# Smart Motor Drive Communication for Drive Technology 4.0

SICK launches its second generation of motor feedback systems with HIPERFACE® DSL and edge-computing functionalities

**Waldkirch, June 2019 – With the launch of its second generation of motor feedback systems featuring HIPERFACE DSL (HDSL), SICK is consistently implementing the requirements of electric drive technology with regard to sensory functionalities, remote intelligence, and entirely digital communication. For the very first time, the new EDS/EDM35 and EES/EEM37 Smart Motor Sensors** **offer a whole host of smart functionalities that enable users to both support and implement future-proof edge computing.**

The motor feedback systems with HDSL in the new EDS/EDM35 and EES/EEM37 product families from SICK can record and store variables such as temperature, speed, and revolutions to create service time charts for condition monitoring. They are also capable of communicating information from the field – the key word being “edge computing” – in higher automation levels or applications, such as those for condition monitoring. With their ability to independently collect, evaluate, and transmit on-site sensor signals, these smart motor feedback systems become crucial components of digitalized servo drive solutions. This ensures maximum future security for manufacturers and operating entities alike.

**EDS/EDM35: Designed for high-performance servo drive systems**

The EDS35 singleturn motor feedback system and the EDM35 multiturn variant are designed to meet the highest precision requirements such as those found in applications involving high-performance servo drives. To this end, they feature a specially developed optical scanning system that achieves a resolution of 24 bits in the singleturn version – a real innovation in this size and ideal for high-performance servo controllers. Furthermore, the dual-channel scanning of the code disk allows for the generation of a safe and absolute singleturn position – these motor feedback systems are “safe” in that they meet the requirements of SIL2 and pl d.

**EES/EEM37: Smart motor feedback replaces resolver**

The EES/EEM37 product family is made up of HDSL motor feedback systems with a capacitive operating principle. This makes for a highly rugged design and allows them to be used at operating temperatures ranging from -40 °C to +115 °C. Both of these features serve to ensure that these feedback systems are in a position to penetrate fields of application that have – until now – been dominated by resolvers. What’s more, they also offer a range of smart added features, including an interface for an external temperature sensor as well as the ability to record operational statuses and document these in the form of service life histograms. In terms of their structure, it is interesting to note that both the singleturn and multiturn version are exceptionally flat in design, which is ideal for reducing motor lengths. With SIL2 and PL d, manufacturers of motors, servo controllers, and drive systems – in addition to their customers – really are on the “safe side” with this HDSL motor feedback system.

Images: Group shot of the EDS/EDM35 with EES/EEM37 (recommendation)  
*Image caption: EDS/EDM35 and EES/EEM37: Digital motor feedback in the 2nd generation*

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SICK is one of the world’s leading producers of sensors and sensor solutions for industrial applications. Founded in 1946 by Dr.-Ing. e. h. Erwin Sick, the company with headquarters in Waldkirch im Breisgau near Freiburg ranks among the technological market leaders. With more than 50 subsidiaries and equity investments as well as numerous agencies, SICK maintains a presence around the globe. In the 2018 fiscal year, SICK had almost 10,000 employees worldwide and a group revenue of around EUR 1.6 billion.

Additional information about SICK is available on the Internet at http://www.sick.com or by phone on +49 (0) 7681 202 4183.