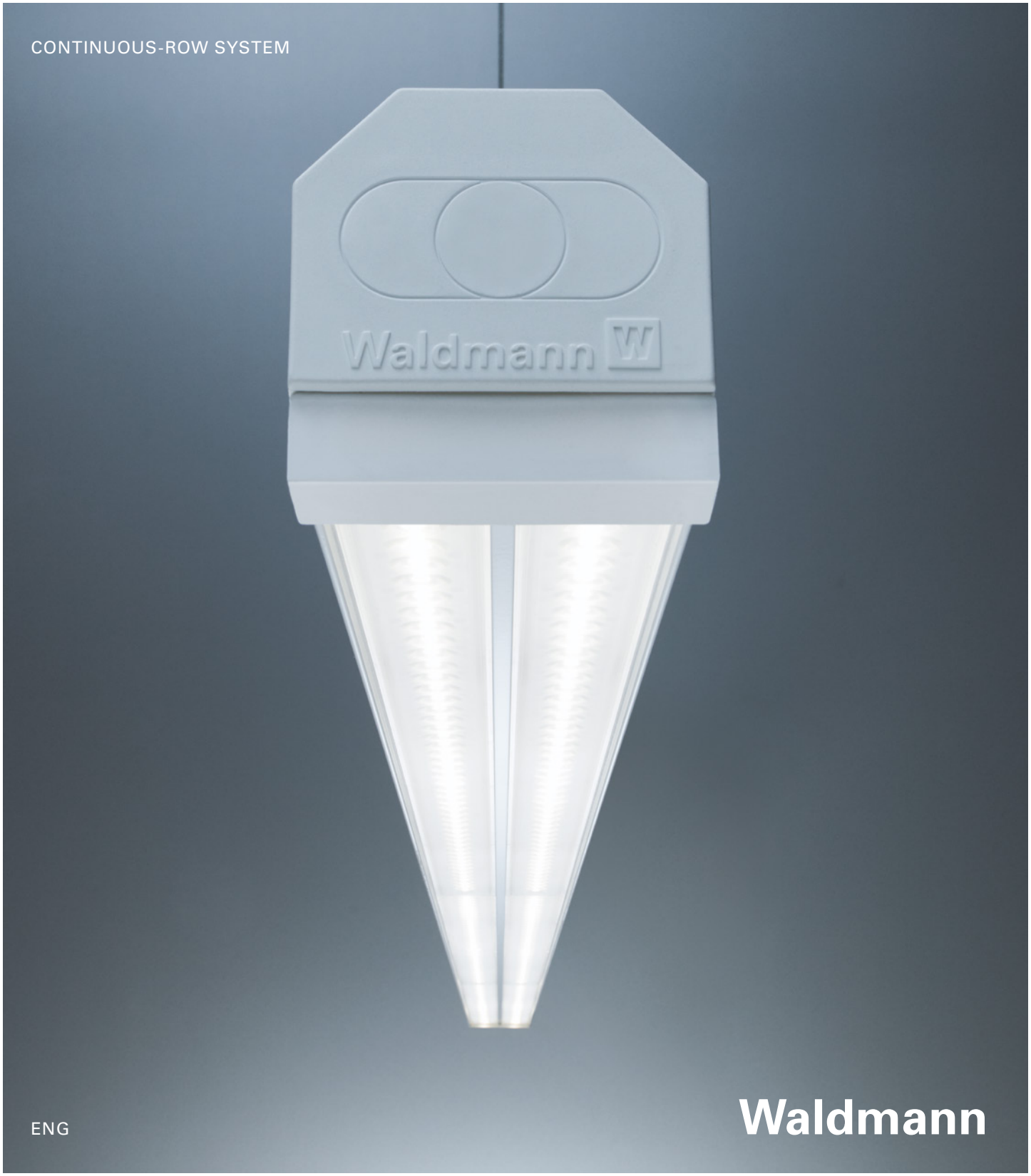
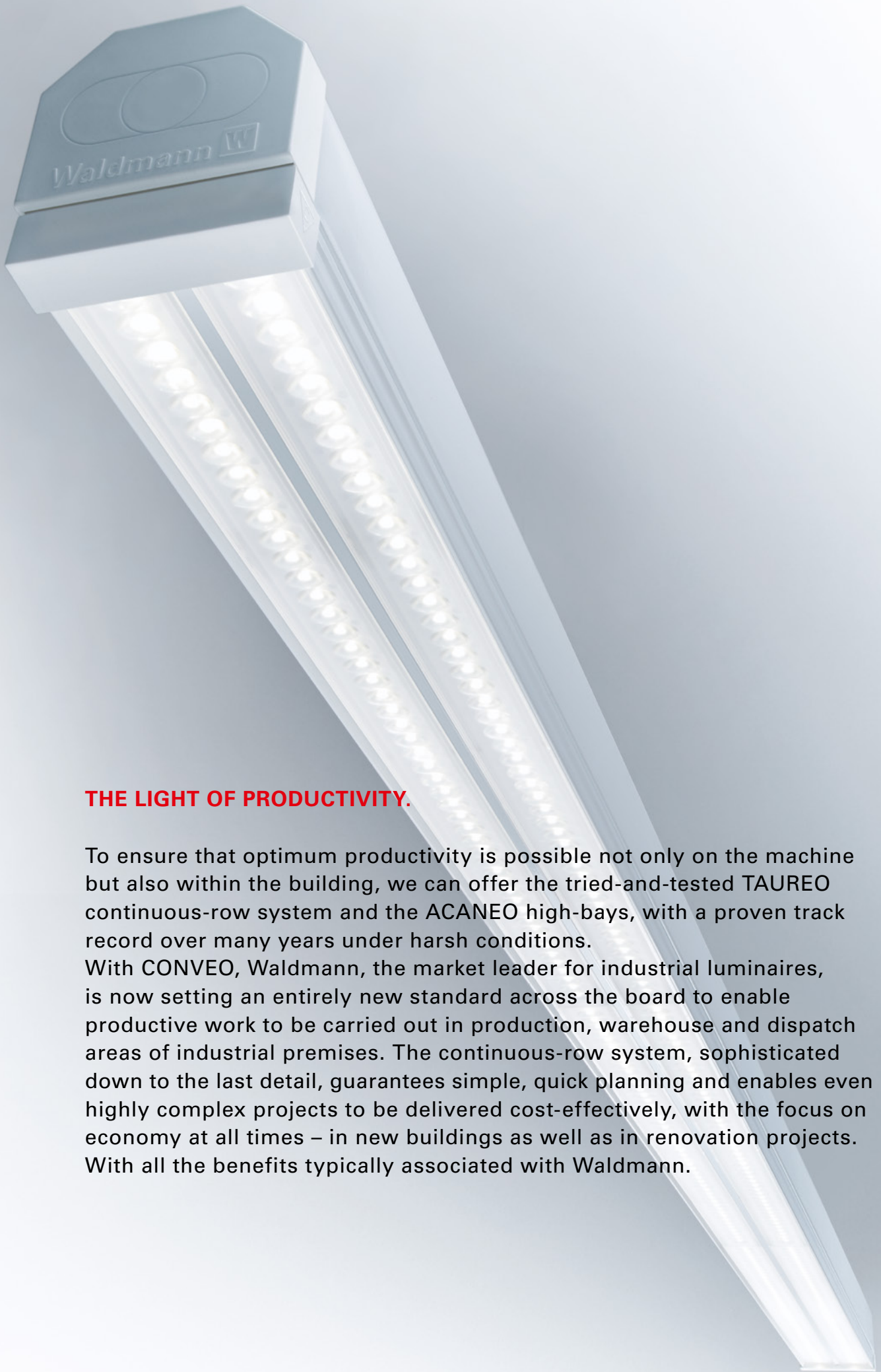
THE LIGHT OF PRODUCTIVITY FOR INDUSTRIAL PREMISES

