

Das gute Licht

1/2024

Refurbishment and modernisation

We offer efficient solutions for the major issue facing the construction sector in the future: our range for the resource-saving retrofitting and refurbishment of existing systems is a crucial part of renovation and modernisation.

HEINRICH-VON-KLEIST-



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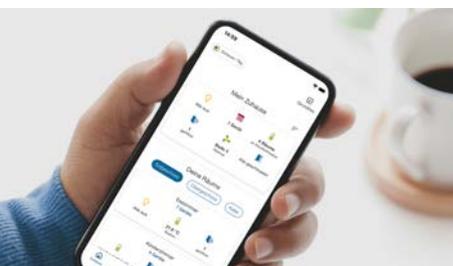
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Foreword



Dear reader,

The term “revolution” has recently become a sustainability buzzword. Its connection with the need to rethink and think in new ways characterises the work in our industry. Linked to this is the hope of having the courage to transform thoughts into reality.

A “sudden, radical, or complete change; a fundamental change of paradigm”. This is how Merriam Webster defines “revolution”. These concepts should certainly be food for thought for many of those at the helm in the public sphere.

The construction industry is an impressive example of what a concerted and focussed discussion should look like. The “green revolution” is the bold term for not only thinking about sustainable structures and ideas for the future of construction, but also for incorporating these ideas into day-to-day work as quickly as possible.

In terms of sustainable and resource-conserving development of the property market, it is important to recognise and preserve the value of existing buildings. As a long-standing and reliable partner for architects, construction planners, building owners, investors and the trades involved in implementation, we offer a comprehensive portfolio for refurbishment and modernisation.

Preserving existing building materials – this is a paradigm and requires solutions that can be implemented quickly and conveniently.

Our flexibility means we can offer customised products to modernise existing illumination systems in terms of energy efficiency. Accordingly, customers can look forward to decades of operation with existing luminaires that are still reliable. And if existing light points are to be used for a replacement, we can provide luminaires and design elements of the highest quality and durability, just as we can for sustainable new designs.

This customer magazine gives you an insight into BEGA’s range of refurbishment and modernisation projects that have already been implemented.

If you will allow me to make a small prediction: we would like to accelerate the discussion on a **turn in open space planning** soon, in order to consistently support initiatives for a green transition in construction. The design and utilisation of public spaces and open areas also needs comprehensive change to create more liveable and sustainable environments. BEGA solutions are taking up this sustainability challenge.

I hope you enjoy reading!

Heinrich Gantenbrink
Managing Partner



Existing building materials utilised for an impressive-looking new living space: a former administration building in Elmshorn.

The green revolution in construction requires long-lasting solutions

Sustainable products for resource-saving construction projects

Rethinking, resource conservation and efficiency are in demand. “Green revolution” is the bold term that combines all the approaches for the environmentally-friendly and climate-friendly implementation of future construction projects. This includes new buildings, refurbished and modernised buildings, as well as the subsequent use of the buildings sustainably to save as much energy as possible.

The fact that the building sector is responsible for a significant proportion of CO₂ emissions highlights the need for successfully pushing through this green revolution in construction. With our high-quality products and systems for durable, reliable and efficient architectural lighting, we are making a long-lasting contribution to realising this vision.

Valuing existing building materials

For us, sustainability in this context also means: we will be there for you throughout the planning phase, implementation and maintaining the building structure over many decades to come.

The imperative to value existing building materials is 100 percent in line with our philosophy of not producing disposable products. Our projects are based on your wishes and our customised solutions are the ideal option for the coming changes in the construction sector.

Reliability for decades to come

This is a clear advantage of preserving and upgrading existing buildings. And in this kind

of renovation and modernisation planning, BEGA products are a constant. As you would expect, they can remain in use and do not have to be replaced.

BEGA solutions provides sustainable support for the pursuit of the goal of building with zero emissions and providing spaces for more people using less material. Opting for reliable forms of luminaires that have proven their durability and reliability pays off with every modernisation project. The products are also exceptionally durable.

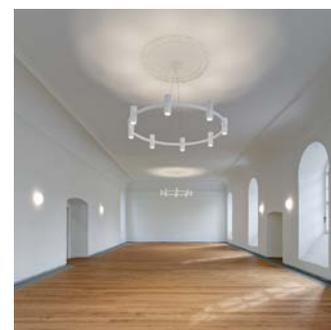
We are making steps towards a sustainable future by providing targeted and problem-free energy upgrades and, if necessary, a refresh of other components. Our range of products that meet these needs is called the Continued Life Program.

