

# FUSION Static White IP67

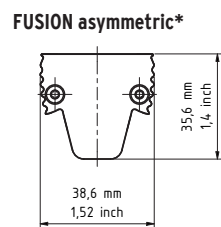
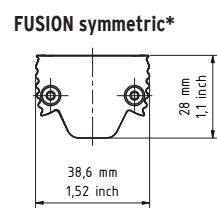
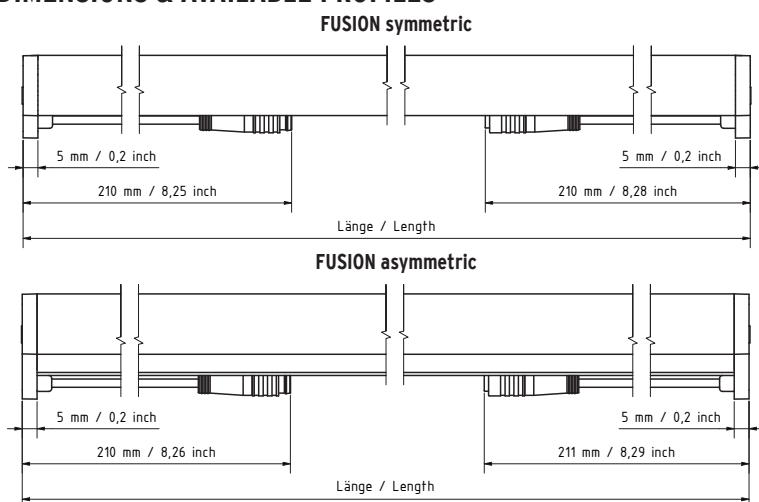
Area: Outdoor Luminaire  
 Category: Grazer / General Lighting / Floor Washer / Wall Washer  
 Mounting: Surface Clip 0° (C00) / Surface Clip 15° (C15) / Surface Clip 30° (C30) / Adjustable arm (A0-A3) / Inground Frame (IF) / Mounting Lock (ML) / / Glare Shield (optional) / Snap-On Anti-Glare (optional)



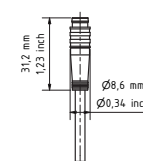
- First time ever FUSION of core technologies NanoOptics, PU encapsulation and TjAway. The result: an unmatched luminous output in smallest form factor.
- A multitude of ultra-fine Nano Optics shape light with pinpoint accuracy – directing every beam exactly where it's needed. This results in crisp, glare-free illumination that enhances visual comfort and performance.
- FUSION combines robust PU protection with versatile mounting accessories. Seamless integration, high resistance, and anti-glare technology enable effortless application in architectural and functional lighting designs.

Detailed specification text in download section.

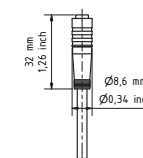
## DIMENSIONS & AVAILABLE PROFILES



VarioCon Male (Mono / TW)



VarioCon Female (Mono / TW)



\*Please look at page 6 to see dimensions including mounting accessory.

Fixture built to length (not field cuttable):  $L = (N \times 125 \text{ mm} / 4.9 \text{ in}) + \text{end} (33 \text{ mm} / 1.3 \text{ in})$ ;  $N = 2 \dots 16$ ;  $L \text{ min} = 283 \text{ mm} / 0.9 \text{ ft}$ ;  $L \text{ max} = 2033 \text{ mm} / 6.7 \text{ ft}$

## TECHNICAL SPECIFICATIONS

### Certifications & Reports



Compliant with EU ECODESIGN guidelines

### Technical Data & Performance & Application



## ELECTRICAL &amp; OUTPUT DATA

Voltage	24 Volt (23 V <sub>min</sub> , 25 V <sub>max</sub> )
Case temperature (T <sub>Cmin</sub> & T <sub>Cmax</sub> )	T <sub>Cmin</sub> = -25 °C, T <sub>Cmax</sub> = specific, see table below
Storage temperature (T <sub>Smin</sub> & T <sub>Smax</sub> )	T <sub>Smin</sub> = -30 °C, T <sub>Smax</sub> = 85 °C
Ambient temperature (T <sub>amin</sub> & T <sub>amax</sub> )	T <sub>amin</sub> = -25 °C, T <sub>amax</sub> = specific, see table below
Electrical class	III (external driver)

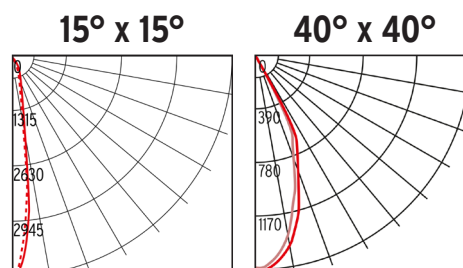
FUSION Static White symmetric	5 W/m	10 W/m	15 W/m	25 W/m	40 W/m
Power (W/m) <sup>A, C</sup>	5	10	15	25	40
Efficacy (lm/W) <sup>A, C</sup>	118	114	113	108	99
Max. length (m)	2.03	2.03	2.03	2.03	2.03
Max. series run length (m)	7.5	5	5	3	2
CRI / R9 (up to)	95 / 86	95 / 86	95 / 86	95 / 86	95 / 86
Max. housing temperature (T <sub>Cmax</sub> ) <sup>B</sup>	70 °C	70 °C	70 °C	70 °C	75 °C
Max. ambient temperature (T <sub>amax</sub> )	50 °C	50 °C	50 °C	50 °C	40 °C

low output

high output

FUSION symmetric  
Static White

Order Code	Delivered CCT	5 W/m	10 W/m	15 W/m	25 W/m	40 W/m
luminaire lumens/meter (lm/m) <sup>A</sup>						
● 822	2200 K	470	840	1330	1980	2790
● 927	2700 K	450	820	1260	1900	2840
● 930	3000 K	460	840	1300	1950	3200
● 935	3500 K	470	860	1330	2030	3230
● 940	4000 K	500	870	1350	2080	3320
● 850	5000 K	590	1140	1690	2710	3970



A: The given data display values with white anti-glare. Values for grey anti-glare are -6 % and black anti-glare -13 %. Due to tolerances of the production process and the electrical components, photometric values and electrical power can vary up to 10 %.