CONVEO

ENGINEERS OF LIGHT



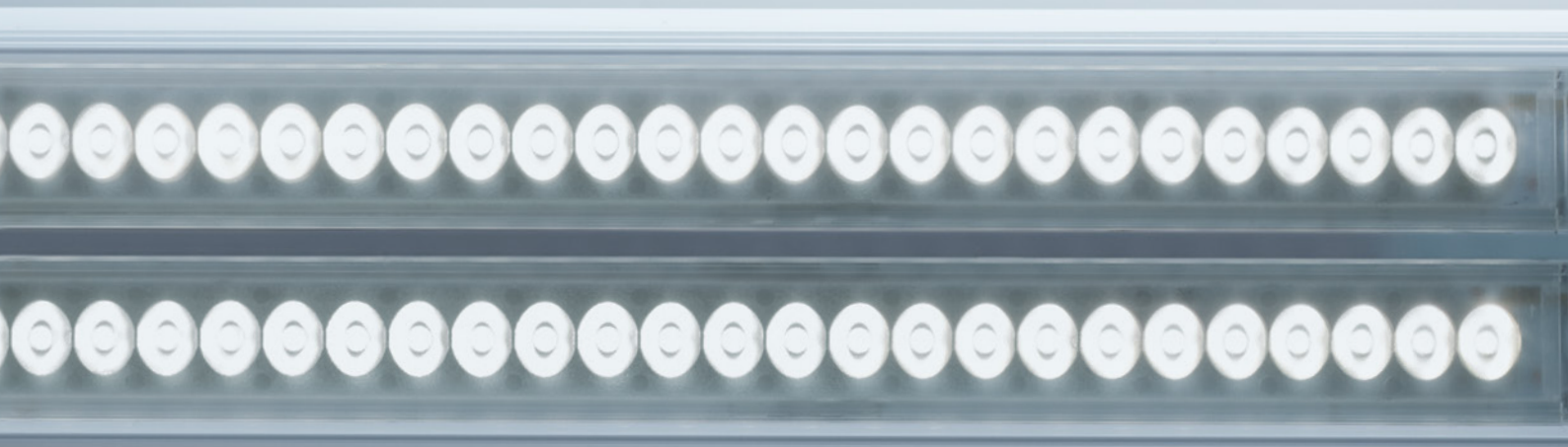




THE LIGHT OF PRODUCTIVITY.

To ensure that optimum productivity is possible not only on the machine but also within the building, we can offer the tried-and-tested TAUREO continuous-row system and the ACANEO high-bays, with a proven track record over many years under harsh conditions.
With CONVEO, Waldmann, the market leader for industrial luminaires, is now setting an entirely new standard across the board to enable productive work to be carried out in production, warehouse and dispatch areas of industrial premises. The continuous-row system, sophisticated down to the last detail, guarantees simple, quick planning and enables even highly complex projects to be delivered cost-effectively, with the focus on economy at all times – in new buildings as well as in renovation projects. With all the benefits typically associated with Waldmann.

CONVEO. THE LIGHT OF PRODUCTIVITY FOR INDUSTRIAL PREMISES



Intelligence

Precisely the right light in the right quantity at the right time.
Always the right level of illumination for any activity – also in emergencies. The infinitely variable dimming function (DALI), used in combination with an intelligent light management system with scope for integrating sensors, is an additional way to save energy.

High light quality

Perfect viewing comfort combined with ultimate consistency.
Specially developed lenses and classes of luminous flux deliver optimum lighting without light-and-dark zones in a wide range of different interior settings. For error-free work and a high degree of viewing comfort.