This means that the practice of refurbishing and recycling components in line with the circular economy can be postponed for decades to come.

Climate-friendly alternatives

BEGA luminaires are modern, but not fashionable. They are a solid and reliable choice that will last for many decades. Continuing operations while upgrading to the relevant current technical level is the more cost-effective, sustainable and climate-friendly alternative to complete replacement.

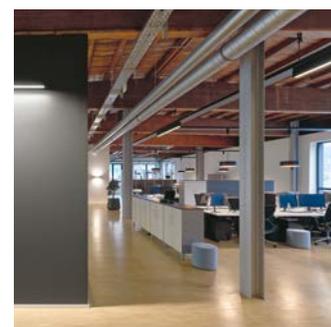
Over time, new generations will take on the responsibility of using the buildings – but BEGA solutions will remain in place to be inherited by them. ■



A former orangery in Dillenburg was turned into event rooms.



Former factory building, now the Mies van der Rohe Business Park in Krefeld.



A contemporary office space was created in a historic factory building in Wuppertal.



The façade of the Glass Palace characterises the city of Heerlen.

Modernisation of lighting in the “stacked” market

Existing luminaires meet the client’s specifications: “Quality is always a winner!”



Synergy: The façade of the “Glaspaleis Heerlen” allows plenty of light into the building, while tried-and-tested luminaires with the latest technology blend in harmoniously.

The “Glaspaleis Heerlen” is an impressive transparent forum in the centre of Heerlen, a municipality in the south-east of the Dutch province of Limburg.

Two decades after installation, 200 BEGA indoor luminaires continued to provide reliable service at all times in the cultural centre and the five institutions housed within. However, energy-efficient developments were required.

Modernisation was carried out with operations still running and precisely fitting LED modules replaced the old electronic components. These will provide high quality, energy savings and illumination efficiency for decades to come.

The modernisation project in the Glaspaleis underlines BEGA’s philosophy of producing durable building details – not disposable products. The components are replaceable and the distinctive illumination showcases the architecture.

The Union International d’ Architecture features the “Heerlen Glaspaleis” in its list of the “1000 most important buildings of the 20th century”.

Sophisticated architecture, countless unique features and the sustainability of the entire project highlight the original requirement of businessman and client Peter Josef Schunck:

“Extraordinary” design specification

Architect Frits Peutz received the unusual brief from Schunck in the 1930s: “Design a department store that stands like a stacked marketplace next to the market!”

A concrete structure and hanging glass façades created this covered marketplace. Mushroom-shaped concrete columns support the ceilings. ►

REFERENCES



BEGA Luminaires with modernised energy performance continue to showcase the impressive architecture.

More reasons for renovation and modernisation of existing architecture

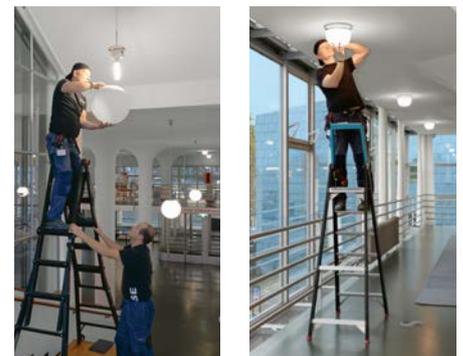
[www.k0642](http://www.k0642.com)

Fabrics and clothing were the focal point of the textile department store, which was intended to make the entire warehouse accessible to customers. The building was designed to function as a salesroom and as a warehouse simultaneously – with no dividing walls. The space was full of natural daylight, making it easier to inspect the goods. The family of the department store owner, Schunck, lived in the penthouse on the roof for decades.

After being converted into office space with newly installed walls and changes to the glass façade, the building simply looked like a massive, unreal block. An initiative launched in 1993 saved the building, which had been earmarked for demolition. Recognition as a valuable architectural monument in 1995 was a step in the right direction: the city of Heerlen bought the avant-garde building to turn it into a cultural centre.

Architects Jo Coenen and Wiel Arets were awarded the contract to remodel the building in line with its listed status. From the turn of the millennium, they gave the Glass Palace back its original captivating effect – and fitted sustainable BEGA illumination, which was still providing reliable service more than two decades later.