B: The T<sub>c</sub>-point should be measured in thermal equilibrium according to IEC EN 60598-1.

C: Efficiency and wattage refer to light engine and optics, without consideration of driver.

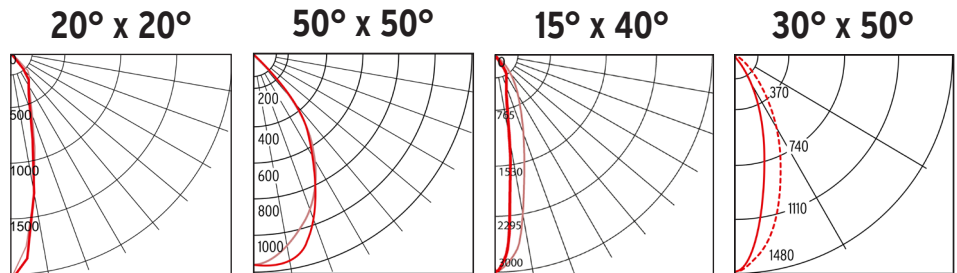
D: For best wall or floor washing results use the asymmetric optic with the 15° Clip and 1/3 distance of the wall height.

low output

high output

**FUSION symmetric  
Static White**

		5 W/m	10 W/m	15 W/m	25 W/m	40 W/m
Order Code	Delivered CCT	luminaire lumens/meter (lm/m) <sup>A</sup>				
● 822	2200 K	450	810	1280	1910	2690
● 927	2700 K	430	790	1210	1830	2730
● 930	3000 K	440	810	1260	1880	3080
● 935	3500 K	450	830	1280	1950	3110
● 940	4000 K	480	840	1300	2000	3200
● 850	5000 K	570	1100	1630	2610	3820



A: The given data display values with white anti-glare. Values for grey anti-glare are -6 % and black anti-glare -13 %. Due to tolerances of the production process and the electrical components, photometric values and electrical power can vary up to 10 %.

B: The Tc-point should be measured in thermal equilibrium according to IEC EN 60598-1.

C: Efficiency and wattage refer to light engine and optics, without consideration of driver.

D: For best wall or floor washing results use the asymmetric optic with the 15° Clip and 1/3 distance of the wall height.

FUSION Static White asymmetric	5 W/m	10 W/m	15 W/m	25 W/m	40 W/m
Power (W/m) <sup>A, C</sup>	5	10	15	25	40
Efficacy (lm/W) <sup>A, C</sup>	100	96	95	91	83
Max. length (m)	2.03	2.03	2.03	2.03	2.03
Max. series run length (m)	7.5	5	5	3	2
CRI / R9 (up to)	95 / 86	95 / 86	95 / 86	95 / 86	95 / 86
Max. housing temperature (T <sub>cmax</sub> ) <sup>B</sup>	70 °C	70 °C	70 °C	70 °C	75 °C
Max. ambient temperature (T <sub>a</sub> max)	50 °C	50 °C	50 °C	50 °C	40 °C

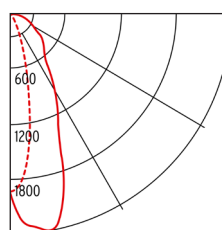
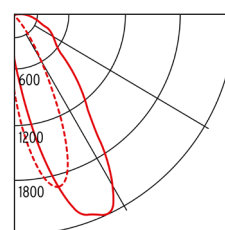
low output

high output

## FUSION asymmetric

Static White		5 W/m	10 W/m	15 W/m	25 W/m	40 W/m
Order Code	Delivered CCT	luminaire lumens/meter (lm/m) <sup>A</sup>				
● 822	2200 K	390	700	1120	1670	2350
● 927	2700 K	370	690	1050	1600	2380
● 930	3000 K	390	710	1090	1640	2690
● 935	3500 K	390	720	1120	1700	2710
● 940	4000 K	420	730	1140	1750	2790
● 850	5000 K	500	960	1420	2280	3330

ASYM 0° tilt

ASYM 15° tilt<sup>D</sup>

A: The given data display values with white anti-glare. Values for grey anti-glare are -6 % and black anti-glare -13 %. Due to tolerances of the production process and the electrical components, photometric values and electrical power can vary up to 10 %.

B: The T<sub>c</sub>-point should be measured in thermal equilibrium according to IEC EN 60598-1.

C: Efficiency and wattage refer to light engine and optics, without consideration of driver.

D: For best wall or floor washing results use the asymmetric optic with the 15° Clip and 1/3 distance of the wall height.

## ORDERCODE

Family	Power	ColorTemp.	Profile	Antiglare	Optics	Cable Configuration	Mounting	Length	Ingress
FUSION SW	—	—	—	—	—	—	—	—	IP67
	5 W/m	822 - 2200 K	Black - B	Black - B	15° x 15°	M0 - Male One Side Only	C00 - VarioClip Fusion 0°	283 mm	
	10 W/m	927 - 2700 K	Grey - G	Grey - G	20° x 20°	DC - Daisy Chain	C15 - VarioClip Fusion 15°	408 mm	
	15 W/m	930 - 3000 K	White - W	White - W	40° x 40°	MOL - Male One Side Left	C30 - VarioClip Fusion 30°	533 mm	
	25 W/m	935 - 3500 K			50° x 50°	MOR - Male One Side Right	A0 - Adjust. Arm L=40 mm	658 mm	
	40 W/m	940 - 9400 K			15° x 40°	DCL - Daisy Chain Left	A1 - Adjust. Arm L=100 mm	783 mm	
		850 - 5000 K			30° x 50°	DCR - Daisy Chain Right	A2 - Adjust. Arm L=200 mm	908 mm	
					ASYM		A3 - Adjust. Arm L=300 mm	1033 mm	
							IF - Inground Frame	1158 mm	
							ML - VarioClip ML 0°	1283 mm	
							X - No accessory*	1408 mm	
							*If the glare shield is choosen, no additional mounting accessory is needed.	1533 mm	
								1658 mm	
								1783 mm	
								1908 mm	
								2033 mm	

The ordercode options for the cable position refers only to asymmetrical optic „asym“.

