



Luminous Ceilings Coved Lighting Lighting Panels Strip Lighting Luminous Fields

# Luminous Ceiling SYS-K





#### Luminous Ceiling

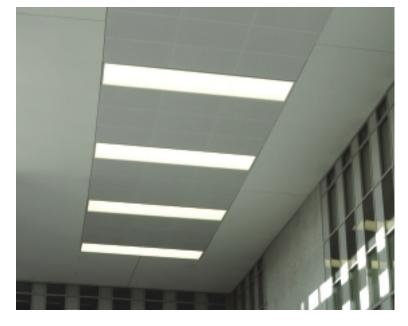
Diffuse light emanates from large illuminating surfaces and gives soft and even illumination. The light's natural appearance creates a visual picture of calm and quiet. Architecture becomes visible. Luminous ceilings as an integrated component of space and architecture allow room for creative design styling.

The SYS-K series is produced in modular style and made available up to a width of 1400mm without visible fastening elements. The individual modules are aligned together longitudinally. Large surfaces can be realized easily. The system can be controlled electronically and can also be equipped with a colour-mixing light control.

The lighting designer's ideas can be implemented and special designs made to suit specific project objectives.







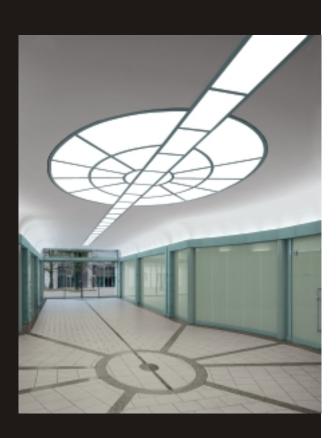
## Luminous Ceiling with Invisible Profile

Large format space luminaires with inserted LSG hardened security glass covers in Optiwhite made of laminated glass. The composite use of special opal foils, distributing light and translucency, achieve an even and shadow-free illumination surface. Luminaire module as steel construction with fastening options. Adapted to various ceiling requirements or as freely suspended construction. Fully equipped with luminaire units for fluorescent lamps with dimmable electronic control gears. Interface: 1–10V. Other interfaces such as DALI, Push or DSI available.



Luminous Ceiling with RGB Colours are additively mixed by separately driving the primary colours of red, green and blue. Hereby a wider colour spectrum can be obtained. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.

# Luminous Ceiling SYS-P



# Luminous Ceiling with Visible Profile

In contrast to a scenery with point lights a visual picture of calm and quiet is created by diffuse illumination with luminous ceilings. Graphically divided illuminating surfaces support the stylistic architectural lines. As for the SYS-P series, a special manufacturing process allows these luminous ceilings to be designed with any shape and structure.









Luminous Ceiling, Visible Profile

Composed and connected as large format elements. Surface made of stainless steel (VA) either satin-brushed or steel/ aluminium powder-coated. The system is suspended either from a bare ceiling or has a separate carrying construction. Illuminating fields can be individually shaped. Sizes up to 1400mm x 1400mm or 1000mm x 2000mm per individual field. Made of LSG hardened safety glass panes in Opti-white with light distributing and translucent special opal foils.

#### Lighting Technology

Electrical units fully equipped with luminaire units for fluorescent lamps with dimmable electronic control gears. Choice of 1-10V, DSI, DALI or Push interface available. In addition a daylight-dependent control or a programmable control with pre-defined light scenes or even dynamic colour temperature regulation is possible.



# Luminous Ceiling SYS-L





# Luminous Ceiling, Invisible Profile

Due to their homogenous and glare-free illumination, luminous ceilings can produce conditions virtually identical to natural daylight. The SYS-L series is noted for its individual surface pattern. Large-format glass panes are unobtrusively point fastened. A translucent acrylic louvre gives a discreet structure.











### Luminous Ceiling, Invisible Profile

The luminous ceiling is available in any shape and size as a custom build. The luminaire has an exterior frame adapted to the ceiling system. Available on request with a diffusing border, a fine edge or a shadowgap border. Luminous surface made of single, large-format LSG hardened safety glass panes screwed together with a satinized acrylic frame construction via 4-point fastening system. An even, discreetly structured luminous surface is all that can be seen.

### Lighting Technology

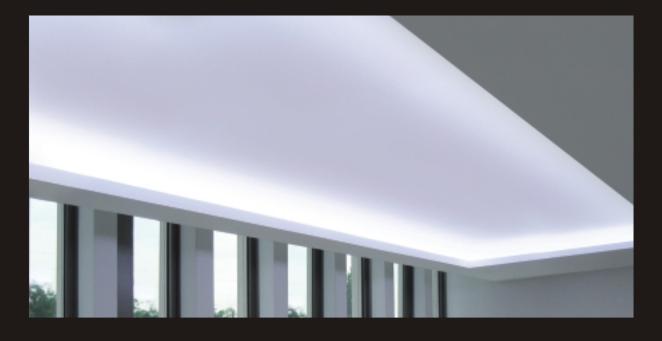
Electrical units fully equipped with luminaire units for fluorescent lamps with dimmable electronic control gears. Choice of 1-10V, DSI, DALI or Push interface available. In addition a daylight-dependent controller or a programmable control with pre-defined light scenes or even dynamic colour temperature regulation is possible.

#### Luminous Ceiling with RGB

Colours are additively mixed by separately driving the primary colours of red, green and blue. Hereby a wider colour spectrum can be obtained. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.



# Coved Lighting



In modern architecture luminous ceilings and coved lighting have become discerning design features. They are the basis of a homogenous lighting design with a character similar to daylight. When implementing such lighting, it is important to prevent the characteristic dark zones in the gaps from one lamp to the next by overlapping the lamps.



Our system luminaires allow the lamps to be mounted in a diagonally offset, overlapping arrangement. This ensures illumination free of gaps or shadows.





### Lighting Technology

Electric units equipped for fluorescent lamps with dimmable, electronic control gear are used for the lighting. To provide infinitely adjustable dimming, 1-10V interfaces are used as standard. Alternatively, DSI, DALI and Push interfaces are also available. A program control with predefined light scenes up to and including dynamic colour temperature is available as an optional extra.



# **RGB** Cove Luminaires

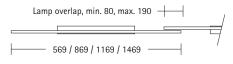
Colours are additively mixed by separately driving the primary colours of red, green and blue. This achieves a wide colour spectrum. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.



# Coved Lighting



With a width of just 52mm this system luminaire is designed for particularly narrow installation scenarios. The lamps are arranged in an overlapping formation. The clip fixing for the lamps facilitates maintenance for inaccessible light shelves.



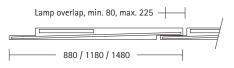


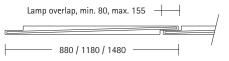




An installation height of just 36mm makes this luminaire suitable for particularly shallow installation scenarios. Despite the narrow width of just 100mm, the lamps are still arranged in an overlapping formation.

At 50mm high and just 75mm wide, this system luminaire is the standard fixture that fits in almost all lighting coves. The luminaire's flat top serves as a reflection surface.

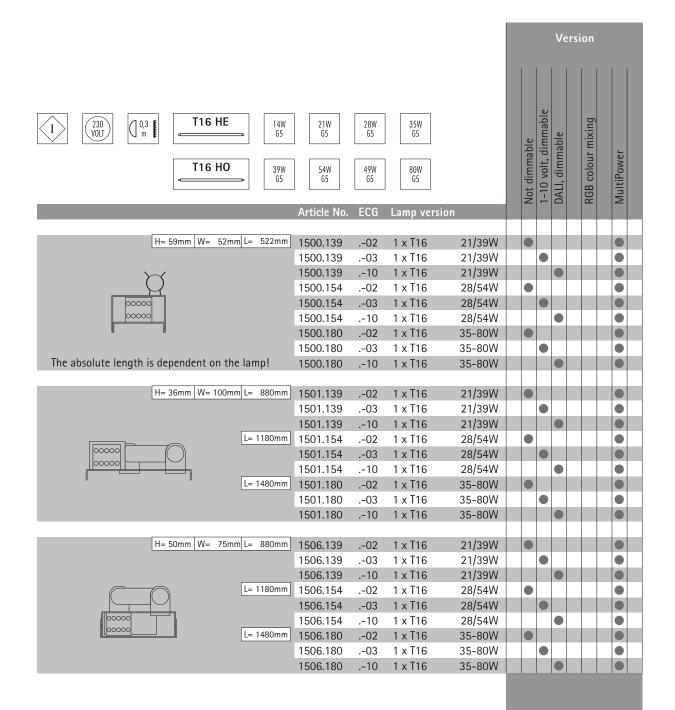






#### Cove Luminaire

Linear light for strip lighting with overlapping lamp arrangement. The recommended lamp overlap is 100mm. The minimum overlap required is 80mm. For the maximum lamp overlap, please see the schematic drawing. The variable lamp overlap ensures the illumination has no transitions or shadows and allows the length of the lighting strip to be adjusted. Equipped for T5 fluorescent lamp with an electronic control gear in static or dimmable versions. Interface options are DALI or 1-10 volt.