However, the triumph of LED light sources has now opened up the opportunity to significantly reduce energy costs. The ceiling luminaires and spherical pendant luminaires, some of which also fulfil emergency lighting functions, were fitted with LED conversion kits during operation. With even more harmonious lighting than with the previous lamps, the lighting experience planned decades ago, and later modernised, will continue to delight visitors to the cultural centre in the future.



Modernisation during ongoing operations in Heerlen.

The former department store in Heerlen with plenty of light for viewing fashion has been transformed into a cultural centre with a variety of uses. The operators also remained loyal to BEGA illumination during the modernisation.



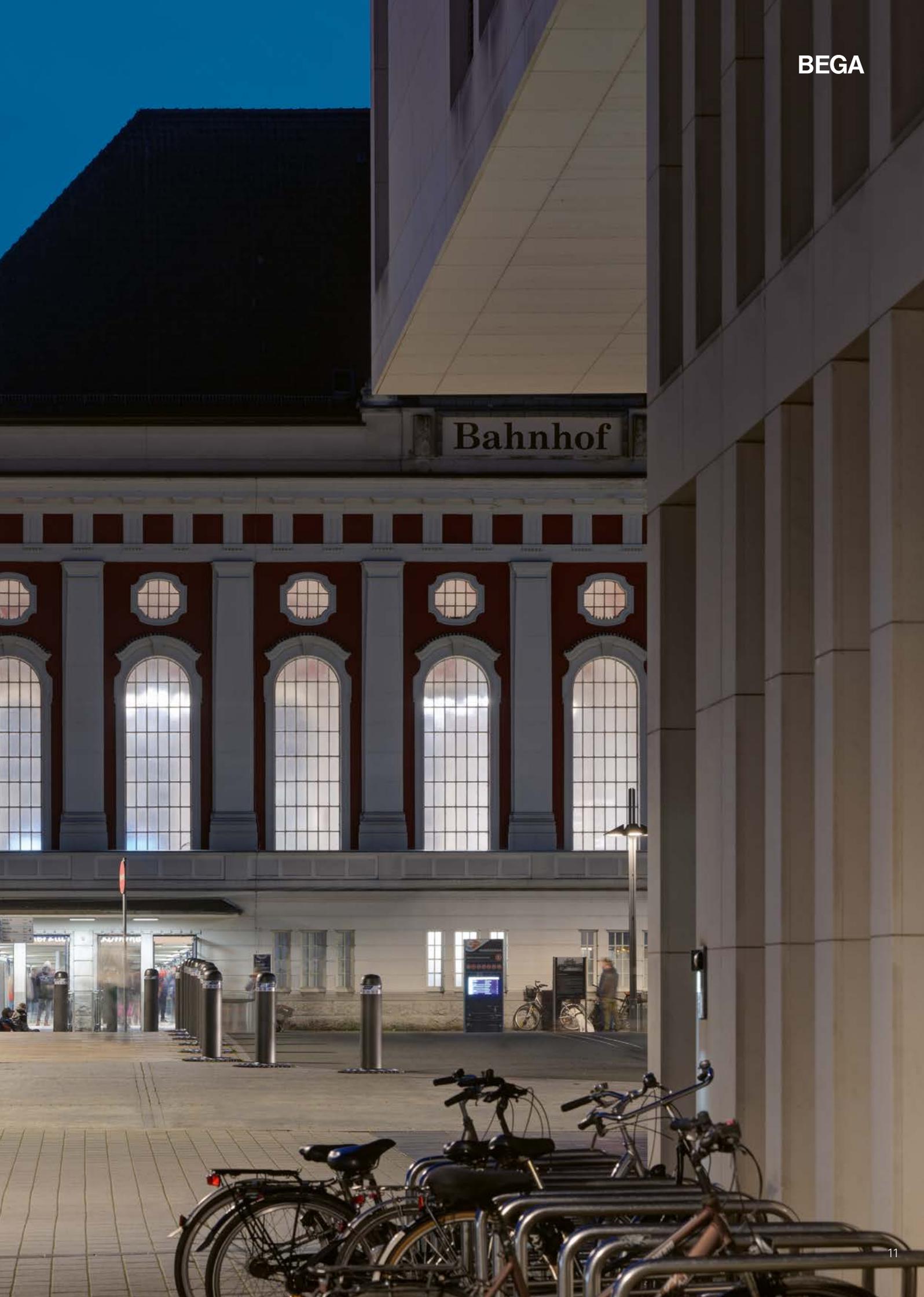
Additional added value in street lighting