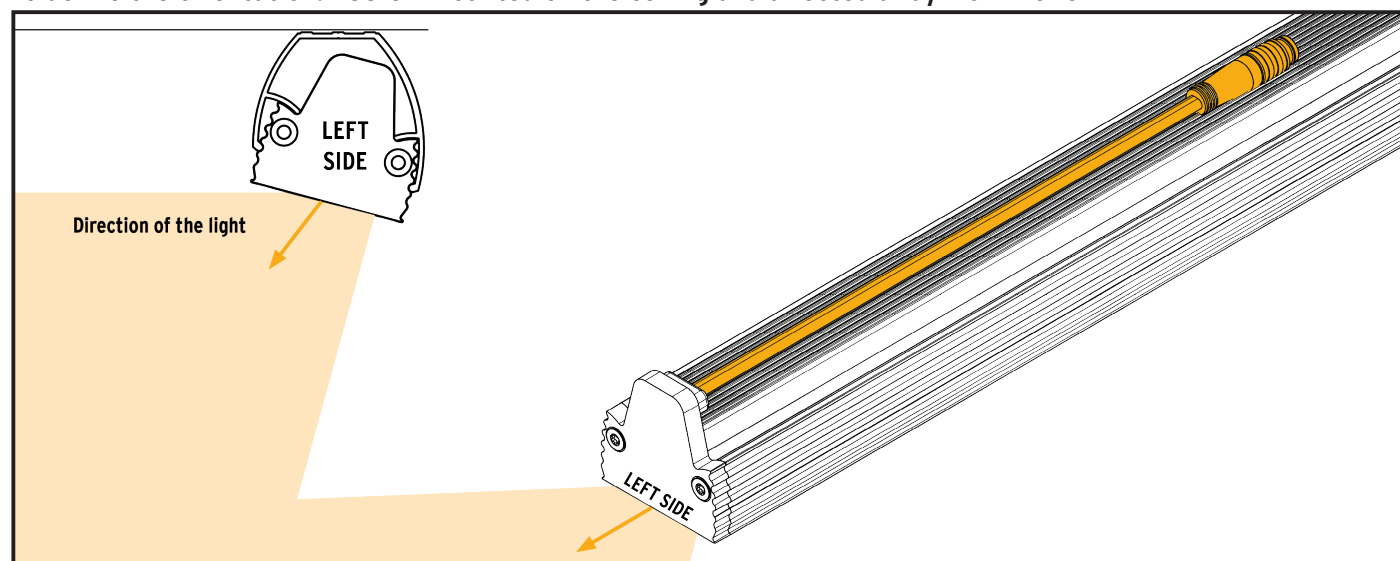
MOL = male connector on the left side when light is directed away from the viewer mounted on the ceiling

MOR = male connector on the right side when light is directed away from the viewer mounted on the ceiling

DCL = male connector on the left side when light is directed away from the viewer mounted on the ceiling (female connector on the right side)

DCR = male connector on the right side when light is directed away from the viewer mounted on the ceiling (female connector on the left side)

**To define the orientation: FUSION mounted on the ceiling and directed away from viewer**



## SURFACE MOUNTING WITH CLIPS

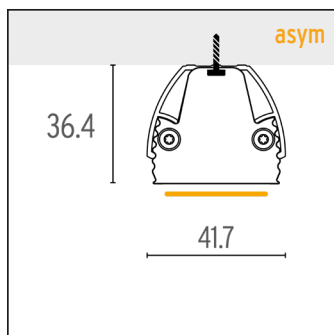
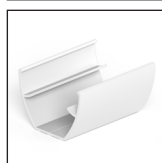
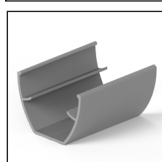
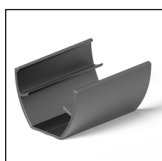
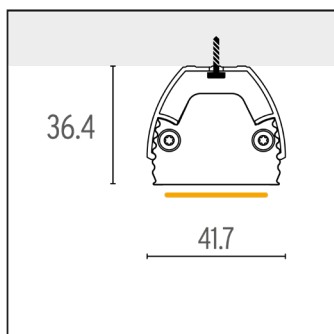
**Please note:** Mounting clips are automatically included with the luminaire when chosen as part of the order code (C00 | C15 | C30).  
All dimensions in mm.

### Mounting accessories

#### VARIOCLIP FUSION 0° RAL9004/RAL9022/ RAL9003

Art.-#: 13000520-9004/ 9022/  
9003-0-0D

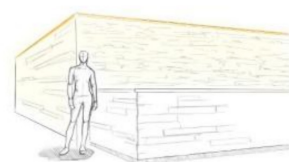
Ordercode: C00



### Description

Aluminium Clip 50 mm length with drilling 4.2 mm. Fastened with screws to mounting surface. The product can be tilted 0° - 15° in steps of 5°. The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.  
Use according to the mounting instruction.

