

### ModulMax: One design – more than 600 configurations.

Brumberg develops modular LED spots for sales concepts

Sundern, March 2016 Modern retail sales concepts rely on speed and versatility along with the highest cost and energy efficiency. A customised lighting concept with LED spots contributes significantly to sales success. Brumberg has succeeded in re-thinking parameters such as flexibility, efficiency and quality. With the ModulMax LED spots, track and recessed spots are now available that are completely modular in design. Entire components can be individually assembled, from the converter to the housing, front ring and light engine to the light colour and reflector. This results in more than 600 configuration variations – in a homogeneous design.

'With the ModulMax LED spots, Brumberg continues its tradition over many generations of developing light at the highest level. The new generation of retail lighting impresses with the expertise of an internationally recognised light specialist – made in Germany', explains Johannes Brumberg, managing director and owner of the company of the same name in Sundern. By using light colour, brightness and light quality in combination with a store's location, architecture and interior design, a holistic lighting solution results that highlights brand messages, guides customers selectively to products and showcases these products authentically and in an eye-catching way.

#### Path-breaking modularity

The decisive factor here is the up-to-date adaptability of the LED spots to variable, quickly changing product lines, frequent changes of collections and a sustainable energy concept. The new flexible ModulMax LED spots from Brumberg can be custom-made for retail stories of different sectors, such as fashion, food or health & beauty, and for all zones, requirements and tasks in the stores. This is path-breaking modularity that could not be more up-to-date – conceived for modern retailers and the latest retail sales strategies.

## **Press information**



#### Consistent brand quality with simple handling

This innovation became possible with a detailed and well thought-out design of the modular LED spots and the consistent brand quality of the individual components. A simple and safe handling is thereby ensured. The components of the ModulMax LED spots can be easily replaced without tools. This significantly reduces the cost of assembling and retrofitting the track and recessed spots. Moreover, you will be delighted by the energy efficiency of the ModulMax LED spots, which have very good temperature management, optimum light yield and a high lumen output.

#### Well thought-out down to the last detail

The modular design is based on a well thought-out concept that combines the uniformity of the light design with maximum flexibility in the configuration of the spot. The components of the ModulMax LED spots meet the highest quality demands in order to be ready for replacement. Brumberg relies on tested components of well-known manufacturers

#### **Exact coding**

The important quality features of the components are material strength, accuracy of fit and cable lengths for the mechanical components as well as luminous power and efficiency and colour fidelity for the LED elements. An exact coding supports the easy assembly according to the principle: insert and engage – finished! Reliable anti-rotation protection is thus thought through ahead of time, and the modules are automatically fixed in the correct position.

#### **Uniform light design**

The ModulMax programme offers more than 600 variations for the configuration of the LED spots. Brumberg Service includes personal consultation for the optimum configuration. Once the LED spots have been chosen, the track lights are delivered pre-assembled in the desired configuration. The homogeneous light design ensures a balanced aesthetic in the store. The attention of the customer will thus be directed specifically to the brand messages and products.

## **Press information**



#### The modules of the ModulMax LED spots

#### The converter

Selected brand name converters that have been tested by Brumberg connect the ModulMax LED spots to a track system. The converters are equipped with a universal adapter, which is compatible with almost all conventional 3-phase track systems. The adapter can be replaced for connecting to older 3-phase tracks or to Dali track systems of various manufacturers.

#### The housing

There is a choice of the standard colours white, black and silver for the spotlight housing. 'RAL on request' is feasible on a project-related basis. The ModulMax LED spots will then be painted in selected RAL colours. Trademark signs, for example, a product or company logo, can also be applied to the spots. Thanks to the well thought-out engagement coding, even small details such as the cooling slot in the housing cover is always automatically fixed in the same position. All of the spots installed in the store are thus combined into a harmonious overall appearance with the uniform light design.