Conversion kits to last for decades

The city of Hamm in North Rhine-Westphalia also recognises the importance of the commitment to its population when planning its public street lighting: only high-quality products have been and will be purchased to ensure exceptionally long durability. Avoiding extensive maintenance and repair work or even premature replacement of luminaires benefits the city's finances. In addition, the impact of roadworks is far more manageable for residents and traffic planners. Even more sustainability value is being added to the two central squares decades after installation: energy modernisation is carried out during ongoing operation, taking into account the original luminaires. The luminaires remain in place, the lamps are modernised – for many more decades of use with maximum energy savings and manageable costs. ▶



Bahnhof



REFERENCES



Redesigned BEGA luminaires in front of the historic façade of the railway station in Hamm.



The Heinrich von Kleist Forum and the square lighting that has been in use for a quarter of a century.



The luminaire from the year 2000 with its timeless design language remains – with a new LED conversion kit.

More reasons for refurbishment and modernisation in existing architecture:

 K0642



The architecture of the cultural and educational centre, the art and the lighting form a unified design.

Sustainability means accountability and making a commitment to the future. At the turn of the millennium, the city of Hamm consistently followed the specification for the illumination of Willy-Brandt-Platz and Platz der Deutschen Einheit: extremely long service life for the lighting system.

BEGA pole-top luminaires were chosen for one of the city's central areas with its lovingly restored railway station, bus station and Heinrich von Kleist Forum cultural centre. With their timeless design language, they create the desired urban planning accents right from the start and look effective, both in front of the historical building structure of the railway station and in front of the modern architecture of the forum.

Efficiently reducing energy costs

More than two decades later, the city of Hamm gave the company responsible for public street lighting a clear mandate: how can we efficiently reduce energy costs?

The sustainable approach to facilities for these spaces ("We don't buy disposable

products!") has now paid off. These luminaires do so much more than just work perfectly at all times.

Two decades of weathering has not substantially damaged the coating of the luminaires.

Customised LED conversion kits

It was clear: a technical upgrade was all it took. Continued operation with BEGA conversion kits preserved the urban planning philosophy of the squares, significantly improved energy efficiency and optimised light distribution, thanks to the LED technology used.

In this case too, modernising the energy efficiency of existing luminaires was the ideal solution for a favourable lighting system. "We were very satisfied with the condition of the luminaires before the modernisation," said a spokesperson from the municipal Energy and Water Providers, which is responsible for public street lighting in Hamm. "When it came to the question of how we could modernise, the conversion kits were much more appealing to us than retrofitted lamps."



Upgrade for BEGA pole-top luminaires after almost a quarter of a century of continuous use: LED conversion kits ensure significant energy savings and optimised light distribution – for many more decades of reliable illumination.

No disposable products – replacements for our luminaires are available if required

Lighting modernisation can be checked and planned for each luminaire. Even if BEGA discontinues this luminaire with its parameters in the future, it can be modernised now or in the future.

Timeless design language

The understated design emphasises the architecture and also makes BEGA luminaires a long-lasting architectural feature.

Theoretically, it would therefore be possible to replace some of the luminaires or add new ones at any time to integrate them seamlessly into the design of the lighting system.

However, abandoning the tried-and-tested and reliable existing luminaires

would not have been economically viable, especially as the luminaire and poles were customised to meet the requirements of the city of Hamm.

As a long-standing partner, we find special solutions like these while providing reliable support and further development for the system.

This aspect, which played a decisive role in the purchase of the luminaires a quarter of a century ago, continues to underpin the trust-based collaboration both today and in the future. ■



Continued Life Program

Upgrade or refurbishment: Future-proofing the technology of existing luminaires

Lighting and illumination design with BEGA offers solutions that are made to last. Our luminaires are epoch-defining and remain reliable and functional for generations. When ageing or even technical failure are not necessarily reasons for refurbishment, increasing efficiency can be the central goal of further developing a system.