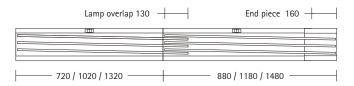
### **RGB Cove Luminaires**

Colours are additively mixed by separately driving the primary colours of red, green and blue. This achieves a wide colour spectrum. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.



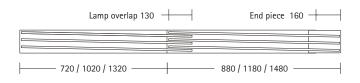


RGB panel for dynamic mixing of coloured light. This lighting system is prewired ready-toconnect and is noted for its flat dimensions, overlapping lamps and simple control.





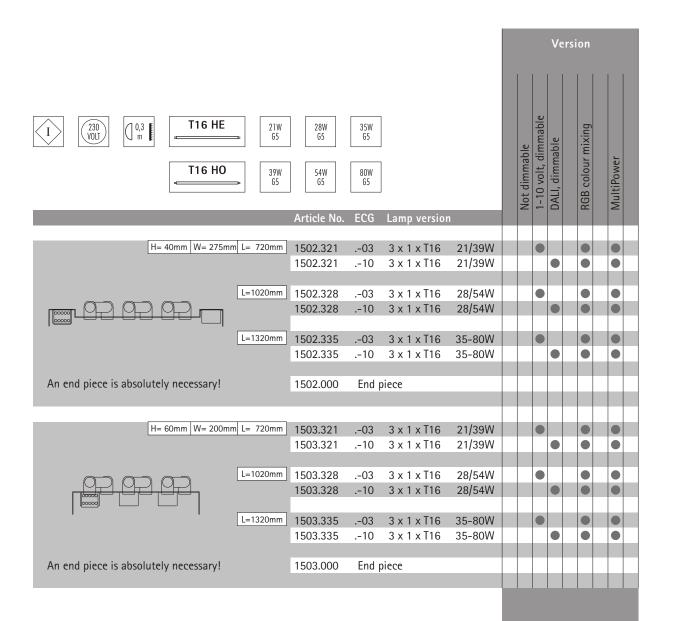
RGB panel for dynamic mixing of coloured light. Featuring a narrow design with overlapping lamps, this is a ready-toconnect lighting system for simple control.



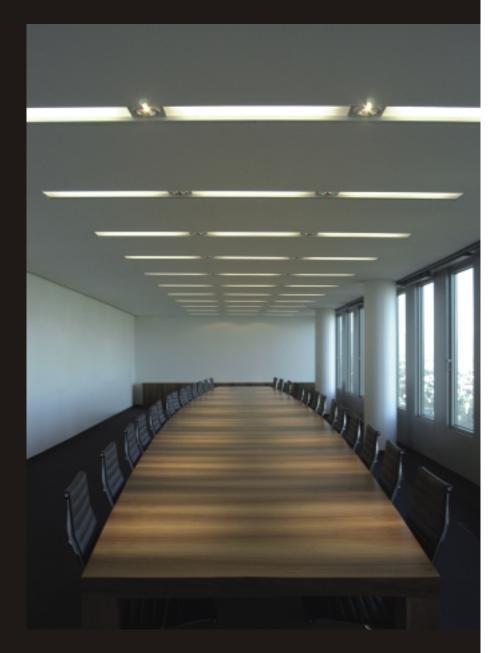


#### **RGB Cove Luminaire**

Linear light for strip lighting with an overlapping lamp arrangement to ensure the illumination is free of transitions and shadows. Equipped for T5 fluorescent lamps with electronic control gear, it is available in dimmable version. Interface options are DALI or 1-10V.



# Lighting Panels



# Lighting Panels

Lighting channels make a convincing choice since they integrate perfectly into the building. The large-scale diffusers reduce the luminance levels. They can be used to divide rooms or to partition or even link up areas. Available as a discreet ambient light or as a combo luminaire, featuring additionally integrated spotlights, for both ambient and accent lighting.



Lighting Panels Lighting panels is the name we give to linear lighting fields that are flush-fitted into suspended ceilings. The variability of width and length enables special design tasks to be solved. Light becomes visible through the evenly illuminated diffuser surface. Tension can be created by combining with spotlight elements and special visual tasks can be met.

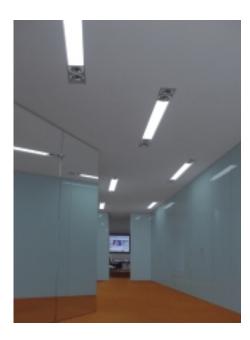


# Lighting Panels

# Functions

In modern architecture, one approach to lighting design is to see the luminaires not as an object but as building-integrated entities that solely fulfil a purpose and are not an end in themselves. It is therefore appropriate to consider which functions can be fulfilled from this entity. We distinguish here between lighting technology and building technology.

\_\_\_\_\_







# Dual Light Lighting Panels

To provide scenic lighting, spotlight inserts are available. The availability of individual luminaires and strip-light systems gives the designer a wide variety of design possibilities.

Lighting panel

Spot, fixed

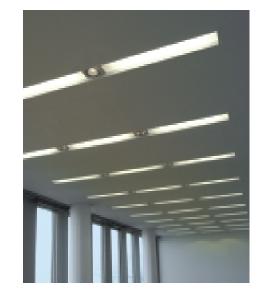


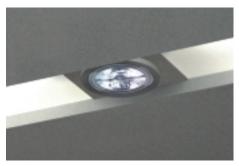
Spot, cardanic

# Dual Light

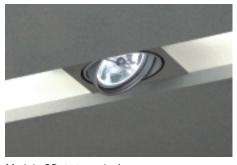
Many different lighting moods can be produced by using two different light sources. Whether as a soft light or a precise spotlight, the dual function is not intrusive. The plane basic light source is a fluorescent lamp T5 supplemented by independent, concentrically arranged auxiliary lighting.

Combined with fixed or adjustable projection, this unit permits high vertical accentuation. Light sources for the auxiliary lighting are compact fluorescent lamps, LV halogen lamps and ceramic HID lamps such as CDM-T, CDM-TC or CDM-TM.

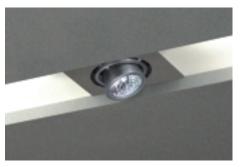




Module QR-111, fixed



Module QR-111, cardanic



Module QR-CBC 51, cardanic

# Lighting Panels



### Trimless Lighting Panels

In this "hall of reflections," lighting panels are used as individual luminaires in trimless design. These individual luminaires have been specially adapted for installation in the acoustic ceiling. Daylight control, emergency lighting, sensor technology and air-conditioning are built-in. It was even possible to largely dispense with inspection holes since this facility is also provided by the lighting system.

#### Lighting Panels

Flooded with light due to the large-format glass front and featuring large reflective surfaces, the foyer makes use of flat lighting panels to provide uniform lighting that is free of transitions. The trimless lighting channels emphasise the room's architectural lines and the transition to the wall is virtually imperceptible.



Lighting Panels - Shadow Gap A filigree shadow gap running around the edge of the luminaire characterises the appearance of this integrated and therefore low-profile installation version. Intelligent accessories facilitate problem-free installation into the ceiling.





Lighting Panels - Frame

A filigree frame around the edge enables the lighting panels to be retro-fitted without problem in apertures cut in the ceiling. The special spring system ensures a secure hold and reduced installation costs.



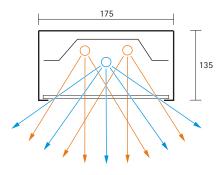


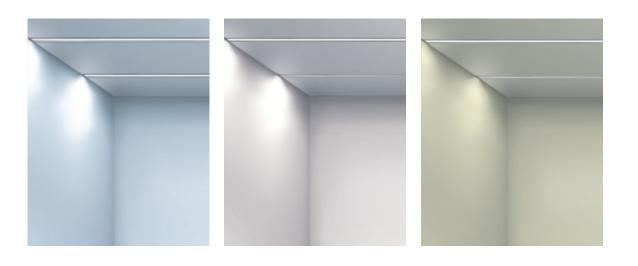
### Lighting Control

To enable artificial lighting in indoor areas to have a natural effect, it should be adjusted to suit the circadian rhythm of the users. Altering the colour temperatures in line with the colour progression of natural light is, alongside brightness, the most significant factor when implementing biologically regulated light. In this way, periods of activity and rest can both be supported practically. In the mornings, the light is slightly bluish and has the highest colour temperature. The red component in the colour of light increases as the evening approaches.