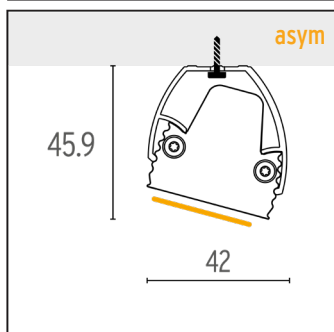
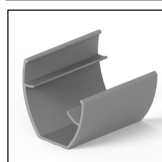
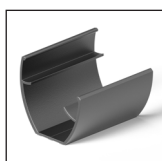
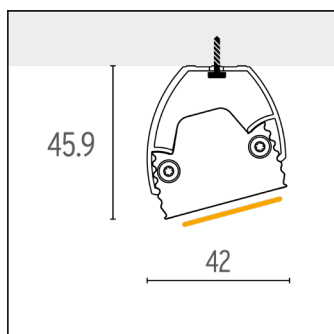
### Example of application



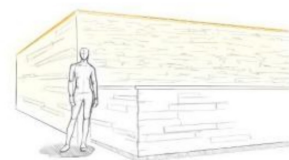
#### VARIOCLIP FUSION 15° RAL9004/RAL9022/ RAL9003

Art.-#: 13000521-9004/ 9022/  
9003-0-15D

Ordercode: C15



Aluminium Clip 50 mm length with drilling 4.2 mm. Fastened with screws to mounting surface. The product can be tilted 15° - 30° in steps of 5°. The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.  
Use according to the mounting instruction.

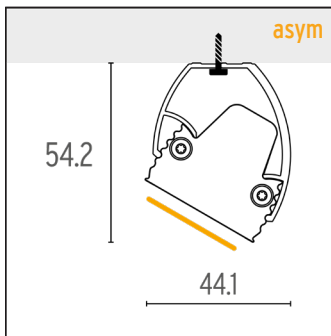
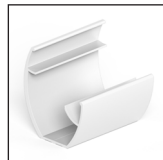
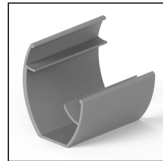
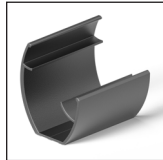
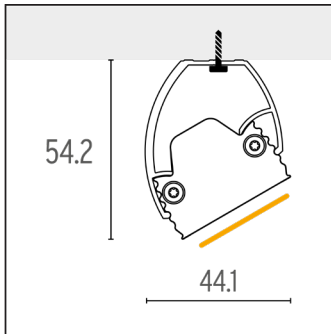


## Mounting accessories

### VARIOCLIP FUSION 30° RAL9004/RAL9022/ RAL9003

Art. #: 13000522-9004/ 9022/  
9003-0-30D

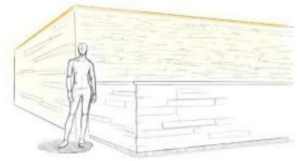
Ordercode: C30



## Description

Aluminium Clip 50 mm length with drilling 4.2 mm. Fastened with screws to mounting surface. The product can be tilted 30° - 45° in steps of 5°. The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.  
Use according to the mounting instruction.

## Example of application



## WALL AND SURFACE MOUNTING WITH ADJUSTABLE ARM

### Please note:

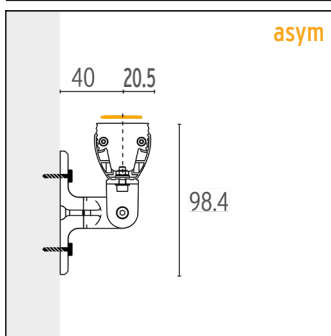
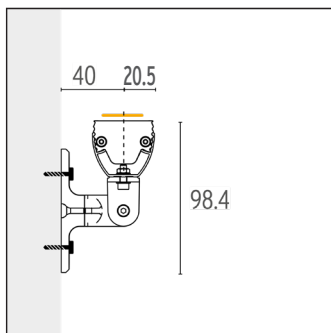
Adjustable arms are automatically included with the luminaire when chosen as part of the order code (A0 | A1 | A2 | A3).  
All dimensions in mm.

## Mounting accessories

### ADJUSTABLE ARM FUSION BLACK/ GREY/ WHITE L40

Art. #: 13000487F-9004/ 9022/  
9003-0040

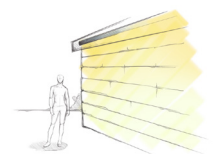
Ordercode: A0



## Description

40 mm fully assembled adjustable mounting arm including VarioClip 0° (C00).  
Allows tilting by 120° in any direction and integrated cable channel.  
The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.  
Use according to the installation instruction.

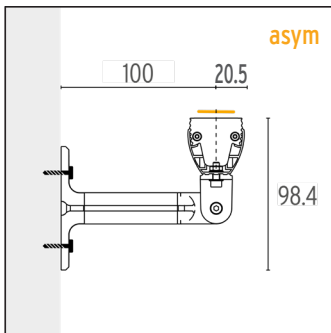
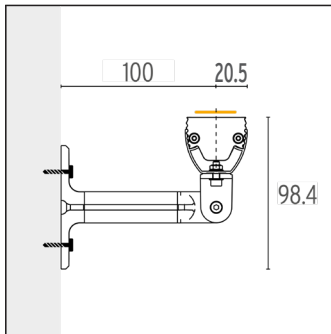
## Example of application



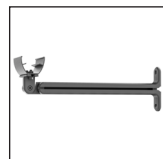
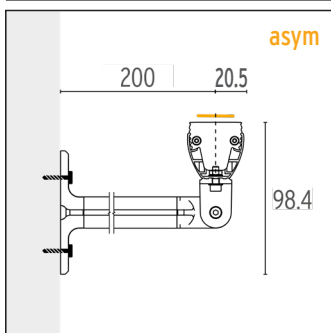
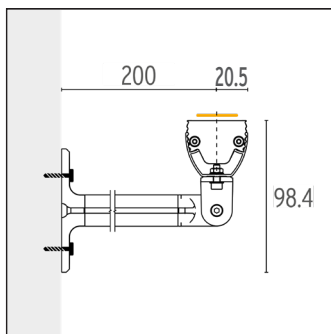
## Mounting accessories