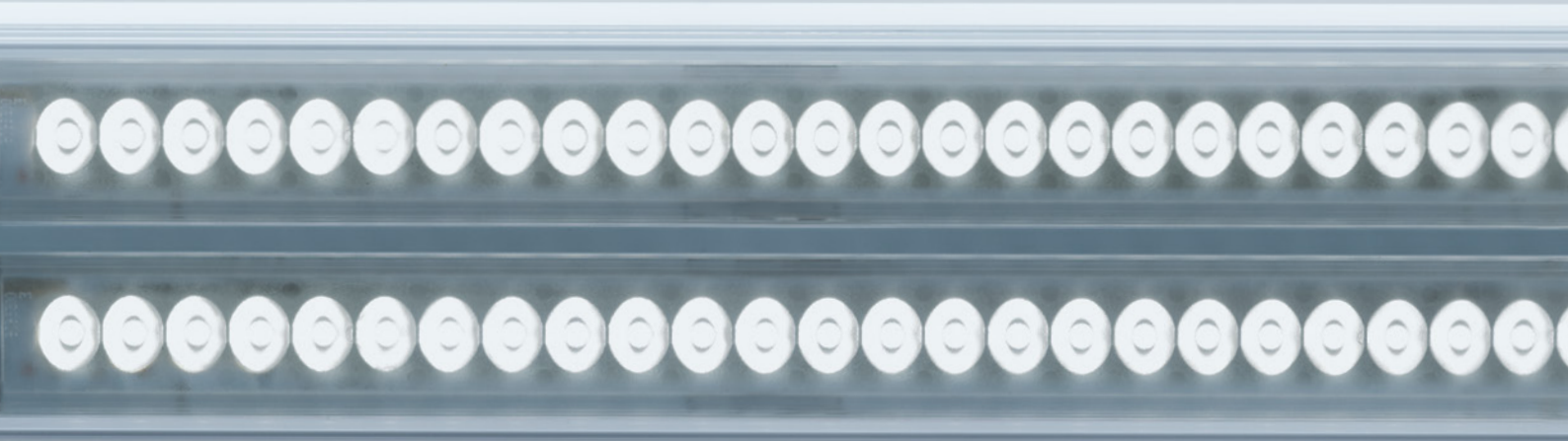
Mounting

Tool-free, intuitive installation with built-in safety.
Installing lighting in industrial buildings has never been this quick and easy. CONVEO is a plug-and-light system taking ease of installation to another level. All components are plugged in and immediate earthing is provided by automatic forced contacting.

Planning

Optimum planning capability with the focus on ultimate flexibility.
The open, but protected, bus-bar profile allows for variable spacing of the device carriers and multiple outputs, beam angles, and colour temperatures are available. These factors, combined with a broad portfolio of accessories, provide an almost endless range of planning options.

A system of industrial lighting from the market leader for this sector. With hallmark Swabian ingenuity, CONVEO combines everything that you need for professional operations, as a planner, an installation electrician or as an owner / operator: Extremely simple intuitive installation. Safe positioning. Ideal light output. Ultimate ease of maintenance. With CONVEO you can achieve the right conditions for optimum performance and productivity inside any building.



Sustainability

Sustainability and the reduction of CO_2 emissions combined in an optimum continuous-row lighting solution.
In terms of length of service life, CONVEO really has nothing to hide. Carefully selected, durable materials provide a maintenance-free system and the latest LED technology ensures big savings in CO_2 emissions.

Application

A continuous-row lighting system – countless application options.
Whether clean and dry or dusty and damp, whether production, warehouse or logistics building, whether manufacturing company or storage provider. Up to a lighting point height of 15 metres and up to IP54, always the right lighting solution.

Cost efficiency

Optimum price-performance ratio, precisely adapted to satisfy all requirements.
Highly efficient LED technology and a perfect system layout ensure optimum commercial and technical solutions, individually adapted to suit every project, including short amortisation periods.



WORKING MORE PRODUCTIVELY

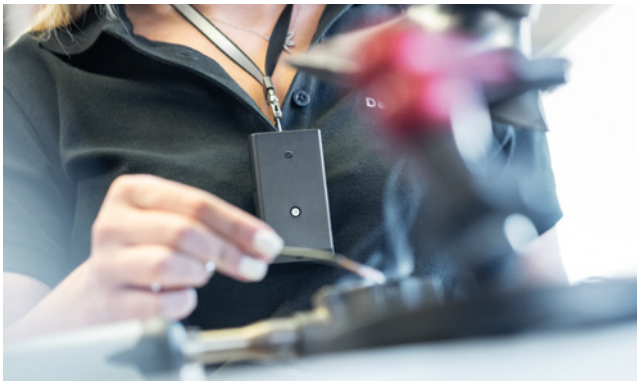
Light works in many different ways and can have a wide range of effects on the productivity of work.

One aspect is the non-visual impact. Natural light, the properties of which alter during the course of the day in terms of light colour and illuminance value, is essential to human beings. It helps us to see, ensures our emotional well-being and affects our activation and recovery phases.
Finally, the non-visual impact of light synchronises the inner clock human beings possess. Phases of wakefulness and sleep are determined primarily by the proportion of two hormones in the body, hydrocortisone and melatonin, both affected by lighting, which also affects heart frequency, blood pressure and mood.

With our experience gained from health & care and the office, the Waldmann CONVEO luminaire was designed to protect health and performance capability, even in the arduous conditions in industrial buildings. High ceiling heights, soiled ceilings and walls, low degrees of reflectivity – every such building is different, especially when it comes to renovation. Also, the working time models in industrial buildings are often much more complex than those in office buildings. Inside buildings that do not receive much natural light, biodynamic light (Visual Timing Light) can provide sustained improvement in the sense of well-being of employees, and can boost their performance. At present, this is being investigated in a showcase study into the melanopic impact of light with reference to direct illumination inside industrial buildings, being conducted in collaboration with experts from the worlds of science and research.

This is to ensure that everyone in your company can benefit to the full from Waldmann's expertise in lighting. And you can get the very best out of your system.







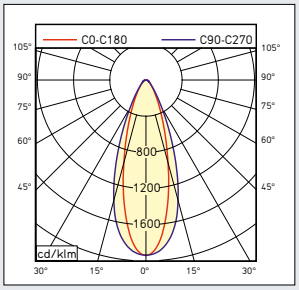

Science that creates productivity. The study conducted by DERUNGS. Intelligent light management system, continuous analysis of the impact of lighting, in particular on melatonin suppression.


STORING
MORE
PRODUCTIVELY

Obviously, efficiency in warehouse and dispatch areas begins with good lighting The specially developed lenses with ultra-narrow-beam light distribution satisfy the highest of standards, even in modern buildings with ceiling heights of up to 15 metres and more. This makes them the perfect solution for warehouses and logistics facilities, the heights of which continue to increase in new buildings. The lens directs the light with optimum efficiency to the transport lane in the narrow aisles between shelving units, satisfying the requirements of standards in relation to minimum illuminance, even when there is a shortage of natural daylight. Storage bay designations and labels can be detected reliably with CONVEO. Optimum glare-free technology makes accidents less likely. Forklift trucks can operate safely due to low glare, making workplace operations altogether safer.

