Working actively and creatively with light

Ever since it was founded, Rheintacho Messtechnik GmbH has been committed to measuring, displaying and controlling very fast processes in a precise manner

Holger Knöll

This family-run business, based in Freiburg (Southwest Germany) specialises in the field of rotational speed measurement technology. Their portfolio includes rotational speed sensors, based on various measuring principles, hand-held tachometers measuring velocities and lengths in addition to rotational speed, versatile rotational speed monitors with variable programming and powerful hand-held and fixed stroboscopes. The company currently employs 71 staff and can draw on 110 years of experience in its field.

Particular specialities of *Rheintacho* are its tailor-made special solutions for meeting a wide range of requirements. These products have led to some very close business relationships which have stood the test of some economically turbulent times. This has enabled the company to continue its business activities with its full complement of staff even during the recent financial and economic crisis. The company even forged ahead with its long planned construction of an additional 1000 sqm (10,764 sqft) of production space completed in mid-2010.

This development has proved itself to be more than cost-effective, especially during the current phase of economic recovery. This is significant since the development department has been able to continue working on the implementation of its projects and to bring them to a successful conclusion.

Impressive light intensity

Rheintacho's own developments in the field of stroboscopes have enabled the company to open an entirely new chapter in its history. Building on its experience with Xenon stroboscopes, such as the *Rolux* for hand-held measurements and the fixed devices of the *RT3000* and *RT5000* series, the company moved into the area of LED technology.

One of the precursors here was undoubtedly the *Pocket Strobe LED*, which is used in a wide variety of industrial fields making it particularly popular with users because of its functionality, robustness and design. A weakness of the system, however, lay in its relatively low light yield. As part of its ongoing improvements, *Rheintacho* now uses the brightest LEDs available on the market. This makes it the brightest hand-held LED stroboscope in the world.

Every device comes with a test certificate as evidence of its performance, showing the illumination curve and the most important measurement characteristics. The measurement process required to provide this information is carried out internally according to clearly defined test guidelines, using the so-called »light box«, a test device that was designed in-house. In this way, all of the devices and designs can be analysed precisely, making the »light box« an indispensable cornerstone of quality assurance in production and technical development.

This was also a crucial factor in the development of the new range of LED stroboscopes. In view of new possibilities regarding control and the durability of the luminous elements, particular attention was paid to light yield and sharpness. The *RT5000LED* model, for example, has a total of 120 LEDs providing an impressive luminance of up to 5000 lux, while the *RT3000LED* model delivers a luminance of up to 4000 lux. In addition, the effective selection and geometrical arrangement of the LEDs provides a noticeably even surface illumination.

Pocket Strobe LED (left) and RT5000LED.

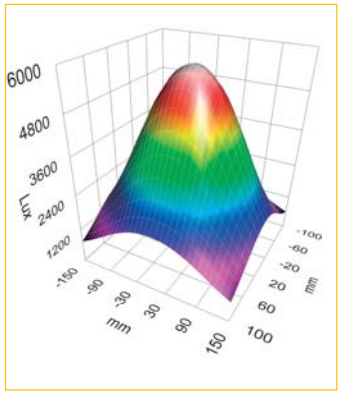
Additional elements for total solutions

Peripheral solutions are also now available from *Rheintacho*, enabl-

Editor Etiketten-Labels magazine, *G&K TechMedia GmbH*, Gutach/D.

Left:
A new building has been added to the production site in Freiburg.

Middle:
Independent Strobe Control unit connected to a stroboscope.



Right:
Illumination graph shows achievable brightness levels of a stroboscope in relation to the illuminated surface.

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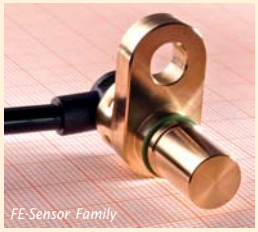
The new sensors

The *FE* family of sensors comes with a choice of three output signals and two housing sizes (IP67 and IP6K9K).

These modular designed sensors can be adapted to suit specific applications by combining various characteristics:

- A variety of output signals: PWM, 1-channel frequency, 2-channel frequency.
- Different immersion depths, with sensor housing in two designs: 18.4 mm (0.72") and 32 mm (1.25").
- Various cable lengths.
- Various plug interfaces on the cable.
- The option of input voltages in two ranges, from min. 4.5 V to max. 32 V.


FE-Sensor Family

The new *FM* sensor family is adaptable to all types of connections and is characterised by the option to change both the output direction of the plug and the type of plug. These features were taken into account early in the design phase making the sensors adaptable to the exact individual requirements of the user.

Rheintacho has extended its product range to include a *M12* screw sensor. 2-channel differential Hall sensors for simultaneous measurement of rotational speed and direction of rotation. Specifications are as follows: *M12x1* design; *M12* connector integrated into the sensor housing; total length 70 mm (2.75"); degree of protection *IP67*; temperature resistance up to 125 °C (257 °F).

ing them to offer users a complete stroboscope unit. These include the *Strobe Control* external control unit and the *Eco Control* unit. While the *Strobe Control* is suitable as a solution for a wide range of tasks, the *Eco Control* unit offers rapid detection of flash frequency. With this system, the flash rate can be increased or decreased simply by turning a control, making it an easily adjustable alternative to the more complex *Strobe Control*.

The future

Fundamentally, the need to control and monitor ever increasing technically demanding production processes in all manufacturing industries will only further accelerate in the future. Within this context, and in view of the investment in new technologies and the growth in its production site, *Rheintacho Messtechnik GmbH* has the capacity required to proactively and creatively shape developments in this challenging but technically fascinating field.

➜ *www.rheintacho.de*

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