch²

Simple. Automatic. Switching.

We have further developed our proven MultiSwitch and equipped it with various additional highlights. Now with 4 sensors to monitor 4 doors.

The overall smaller plug-in system is space-saving and the intelligent sensor system prevents faulty switching.

In addition, the sensors are now also available in the trendy colour black.

MultiSwitch sensors



Infrared sensor for drill-hole mounting (IR door contact switch, optionally in aluminium look or in black colour)



Screw-on motion sensor (PIR sensor, optionally in aluminium look or in black colour)



Magnetic sensor for insertion in pot holes (magnetic sensor, optionally also as drill-in sensor)



MultiSwitch² Contact

Advantages

- ▶ Infrared sensor for drill-hole or surface mounting
- ▶ Connection of 1 up to 4 identical sensors to a Master unit

Features

- ▶ Soft ON/OFF function (soft-start when power Switching on/off only with 12/24 Volt DC)
- ▶ Memory function for power failure
- ▶ Not compatible with dimmers

▶ The sensor has two settings switch and door contact

Examples of use

- ▶ Door contact switch
- ▶ Non-contact sensor switch (infrared sensor) for screwing on)

Order information

▶ For other sensors, see other pages

Technical details 230 V

MultiSwitch	IR	(infrared	sensor
-------------	----	-----------	--------

Infrared sensor for drilling in (IR door contact switch, aluminium look)	30 150 01
Infrared sensor for drilling in (IR door contact switch, black)	30 150 05
Infrared sensor for screwing on (IR sensor or door contact switch, aluminium look)	30 151 01
	00 454 05
Screw-on infrared sensor (IR sensor or door contact switch, black	30 151 05
	30 151 05
Master unit 12 Volt D-36 W*	30 151 05

Accessories

Repeater 12 Volt DC	30 263 07
Repeater 24 Volt DC	30 263 08

For use with: Max. switching power: LED lights 12 Volt DC-36 W 24 Volt DC-120 W 230 V AC -max. 500 W

Test marks and symbols: Switching distance: Sensor lead: Master unit

C€ ĽK WW see drawing 3000 mm

HV 3000 mm LV 2000 mm

Switching lead:

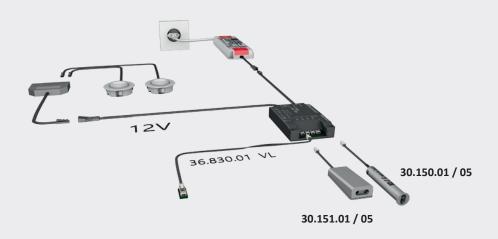
Supply lead:

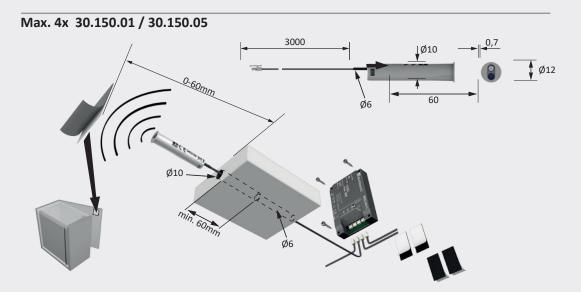
HV 150 mm LV 300 mm Standby: <0.5 W Plug connector:

LED connector M1/MP2/ Euroflat

^{*} Only for use with dimmable LED luminaires

^{**} Can be used behind MultiWhite controls
*** Maximum one per sensor









MultiSwitch² PIR

Advantages

- ▶ Motion sensor for surface mounting
- ▶ Responds to heat and movement
- ▶ Connection of 1 up to 4 identical sensors to a Master unit

Features

- ▶ Soft ON/OFF function (soft-start when power Switching on/off only with 12/24 Volt DC)
- ▶ Memory function for power failure
- ▶ Not compatible with dimmers

Examples of use

- ▶ Ideal for walk-in wardrobes without fronts
- ▶ Problem-solver for furniture where no magnetic or IR sensor can be used

Order information

▶ For further sensors see other pages

Technical details

MultiSwitch	DID	(motion	concor
MULITISWITCH	PIK	Imotion	sensori

PIR sensor for surface mounting (motion sensor)	30 152 01
Screw-on PIR sensor (motion sensor, black)	30 152 05
Master unit 12 Volt DC-36 W*	30 142 01
Master unit 24 Volt DC-20 W*	30 143 01

Accessories

Repeater 12 Volt DC	30 263 07
Repeater 24 Volt DC	30 263 08

LED lights For use with:

12 Volt DC-36 W Max. switching power:

24 Volt DC-120 W

230 V AC - max. 500 W

Motion sensor

Sensing angle: 120° Range: 2 m Stay-'ON' time: 30 seconds

Sensor lead: 3000 mm

Master unit

Standby:

Supply lead: HV 3000 mm LV 2000 mm Switching lead: HV 150 mm

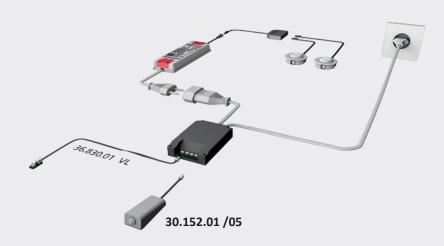
LV 300 mm

<0.5 W - Master unit

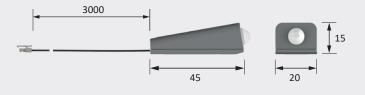
sensors included

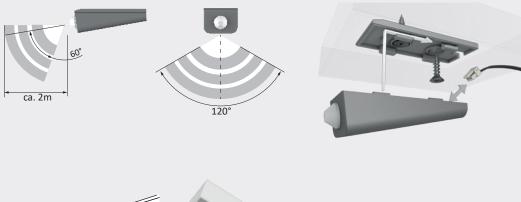
^{*} Only for use with dimmable LED luminaires

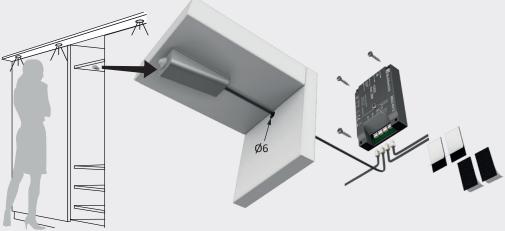
^{**} Can be used behind MultiWhite controls
*** Maximum one per sensor