#### Lighting Technology

The light becomes biologically effective when large-area luminaires are aimed towards the human eye from above and from the front. This is the only way to reach large areas of the retina. The additional brightening of wall and ceiling surfaces augment this effect.

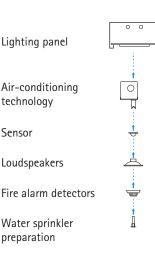






#### **Multifunction Luminaires**

Holistic building technology concepts reduce the construction costs and increase the flexibility. Multifunction luminaires offer a solution here by way of increased system integration without impairing the interior design. Incorporation into the building technology is achieved using system adapters or complete system elements. Detailed clarification is required for customised, project-specific implementation.



### Lighting panels with integrated ventilation technology >

#### Safety Luminaires

Independent luminaire inserts with or without single batteries are integrated as system elements in a non-maintained circuit. A wide variety of wattages allows the emergency lighting units to be used as safety or secondary lighting. Rescue signs can be integrated in continuous circuits or into reference luminaires by using optical lighting accessories. Easy revision of the additional elements allows usage of single batteries.

#### **Fire Alarm Detectors**

In principle conventional fire alarm detectors can also be integrated as a system element into the multifunctional luminaires. To ensure conformity with the current German VDE Guidelines, the possibility of integration must be checked in detail and must be confirmed by the fire alarm detector manufacturer with a certificate of compliance (German regulation for the German market).

#### Tone

Wide band loudspeakers are available as a system element. A bayonet lock allows them to be integrated, aligned and reversed.

#### Water Sprinkler

System adaptors allow the installation of a covering plate with 50mm cut out hole. Avoiding frictional connected luminaire the installation of suspended screen sprinklers and the supply of the sprinkler pipes can be realized. A certificate of compliance by the water sprinkler manufacturer is recommended.

#### **Special Equipment**

Besides the mentioned basic elements further technical elements can be integrated in addition to the indicated basic modules. This includes: video monitors; alarm and sensor technology; revision elements for control valves and maintenance elements.

#### Air Conditioning Technology

In addition to the harmonious design styling, the combination of air conditioning and lighting technology also reduces installation time by reducing the ceiling cut-outs. System adaptors allow the integration of additional elements at the same time fulfilling various climatic demands. A spatial separation of individual technical elements guarantees highly efficient individual functions. Controllable integration of air input and output.

# Lighting Panels

### Individual Luminaire

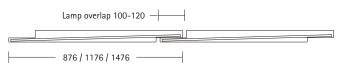
As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-toconnect one-piece units. They are prepared for installation as per mounting system F. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

#### System Luminaire

Lighting channel system designed as a custom-length luminaire with which different system components can be individually combined. This makes it possible for luminaire arrangements that delineate a room or area to be realised according to the designer's plans. The detailed design-work for such a system is done by our design department.

\_\_\_\_\_

# Unit length for lighting panels in overlapping formation:

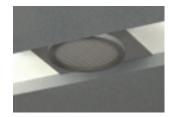


# Unit length for lighting panels:



### System Components

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.



Receptacle module for technical components Art. No. 1400.097

## Mounting Systems:



#### SYSTEM F Mounting with retention springs

	~
--	---

SYSTEM K Mounting on stud bolts

	_	•	
1			

SYSTEM H Mounting on auxiliary construction



Mounting System F The luminaire is clipped into the ceiling tool-free using patented retention springs. For ceiling thicknesses of up to 25mm.



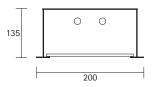
Module for luminaire unit Art. No. 1400.096

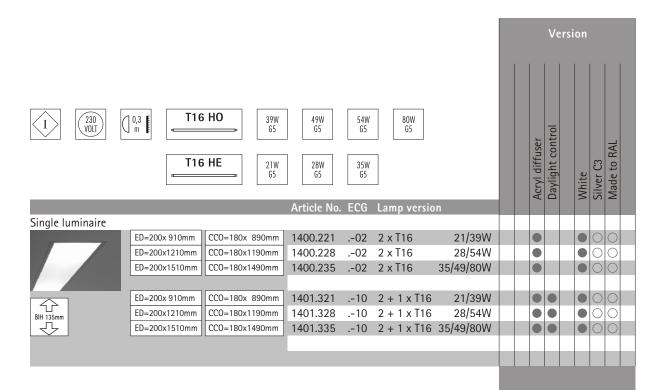


#### **Lighting Panels**

Individual luminaires made of sharply folded, galvanised sheet-steel with a narrow frame. Alternatively available as a trimless version or with a shadow gap to suit various ceiling situations. Complete luminaire with MultiPower technology electronic control gear. Also available as a controllable version with DALI or 1-10V interface. Equipped for T5, HE/HO fluorescent lamps. Prewired with heatresistant cable and ready-toconnect. Luminaire covered with a wide-beam diffuser made of highly dispersing, opal acrylic with satin-frosted surface finish. Alternatively also available with photometrically calculated microprism cover.



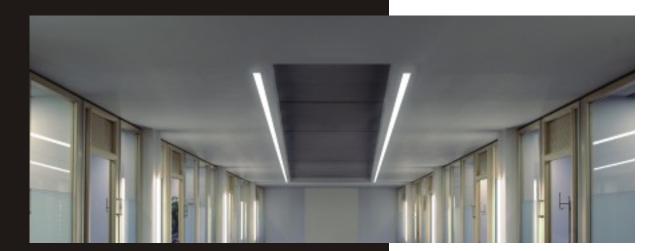




# Strip Lighting

# Strip Lighting

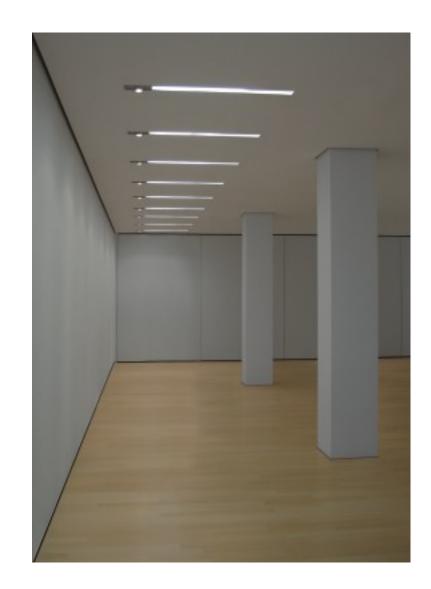
Recess-mounted linear luminaires as individual luminaires or as a custom-length system are used in prestigious rooms and in thoroughfares. Strip lighting delineates an area and, if required, can serve to underline architectural lines or to provide homogenous illumination of general areas. The systems can be used in wall and ceiling areas.





# Strip Lighting

Freely extendable lighting channel made of aluminium profile with different inserts. Suitable for vertical and horizontal mounting. Available as a frameless version or with a filigree all-round edge profile. Can be used to provide luminaire arrangements functioning as ambient lighting and/or as accent lighting. The cover of the strip lighting is made of opal acrylic with satinized surface. The miniaturised louvred luminaires have highquality parabolic specular louvres made of aluminium. Spotlight systems and building technology components can be integrated into the system.

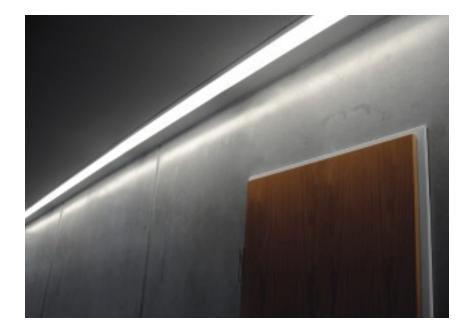


# Strip Lighting

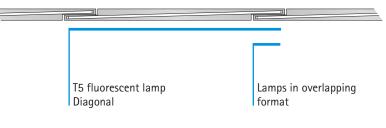
# Lamp Overlap

When implementing the system, it is important to avoid the characteristic dark zones between one lamp and the next by overlapping the lamps.

Our system luminaires have been specially designed for this type of application. The illuminating surface of the diffuser is illuminated without any transitions or shadows.



### Strip lighting with shadow-free acrylic lens





### Diffuser

Cover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.



### Parabolic Louvre

The parabolic louvres used are fitted as a continuously louvred strip with end plates. Our aluminium louvres are noted for their high efficiency and good glare control. They are suitable for use with computer workstations and for professional use in offices.