**ADJUSTABLE ARM FUSION  
BLACK/ GREY/ WHITE L100**Art. #: 13000487F-9004/ 9022/  
9003-0100

Ordercode: A1

**ADJUSTABLE ARM FUSION  
BLACK/ GREY/ WHITE L200**Art. #: 13000487F-9004/ 9022/  
9003-0200

Ordercode: A2



## Description

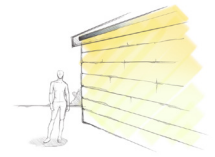
100 mm fully assembled adjustable mounting arm including VarioClip 0° (C00).

Allows tilting by 120° in any direction and integrated cable channel.

The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.

Use according to the installation instruction.

## Example of application

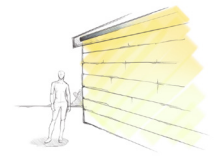


200 mm fully assembled adjustable mounting arm including VarioClip 0° (C00).

Allows tilting by 120° in any direction and integrated cable channel.

The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.

Use according to the installation instruction.



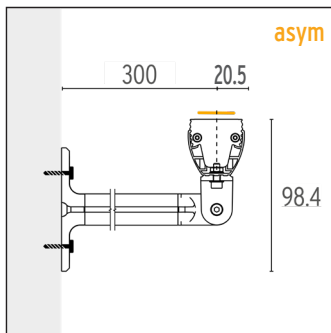
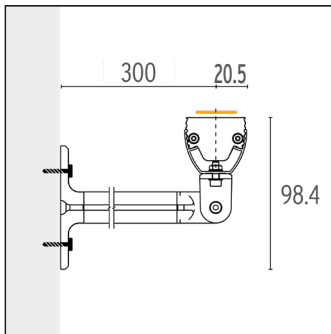


## Mounting accessories

### ADJUSTABLE ARM FUSION BLACK/ GREY/ WHITE L300

Art. #: 13000487F-9004/ 9022/  
9003-0300

Ordercode: A3



## Description

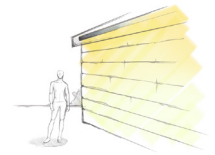
300 mm fully assembled adjustable mounting arm including VarioClip 0° (C00).

Allows tilting by 120° in any direction and integrated cable channel.

The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.

Use according to the installation instruction.

## Example of application



## SURFACE MOUNTING WITH MOUNTING LOCK

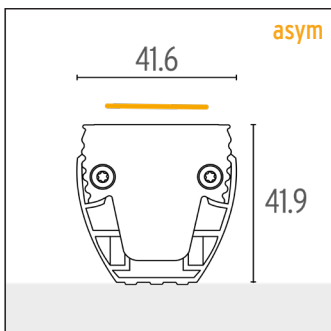
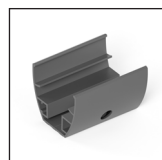
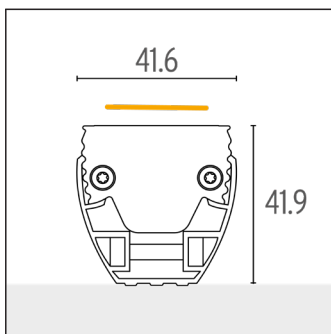
**Please note:** Mounting clips are automatically included with the luminaire when chosen as part of the order code (ML).  
All dimensions in mm.

## Mounting accessories

### VARIOCLIP ML FUSION 0° 9004/9022/9003 SET

Art. #: 13000538-9004/ 9022/  
9003-0D

Ordercode: ML



## Description

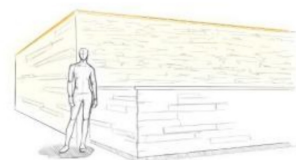
Aluminium Clip 50 mm length with drilling 4.2 mm. Fastened with screws to mounting surface.

Integrated screw will tighten the clip to make the fixture vandal resistant and secured for installations with high safety requirements.

The installation height is similar for all symmetrical and the asymmetrical versions of Fusion.

Use according to the mounting instruction.

## Example of application



## INGROUND FRAME

### Please note:

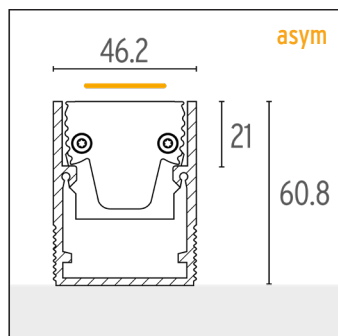
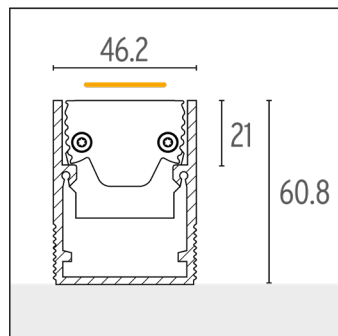
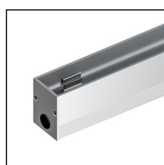
Inground frame cut to the length of the luminaire with accessories are automatically included with the luminaire when chosen as part of the order code (IF). For a line installation choose „X” as part of the order code and order the inground frame (2 m or 4 m length) and all accessories separately. All dimensions in mm.