Our offers for on-site retrofitting (upgrade) and retrofitting including factory reconditioning (refurbish) are characterised by the following features:

- **Energy efficiency**
- **Lighting efficiency**
- **Price sensitivity**

Choose conversion kits for modernising luminaires and light sources for decades of reliable use, or opt to recondition the luminaires in the factory and convert to the latest technology:

We offer the right solution for your individual requirements. ►

Upgrade

Conversion kits for on-site modernisation

The technical retrofit of an existing system to include energy-efficient and more powerful lamps can be carried out by the customer with precisely adapted LED conversion kits. Our LED luminaires are designed so that the components can easily be replaced on site using standard tools.

Our service:

The upgrade offers planning security with our own proprietary LED modules. We guarantee that replacement modules will be available even 20 years after you purchase an LED luminaire from us.



Your time is precious:
See for yourself how quick retrofitting BEGA luminaires can be.



Even if we no longer have ceiling luminaires like these in our current range, we can of course supply LED conversion kits.



Easy installation of the pre-assembled components with just a few mounting points: LED conversion kits for pendant luminaires.



We offer in-ground luminaires in many different sizes. Converting to LED is convenient and can be done without extensive installation work – the luminaire remains in the ground at its place of use.

Refurbishment

Conversion service including factory reconditioning

In addition to being equipped with contemporary lighting technology, the luminaires are professionally refurbished in our factory. Systems look and function like a new product after they have been reconditioned – and the same applies for the guarantee and warranty period.

Our service:

The availability guarantee for electronic parts and components prevents unplanned and unwanted luminaire replacements, even after many years of use.



The effects of time are unmistakable – but they are only external and will not have a substantive effect on the luminaire. The components will withstand the elements for decades to come.

After removal, professional reconditioning takes place at the factory: Stripping the coating and preparing the surface are the first steps to make a luminaire look like new.

Detailed documentation on how wall luminaires are refurbished can be found here:

 [www.k0756](#)



New coating for corrosion resistance, weathering resistance and light stability: The exceptionally high quality BEGA surface protection takes into account the different climatic conditions around the world.

Modernisation of the electrical components and, if necessary, replacement of the reflectors, ensures a complete set of refurbishment options for many more decades of reliable use.

High-efficiency series

PRIMA for existing buildings and new builds

Exceptional quality, economical use of resources during production, impressive luminous efficiency and cost efficiency, especially for large quantities, were at the centre of the development of PRIMA luminaires from BEGA. They are the ideal lighting tools for refurbishing and modernising your entire lighting system with new products, or for use as initial equipment for long-lasting use with minimum maintenance.

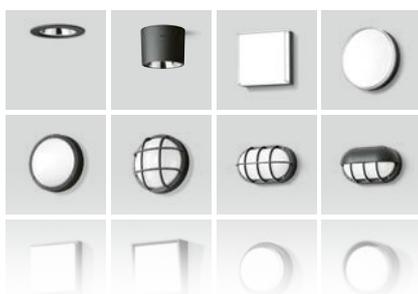
Highly efficient materials and careful design in BEGA quality are what determine a service life that will last for many decades. Refurbishment projects by and with BEGA bring lighting systems up to the latest technical and energy standards.

An extensive portfolio is available for planning – luminaires with a proven design that preserve the existing appearance when refurbishing and modernising existing buildings and also fit reliably and discreetly into new installations. For large projects, the cost of purchasing large numbers of units for a complete replacement can be significant, but the costs and installation times of these products make them a very attractive proposition.



Indoor luminaires
Ø 210 · 250 · 350 mm

You can find a summary of the extensive portfolio of PRIMA luminaires on our website bega.com/prima. There, you will find countless possibilities for impressive lighting design.



Economical and efficient

With its white synthetic material cover made of BEGA NeoGlass®, this series of economical wall luminaires for indoor use enables a high photometric output of more than 130 lumens per watt for particularly cost-efficient interior lighting. Perfect for economical planning of lighting systems in areas where lighting must stay on for long periods of time.



Outdoor luminaires
Ø 210 · 280 mm



Outdoor luminaires
□ 200 · 280 mm

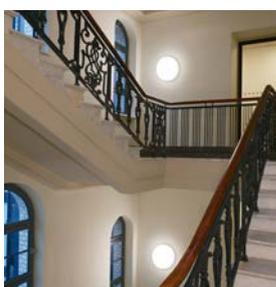


Outdoor luminaires
100 × 210 · 130 × 280 mm

The perfect shape

You can use existing light points for a new design with these ceiling and wall luminaires in round and square shapes for outdoor areas.