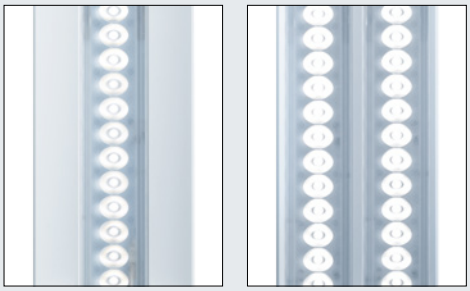
The use of device carriers with the DALI control offers a large number of options for the reduction and optimisation of energy consumption. This makes it possible to have an intelligent light management system, including virtual room distribution (zoning), and to incorporate sensor systems. A sensor system can monitor individual storage aisles and zones, controlling the corresponding lighting precisely to suit needs: Motion detectors enable lighting to be switched on, and to be dimmed to a basic level of brightness – making full use of the potential for saving energy. Moreover, long service life and zero maintenance of all system components contribute decisively to the exemplary efficiency of the CONVEO concept.

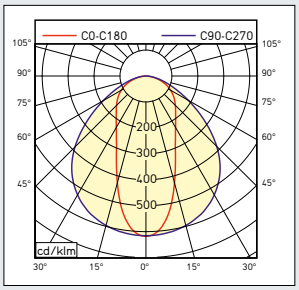
- Ultra-narrow-beam lens
- DALI for infinitely variable dimming and maximum flexibility in terms of lighting management
- Integration of presence and daylight sensor systems
- Long service life without any maintenance overhead



Device carrier with lens optics ultra-narrow-beam

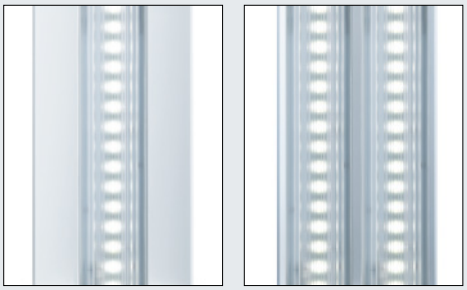
precise light deflection
optimum glare-free technology
greater efficiency





Device carrier with prism lens (linear) ultra-narrow-beam

great robustness
enhanced degree of protection for harsh environments
for a wider range of ambient temperatures



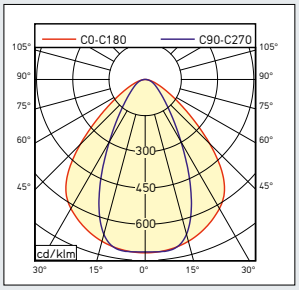


PRODUCING MORE PRODUCTIVELY

Depending on sector and activity, requirements for the lighting of production buildings can vary widely. Good that in such a case you can bring Waldmann experience to bear inside that building. Wherever CONVEO is used in a production environment, it delivers precisely what you would expect from a modern, continuous-row lighting system: great reliability, flexibility, freedom from maintenance and maximum durability.
The wide-beam distribution of light assures uniform background illumination, with light-and-dark areas now consigned to the past. A range of various luminous flux packages ensures compliance with the minimum illumination levels required by lighting and industry standards regardless of ceiling height or task being carried out. Reliable and maintenance-free lighting, even under harsh environmental conditions, is assured by durable materials, internal lenses with smooth surfaces and IP54 protection.

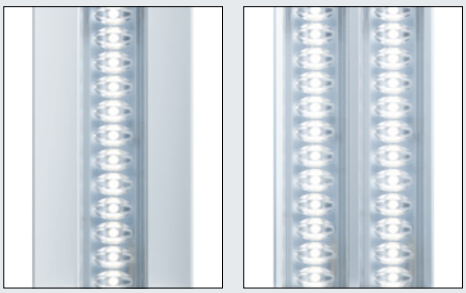
Changes to a factory layout can also be taken into account. Depending on the situation, device carriers can be repositioned or supplemented. Using a light management system, they can be regrouped and controlled individually. In production, CONVEO delivers precisely what you expect from a modern continuous-row lighting system. To enable all employees to perform to their optimum at all times.

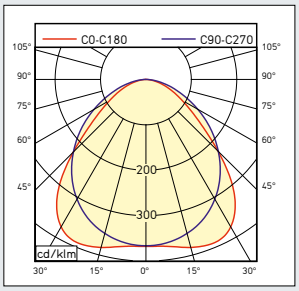
- Wide-beam optics
- Various luminous flux packages to suit different room heights and activities
- Up to IP54 protection
- Continuous bus bar profile for optimum flexibility during installation and layout adjustments



Device carrier with lens optics wide-beam

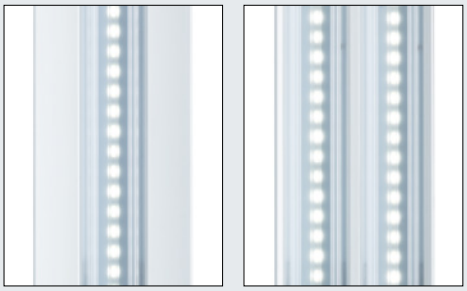
precise light deflection
optimum glare-free technology
greater efficiency





Device carrier with prism lens (linear) wide-beam

great robustness
increased degree of protection for harsh environments
to cover a larger range of ambient temperatures



Fill up with inspiration, charge up with lighting ideas.
In showroom EMIL 28, the spirit of the company founder
Emil Waldmann shines out.
#blackforestlight



Shine the light of precision
so people can build better things.

Shine the light of reason
so people can see more clearly.

Shine the light of creation
so people have brighter ideas.

Shine the light of knowledge
so science reveals more.

Shine the light of day so your
people stay healthy at work.

Shine the light of sustainability
so nothing is wasted.

Shine the light of connectivity
so your building works as one.

Shine the light of experience so
your projects evade costly errors.

Shine the light of success so your
organisation can grow and prosper.