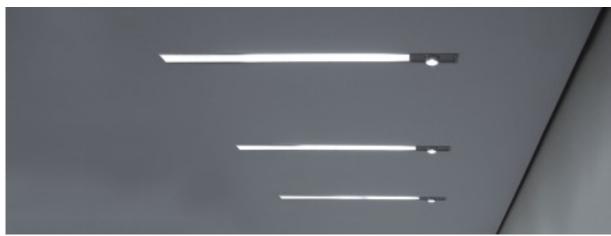


### Strip lighting with parabolic louvre

Can be fitted as a continuously louvred strip or positioned anywhere in the profile with blank covers over the empty elements.



Parabolic Louvre Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. CAT 2



#### Dual Light

To provide scenic light, spotlight inserts are available. Highly diverse lighting moods can be created by using different light sources. Diffuse and pin-pointed light are combined as a double function in one luminaire that does not come to the fore itself. The even ambient light produced by the T5 fluorescent lamps is complemented by additional, independent lighting.

# Spotlight Module

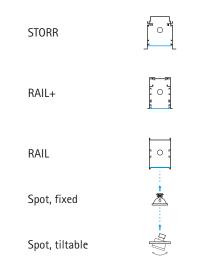
When combined with fixed or adjustable projection inserts, high vertical accentuation is possible. Light sources for the auxiliary lighting are halogen lamps in low voltage, ceramic HID lamps – such as BriteSpot Es50 – and LED.



Fixed luminaire inserts



Tiltable luminaire inserts





# T5 / LED Lighting Control

Altering the colour temperatures in line with the colour progression of natural light is, alongside brightness, the most significant factor when implementing biologically regulated light. In this way, periods of activity and rest can both be supported practically.

A program control with predefined light scenes up to and including dynamic colour temperature is possible as an optional extra.



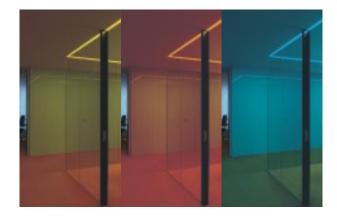


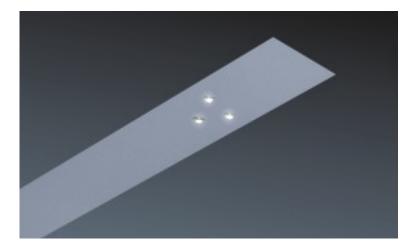


**LED / RGB Strip Lighting** The additive colour mixing

in infinitely adjustable colour spectra enable scenic colour changing, decorative and inspiring light or colour matching to suit the natural dynamics of our surroundings.







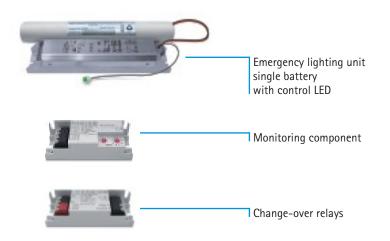
#### Safety Luminaires

Independent luminaire inserts with or without single batteries are integrated as system elements in a non-maintained circuit. A wide variety of wattages allows the emergency lighting units to be used as safety or secondary lighting. Rescue signs can be integrated in continuous circuits or into reference luminaires by using optical lighting accessories. Easy revision of the additional elements allows usage of single batteries.

### LED Emergency Module

Specific components such as monitoring modules, AC/DC switching points, address modules and individual batteries can be integrated for the emergency lighting function.









**Multifunctional Luminaires** 

Holistic concepts in building engineering decrease construction costs and increase flexibility. Here multifunctional luminaires offer a solution through an increased system integration without affecting the interior design. System adaptors or complete system elements realize the connection to building engineering. Project related realization should be clarified in detail. STORR

RAIL+

RAIL

Air-conditioning technology

Sensor

Loudspeakers

Fire alarm detectors

Water sprinkler preparation

#### Fire Alarm Detectors

In principle conventional fire alarm detectors can also be integrated as a system element into the multifunctional luminaires. To ensure conformity with the current German VDE guidelines, the possibility of integration must be checked in detail and must be confirmed by the fire alarm detector manufacturer with a certificate of compliance (German regulation for the German market).

#### Water Sprinkler

System adaptors allow the installation of a covering plate with 50mm cut out hole. Avoiding frictional connected luminaire the installation of suspended screen sprinklers and the supply of the sprinkler pipes can be realized. A certificate of compliance by the water sprinkler manufacturer is recommended.

#### Tone

Wide band loudspeakers are available as a system element. They integrated, aligned and reversible through bayonet lock.

#### **Special Equipment**

Besides the mentioned basic elements further technical elements can be integrated in addition to the indicated basic modules. This includes: video monitors; alarm and sensor technology; revision elements for control valves and maintenance elements.

### Air Conditioning Technology

In addition to the harmonious design styling, the combination

of air conditioning and lighting technology also reduces installation time by reducing the ceiling cut-outs. System adaptors allow the integration of additional elements at the same time fulfilling various climatic demands. A spatial separation of individual technical elements guarantees highly efficient individual functions. Controllable integration of air input and output.

# Strip Lighting with Frame \_\_\_\_\_

Various mounting options are available for installation purposes. Please see below for an overview of the most commonly used systems. Project specific solutions are also possible and are solved by our design team.



SYSTEM K Mounting on stud bolts

Screw fixing for cut ceiling systems, for retro-fitting on threaded bar.



SYSTEM H Mounting on auxiliary construction

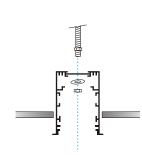
Screw fixing for cut ceiling systems, for retro-fitting on a previously installed mounting construction.



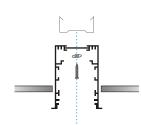
SYSTEM B

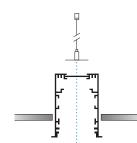
Wire rope suspension with rapid connector system

Wire-rope suspension for mounting the luminaire to the bare ceiling. For retro-fitting to suspended ceiling.

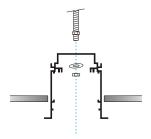


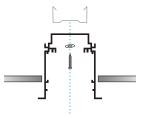
RAIL

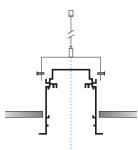




STORR







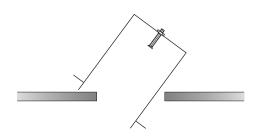


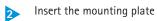


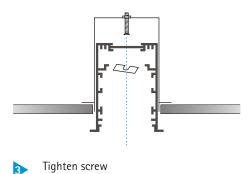
SYSTEM M Mounting with stirrup M

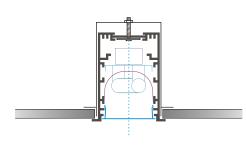
Bracket-mounting for cut ceiling systems for retro-fitting on a suspended-ceiling construction to be fabricated on-site.

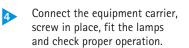
Insert the mounting bracket into the ceiling cut-out and secure in position

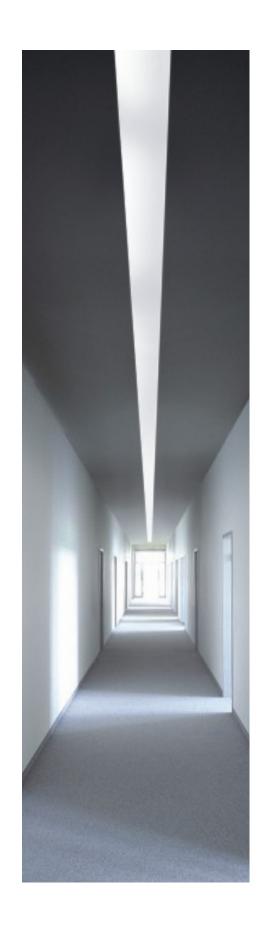












# Strip Lighting Frameless

Various mounting options are available for installation purposes. Please see below for an overview of the most commonly used systems. Project specific solutions are also possible and are solved by our design team.



SYSTEM K Mounting on stud bolts

Screw fixing for cut ceiling systems, for retro-fitting on threaded bar.



SYSTEM H Mounting on auxiliary construction

Screw fixing for cut ceiling systems, for retro-fitting on a previously installed mounting construction.



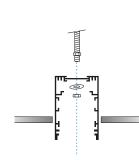
SYSTEM L Mounting with angle bracket

For mounting to a bare ceiling, then fitting the suspended ceiling to the luminaire profile.

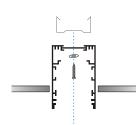


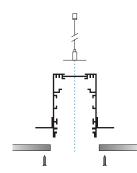
SYSTEM M Mounting with stirrup M

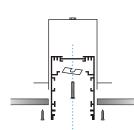
Bracket-mounting for cut ceiling systems for retro-fitting on a suspended-ceiling construction to be fabricated on-site.