The cast aluminium luminaire housing and the white, impact-resistant BEGA NeoGlass® synthetic material cover satisfy strictest requirements. ■



PRIMA luminaires complete the modernisation in both indoor and outdoor areas.

BEGA NeoGlass®

Alternative to glass and silicone components

BEGA NeoGlass® is a highly efficient alternative to comparable materials, such as glass or silicone – for exceptional optical systems and highly reliable luminaire covers.

Whether we use glass, variants of BEGA NeoGlass® or silicone in our products depends on the lighting requirements and environmental conditions.

Quality-enhancing additives are used to refine the base materials PMMA and PMMI and create BEGA NeoGlass®.

This exclusive formulation, which has been tried and tested in endurance tests, ensures lasting material stability as well as temperature and UV resistance. This means there is no yellowing.

BEGA NeoGlass® features outstanding light distribution properties and high lighting efficiency, thanks to optimum transmission, for an impressively high output level.

Significantly lower energy consumption and a highly economical use of resources are significant factors in the production of the material. The new BEGA material is 100 percent recyclable. Its reduced weight ensures lower transport costs and minimised emissions. ■



Optical systems

Balanced lens material composition for optimum light deflection



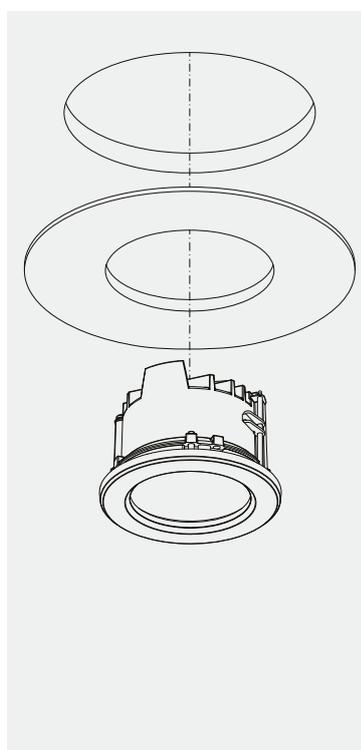
Luminaire covers

Material composition for safe and impact-resistant covers – coloured and clear

Clever accessories

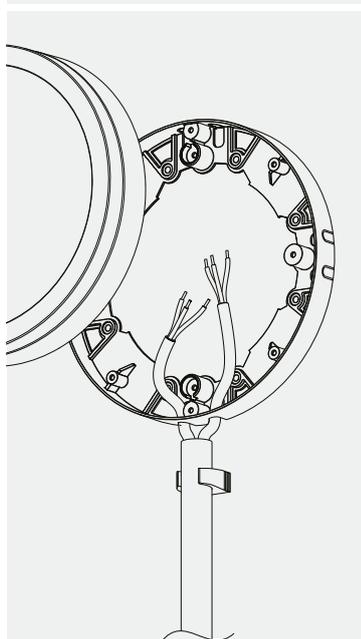
For effortless installation

We have developed a customised range of accessories for our luminaires to meet the specific requirements of refurbishment projects.



Adapter rings for customised recessed openings

Adapter rings enable installation of recessed luminaires in existing recessed openings – regardless of their size. This creates a visually clean solution with minimal installation effort.



Surface mounting frame

BEGA mounting frames enable surface-mounted cabling for ceiling or wall luminaires. Visually, the surface-mounted frames integrate seamlessly into the look of the respective luminaire. They are simple to install using the separately available accessory with cable entry, and then are ready for surface-mounted cabling. ■

Optimise your energy use even more

The wibutler wireless solution integrates devices from different manufacturers

In order to manage energy consumption intelligently and utilise smart options across manufacturers, buildings must be viewed holistically. Lighting control systems, such as BEGA Connect and BEGA Smart, utilise the capabilities of modern luminaires for convenience and energy-efficiency. The wibutler platform is the ideal solution for networking devices from all manufacturers and supporting a range of wireless standards (EnOcean, WLAN, zigbee). The wibutler links products from different manufacturers so that they can be integrated and connected together. This wireless solution can be used anywhere, while needs-oriented rule definitions enable exceptional convenience and energy savings.



Control centre for illumination, security and climate control: **wibutler pro**

Refurbishment, modernisation or new-build project?

The wibutler is flexible, has a large radio range and combines different communication standards. Pair lighting and blinds, and control heating and security tools: the wibutler pro is the control centre for countless control options and rounds off your convenient building automation system. bega.com/wibutler ■

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