### Mounting accessories

#### INGROUND FRAME FUSION

Art. #: 10000655-SIL-LLLL

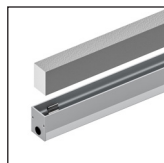
Ordercode: IF



#### FUSION INGROUND FRAME 2M INCL. DUMMY

Art. #: 10000655-SIL-2000

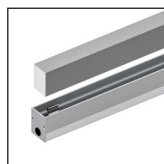
Not part of the ordercode for line installation



#### FUSION INGROUND FRAME 4M INCL. DUMMY

Art. #: 10000655-SIL-4000

Not part of the ordercode for line installation



#### INGROUND FRAME ENDCAP SET FUSION

Art. #: 11000321

Not part of the ordercode for line installation

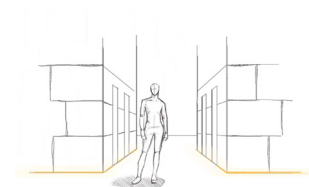


### Description

#### STANDALONE INSTALLATION

Aluminium inground frame (silver anodized) cut to the length of the luminaire including styrofoam dummy and endcaps for standalone installations. Easy luminaire installation with sheet-metal clips. Usable for walk and drive over applications. Drainage has to be prepared on site. Use according to the mounting instruction.

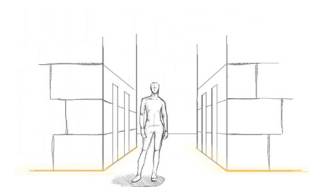
### Example of application



#### LINE INSTALLATION

Aluminium inground frame (silver anodized) in 2 m or 4 m length to be cut on site including styrofoam dummy. Add the needed accessory: Endcap Set includes one endcap with two screws. Clip set includes one clip (use 2 clips < 400 mm and 1 Clip for each additional 400 mm). Mech. connector set includes one connector with 2 threaded pins.

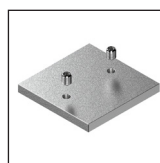
Usable for walk and drive over applications. Drainage has to be prepared on site. Use according to the mounting instruction.



#### INGROUND FRAME FUSION CONNECTOR SET

Art. #: 13000536

Not part of the ordercode for line installation



#### INGROUND FRAME CLIP SET FUSION

Art. #: 13000539

Not part of the ordercode for line installation



## GLARE PROTECTION (optional)

### Please note:

**Glare protection accessory is not included with the luminaire and has to be ordered separately.**

The glare shield has surface mounting clips (C00) included, choose „X“ as part of order code.

The snap-on anti-glare can be combined with the following mounting accessories (C00 | C15 | C30 | A0-A3 | ML).

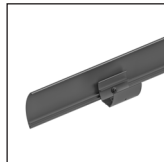
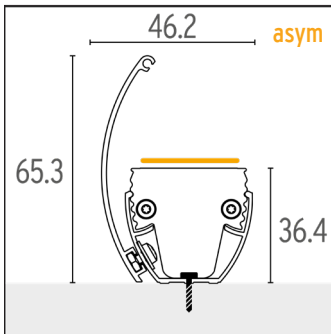
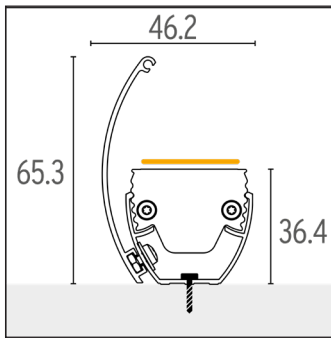
The snap-on anti-glare is not compatible with the asymmetric optic. All dimensions in mm.

### Mounting accessories

#### FUSION GLARE SHIELD L,LLLLM RAL9004/RAL9022/RAL9003

Art.-#: 13000527-9004/9022/9003-0-LLLL

Not part of the ordercode



### Description

Glare shield with 0° clips for surface mounting. Glare is completely cut off to one side. The product can be tilted 0° - 15° in steps of 5°.

Available as standalone version, length is 13,5 mm longer than the fixture to each side.

Example: Standalone

Glare shield length = Luminaire length + 27 mm.

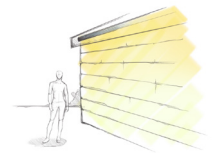
As continuous row, length is the same as fixture to install several fixtures in a row.

Example: Continuous row

Glare shield length = Luminaire length

Use according to the mounting instruction.

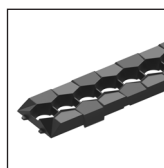
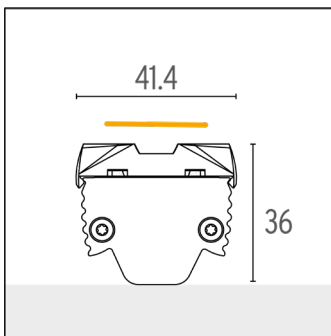
### Example of application



#### FUSION ANTI-GLARE 250 MM

Art.-#: 10000608-0250-SCH

Not part of the ordercode

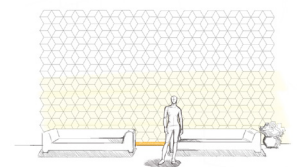


Anti-glare covers spill-light with easy mounting by clicking on the luminaire. Water can drain away. Glare is heavily reduced - longitudinal and lateral.

Delivered only in 250 mm pieces and black color.

Compatible with all the mounting options except the inground frame.

Attention: Not suitable for asymmetrical optic. By using the anti-glare the loss of total lumen flux is ~25 %.