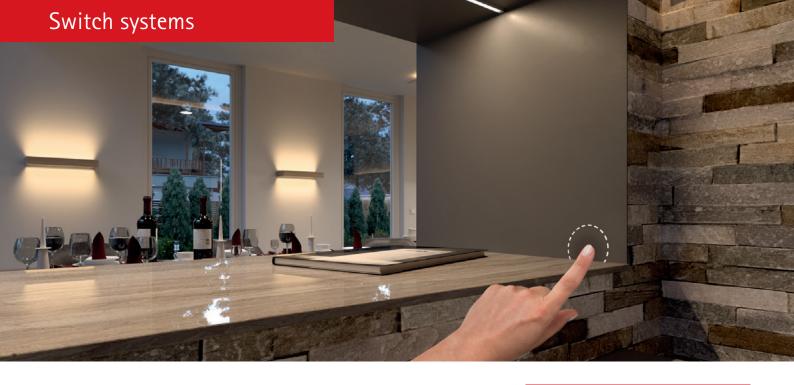
Max. 4x 30.152.01 / 30.152.05











MagicSwitch Linear

Advantages

▶ Invisible switch for a wide range of applications

Features

- ▶ Mounted on the back of the plate, the MagicSwitch detects the surface contact on the front of the plate and switches
- ▶ The MagicSwitch only works in conjunction with non-metallic surfaces and materials such as wood, glass, ceramics up to a material thickness of 25 mm

Examples of use

▶ Switching furniture lights on and off

Order information

- ▶ For more than 36 W controlled light output, a repeater can be used for synchronization
- ▶ 6-way distributor is included in the scope of delivery

Technical details



MagicSwitch Linear

MagicSwitch Linear 30 789 02

Accessories

Repeater 12 Volt DC* 30 263 07 For use with: LED lights Black Surface finish:

Max. switching power: 12 Volt DC-36 W Test marks and symbols: C € ŁK ◆ ♥♥♥

Supply lead: 1800 m

Switching lead: 1800 mm to light Standby: <0.02 W Plug connector IN: LED mini

M1 plug connector

Plug connector OUT:

Dimensional drawing / installation 100 nax. 25mm

^{*} A repeater enables the control of a lighting circuit of more than 36 W at 12 volts DC.



IR Door Switch

Advantages

- ▶ Particularly small infrared sensor for drilling into place
- ▶ Entry-level price

Features

▶ Only 8 mm drill hole required

Examples of use

▶ Door contact switch

IR Door Switch

IR Door Switch	31 033 01
III Door Switch	31 033 01

Accessories

Repeater 12 Volt DC* 30 263 07



 * A repeater enables the control of a lighting circuit of more than 36 W at 12 volts DC.

Dimensional drawing / installation 65 9 088 1000 1000 13 1000 12





LED Dimmer

Advantages

- ▶ LED dimmer
- ▶ Robust metal switch button

Features

- ▶ Memory function for power failure
- ► The LED dimmer enables switching and dimming of LED luminaires or LED luminaire groups

Examples of use

▶ Switching and dimming of furniture lights

Order information

- ▶ LED dimmer must not be used in combination with sensor or wireless switches
- ▶ Only for use with dimmable LED luminaires



LED dimmer/switch

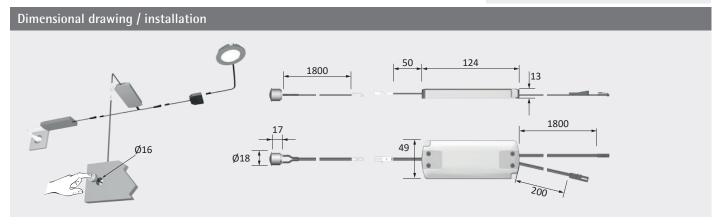
Dimmer 30 538 01

Accessories

Repeater 12 Volt DC* 30 263 07

For use with: Surface finish: Max. switching power: Test mark and symbols: Line lengths: Standby: Plug connector: LED lights
Stainless steel
12 Volt DC-36 W
C 은 보통 ① 항상 항
see drawing
<0.5 W
LED mini
M1 plug connector

 * A repeater enables the control of a lighting circuit of more than 36 W at 12 volts DC.





LED Touch

Advantages

- ► Sensor with dimming function for installation or screwing on
- ▶ With built-in orientation LED that can be switched off

Features

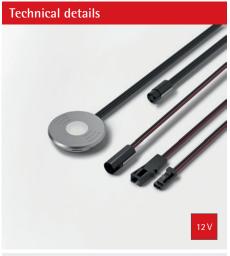
- ▶ Memory function for power failure
- ▶ Not for combination with upstream dimmer
- ▶ Dimming function can be switched off

Examples of use

- ▶ Switching and dimming of furniture lights
- As on/off switch

Order information

▶ Also available as changeover switch, see MultiSwitch² Touch



LED Touch (sensor switch/dimmer)

LED Touch dimmer including add-on housing 30 178 01

Accessories

Repeater 12 Volt DC* 30 263 07

For use with:

Surface finish:

Max. switching power:

Test marks and symbols:

Sensor lead:

Supply lead:

Switching lead:

LED lights

Aluminium look

12 Volt DC-36 W

2000 mm

150 mm

Switching lead:

150 mm

<0.5 W

Standby:

* A repeater enables the control of a lighting circuit of more than 36 W at 12 volts DC.