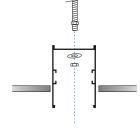


RAIL+

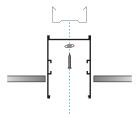


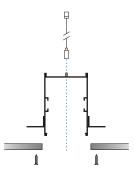


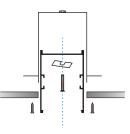




RAIL





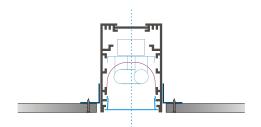


36



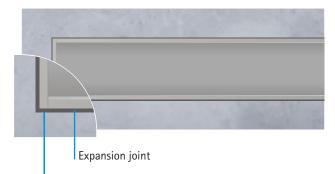


The plastered-in mounting allows the luminaire to be fully integrated into the building structure. To achieve a perfect result, the luminaires must be mounted and fitted with the utmost care. The expansion joint mentioned here is an absolute necessity.

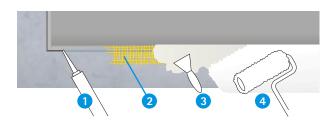


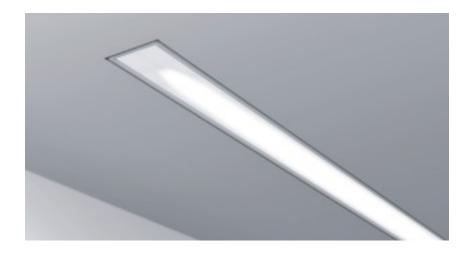
# Steps

- 1. Insert permanently elastic expansion joint
- 2. Fit plaster gauze over transitions
- 3. Fill and plaster
- 4. Paint



Clean material edge on-site



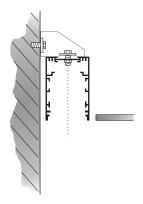


Shadow gap

Clean material edge on-site

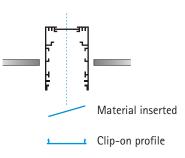
As an alternative to the abovementioned flush-plastered mounting, the installation with shadow gap is also recommendable. A cleanly finished ceiling cut-out can be easily produced using precast plaster parts or plaster rails. Various concrete installation housings are also available for our strip lights.

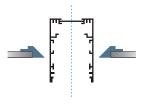
Wall-mounting the luminaire with wall bracket with predefined offset from wall. Fitting to the ceiling with joint. Ceiling finished with finishing profile.



Ceiling cut-out to be produced on-site by the ceiling builder. Ceiling finished with finishing profile.

Ceiling cut-out produced very exactly on-site using solid ceiling plaster profiles.

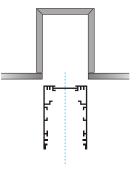


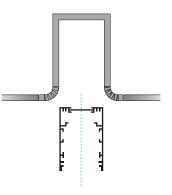




Using individually precast, shaped plaster parts produces a unified appearance of the ceiling system and luminaire. The shaped plaster parts are designed to fit the luminaires to be installed, ensuring uncomplicated installation by the specialist fitters. The variety of shapes is limitless, giving the designer every possibility to be creative. We are happy to provide support for the technical implementation and can name suppliers once the requirements have been fixed.







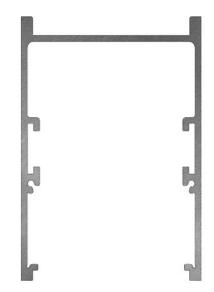
#### **Cast in Concrete**

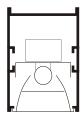
Direct mounting of the aluminium profiles is enabled using wooden cores on the concrete formwork. These have two to four insertion openings for the conduit. Mounting using internal mounting plates is provided in order to enable installation in bare concrete ceilings. Please indicate separately when ordering.

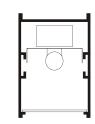














### Parabolic Louvre Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. CAT 2

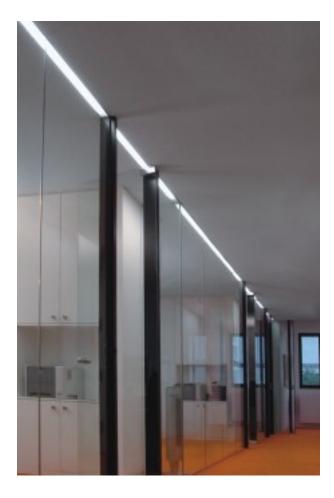
### Diffuser

Cover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.

### RAIL

For luminaires with direct light distribution, the aluminium parabolic louvres are available in two different louvre heights. Both louvre types are compatible for use with computer workstations. The shallow version has very good glare control, CAT 2, combined with optimum efficiency and has a wide-beam light distribution. The high cross louvre ensures maximum glare control, CAT 1. Computer-workstation compatible, featuring a Darklight lens system. The louvres are fitted all the way along. In addition, this profile is also available as a surface mounted strip light, whereby the lamp is covered by a recessed opal diffuser in satin-frosted white.





### **Inserted Materials**

With this profile, the luminaire covers are inserted. This means that in addition to the diffusers that have a purely technical function, decorative diffusers can also be fitted. Highly diverse materials are available.



Acrylic with linear anti-glare prism

Acrylic with conical anti-glare prism



Coloured acrylic

Satinized glass

### **RAIL Individual Luminaire**

Mounting Systems:

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-toconnect one-piece units. They are prepared for installation as per mounting system H. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

### SYSTEM K



Mounting on stud bolts

\_\_\_\_\_



SYSTEM H Mounting on auxiliary construction



SYSTEM M Mounting with stirrup

### Unit length for RAIL luminaire row:

Unit length for RAIL strip lighting:

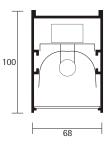
Lamp overlap 100-120

876 / 1176 / 1476

r=



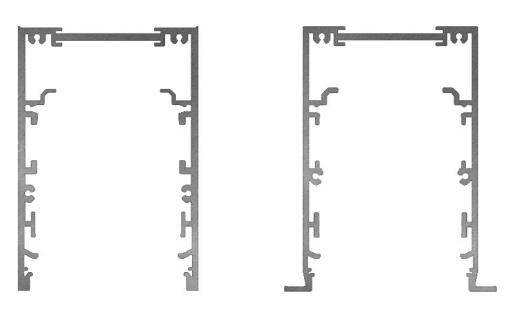
Individual luminaires made of sharp-edged extruded aluminium profile in trimless design. Complete luminaire with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.



$\begin{array}{c c} \hline I \\ \hline 1 \\ \hline 0 \\ \hline 0 \\ \hline 0 \\ \hline 0 \\ \hline \end{array} \end{array} \begin{array}{c} \hline T16 \\ \hline m \\ \hline $	c louvre	er				
Article No. ECG Lamp version	Parabolic louvre	Acrylic diffuser	White	Silver C3	Made to RAL	Anodized aluminium
Single luminaire						T
ED= 68x 880mm CCO=69x 881mm 1750.12102 1 x 1 x T16 21/39W				$\bigcirc$	$\bigcirc$	$\bigcirc$
ED= 68x1180mm CCO=69x1181mm 1750.12802 1 x 1 x T16 28/54W				0	0	0
ED= 68x1480mm CCO=69x1481mm 1750.13502 1 x 1 x T16 35/49/80W				$\bigcirc$	$\bigcirc$	0
				~	-	-
ED= 68x1756mm CCO=69x1757mm 1750.22102 2 x 1 x T16 21/39W				$\bigcirc$	$\bigcirc$	0
ED=         68x2356mm         CCO=69x2357mm         1750.228        02         2 x 1 x T16         28/54W           FD=         68x2956mm         CCO=69x2957mm         1750.235         -02         2 x 1 x T16         35/49/80W				0	0	0
BIH 100mm				$\bigcirc$	$\bigcirc$	$\bigcirc$
<u>↓</u>						-
Single luminaire						
ED= 68x 880mm CCO=69x 881mm 1751.12102 1 x 1 x T16 21/39W				$\bigcirc$	$\bigcirc$	$\bigcirc$
ED= 68x1180mm CCO=69x1181mm 1751.12802 1 x 1 x T16 28/54W				$\circ$	0	Õ
ED= 68x1480mm CCO=69x1481mm 1751.13502 1 x 1 x T16 35/49W				$\bigcirc$	0	0
ED= 68x1656mm CCO=69x1657mm 1751.22102 2 x 1 x T16 21/39W				$\bigcirc$	$\bigcirc$	0
ED= 68x2256mm CCO=69x2257mm 1751.22802 2 x 1 x T16 28/54W		•		0	$\bigcirc$	0
ED=         68x2856mm         CCO=69x2857mm         1751.225        O2         2 x 1 x T16         25/34W           BH 100mm         CCO=69x2857mm         1751.235        O2         2 x 1 x T16         35/49W				$\bigcirc$	$\bigcirc$	$\bigcirc$
ED= 68x3292mm CCO=69x3293mm 1751.32802 3 x 1 x T16 28/54W				$\bigcirc$	$\bigcirc$	$\bigcirc$
ED=         68x4192mm         CC0=69x4193mm         1751.335        02         3 x 1 x T16         35/49W				0	0	0
Ceiling thicknesses > 12mm 1750.080 Stirrup-M						





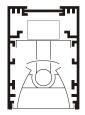


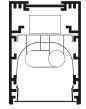
# Strip Lighting Installation Profile

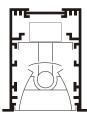
Special tasks require special solutions. The use of rigid aluminium profiles enables a wide variety of design possibilities. Clean transitions, horizontal or vertical corners, connectors, different lens systems and various luminaire inserts give the creative mind much freedom for design and are the basis for giving rooms a complete new feel.