## CABLE ACCESSORIES



VarioCon Female Mono 2x0.34 mm<sup>2</sup> 0.115 m IP67  
Art.-#: 15000071



VarioCon Female Mono 2x0.34 mm<sup>2</sup> 1 m IP67  
Art.-#: 15000090



VarioCon Female Mono 2 x 0.34 mm<sup>2</sup>, 2 m IP67  
Art.-#: 15000091



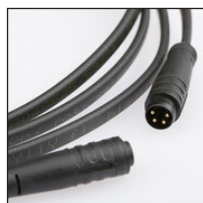
VarioCon Female Mono 2 x 0.34 mm<sup>2</sup>, 5 m IP67  
Art.-#: 15000092



VarioCon Protection Plug 8mm snap, black  
Art.-#: 15000115



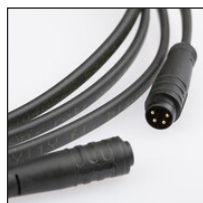
VarioCon Extension 4 x 0.25 mm<sup>2</sup>, 0.08 m IP67  
Art.-#: 15000101



VarioConnect Extension 4 x 0.25 mm<sup>2</sup>, 1 m IP67  
Art.-#: 15000207



VarioCon Extension 4 x 0.25 mm<sup>2</sup>, 2 m IP67  
Art.-#: 15000102



VarioCon Extension 4 x 0.25 mm<sup>2</sup>, 5 m IP67  
Art.-#: 15000103

**VOLTAGE DROP INFORMATION FOR THE FEED-IN LINE (EXTERNAL PSU / CONTROLS TO FIXTURE)****0.34 mm<sup>2</sup> / AWG 22**

FUSION Static White	5 W/m	10 W/m	15 W/m	25 W/m	40 W/m
Product run length	Max. cable length between PSU / control unit and the luminaire				
1 m	47.3 m	23.7 m	15.8 m	9.5 m	5.9 m
2 m	23.7 m	11.8 m	7.9 m	4.7 m	3 m
3 m	15.8 m	7.9 m	5.3 m	3.2 m	2 m
4 m	11.8 m	5.9 m	3.9 m	2.4 m	1.5 m
5 m	9.5 m	4.7 m	3.2 m	1.9 m	1.2 m
6 m	7.9 m	3.9 m	2.6 m	1.6 m	1 m
7 m	6.8 m	3.4 m	2.3 m	1.4 m	0.8 m

**1.5 mm<sup>2</sup> / AWG 15**

Please note: A AWG 15 cable is not provided by the factory.

FUSION Static White	5 W/m	10 W/m	15 W/m	25 W/m	40 W/m
Product run length	Max. cable length between PSU / control unit and the luminaire				
1 m	208.8 m	104.4 m	69.6 m	41.8 m	26.1 m
2 m	104.4 m	52.2 m	34.8 m	20.9 m	13.1 m
3 m	69.6 m	34.8 m	23.2 m	13.9 m	8.7 m
4 m	52.2 m	26.1 m	17.4 m	10.4 m	6.5 m
5 m	41.8 m	20.9 m	13.9 m	8.4 m	5.2 m
6 m	34.8 m	17.4 m	11.6 m	7 m	4.4 m
7 m	29.8 m	14.9 m	9.9 m	6 m	3.7 m

Calculation refers to the cable configuration on site.

The information listed in the table only refers to the conductor-based voltage drop of max. 0.85 V at 24 VDC input voltage.

Regarding the electromagnetic compatibility (EMC) the maximum cable length is defined by the power supply manufacturer.

A cable length between power supply and planned product longer than indicated by the datasheet of the power supply is possible. However, the electromagnetic compatibility can then be influenced by the conditions of the installation site. There is no data on electromagnetic compatibility for longer cable lengths, which might lead to the necessity of an evaluation of the electromagnetic compatibility by a third party.


Datasheets and mounting instructions of the components in combination with the planned product must be carefully read and followed.

## POWER SUPPLY UNIT (PSU) & CONTROLS

### Recommended PSU:

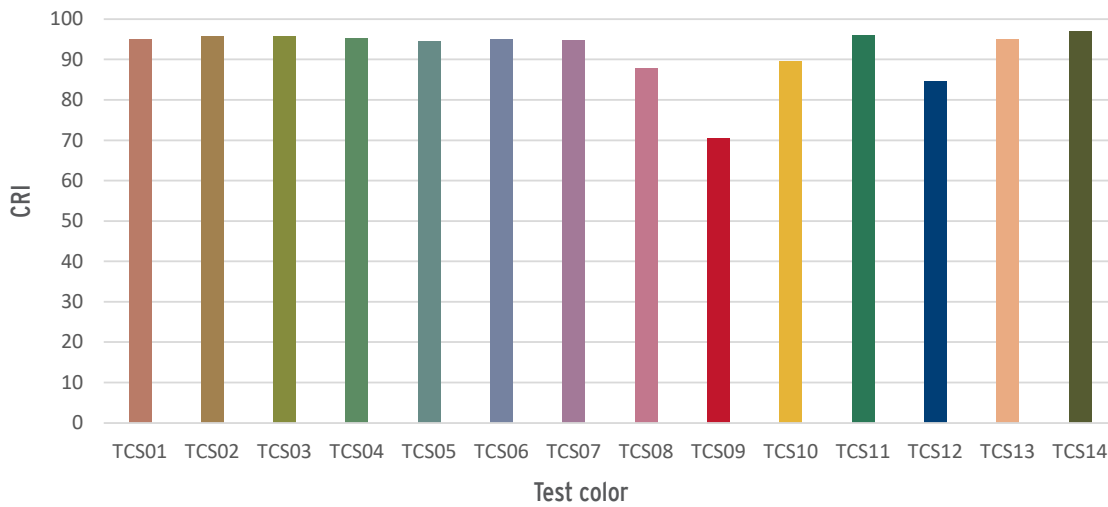
A complete overview of all PSUs and controls with different power ratings can be found on the website:  
<https://www.led-linear.com/products/drivers-controls>