LED rocker switch

Advantages

▶ Very easy handling

Examples of use

▶ Switching of furniture lights

LED rocker switch

Mini rocker switch aluminium look - installation	36 974 81
Rocker switch black - Structure	36 320 02



For use with:

Surface finish:

Max. switching capacity:
Test mark and symbols:
Plug connector:

LED luminaires

Black

12 Volt DC-36 W

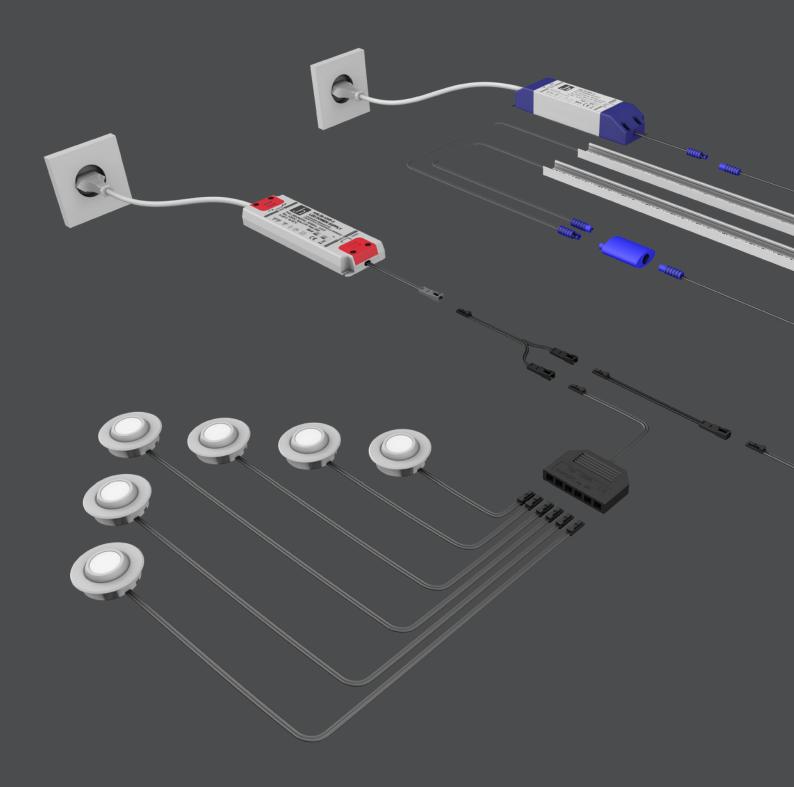
C€ ₭ ◈ ♥♥

LED Mini

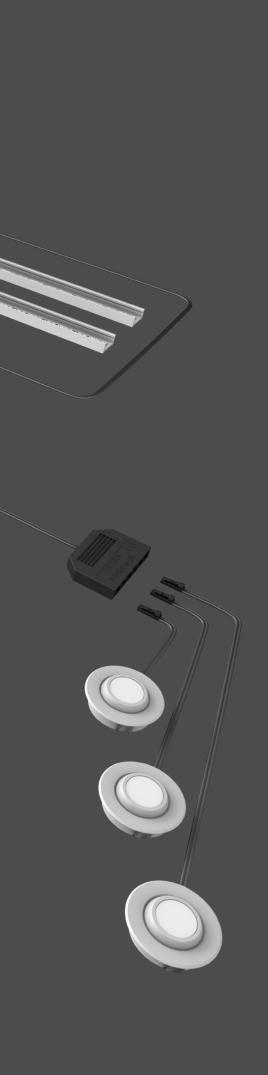
M1 plug-in system



Ballasts/leads



Electronic ballast	LitePanel 68	MultiLite Flood	EcoPower L	SignPlus	StarPoint	Sidespot
	4.3 W	4.0 W	3.2 W	3.2 W	1.2 W	1.4 W
6 W	1x	1x	1x	2x	5x	4x
10 W	2x	2x	3x	4x	8x	7x
15 W	3x	3x	4x	6x	12x	10x
20 W	4x	5x	6x	8x	16x	14x
30 W	7x	7x	9x	13x	25x	21x
60 W	13x	15x	18x	24x	41x	42x



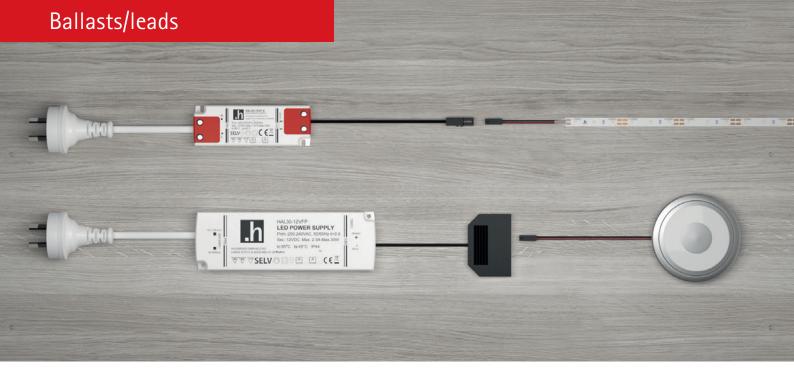
Matching power sources

Plug-in systems for Plug & Play

On the following pages you will find the right power sources for your lighting. You will find here the distributors and extension leads for all luminaires and controls you need to realise even large systems. The easily distinguishable plug-in systems ensure Plug & Play and make a wrong combination impossible.

All Halemeier electronic ballasts, called ballast for short, have overload protection, temperature protection, short-circuit resistance and are explicitly designed for use with LED luminaires and for use in furniture.

Our ballasts are certified by external testing bodies such as TÜV for compliance with all current safety and product standards.



Ballast 12 Volt DC

Advantages

- ▶ Short-circuit-proof
- ▶ Overload-protected
- ▶ Temperature-protected

Examples of use

▶ For 12 V DC furniture lights

Order information

▶ The ballast power must be equal to or higher than the total power of the connected consumers



Ballast 12 Volt DC / 200 - 240 Volt AC*

15 W (1-way + 6-way distributor)	31 026 01
30 W (1-way + 6-way distributor)	30 221 01
60 W (9-way, secured)	31 025 03

LED lights For use with: Surface finish: white 100 V DC Operating voltage: 240 V AC

Mains frequency: 50 Hz/60 Hz 12 V DC Output voltage:

Test marks and symbols: C € 🖽***□ 🖤 🖤 🗈 🛕

Plug connector

Primary:

2000 mm with flat Australian plug

Plug connector: LED Mini

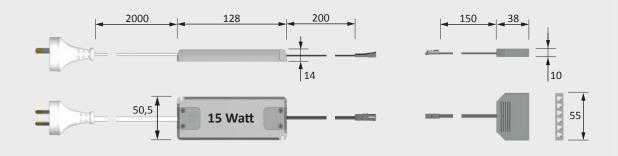
M1 plug connector

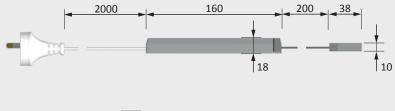
^{*} With these ballasts, luminaires connected on the secondary side (12 Volt DC) can be switched on and off with our switching and dimming

