**The right force sensor for every application:   
A new portfolio of compact standard force sensors from Baumer**

(25.11.2019) Whether the lateral load of a ball bearing, the press-in force of a pin, or the mating force during cold welding: force sensors are essential when it comes to the monitoring and quality control of manufacturing processes. But what force sensor is the right one for an application? The answer is simple: a force sensor from Baumer. Based on decades of experience with force sensors, the Swiss sensor specialist offering customized products is expanding its product range to a comprehensive standard portfolio. It offers users precisely the force sensor needed for their purposes – with the right force range and the right design. Thanks to standardized housing and uniform thread sizes within the series, the sensors can be easily replaced, for example, by a sensor with a different force range. "This reduces the risk when designing a new machine, when it is often not clear what forces will be involved," says Steffen Schneider, product manager for force and strain sensors at Baumer in Frauenfeld, Switzerland.

**From 50 to 20,000 newtons**  
The standard portfolio of Baumer contains 44 different sensors in three size ranges. The force of the DLM20 sensors extends from 50 to 1000 N in five force ranges; for DLM30 it is 200 to 5000 N, while the DLM40 series reaches 2000 to 20,000 N. The sensors of each of these force ranges are available in three designs: as a button version for measuring the compressive force and as inline and screw-on versions for measuring compressive and tensile force. The button version is screwed onto one side and the force is transmitted via a pin. The inline version is attached with two threads directly in the force flow, while the screw-on version is attached with one thread and four through holes. Both versions are screwed to the machine on both sides. The different attachment options therefore allow the easy and quick integration of the sensor in machines and systems.

**Compact, robust, and reliable**The housings of the new standard force sensors are surprisingly compact. The smallest DLM20 sensor has a diameter of a mere 19 millimeters, while the largest DLM40, which measures loads of up to two tons, measures only 60 millimeters. Only very robust sensors can withstand such massive forces. Customers can fully rely on the Baumer quality in this regard. The fully welded sensor housing made of stainless steel with the protection category IP68 is hermetically dust- and water-proof as well as impact- and vibration-resistant for a long service life in rough industrial environments. They reliably handle even large temperature fluctuations from -40 to +85 °C.

Another distinguishing feature of Baumer force sensors and new to the market is the 100% displacement stress range. This offers users an extended application range, as the sensor can be dynamically loaded across the entire force range, i.e., from 0 to 100 N for a 100 N sensor. Standard sensors measure the maximum force only with static loads, and usually measure cyclically alternating forces, which occur several times per second in dynamic applications, only up to 70% of the nominal load.

With its new force sensors, Baumer offers a portfolio for the easy measurement of forces. In addition, Baumer offers customized solutions for force measurement as well as strain sensors for large force ranges.

Image: Easy force measurement in action – the new standard force measurement portfolio from Baumer

Learn more: [www.baumer.com/c/310](http://www.baumer.com/c/310)

**Baumer Group**

The Baumer Group is an internationally leading manufacturer of sensors, encoders, measuring instruments and automated image-processing components. Baumer combines innovative technology and customer oriented service into intelligent solutions for factory and process automation and offers a uniquely wide range of related products and technologies. The family-owned company has around 2,700 employees with manufacturing facilities, sales offices and agents in 38 offices and 19 countries, always close to the customer. With consistently high quality standards worldwide and a huge potential for innovation, Baumer brings their customers critical advantages and measurable added value across many industries. For more information, visit [www.baumer.com](http://www.baumer.com).

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