	Item	Description	Part Number
	VarioPSU 24V/100W IP67, ON/OFF, Silver	LED driver from Mean Well with 24 V constant voltage and a maximum output power of 100 W. Type of protection IP67, class I power unit with an input voltage range of 90 - 305 V AC. Dimensions (L x W x H): 220 mm x 68 mm x 38.8 mm. Not dimmable. Product on secondary side dimmable with IN.finite™ controller range.	16000064
	VarioPSU 24V/400W IP67, SK I, SLIM	LED driver from KGP with 24 V constant voltage and a maximum output power of 400 W. Type of protection IP67, class I power unit with input voltage range of 176-264 V AC. Dimensions (L x B x H): 400 mm x 60 mm x 22 mm. Dimmable with DALI 2.	16000406-400
	VarioPSU 24V/120W IP67, 0-10V, Black	LED driver from Mean Well with 24 V constant voltage and a maximum output power of 120 W. Type of protection IP67, class II power unit with an input voltage range of 90 - 305 V AC. Dimensions (L x W x H): 191 mm x 63 mm x 37.5 mm. Dimmable with 0 - 10 V.	16000155

	Item	Description	Part Number
	IN.finite™ CASAMBI 4CH CV EVO	The 4CH IN.finite™ CASAMBI uses the proven CASAMBI BLE radio technology to control constant voltage-operated LED lights and light engines with up to four channels. The low standby consumption and the possibility of direct combination with sensors and switches enable sustainable and demand-oriented control of the connected luminaires.	16000362-EV0

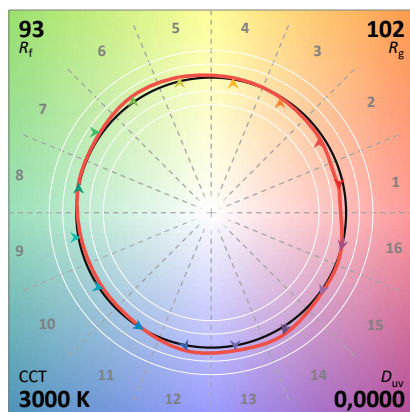
## OPTICAL INFORMATION

## CRI



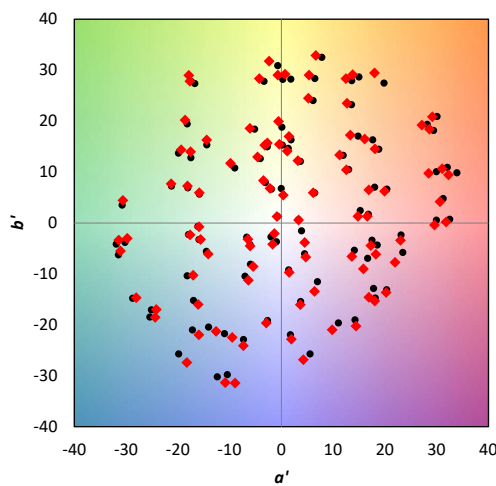
## TM-30-18

## Color Vector Graphig



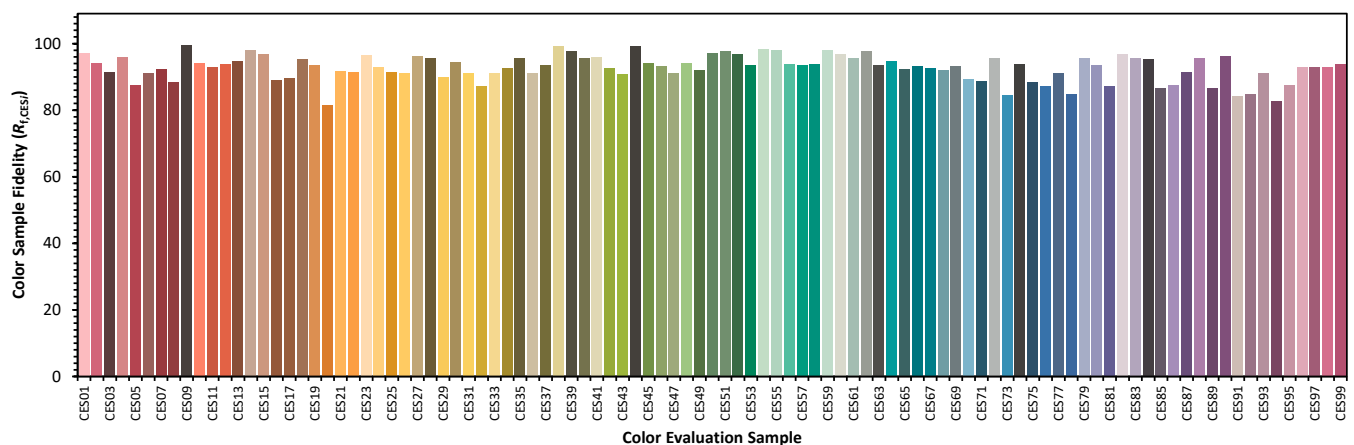
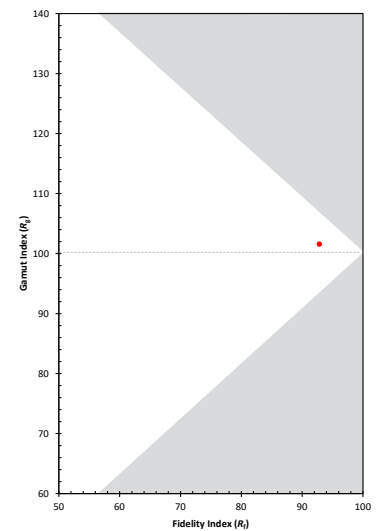
— Reference Illuminant  
— Test Source

## Shift in Hue-Chroma Plane



— Reference Illuminant  
— Test Source

## Gamut Index vs. Fidelity Index



This chart displays the average Fidelity Index for all samples within the hue bin. The number of samples per bin, which can vary based on the CCT used for the calculation, is shown at the top. The color of the bar is based on the average chromaticity under the 5000 K reference illuminant; the colors may not display accurately depending on the calibration of the monitor, and should be used for orientation only.