^{***} With these ballasts, a leading-edge or trailing-edge phase dimmer (standard in domestic installations) is used on the primary side (230 V AC)

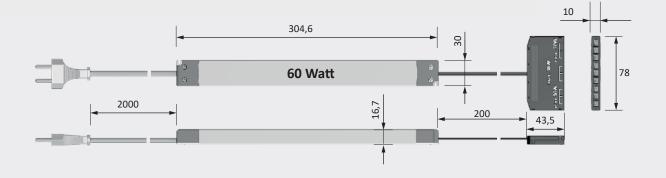
For dimming the connected luminaires.

*** Only in combination with UK adapter 36 210 01

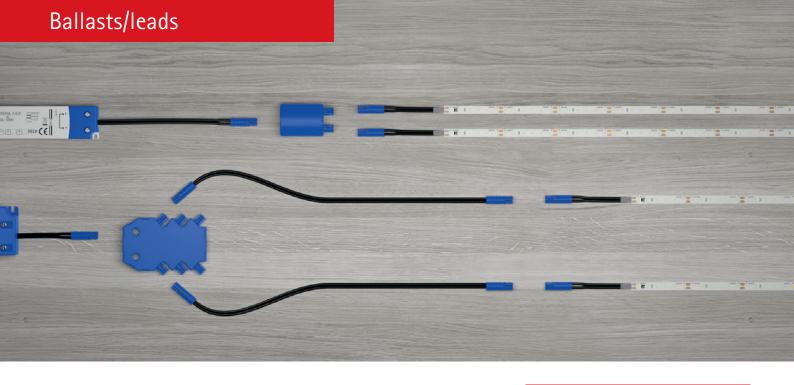












Ballast 24 Volt DC

Advantages

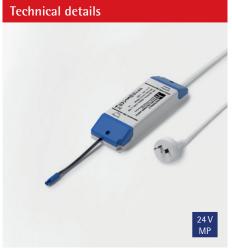
- ▶ Short-circuit-proof
- ▶ Overload-protected
- ▶ Temperature-protected

Examples of use

▶ For 24 V DC furniture lights

Order information

▶ The ballast power must be equal to or higher than the total power of the connected consumers



Ballast 24 Volt DC / 200 - 240 Volt AC*

75 W 30 222 01

LED lights For use with: Surface finish: white Operating voltage: 220-240 V AC 50 Hz/60 Hz Mains frequency: Output voltage: 24 V DC

Test marks and symbols: C € ੫ ★*** □ ♥♥ 🖯 🛕

Plug connector

Primary: 2000 mm with

flat Australian plug

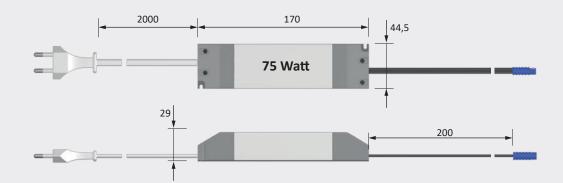
Plug connector: LED-MultiPlug MP2

^{*} With these electronic ballasts, luminaires connected on the secondary side (24 Volt DC) can be switched on and off with our switching and

dimming system for 24 Volt DC.

** With these electronic ballasts, a leading-edge or trailing-edge phase dimmer (standard in domestic installations) is used on the primary side (230 V AC) for dimming the connected luminaires.

*** Only in combination with UK adapter 36 210 01







Leads 12 Volt DC

Advantages

▶ LED plug-in system for 12 Volt DC lights

Features

▶ Plug bore diameter 8 mm

Order information

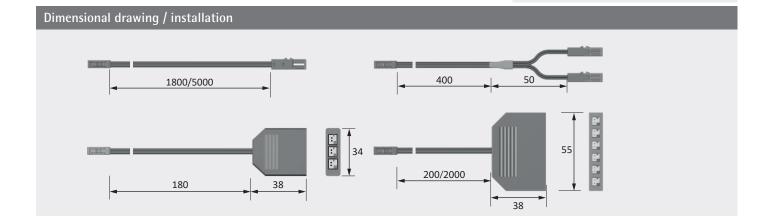
- ▶ Maximum connected load 3A/36 W
- ▶ Max. 5 m extension lead per light

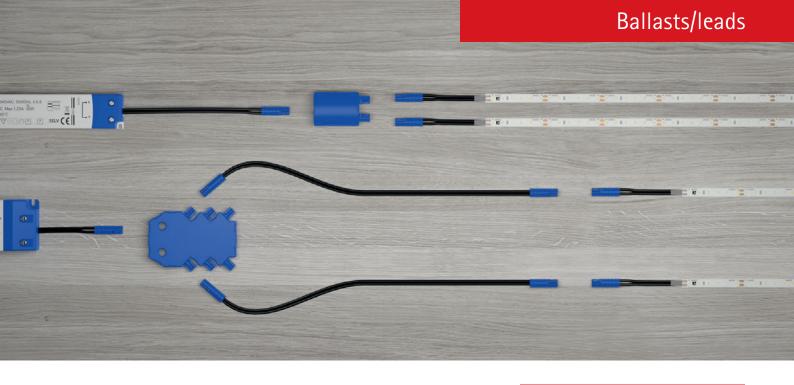
Leads 12 Volt DC

Extension lead 1800 mm	36 768 01
Extension lead 5000 mm	36 743 03
3-way distributor 180 mm	36 852 01
6-way distributor 200 mm	36 122 07
6-way distributor 2000 mm	36 125 01



Type: Connected load: Surface finish: Plug connector: Plug system max. 3 A (36 W) black LED Mini M1 plug connector





