

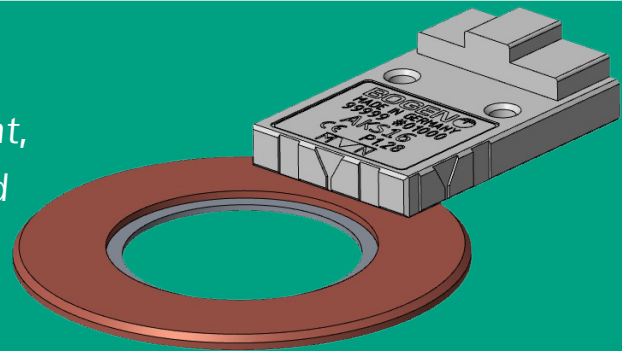
2021
May

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Smart encoders & actuators

Miniature and high IP protected SMAR3 modular encoder

Lika Electronic's SMAR3 modular encoder + MRA magnetic ring is ultra-compact, ultra-flat, lightweight, bearingless, accurate. By virtue of the one-piece solid housing readhead with high IP protection it can be installed even in harsh industrial environments.



SMAR3 is the new off-axis absolute singleturn modular encoder from Lika Electronic. It offers a fully protected one-piece readhead instead of an open PCB readhead and shares the MRA magnetic ring with the other models of the SMAR series.

SMAR3 has an ultra-compact and ultra-flat readhead, it is only a few millimetres in size (24.2 mm x 16 mm x 3.4 mm h). Its robust construction with encapsulated electronics and **IP67 protection rate** enables the measuring system to be installed in harsh industrial environments affected for instance by contaminants, dust, humidity, oil, cooling lubricant emulsion as well as susceptible to vibrations and temperature fluctuations. Also the ring is very thin and axially magnetized and has an outer diameter of **34 mm with max. 18 mm through bore**. Thanks to the minimum size and weight (only a few grams) the SMAR3 is also suitable for integration into space and weight critical applications such as into robotic joints, hollow shaft motors (direct drive torque motors, ...), brushless and servo motors, OEM equipment.

The **SMAR3 is equipped with absolute interfaces** that can be paired with incremental or commutation outputs. Absolute interfaces can be either **SSI or BiSS C-mode**. The available resolutions range between 15 and 19 bits (up to 524,288 cpr). They can be combined with incremental signals or commutation signals as a plus.

The customer can choose **ABO /ABO incremental signals** (TTL/RS-422 Line Driver signal level) with resolution up to 65,536 PPR for speed control; or as an alternative **UVW /UVW commutation signals** for brushless motor feedback, a large number of pole pairs (1 to 16) to choose from allows the user to fit each BLDC motor.

The ultra-compact miniature design and the rich set of electrical features make **SMAR3 modular encoder ideally suited for position control of motors, direct drives, industrial robots, video surveillance systems, and applications with confined measurement and installation space.**