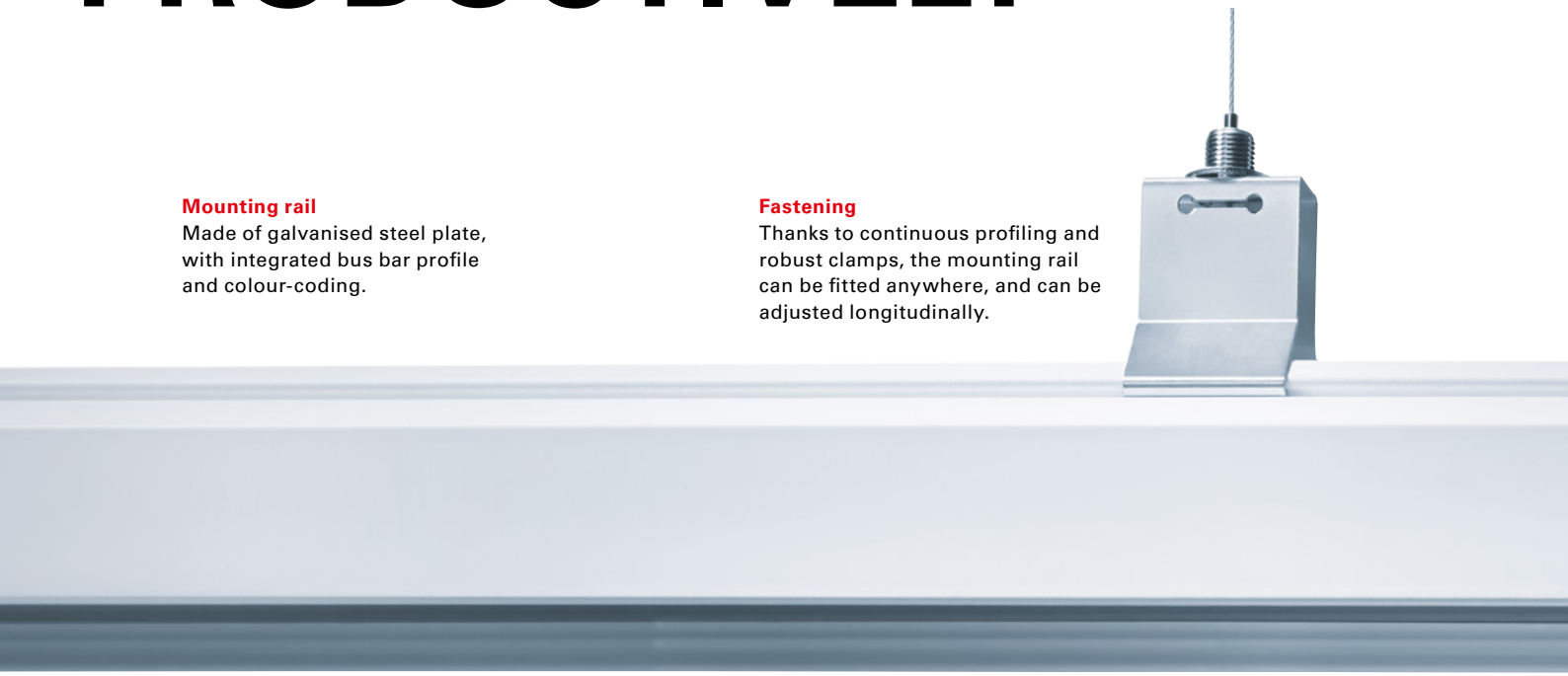
Shine the # blackforestlight
and conquer darkness, forever.



ILLUMINATING MORE PRODUCTIVELY

Mounting rail
Made of galvanised steel plate, with integrated bus bar profile and colour-coding.

Fastening
Thanks to continuous profiling and robust clamps, the mounting rail can be fitted anywhere, and can be adjusted longitudinally.



Plugs
To make electrical contact with the bus bar. With adjustable contact for phase selection and mechanical anti-twist protection for safe installation.



Holding clamp
Mechanical securing of device carrier in mounting rail, even when fires occur.



Lighting technology
Fully press-mounted PCB with integrated PMMA internal optics for precise light deflection.

With CONVEO you are perfectly prepared for every installation situation. The smart bus bar profile and the ingenious connection technology guarantee optimum function and perfect light for any desired length of the continuous-row system. Plug together without tools for a secure mechanical and electrical connection as well as continuous current feed. Today, the lighting of industrial buildings is this quick, easy and reliable.

Feed
Through a pre-stamped aperture at the ends of the mounting rail, or laterally through an end cap



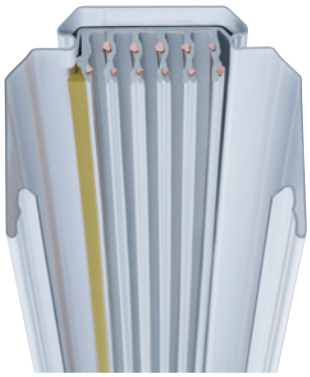


5-pin bus bar
5 x 2.5 mm²
3 separate electric circuits



7-pin bus bar
5 x 2.5 mm² + 2 x 1.5 mm²
3 separate electric circuits
2 control lines (for DALI)





11-pin bus bar
5 x 2.5 mm² + 6 x 1.5 mm²
3 separate electric circuits
2 control lines (for DALI)
2 independent electric circuits for emergency lighting