Leads 24 Volt DC

Advantages

▶ LED plug-in system for 24 Volt DC lights

Features

▶ Plug bore diameter 8 mm

Order information

- ▶ Maximum connected load 8A/192 W
- ▶ Max. 3.6 m extension lead per light

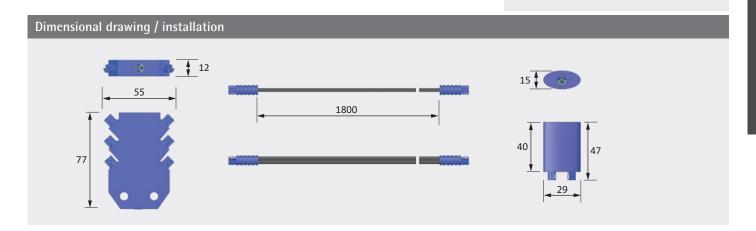
Technical details 24V MP

Type:
Connected load
Surface finish:
Plug connector:

Plug system max. 8 A (192 W) blue LED-MultiPlug MP2

Leads 24 Volt DC

Extension lead 1800 mm	36 177 01
2-way distributor	39 422 51
6-way distributor	36 996 01







USB socket

Advantages

- ▶ USB charger socket
- ▶ for connection of 2 devices

Features

- ▶ For drill-in mounting
- ▶ Quick charging of mobile devices

Examples of use

▶ USB devices

Order information

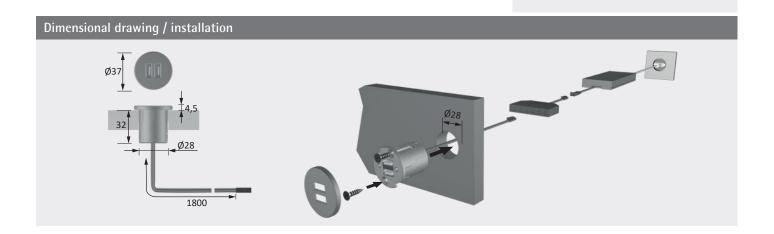
electronic ballast must have at least 15 W spare capacity

Technical details

USB socket

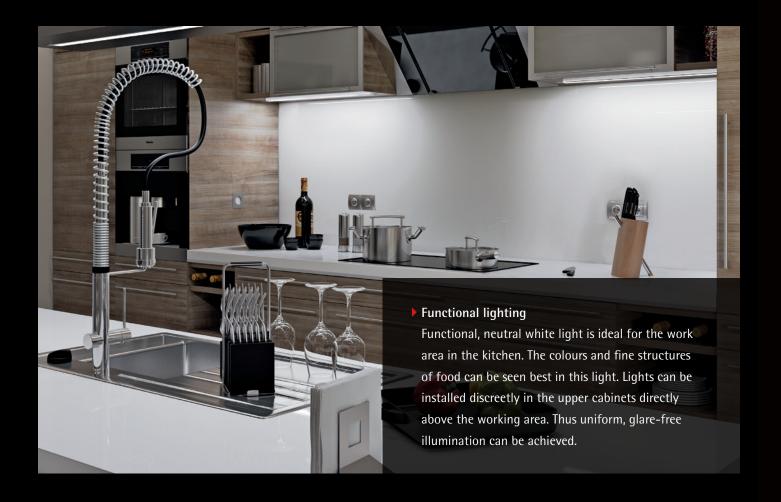
USB socket 30 574 02

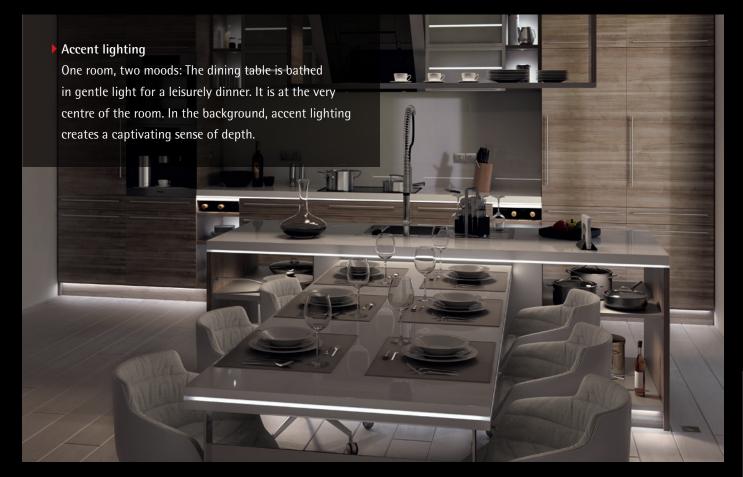
Type: Flush installation
Surface finish: Aluminium look
Operating voltage: 12 V DC
Charging voltage: 5 Volt DC
Charging current: max. 2.1 A
Test mark and symbols: C€ ₭ ♥♥
Plug connector: LED mini
M1 plug connector

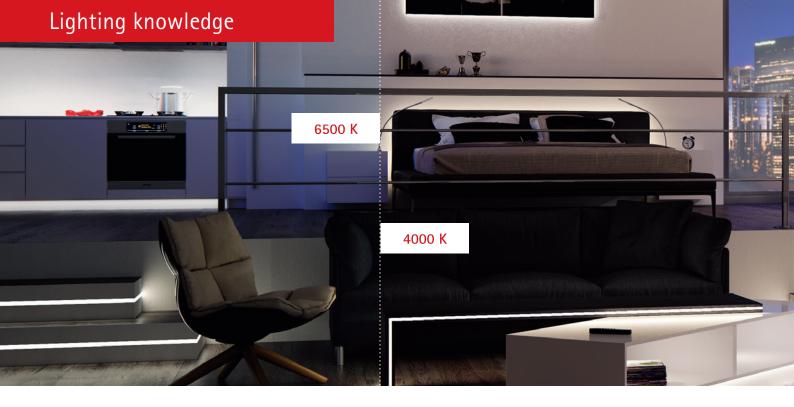












Illuminating facts about light

We bring light into the darkness

Lux, lumen and kelvin, warm white, cool white and neutral white: although the terminology of lighting systems is all around us, it is not always clear to us. We would like to bring light into the dark with a few explanations.

▶ Light colour and colour temperature

White light is composed of the entire colour spectrum, i.e. it is the sum of all light colours. If the proportion of red in the light dominates the light appears warm, and cooler if it contains more blue. This colour impression that a light source gives us is called the light colour. Colour temperature is measured in Kelvin (K). This only provides information on the visual colour impression; it does not say anything about the thermal value of the light. The annealing colours of a black test piece heated to the appropriate temperature serve as a reference for this.