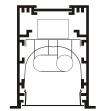












empty profiles that are mounted in the ceiling and fitted with a wide range of luminaire inserts. For office applications it is possible to use fluorescent lamp modules with parabolic louvres made of high polish aluminium. Inserts for overlapping lamp arrangement are available to give a continuous, shadow-free strip of light. These light inserts act as the luminaire cover and, with their opal satinized surface finish, are light-dispersing diffusers with high transmittance. In addition, accentuating spotlights, blank covers and compartments for technical equipment can also be integrated into the system. The throughwiring is easily accessible and there is space for further cable routes.

This system is designed using

RAIL



**Parabolic Louvre** Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. CAT 2



**Diffuser** Cover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.

### Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-toconnect one-piece units. They are prepared for installation as per mounting system H. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

### **Mounting Systems:**



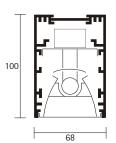
SYSTEM K Mounting on stud bolts

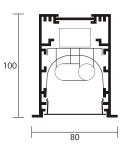


SYSTEM H Mounting on auxiliary construction









### **RAIL Strip Lighting**

Individual luminaires made of sharp-edged extruded aluminium profile. Complete luminaire with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.

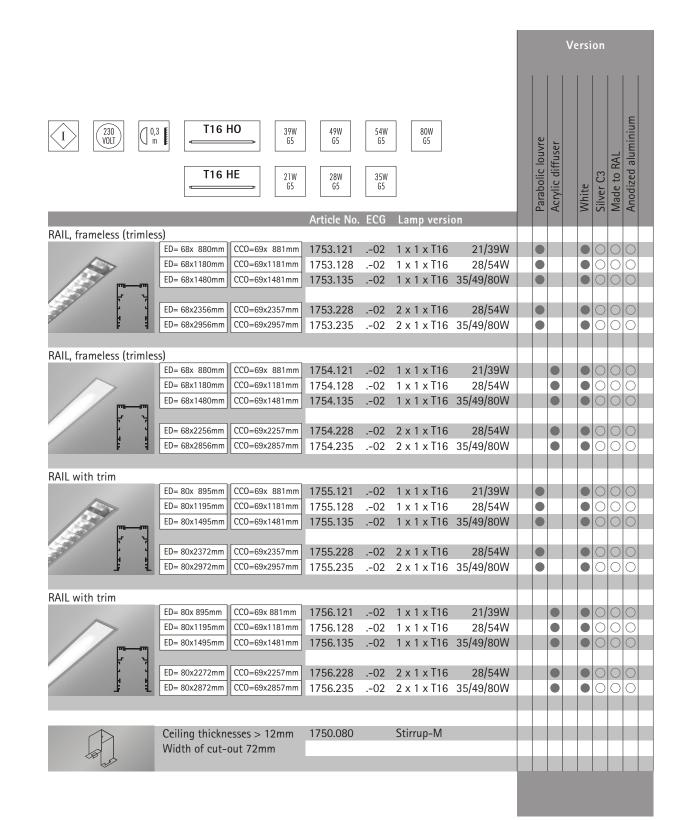
Unit length for RAIL luminaire row:

876 / 1176 / 1476

Unit length for RAIL strip lighting:

Lamp overlap 100-120







### **RAIL Strip Lighting**

A system luminaire installation as a modular toolbox, consisting of sharp-edged, drawn aluminium extrusions in trimless design or in a version with a narrow, all-round edge frame. Mounting strips with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Prewired with heatresistant cable and ready-toconnect. Luminaire cover is optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.

#### Louvre Spacing

The various louvre dimensions are dictated by the different lamp positions. With individual luminaires and with system luminaires that have louvres there is no overlapping arrangement of the fluorescent lamps. Therefore the construction dimension = lamp length plus lampholder.

### Unit length for RAIL strip lighting:

Lamp overlap 100-120

\_

\_\_\_\_\_

876 / 1176 / 1476

### Unit length for RAIL luminaire row:

876 / 1176 / 1476



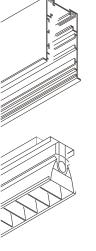
#### System Luminaire

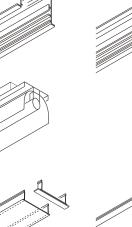
Lighting channel system designed as a custom-length luminaire with which different system components can be individually combined. This makes it possible for luminaire arrangements that delineate a room or area to be realised according to the designer's plans. The detailed design-work for such a system can be done directly and easily.

### System Luminaire Options

#### Luminaire profile, empty

- Profile frameless (Trimless)
- Profile with edge frame





### Light Unit

- Unit with parabolic louvre
- Unit with reflector for fluorescent lamp
- Unit with reflector for overlapping lamps

#### Luminaire Cover

- Blank aluminium profile
- Acrylic diffuser

.01

.02

.03

.04

.05

.10

#### Colour Key

- .-14 Anodized aluminium
- .-20 Made to RAL
- .-23 Silver C3
- .-25 Titanium silver
  - .-31 White
  - .-32 Matt white
- .11 2 x dimmable ECG DALI

**Operating Equipment Order Codes** 

2 x individual ECG

Dimmable ECG DALI

Low-loss control gear

Electronic control gear

Dimmable ECG 1-10 volt

2 x dimmable ECG 1-10 volt

man wille

RAIL+ frameless (Trimless)



End cover Art. No. 1762.099



T-connector Art. No. 1762.095



L-connector angle 90° Art. No. 1762.093



L-connector special angle Art. No. 1762.090



L-connector special angle Art. No. 1763.090

Art. No. 1763.093

RAIL+ with frame

Art. No. 1763.099

Art. No. 1763.095

(Frame)

End cover

T-connector

L-connector

angle 90°

System Components

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

### Mounting Systems:



SYSTEM K Mounting on stud bolts



SYSTEM H Mounting on auxiliary construction



SYSTEM M Mounting with stirrup



Straight connector Art. No. 1762.098



Spacing cover Art. No. 1764.099



Mounting brackets, system M1750.080For ceiling thicknesses 12mmWidth of cut-out72mm

Wire-rope suspension, system B			
1762.111	wire rope	L= 1000mm	
1762.112	wire rope	L= 2000mm	

[ŷ]	Wire-rope	suspension w	ith canopy and cable
Ţ	1762.121	wire rope	L= 1000mm
Ð	1762.122	wire rope	L= 2000mm

### Through-wiring

3-pole

5-pole

1770.521

1770.528

1770.535

5-pole

u

.....

3-pole	Butted lamps	
1770.321	for luminaire insert	21W
1770.328	for luminaire insert	28W
1770.335	for luminaire insert	35W

.. ..