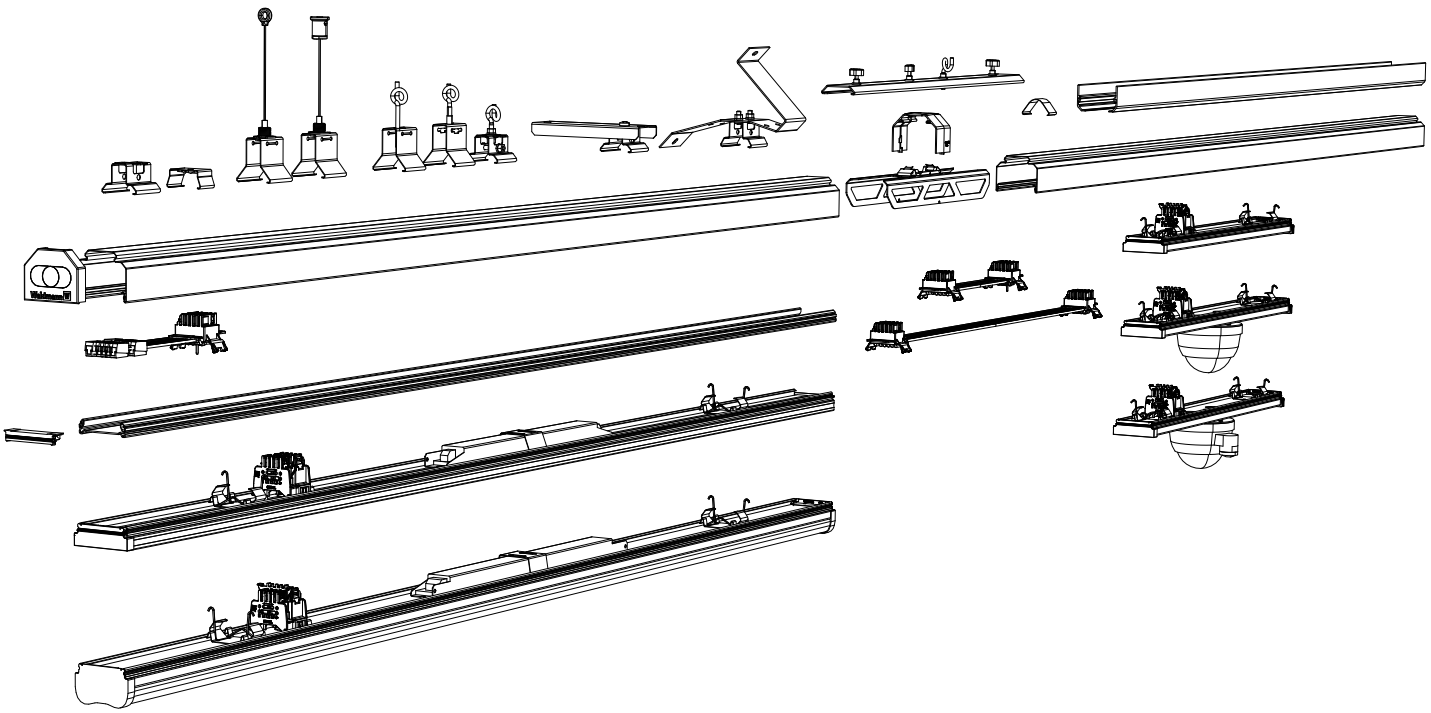
Device carriers
Fully pre-assembled, including integrated seals at the end of the device carrier for a greater degree of protection.



PLANNING MORE PRODUCTIVELY

Maximum system flexibility and an installation-friendly concept make CONVEO the new darling of industrial lighting planners. Fast access to planning data from the Waldmann website provides an optimum overview of all possible variants. Maximum possible flexibility with planning is guaranteed by the integrated bus bar profile. And with CONVEO, there is precisely the right option for every adaptation. Whether angled, suspended or installed directly.
This is how CONVEO creates the ideal conditions for successful projects. With the simplicity, safety, flexibility and efficiency that a professional needs:

- Different lengths of mounting rails with a variety of wiring options
- Device carriers up to 15000 lm in different light colours and optics – depending upon technical lighting requirements and ambient conditions
- Protective covers and seals to assure the required level of protection
- Mountings for suspended installation from ceilings, for flush-mounted ceiling units and for angled installation
- Options for routing external wiring on the mounting rail
- Sensors for motion detection and daylight control on adapter module for ease of integration in the mounting rail





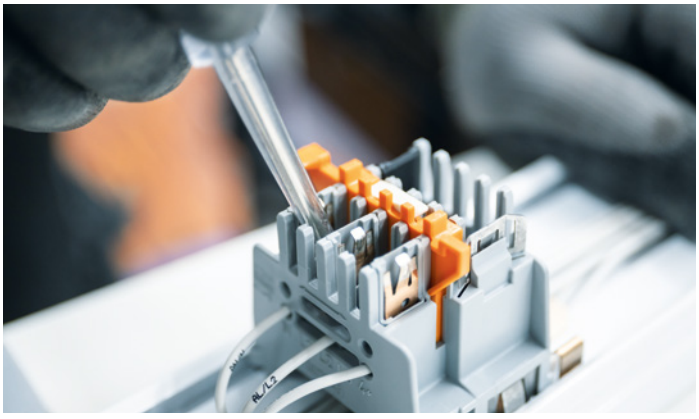
INSTALLING MORE PRODUCTIVELY

Something as carefully designed as the CONVEO can be installed easily. No tools are needed for any of the mechanical connections – components simply clip in.
The electrical connections on each module are positively plugged in using dedicated connectors and earthing is automatically connected by forced contact between the various components. The mechanical and electrical connections are simultaneously carried out when assembling the system and the device carriers can be installed at any desired location. They can even be relocated at a later stage without tools or specialist electrical knowledge. With a plug-and-play system such as CONVEO an error-free installation is quick and easy:

- Continuous colour coding (bus bar and electrical connectors) for maximum safety and control
- The bus-bar profile has variable spacing allowing for flexible positioning of the device carriers and sensors
- Mechanical anti-twist protection on the device carrier ensures correct installation and earthing through forced contacting
- Simple phase selection by moving the contact on the device carrier connector







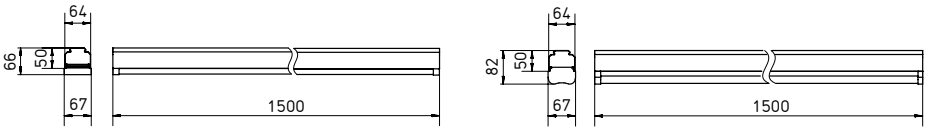

SPECIFICATIONS ARE EASILY ACHIEVED

Connected load:	220 – 240 V, 50/60 Hz
Technology:	switchable or continuously dimmable (DALI)
Luminous flux classes:	4500 lm, 8000 lm or 15000 lm
Power consumption:	prism optics: 28 W, 55 W or 100 W
	lens optics: 26 W, 49 W or 88 W
Colour temperature:	neutral white 4000 K or 5000 K
Colour rendering:	Ra > 80
LED service life:	> 50000 h (L80) at Ta_{max}
Light deflection:	lens optics, prism optics or diffuse cover
Optics:	W-optics (wide-beam) or xN optics (ultra-narrow-beam)
Materials:	mounting rail made of sheet steel, device carrier made of aluminium, optics made of PMMA
Weight:	approx. 3.9 kg, mounting rail (1500 mm) incl. device carrier
Type of installation:	suspended ceiling installation (cable, chain), ceiling-mounted, angled installation
Degree of protection:	IP20 (IP40, IP50 and IP54 with optional accessories)
Permitted ambient temperatures:	up to + 55° C (prism optics – 4500 lm)
	up to + 45° C (prism optics – 8000 lm)
	up to + 35° C (prism optics – 15000 lm and lens optics)