▶ The classifications



XtraWarmWhite 2500 - 2800 K Illumination of e.g. baked goods



WarmWhite 2900 - 3300 K Comfortable, calming



NeutralWhite 4000 - 4500 K Objective



CoolWhite 5000 - 6500 K Daylight-like, technical, stimulating



MultiWhite 2500 - 6500 K Adjustable white Cosy to daylight-like









The colour designations are not standardised and do not designate specific light colours, but merely colour ranges.



▶ Colour rendering

The colour rendering of light determines whether the light makes the colours appear dull or bright. It is important for good visual results and pleasant viewing experiences.

Light that contains all spectral colours – such as day light – makes the colours of objects look natural. Colour rendering is neutral, and therefore particularly favourable for judging colours.

The colours of objects tend to look unnatural in light with an unbalanced colour spectrum.

The quality of the colour rendering of a light source is assessed by the colour rendering index (CRI). It is derived from common test colours and indicates how naturally colours are rendered. Depending on the visual task, the appropriate colour rendition should be chosen. To ensure a relaxed and positive visual experience, the colour rendering index should not be less than 80.

Many customers attach great importance to high-quality furnishings and fittings for their homes and living environments. A lot of money and passion is invested in the ambience. But only the optimal lighting can bring their interior design perfectly to the fore.

Only an indirect relationship exists between light colour temperature and colour rendition. The currently best method uses the principle of "luminescence conversion" and is used both for LED and fluorescent lamps. In this method the original blue LED light is transformed into white light by a very thin layer of phosphor material. Currently, CRI values of up to over 90 can be achieved with this method. This method currently provides the best price/performance ratio for high quality lighting solutions and is therefore preferred by HALEMEIER.



Lighting knowledge

Luminous flux

Luminous flux describes the luminous efficiency of a light source and is expressed in lumen (Lm).



▶ Light distribution diagrams

The light distribution diagrams shown in the catalogue help to select the right luminaire.

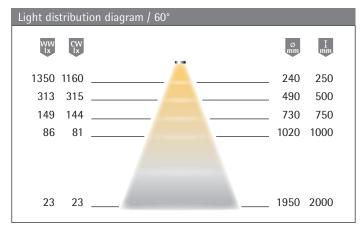
The diagrams illustrate:

- 1. the illuminance at a distance from the luminaire
- 2. the light distribution area
- 3. the half value angle

Luminous intensity

Light intensity (illuminance) is probably the term most frequently used in lighting and defines the incidence of luminous flux on a defined surface, measured in lux (lx).





Why do we give the illuminance in lux, and not in lumens or watts?

The wattage of a luminaire says practically nothing about what kind of lighting effect the luminaire produces. All we learn by specifying watts is how much power a light consumes while it is operating. Or put simply: what it costs us to turn them on. In other words, watts are important for assessing the efficiency of a luminaire and for selecting the appropriate electronic ballast. However, they say nothing about the brightness of this light.

The illuminance in lux specified for the luminaire, on the other hand, makes it easy to assess what effect – functional, decorative, accentuating or orienting – can be achieved.

Brightness is a generic term for subjective impressions and objective measured quantities for the visual perception of – visible – light. This means that we all have a different "need" for brightness. As a rule, older people, for example, need more light than young people in order to have the same impression of brightness.

When planning, it should also be taken into account that dark surfaces "swallow" more light than light surfaces. Therefore: The lower the reflectance and the more difficult the visual task, the higher the illuminance needs to be.

Some examples of degrees of reflection:

- ▶ White walls up to 85 percent
- ▶ Maple and birch up to 60 percent
- ▶ Light oak up to 35 percent
- ▶ Red bricks up to 25 percent
- ▶ Dark oak only up to 15 percent



ENEC

European mark of conformity: Confirmed standards conformity for electrical products through national certification bodies.



▶ VDE-GS mark

German mark for appliances as technical equipment according to the Appliance Safety Act GSG.



► EMC

Approval mark of the VDE, confirming compliance with the law on electromagnetic compatibility.



▶ CE

The CE mark certifies among other things compliance with the Low Voltage Directive and the EMC Directive by the manufacturer or importer.



F mark

In the past, luminaires suitable for direct mounting on or against normally flammable materials bore the F mark. This is no longer required by current standardisation status, but assumed. Only deviations are



MM mark

Lights and transformers suitable for installing in or on furniture which are made from materials with unknown flammability properties.



▶ Temperature-protected electronic transformer

Converter is protected against overtemperature and switches off in the event of a fault. The value in the triangle shows the maximum housing temperature in the event of a fault.



▶ Short-circuit-proof safety transformer

Converter is protected against short circuit and



switches in the event of a fault.



Independent electronic transformer



Maximum permissible ambient temperature

This is the temperature level up to which no components are thermally overloaded.



▶ Temperature reference point

Denotes the temperature reference point on the housing surface which, if exceeded, reduces useful life.



Protective extra-low voltage

Safety Extra Low Voltage



▶ Safety class 1 - Devices with earth conductor connection

Equipment in which protection against electrical shock does not only rely on basic insulation. An additional measure of protection is given by connecting those conductive components to the protective earth conduct or in the building wiring that are otherwise capable of assuming hazardous voltages if the basic insulation fails.



Protection class 2 – devices without protective earth connection

Equipment where the protection against electric shock is not only based on the basic insulation, but where additional safety measures for double insulation or reinforced insulation are present. There is no facility for connection to protective earth conductors.



Protection class 3 - Devices with protective extralow voltages

Equipment with protection against electric shock on protective extra-low voltage and in which voltages higher than the protective extra-low voltage are not generated - For voltages below 25 volts AC or 60 volts DC, protection against contact can be completely dispensed with.



marked.



