Presse Press

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Osram presents innovative SMARTRIX modules

The new SMARTRIX modules with innovative silicone lenses enable vehicle lighting systems to be extremely small and compact

Matrix light not only contributes to greater road safety but also gives headlight designers greater freedom thanks to its smaller dimensions. This technology is therefore very much on the march. To meet the demands of the automotive industry for more and more compact smart headlights Osram has taken this technology an important stage further with the development of innovative SMARTRIX modules. SMARTRIX is an amalgam of "smart" and "matrix". "By using new materials for the lens systems we have been able to make the SMARTRIX modules even smaller and more durable, so our customers have even more freedom in designing their headlights", explained Hans-Joachim Schwabe, CEO Specialty Lighting at Osram.

Matrix headlights provide ideal visibility at night and poor weather conditions. The smart distribution of light ensures that the road is illuminated with a high level of precision and maximum light output without dazzling oncoming drivers. Several individually controllable LEDs are combined into a matrix (array) with common optics. The LEDs can be controlled individually, "pixel by pixel", so specific areas of the road and its environs can be illuminated or masked out as required.

Smaller modules mean new headlight designs

The standard plastic lenses which have been used in the past few years for matrix systems could no longer meet the requirement to be placed closer and closer to the light source. Osram therefore looked for a new material for the lenses and developed the SMARTRIX modules which are equipped with lenses made of silicone as this material emerged as the best alternative to plastic. The lenses offer properties such as long life and high resistance to heat and radiation, and are also less expensive than glass lenses. In addition, silicone



lenses can be attached directly to the LEDs, making the product much smaller overall. Headlight designers have much greater freedom as a result and can more easily follow the trend for narrow low-profile headlights.

First-generation SMARTRIX modules from Osram will appear on the roads in the fall of 2017. As the leading player in automotive lighting, Osram is already working on the next generation which will offer multi-line matrix functionality in one module, and the chance to make headlights even more compact.



Osram is developing SMARTRIX modules with innovative long-life silicone lenses. Picture: Osram



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ABOUT OSRAM

OSRAM, based in Munich, is a globally leading lighting manufacturer with a history dating back about 100 years. The product portfolio includes high-tech applications based on semiconductor technology such as infrared or laser lighting. The products are used in highly diverse applications ranging from virtual reality, autonomous driving or mobile phones to smart and connected lighting solutions in buildings and cities. In automotive lighting, the company is the global market and technology leader. Based on continuing operations (excluding Ledvance), OSRAM had around 24,600 employees worldwide at the end of fiscal 2016 (September 30) and generated revenue of almost €3.8 billion in that fiscal year. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED 400; trading symbol: OSR). Additional information can be found at www.osram.com.