LOAD-BEARING PROFILES

Length	Special feature	Model	Order number
4500 mm	5-pin	CVT 4500/5	338119040-00804991
3000 mm	5-pin	CVT 3000/5	338119030-00804990
1500 mm	5-pin	CVT 1500/5	338119020-00804989
4500 mm	7-pin	CVT 4500/7	338119080-00804995
3000 mm	7-pin	CVT 3000/7	338119070-00804994
1500 mm	7-pin	CVT 1500/7	338119060-00804993
4500 mm	11-pin	CVT 4500/11	338119120-00804999
3000 mm	11-pin	CVT 3000/11	338119110-00804998
1500 mm	11-pin	CVT 1500/11	338119100-00804997





DEVICE CARRIER PRISM OPTICS (LINEAR)



W-optics

Light current class	Light colour	Technology	Model	Order number
4500 lm	4000 K	switchable	CVG 4500/840/W-P/EA/5	226848079-00804943
		DALI	CVG 4500/840/W-P/DA/7	226848019-00804937
	5000 K	switchable	CVG 4500/850/W-P/EA/5	226848089-00804944
		DALI	CVG 4500/850/W-P/DA/7	226848029-00804938
8000 lm	4000 K	switchable	CVG 8000/840/W-P/EA/5	226848099-00804945
		DALI	CVG 8000/840/W-P/DA/7	226848039-00804939
	5000 K	switchable	CVG 8000/850/W-P/EA/5	226848109-00804946
		DALI	CVG 8000/850/W-P/DA/7	226848049-00804940
15000 lm	4000 K	switchable	CVG 15000/840/W-P/EA/5	226848119-00804947
		DALI	CVG 15000/840/W-P/DA/7	226848059-00804941
	5000 K	switchable	CVG 15000/850/W-P/EA/5	226848129-00804948
		DALI	CVG 15000/850/W-P/DA/7	226848069-00804942



xN-optics

4500 lm	4000 K	switchable	CVG 4500/840/xN-P/EA/5	226848199-00804957
		DALI	CVG 4500/840/xN-P/DA/7	226848139-00804951
	5000 K	switchable	CVG 4500/850/xN-P/EA/5	226848209-00804958
		DALI	CVG 4500/850/xN-P/DA/7	226848149-00804952
8000 lm	4000 K	switchable	CVG 8000/840/xN-P/EA/5	226848219-00804959
		DALI	CVG 8000/840/xN-P/DA/7	226848159-00804953
	5000 K	switchable	CVG 8000/850/xN-P/EA/5	226848229-00804960
		DALI	CVG 8000/850/xN-P/DA/7	226848169-00804954
15000 lm	4000 K	switchable	CVG 15000/840/xN-P/EA/5	226848239-00804961
		DALI	CVG 15000/840/xN-P/DA/7	226848179-00804955
	5000 K	switchable	CVG 15000/850/xN-P/EA/5	226848249-00804962
		DALI	CVG 15000/850/xN-P/DA/7	226848189-00804956

Other variants on request (e.g. other light colours, variants for emergency lighting with changeover points, single battery, monitoring module, etc.)



LENS OPTICS DEVICE CARRIER



W-optics

Light current class	Light colour	Technology	Model	Order number
4500 lm	4000 K	switchable	CVG 4500/840/W-L/EA/5	226848319-00804970
		DALI	CVG 4500/840/W-L/DA/7	226848259-00804964
	5000 K	switchable	CVG 4500/850/W-L/EA/5	226848329-00804971
		DALI	CVG 4500/850/W-L/DA/7	226848269-00804965
8000 lm	4000 K	switchable	CVG 8000/840/W-L/EA/5	226848339-00804972
		DALI	CVG 8000/840/W-L/DA/7	226848279-00804966
	5000 K	switchable	CVG 8000/850/W-L/EA/5	226848349-00804973
		DALI	CVG 8000/850/W-L/DA/7	226848289-00804967
15000 lm	4000 K	switchable	CVG 15000/840/W-L/EA/5	226848359-00804974
		DALI	CVG 15000/840/W-L/DA/7	226848299-00804968
	5000 K	switchable	CVG 15000/850/W-L/EA/5	226848369-00804975
		DALI	CVG 15000/850/W-L/DA/7	226848309-00804969



xN-optics

4500 lm	4000 K	switchable	CVG 4500/840/xN-L/EA/5	226848439-00804982
		DALI	CVG 4500/840/xN-L/DA/7	226848379-00804976
	5000 K	switchable	CVG 4500/850/xN-L/EA/5	226848449-00804983
		DALI	CVG 4500/850/xN-L/DA/7	226848389-00804977
8000 lm	4000 K	switchable	CVG 8000/840/xN-L/EA/5	226848459-00804984
		DALI	CVG 8000/840/xN-L/DA/7	226848399-00804978
	5000 K	switchable	CVG 8000/850/xN-L/EA/5	226848469-00804985
		DALI	CVG 8000/850/xN-L/DA/7	226848409-00804979
15000 lm	4000 K	switchable	CVG 15000/840/xN-L/EA/5	226848479-00804986
		DALI	CVG 15000/840/xN-L/DA/7	226848419-00804980
	5000 K	switchable	CVG 15000/850/xN-L/EA/5	226848489-00804987
		DALI	CVG 15000/850/xN-L/DA/7	226848429-00804981



DYNAMIC LIGHT COLOUR (DIFFUSE) DEVICE CARRIER

Light current class	Light colour	Technology	Model	Order number
6000 lm	2700 – 6500 K	DALI	CVG 6000/827-865/D-C/DA/7	226848499-00805631

Other variants on request (e.g. other light colours, variants for emergency lighting with changeover points, single battery, monitoring module, etc.)