Protection against foreign bodies / water

IP 20 Protection against medium-sized foreign bodies / no protection against water

IP 21 Protection against medium-sized foreign bodies / protection against water

IP 40 Protection against granular foreign bodies / no protection against water

IP 44 Protection against granular foreign bodies / protection against splashing water from all directions

IP 65 No ingress of dust / protection against water jets



Use only in dry rooms

▶ The following marks confirm compliance with North American standards

QPS test mark for Canada and USA

Test mark of the UL Institute



Test mark of the ETL Institute



🙋 zigbee

Declaration of conformity for products in the United Kingdom

Zigbee is the complete solution for the majority of major smart home solutions. Halemeier is a member of the ZigbeeAliance



Tips & tricks

Using Lux and Lumen values to select the right product

If you are searching for functional lighting with a certain level of illumination, you can easily see whether the chosen product has the right degree of brightness by reading the Lux values on the lighting diagram. This also allows you to compare different lights. The luminous flux, or light output of a lamp, does not provide any information on these values. It is suitable only for selecting a light in systems where these are replaceable.

▶ Extending LED leads

Leads cannot be infinitely extended. Firstly, unwanted EMC effects could occur (leading to disturbances in electronic systems); secondly, ballasts could be overloaded or the light output of the lamp significantly reduced.

- ▶ Our lights based on 12 V DC are supplied with a mini LED plug system M1 and may be generally extended by 2 extension leads of 1.8 m each in addition to the supply lead fitted as standard.
- ▶ Our lights based on 24 V DC are supplied with a Multi-Plug system MP2 and may be generally extended by 2 extension leads of 1.8 m each in addition to the line assembled as standard.

▶ Dimming LED lights

In the information box "Technical details", which you will find on every product page in the catalogue, we indicate whether a luminaire is dimmable. LED luminaires are dimmed by PWM (pulse width modulation) on the extra-low voltage side. This is done either by our Smart.home controls, LED dimmers or by special electronic ballasts, which are controlled by a 1–10 volt control voltage or a phase-cut dimmer, depending on the type. Important: Standard LED ballasts are not dimmable.

▶ Who remembers what?

All switches of this range "remember" their state when the power was switched off. This means, for example, for the S-Mitter that the previously set dimming level remains available after disconnection from the mains.

▶ Factors affecting life span

As a basic rule, the indicated life span of technical equipment is based on an ambient temperature of 25° Celsius. Higher temperatures usually reduce the lifetime.

When installing, avoid predictable heat build-up (e.g. by mounting a ballast between two wooden plates), unless absolutely necessary.

▶ Heat generation

The light emission of LED generates a certain amount of heat, which is however is so low (compared to other technical appliances) that it has almost no impact on the environment. The design of the light ensures that under normal conditions of use no heat accumulation will occur that reduces the life of the electronic components and the LED in particular. When using high-powered LED flex strips, the mounting surface must be able to dissipate some of the heat. We therefore recommend the use of ChannelLine profiles made of aluminium that act as heat sinks for LED light strips.

Loads of ballasts for LED lights, connection of electronic switches

The power consumption of small LED lights or the standby power of our switches is sometimes so low that you need to consider the minimum load when selecting the appropriate ballast. Electronic switches should only be connected to the ballasts whose power range is specified from 0 to X W. If voltage drops below the minimum load, reliable operation is no longer guaranteed.

Overload of ballasts

Make sure that the ballast is not overloaded with the number of lights connected to it.

▶ Observe the inrush current

Fully electronic ballast have no inductance in the input circuit which limits the current rise at switch-on. Therefore, a high current peak may occur when the mains voltage is switched on. When using large number of ballasts (e.g. in an exhibition) this should be considered when protecting the circuit.

▶ Electronic ballast with output control

Electronic ballast with output control compensate mains voltage fluctuations of +/- 10%, so that the emitted light flux is nearly constant. Devices of this type are also called controlled devices. In so-called uncontrolled devices, mains voltage fluctuations of +/- 10% also mean a +/- 10% fluctuation of lamp power and light output.

Using IR switches

When using IR sensors, such as in combination with the Multiswitch or the integrated sensor of InnoLine, make sure that the infrared beam is reflected cleanly to the receiver. High gloss but also too strongly frosted surfaces and incorrect mounting distances can lead here to errors. Please use the reflector stickers supplied.

▶ Blinking LED lights

Blinking lights are typical of the over- or under-loading of a ballast. This can be caused by an inappropriate number of lights excessively long line connections or a partial short-circuit (e.g. clamped line).

▶ Malfunctions or different levels of brightness in LED Versa strips. When you connect sections of the Versa Inside strips, you need to ensure that connectors have the exact polarity and are firmly seated.

▶ Binning allows for constant product quality.

In the industrial production of LED chips, deviations always occur during the manufacturing process. The photometric properties of the chips differ in colour and luminosity. To ensure a constant light quality with the same brightness level and uniform light colour, the LED of a batch must be sorted. They are divided into selection classes, called "bins". Important selection criteria for this are chromaticity, luminous flux (unit: lumen) and colour temperature (unit:

Kelvin). This is why the precise specification of the light colour of a light series is simply not possible. To ensure availability and appropriate price/performance ratio, LED lights with different production data can be equipped with different selection classes of a LED. We are committed to infrequent change of selection classes and in many lights types we already offer "single binning" – i.e. fittings with always the same LED selection.

▶ Replacing LED light bulbs

LED light bulb replacement is not provided.

▶ Care and maintenance

Please only clean your light in OFF state.
The care is limited to surfaces, e.g. acrylic glass and covers. Ensure that no moisture enters the terminal boxes or electrical parts.

▶ Important information for LED lighting systems

LED lighting systems can produce very intense beam that can possibly damage the eyes if used improperly.

Therefore, never look directly into the light from a short distance.

► Correct disposal of LEDs

LED modules and LED lights are mercury free, but contain electronic components. They therefore fall within the regulations of the Waste Electrical and Electronic Equipment Act (ElektroG/WEEE). LEDs must therefore not be disposed of in the residual waste. LED lights can be disposed of free of charge at appropriate collection points.

▶ Safety instructions for installation:

Always follow these instructions and the installation instructions for a safe and secure installation and use of this lamp. Keep the installation manual for future reference. Installation and electrical connections must be carried out by a qualified person. Always disconnect the power supply before connecting the circuit and secure it against unintentional reconnection. Make sure there is no voltage present before starting work. The maximum output in watts indicated on the lamp/operating unit must be taken into account when connecting it to a power circuit or a power supply unit. Under no circumstances may the specified value be exceeded! Lights may be used only for their intended purpose. Interior lighting may not be used outdoors. Lights may not be covered by any objects.