### Overlapping lamps

1772.321	for luminaire insert	21W
1772.328	for luminaire insert	28W
1772.335	for luminaire insert	35W

### Butted lamps

for luminaire insert 21W for luminaire insert 28W for luminaire insert 35W

### Overlapping lamps

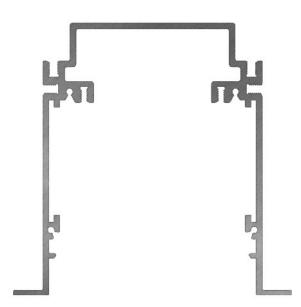
1772.521	for luminaire insert	21W
1772.528	for luminaire insert	28W
1772.535	for luminaire insert	35W



		Version
► To specify the profile's length, the En placeholders ".xxx" are replaced by Le	dering example: pty profile RAIL+ with frame ngth 3100mm in white would be: . No.: 1761.310.00.32 Article No. Lamp version	Anodized E6EV1 White Made to RAL Not dimmable DALI, dimmable 1-10 volt, dimmable
RAIL, frameless (trimless)	<sup>8mm</sup> 1760.xxx Empty profile in metres	
RAIL with frame	in on soor Empty prome in metres	
Luminaire insert with parabolic louvre	5mm 1770.12802 1 x T16 28/54	W OO
Luminaire insert with reflector (without diffuser) Length 87 Length 17 Length 14	5mm 1771.12802 1 x T16 28/54	W
Overlapping lamp arrangement Length 8 Length 11 Length 14	5mm 1772.12802 1 x T16 28/54	W
Acrylic diffuser	1764.xxx Empty profile in metres 1764.000 Sawn to size	
Blank aluminium cover	1765.xxx Empty profile in metres 1765.000 Sawn to size	

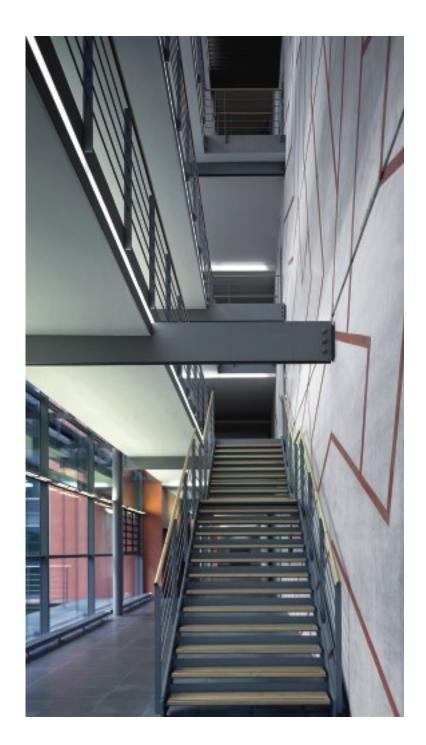






# Strip Lighting Installation Profile

Special tasks require special solutions. The use of rigid aluminium profiles enables a wide variety of design possibilities. Clean transitions, horizontal or vertical corners, connectors, different lens systems and various luminaire inserts give the creative mind much freedom for design and are the basis for giving rooms a complete new feel.

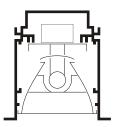


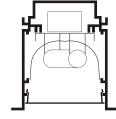
\_\_\_\_



### STORR

Individual lighting design with this lighting channel for recessed ceiling installation. The housing is made of extruded aluminium profile and has a narrow edge frame all-round to cover the edge of the ceiling cut-out. The wide range of accessories provides various options for fitting out the channel. In addition to fluorescent elements covered with parabolic louvres or diffusers, low-voltage inserts and LED inserts offer emotive lighting accents. The use of clip-on aluminium covers allows the luminaire insert to be positioned anywhere within the lighting strip.







**Parabolic Louvre** Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. CAT 2



**Diffuser** Cover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.

### Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-toconnect one-piece units. They are prepared for installation as per mounting system H. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

### Mounting Systems:



SYSTEM K Mounting on auxiliary construction

\_\_\_\_\_

\_\_\_\_



SYSTEM H Mounting on stud bolts



SYSTEM M Mounting with stirrup

### Unit length for STORR luminaire row:

Unit length for STORR strip lighting:

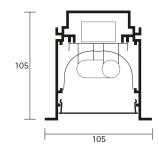
Lamp overlap 100-120

876 / 1176 / 1476

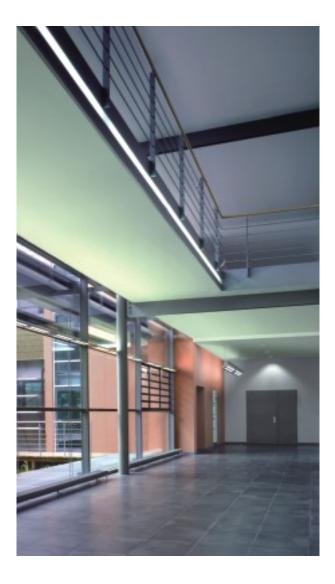
r=



Individual luminaires made of sharp-edged extruded aluminium profile with an all-round trim overlapping onto the ceiling. Complete luminaire with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.



	Version
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Parabolic louvre Acrylic diffuser White Silver C3 Made to RAL Anodized aluminium
Article No. ECG Lamp version Single luminaire	
ED=105x         900mm         CC0=85x         884mm         1700.121        02         1 x 1 x T16         21/39W           ED=105x1200mm         CC0=85x184mm         1700.128        02         1 x 1 x T16         28/54W           ED=105x1500mm         CC0=85x1484mm         1700.135        02         1 x 1 x T16         35/49/80W	
ED=105x1776mm         CC0=85x1760mm         1700.221        02         2 x 1 x T16         21/39W           ED=105x2376mm         CC0=85x2360mm         1700.228        02         2 x 1 x T16         28/54W           BH 105mm         CC0=85x2960mm         CC0=85x2960mm         1700.235        02         2 x 1 x T16         35/49/80W	
ED=105x 900mm         CC0=85x 884mm         1701.121        02         1 x 1 x T16         21/39W           ED=105x1200mm         CC0=85x184mm         1701.128        02         1 x 1 x T16         28/54W           ED=105x1500mm         CC0=85x1484mm         1701.135        02         1 x 1 x T16         35/49W	
ED=105x1556mm         CC0=85x1540mm         1701.221        02         2 x 1 x T16         21/39W           ED=105x2156mm         CC0=85x2140mm         1701.228        02         2 x 1 x T16         28/54W           BH 105mm         CC0=85x2740mm         1701.235        02         2 x 1 x T16         35/49W	
ED=105x3112mm         CC0=85x3096mm         1701.328        02         3 x 1 x T16         28/54W           ED=105x4012mm         CC0=85x3996mm         1701.335        02         3 x 1 x T16         35/49W	
Ceiling thicknesses > 12mm 1700.080 Stirrup-M Width of cut-out 88mm	



#### STORR Strip Lighting

A system luminaire installation as a modular toolbox, consisting of sharp-edged, drawn aluminium extrusions in trimless design or in a version with a narrow, all-round edge frame. Mounting strips with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Prewired with heatresistant cable and ready-toconnect. Luminaire cover is optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.

### Louvre Spacing

The various louvre dimensions are dictated by the different lamp positions. With individual luminaires and with system luminaires that have louvres there is no overlapping arrangement of the fluorescent lamps. Therefore the construction dimension = lamp length plus lampholder.

### Unit length for STORR strip lighting:

Lamp overlap 100-120

876 / 1176 / 1476

### Unit length for STORR luminaire row:

876 / 1176 / 1476

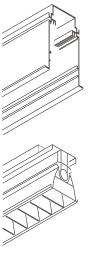


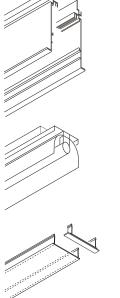
### System Luminaire

Lighting channel system designed as a custom-length luminaire with which different system components can be individually combined. This makes it possible for luminaire arrangements that delineate a room or area to be realised according to the designer's plans. The detailed design-work for such a system can be done directly and easily.

### System Luminaire Options:

Luminaire profile, empty - Profile with edge frame







### Light Unit

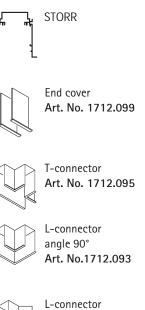
- Unit with parabolic louvre - Unit with reflector for
- fluorescent lamp
- Unit with reflector for overlapping lamps

### Luminaire Cover

- Blank aluminium profile
- Acrylic diffuser

### **Operating Equipment Order Codes**

- Low-loss control gear .01
- Electronic control gear .02
- Dimmable ECG 1-10 volt .03
- 2 x individual ECG .04
- .05 2 x dimmable ECG 1-10 volt
- Dimmable ECG DALI .10
- .11 2 x dimmable ECG DALI
- **Colour Key** .-14
- Anodized aluminium Made to RAL
- .-20
- Silver C3 .-23 .-25
  - Titanium silver White
- .-31 .-32 Matt white



Special angle

Art. No. 1712.090

6999 6999 Straight connector Art. No. 1712.098



Spacing cover Art. No. 1714.099



Mounting brackets, System M1700.080For ceiling thicknesses12mmWidth of cut-out88mm

Wire-rope	suspension, s	system B
1712.111	wire rope	L= 1000mm
1712.112	wire rope	L= 2000mm

Ţ	Wire-rope 1712.121	suspension wire rope	with canopy and cable L= 1000mm
Y.	1712.122	wire rope	

### **System Components**

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

### **Mounting Systems:**



SYSTEM K Mounting on auxiliary construction



SYSTEM H Mounting on stud bolts



SYSTEM M Mounting with stirrup

#### Through-wiring

ш

.....