PROTECTIVE COVERS

Dimensions	Special feature	Model	Order number
End cap			
		CVA EK	338121010-00805020
Sealing clamp in IP54 application			
 		CVA DK	338122010-00805021
	greater chemical resistance	CVA DK/R	338122020-00805022
Dummy cover			
	1500 mm	CVA B/1500	338124010-00805030
	3000 mm	CVA B/3000	338124020-00805031
	4500 mm	CVA B/4500	338124030-00805032
Dummy cover incl. gaskets for IP54 applications			
	1500 mm	CVA B/1500/D	338124040-00805033
	3000 mm	CVA B/3000/D	338124050-00805034
	4500 mm	CVA B/4500/D	338124060-00805035
Gasket for IP54 applications			
 	for dummy cover	CVA D	338125010-00805036
	for dummy cover, greater chemical resistance	CVA D/R	338125020-00805037
Safety clamp			
	for dummy cover	CVA B/SK	338125030-00805038

FEED (ELECTRICAL)

	Special feature	Model	Order number
rigid for wires (≤ 2.5 mm²), incl. cable entry			
	5-pin	CVA E-S/5	338123010-00805023
	7-pin	CVA E-S/7	338123030-00805025
	11-pin	CVA E-S/11	338123050-00805027
flexible for stranded wires (≤ 2.5 mm²), incl. cable entry			
	5-pin	CVA E-F/5	338123020-00805024
	7-pin	CVA E-F/7	338123040-00805026
	11-pin	CVA E-F/11	338123060-00805028
Cable insert			
	greater chemical resistance		338211010-00805995
Cable guide on mounting rail			
	cable duct, 4500 mm, incl. fastening clips	CVA KK/4500	338127010-00805039
	cable holder (10 pieces)	CVA KH	338128010-00805040

CONNECTOR

	Special feature	Model	Order number
mechanical + electrical for mounting rail			
	5-pin, 200 mm	CVA V/200/5	338120020-00805001
	7-pin, 200 mm	CVA V/200/7	338120030-00805002
	11-pin, 200 mm	CVA V/200/11	338120040-00805003
	5-pin, 600 mm	CVA V/600/5	338120050-00805004
	7-pin, 600 mm	CVA V/600/7	338120060-00805005
	11-pin, 600 mm	CVA V/600/11	338120070-00805006
mechanical for mounting rail			
	internal	CVA V	338120010-00805000
	external (additional), IP20	CVA V/A	338120080-00805007
Mounting aid			
	for electr. connectors and feed	CVA MH	338129010-00805041

FASTENERS

	Special feature	Model	Order number
Suspension			
	with hook, incl. quick adjuster	CVA AKH-S	338137020-00805056
	with hook, incl. adjusting nut	CVA AKH-E	338137010-00805055
	with wire cable, 1500 mm, incl. lug for hook (ceiling)	CVA AS-O/1500	338132010-00805046
	with wire cable, 3000 mm, incl. ceiling fixture	CVA AS-O/3000	338132020-00805047
	with wire cable, 1500 mm, incl. ceiling fixture	CVA AS-D/1500	338132030-00805048
	with wire cable, 3000 mm, incl. ceiling fixture	CVA AS-D/3000	338132040-00805049
Ceiling mount			
	distance from ceiling H = 22 mm	CVA AD	338133010-00805050
	distance from ceiling H = 10 mm	CVA AD/10mm	338133020-00805051
Angled mount			
	for chain suspension (max. 45°)	CVA AK-V	338137040-00805058
	for direct mounting on wall/ceiling (30°, 45°, 60°)	CVA AD-V	338138010-00805059
	with hook, incl. transverse slot	CVA AKH-V	338137030-00805057
Chains and chain accessories			
	knotted chain, 1000 mm	KK	338134010-00805052
	S-hook	SH	338136010-00805054
	karabiner hook	KH	338135010-00805053

SENSORS

	Special feature	Model	Order number
Universal adapter module			
	for the integration of additional components such as sensors, 11-pin	CVA UA	338196010-00805630
Daylight sensor on universal adapter module (dimming)			
	installation height: 2 m – 5 m, DALI-Broadcast	CVA PD4-M-DALI/DL/500/11	338198010-00805625
	installation height: 5 m – 16 m, DALI-Broadcast	CVA PD4-M-DALI-GH/DL/500/11	338198020-00805626
Presence / daylight sensor on universal adapter module (switching)			
	installation height: 2 m – 5 m (round), master	CVA PD4-M-1C(L2)/500/11	338194010-00805617
	installation height: 2 m – 5 m (round), slave	CVA PD4-S(R5-)/500/7	338194020-00805618
	installation height: 5 m – 16 m (oval), master	CVA PD4-M-1C-GH(L2)/500/11	338194030-00805619
	installation height: 5 m – 16 m (round), slave	CVA PD4-S-GH(R5-)/500/7	338194040-00805620
Presence / daylight sensor on universal adapter module (switching + dimming)			
	installation height: 2 m – 5 m (round), master (DALI-Broadcast)	CVA PD4-M-DALI/500/11	338194050-00805621
	installation height: 2 m – 5 m (round), slave	CVA PD4-S(R7)/500/11	338194060-00805622
	installation height: 5 m – 16 m (oval), master (DALI-Broadcast)	CVA PD4-M-DALI-GH/500/11	338194070-00805623
	installation height: 5 m – 16 m (oval), slave	CVA PD4-S-GH/500/11	338194080-00805624
Presence / daylight sensor on universal adapter module (for external control)			
	installation height: 2 m – 5 m (round), DALI	CVA PD4-BMS/500/7	338199010-00805627
	installation height: 5 m – 16 m (oval), DALI	CVA PD4-BMS-GH/500/7	338199020-00805628
Infrared adapter			
	for the configuration of CVA PD4 sensors by smartphone		338195010-00805629

The required model of support profile (number of pins) can be selected to suit requirements.

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