Attention! To avoid risks, a damaged outer flexible cable of this light may only be replaced by a qualified electrician or the manufacturer.



Ecodesign Directive and the labelling of lighting sources and/or luminaires

With the publication of Delegated Regulation (EU) 2019/2015 of 11 March 2019, the competent Commission has replaced the former Regulation (EU) 874/2012. This means that the obligation to label luminaires has expired since 25.12.2019 and will be replaced by an obligation to label light sources, which will apply from 01.09.2021. If a light source is placed on the market as part of a containing product, the labelling obligation for the light source used also does not apply. Operating manuals or installation instructions need only state the energy efficiency class of the light source used.

With the appearance of this new regulation, the classification of the corresponding energy efficiency classes will also change. Example: A luminaire which in the past fell into energy efficiency class A as a luminaire according to (EU) 874/2012, only achieves energy efficiency class E according to the current regulation (EU) 2019/2015 with the illuminant which continues to be used unchanged. The luminaire is not less efficient, it is now only subject to a different calculation basis for determining the corresponding energy efficiency class of its illuminant. The effects on the efficiency of the end product luminaire, which are significantly influenced by design details such as housings, reflectors, lenses and covers, are not taken into account by the current regulation.

We take over product responsibility in accordance with the WEEE Directive

In addition to all deliveries within Germany, Halemeier takes over the product registration** as a free service for its customers in other EU countries*.

The registration is not to be carried out with an overall EU authority, but with the respective national authorities of the member states. Halemeier currently undertakes this registration for deliveries to customers*) in Belgium, Denmark, Estonia, Finland, France, Greece, Ireland, Italy, Latvia, Lithuania, the Netherlands, Austria, Poland, Portugal, Romania, Sweden, Spain, the Czech Republic and Hungary.

**) Halemeier product registration is only sufficient for luminaires and devices which are marked with the Halemeier brand and which can be dismantled after installation by the installer using standard household tools. If they are not, the processor/furniture manufacturer must register his furniture independently. In case of export by the customer, an independent declaration by the distributor in the country of destination is mandatory.

Technical data of the catalogue

Halemeier only gives the values in his catalogue data that were determined for the complete product in our own laboratory and on the basis of algorithms.

3 years warranty

for all Magic by Halemeier catalogue items*

5 years warranty for

selected Magic by Halemeier LED luminaires**

Warranty conditions

Valid for Halemeier LED luminaires, LED ballasts and system accessories which are exclusively operated in the system with Halemeier products with purchase date from 01.05.2021.* The guarantee is valid on the territory of the European Union and Switzerland.

If a Halemeier LED luminaire or Halemeier electronic ballast or system accessory fail within the warranty period due to a product defect, the purchaser will receive a replacement or repair of the luminaire/system accessory free of charge. If the product is no longer available, Halemeier reserves the right to refund the pro rata purchase price. A decrease in luminous flux due to use is normal for LED products (up to 30% within the specified service life), does not constitute a defect and is therefore not covered by the warranty.

The warranty granted is valid on condition that the products are used in accordance with their product specifications and are installed and commissioned professionally, in accordance with the installation instructions enclosed with the product. The warranty expires if modifications or repairs have been carried out by third parties. The product must not be subjected to any mechanical loads that are not in accordance with its intended use.

Furthermore, the ambient temperature must not fall below -20°C and must not exceed 30°C. The relative humidity must not exceed 80% (does not apply in the protection classes provided for this purpose) and the products must not be subject to voltage fluctuations of more than 10%.

Due to technical progress and changes in luminous flux caused by use, subsequent deliveries of LED luminaires may show deviations in the light characteristics compared to the original products.

The warranty is excluded if the products have been modified or repaired or if the goods have been installed improperly or by unqualified personnel. The guarantee does not apply to incidental costs incurred in connection with the rectification of defects

(such as for installation and removal, transport of the defective and the repaired or new product, disposal, travel and travel time); these costs will be borne by the buyer..

Halemeier accepts no liability beyond this manufacturer's warranty.

Warranty claims must be made immediately after becoming aware of the defect within the warranty period. The warranty services do not have the effect of extending the warranty period, nor do they initiate a new warranty. However, the warranty claims of the purchaser shall continue to exist unchanged in addition to this manufacturer's warranty

The warranty period starts from the day of delivery ex works Halemeier.

- * Excluded from the 3 or 5 year warranty are only: Batteries and rechargeable batteries
- ** Excluded from the 5 year warranties are only: LuckyLite Pro, LitePipe, InnoLine, LuckyLine and SwanLite. We refer to our General Terms and Conditions under

www.halemeier.de

Philips Licensing Program

Wide assortment of innovative technologies

Halemeier is a licensee of the Philips LED

licensing program for luminaires and thus enjoys many advantages and opportunities: Only licensees get access to a wide range of over 200 Philips lighting innovations – from basic LED controls to system-level technologies that can be used in LED-based luminaires and retrofit luminaires. This will help to accelerate product development, increase cost efficiency and exploit new opportunities in the expanding market.





Halemeier is a member of the Zigbee Alliance.





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2553601	46	3217125	66	5588702	49
2556301	46	3217135	66	5588706	49
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3015001	84	3676801	100	5600322	26
3015005	84	3685201	100	5600332	26
3015101	84	3697481	92	5600403	34
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3015201	86	3881702	44	5600423	34
3015205	86	3929738	22, 24, 32	5600602	28
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3017801	91	3941602	30	5600612	28
3022101	96	3942251	101	5600613	28
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3026308	84, 86	4014326	58	5600901	32
3053801	90	5566112	46	5600902	32
3057402	102	5566212	47	5600903	32
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3102503	96	5581511	36	5600913	32
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MultiSwitch ² Contact	84
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Repeater	86
SideSpot	66
Side Plus 68	58
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S-Mitter MultiWhite	76
Star Point Flood	64
USB socket	102
Versa Inside 120	24
Versa Inside 160 12 Volt DC	26
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