3-pole	Butted lamps	
1720.321	for luminaire insert	21W
1720.328	for luminaire insert	28W
1720.335	for luminaire insert	35W
3-pole	Overlapping lamps	
1722.321	for luminaire insert	21W
1722.328	for luminaire insert	28W
1722.335	for luminaire insert	35W
5-pole	Butted lamps	
1720.521	for luminaire insert	21W
1720.528	for luminaire insert	28W
1700 505	for luminaire insert	35W
1720.535	for luminaire insert	3500
<b>5-pole</b>	Overlapping lamps	3500
	1720.321 1720.328 1720.335 <b>3-pole</b> 1722.321 1722.328 1722.335 <b>5-pole</b> 1720.521	1720.321for luminaire insert1720.328for luminaire insert1720.335for luminaire insert3-poleOverlapping lamps1722.321for luminaire insert1722.328for luminaire insert1722.335for luminaire insert5-poleButted lamps1720.521for luminaire insert1720.528for luminaire insert

1722.521	for luminaire insert	21W
1722.528	for luminaire insert	28W
1722.535	for luminaire insert	35W



							Version						
To specify the profile's length, the Empty profile STORR laceholders ".xxx" are replaced by Length 3100mm in white would be: he length in cm. Art. No.: 1710.310.32							Anodized E6EV1		IVIAGE TO KAL	Not dimmable	DALI, dimmable	1-10 volt, dimmable	
STORR with frame								Т					
	BIH 105mm         W= 105mm           CCO= 85mm	1710.xxx 1710.000	Empty Sawn	profile	in metres to size			<u> </u>					
// /// //													
uminaire insert with parabolic lo	uvre												
	Length 875mm	1720.121		1 x T16	21/39W						$\bigcirc$	$\bigcirc$	
	Length 1175mm	1720.128		1 x T16	28/54W						0	0	
	Length 1475mm	1720.135	02	1 x T16	35/49/80W						0	0	
									-				
uminaire insert with reflector (wi	thout diffuser)												
uninalie insert with reflector (wi	Length 875mm	1721.121	02	1 x T16	21/39W						$\bigcirc$	$\bigcirc$	
	Length 1175mm	1721.128		1 x T16	28/54W						$\overline{0}$	$\overline{O}$	
	Length 1475mm	1721.135	02		35/49/80W						0	$\bigcirc$	
Overlapping lamp arrangement													
	Length 875mm	1722.121		1 x T16	21/39W						0	0	
	Length 1175mm Length 1475mm	1722.128	02	1 x T16	28/54W 35/49/80W							$\bigcirc$	
	Length 1475mm	1722.135	02	1 1 1 0	33/49/8000						0	0	
Acrylic diffuser													
		1714.xxx	Empty	profile	in metres								
		1714.000	Sawn		to size								
Blank aluminium cover													
		171E VVV	Emot	nrofile	in metros			$\bigcirc$					
		1715.xxx 1715.000	Sawn	prome	in metres to size								
		1715.000	Jawii										
						1				1	-		

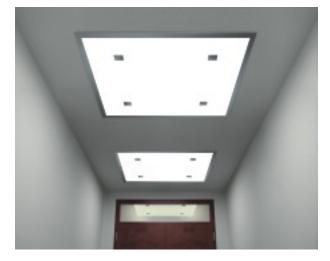
# Luminous Fields

### Luminous Fields

Large-shaped luminaires have gained rapid acceptance as design features and technical lighting solutions in architecture. The ability to use colour temperature changes to adapt the created pools of light to suit the dynamics of natural daylight enables the physiological and psychological effects of a design to be reinforced. This enhances a feeling of wellbeing and good health. As a design element, colour allows architecture to be experienced more consciously. Additive colour mixing sets accents and positively influences moods.







### Luminous Fields

Compact luminous ceilings in one piece with a constructive design which can therefore be mounted into ceiling cut-outs like a conventional single luminaire. The elements are supplied as standard with ceiling frames that are available in polished stainless steel or powder-coated steel. Also available as a finery frame version. The special glass diffuser pane is mounted subsequently in alignment with the ceiling from the underside.







Plane Spaced Luminaire

Applicable as modular luminous ceiling or as single luminaire. Enclosed sheet-metal body white powder-coated. Luminaire conclusion with spreading frame for mounting into sawn ceiling openings. Also available as a finery frame version for ceiling aligned mounting. The built-in depth can be adapted according to the site's requirements.

The luminaires are ready for installation and are supplied in one piece. Covered by a special diffuser combined with a colour neutralized Opti-white safety glass resulting in a LSG hardened genuine glass pane.

### Lighting Technology

These luminaires are operated with electronic ballast for T5 HO/HE fluorescent lamps. The interface 1-10V is used for variable dimming as a standard, alternate other interfaces such as DSI, DALI or Push are possible. Available with daylight dependent control or a programmable control with predefined light scenes or even dynamic colour temperature regulation.

### Luminous Fields with RGB

Colours are additively mixed by separately driving the primary colours of red, green and blue. This achieves a wide colour spectrum. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.











						Version					
1         230 VOLT         0,3 m	<b>T16 HO</b> <b>65</b>	39W 65 Article No.	54W 65	Lamp version		White, DALL, dimmable	White, 1–10V, dimmable	RGB colour mixing	Stainless steel, brushed	White	
	BIH 250mm ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	1620.100 1620.450	02	4 x T16 +2 x T16 6 x T16 +6 x T16	24W 39W 24W 39W			•	0		
	BIH 250mm □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	1640.100 1640.450	02 10	2 x T16 +4 x T16 +2 x T16 6 x T16 +6 x T16 +6 x T16	24W 39W 54W 24W 39W 54W			•			
	CCO= 960x 960mm DD =1000x1000mm	1520.100 1520.450	02 10	6 x T16 12 x T16	39W 39W						
	CCO=1210x1210mm DD =1250x1250mm	1540.100 1540.450	02 10	8 x T16 15 x T16	54W 54W						

### PIATTO

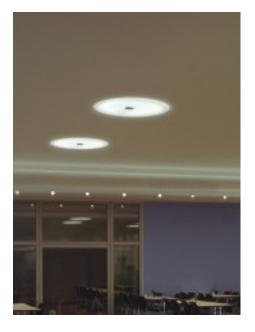


### PIATTO

This recessed luminous field was developed for a diffuse illumination of large spaces. The streamlined design is distinguished by the large, bright glass surface held by a centrally positioned stainless steel plate. The luminous field is mounted into sawd ceiling openings. Spring clips allow easy and fast assembly. Powerful light is provided by T5 circular fluorescent lamps.

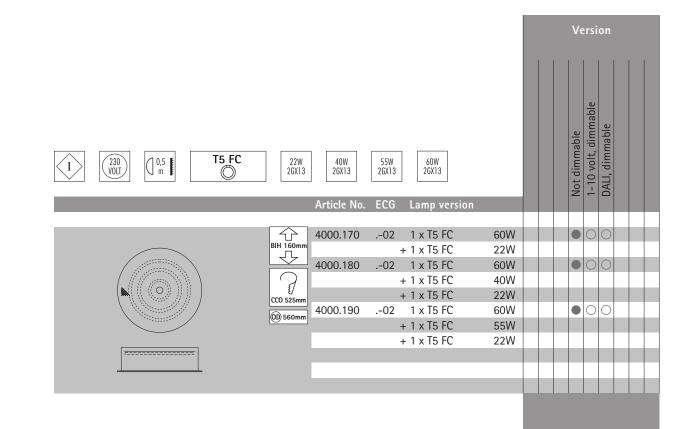






### PIATTO

Luminous field as a single luminaire. Luminaire with electronic control gear for circular fluorescent lamps T5. Also dimmable with interface DALI or 1–10V. Prewired ready for installation with heat resistant cable. Luminaire suitable for emergency lighting. Closed sheet-metal body, white powder-coated. Lamp is covered with a complete satinized, genuine glass diffuser spreading over the rim.





### Imprint

SEEGER

Technische Leuchten e. K. Schwerter Str. 324 D-44287 Dortmund Germany

Tel: +49 231- 44 10 92 Fax: +49 231- 44 10 76

info@seeger-licht.de www.seeger-licht.de

VAT ID no.: DE 124779953 Tax no.: 315/5231/0060

Amtsgericht Dortmund (Local first-instance court) Commercial Register No.: HRA 16 133

### **General Information**

All previous catalogues and the statements made therein are null and void with the publication of this issue. We reserve the right to make technical and formal changes to the listed products. The catalogue may contain errors. The lighting data, technical specifications and dimensions and the representational images and drawings shown in this catalogue are unbinding. All stated measurements are approximate and, unless otherwise stated, are given in millimetres. Unless otherwise stated, illuminants do not form part of the shipment. All brand names are the property of their rightful owners and serve only for descriptive purposes.