#### The front ring

The front ring can be configured with or without glass or a glass colour filter. The quality light glass ensures a high light yield and virtually reflection-free transparency and clarity. This ensures energy efficiency and accents the intrinsic value of the products that can be showcased and promoted with the high-quality light glass in the front ring.

#### The light engine

The entire light engine is installed 'with one turn' in the LED spot. It can be replaced just as easily if necessary. The heat sink including the chip and cable connection are easily screwed into the track spot at the practical grip bar.



With the heat sink that has been specially developed for the LED chips, Brumberg ensures a constant housing temperature with top values:  $T_c$  value of 43° Celsius at 24.3 watt LED output and  $T_c$  value of 51° Celsius at 37.5 watt LED output. The reduced thermal load has a positive effect on the service life of the LED chips and the light yield. Less energy is required for the air conditioning of the stores as a result of the sound temperature management.

The ModulMax LED spots are equipped with the latest generation of high-quality brand name chips. Brumberg has available a wide range with six LED chip types for different retail applications. Additional LED special chips are available on request.

#### The light colour

With the special BBL (below black body locus) LED chip, Brumberg offers an interesting lighting variation with 3000K. The light colour is below the Planckian curve. The unneeded green component is thereby reduced in the light, which is at 2700K, 3000K and 3500K on the Planckian curve. These findings are based on a study of the American Light Research Center.

The modified colour coordinate of the BBL chip is ideally suited for fashion store lighting. The colours appear to be more brilliant, and white articles of clothing especially are more radiant. The LED version with 3500 is equally to be recommended. Blue and black can be especially well differentiated, which makes the selection of men's outerwear easier.

#### The reflector

With beam angles of 12°, 24°, 36° or 60°, the ModulMax LED track spots can be used both for illuminating large surfaces as well as for spot accent illumination of display areas and shelf systems. The bayonet fitting ensures easy installation and replacement of the reflector. The front ring is also easy to insert and is automatically fixed in the correct position by the coding. The angle of reflection can thereby be changed if necessary without much effort.



All in all, the ModulMax LED track spots create a very harmonious light pattern that will meet the most stringent demands (hotspot: 50%). The chip and reflector are perfectly matched for this purpose. Due to the smooth transitions, no contours are visible, and the outer corona does not show any shadings. In this way, shops and products are put in their best possible light.

#### ModulMax LED recessed spots

For low ceilings and corridors: Brumberg offers various ModulMax LED recessed lights as the perfect complement to the ModulMax LED track spots. They are ideal for low ceilings and corridors. The spots are designed using the same modular principle and can also be easily installed or replaced. They can be be pivot- or swivel-mounted or fixed as downlights.

#### Ceiling-tight and with locking mechanism

The quality feature of the ModulMax LED spots is their ceiling-tight workmanship. As a result, there is no view into ceiling cavities even in the swivelled alignment. The recessed LED spots remain shielded from view. Downlights have only a small clearance. During installation, a locking mechanism supports the alignment in a horizontal position or at the desired angles. All ModulMax LED spots, like the track spots, can be customised according to the project.

#### BRUMBERG Leuchten GmbH & Co. KG

The family-owned company, founded in 1873 by Hermann Josef Brumberg under the same name in Sundern – since 1985 known under the name Brumberg Leuchten GmbH & Co. KG – has established itself as a professional lighting manufacturer in the high quality smart lighting technology sector. It is among the leading suppliers and offers professional lighting solutions for almost all application areas. In its portfolio there is a broad spectrum of LED lights and lighting fixtures with conventional light sources in various designs and power ratings. The company, family-run for five generations, is headed by the brothers Johannes and Benedikt Brumberg. In 2015, Brumberg became a partner of "eNet-Allianz with GIRA/JUNG" as well as of "FEELSMART". In 2016, Brumberg joined the strong brand alliance "Connected Comfort" as well as the "Initiative Elektromarken. Starke Partner." You can find further information at http://www.brumberg.com.

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