

MPE19 from EBE sensors + motion: The sustainable potentiometer for wear-free signal generation

Leinfelden-Echterdingen, 22 October 2024. With the MPE19-HALL potentiometer, EBE sensors + motion is launching a new product that impresses with its absolutely wear-free signal generation thanks to an integrated magnetic sensor. This ensures extremely high durability.

The MPE19 potentiometer from EBE is ideally suited for use in human-machine interfaces (HMI) in almost all industries that rely on high-quality potentiometers. It is adapted to the needs of mechanical and plant engineering. It thus offers an easy way to replace conventional high-quality wire and cermet potentiometers. The potentiometer is characterized by a compact design, with a diameter of 19 mm and a height of about 20 mm behind the front panel. The robust central mounting is done via an M10x0.75 mm thread with flattenings (D-profile), whereby the potentiometer can be mounted securely and stable.

Focus on Durability and Robustness

Developed for 1.000.000 operating cycles with detent, the MPE19 promises an extremely long service life. Conventional high-quality potentiometers offer a maximum of usually less than 50,000 operating cycles or, with detent, even far less. Thus, the MPE19 exceeds these by a factor of 20. It also offers an adjustable detent mechanism or, alternatively, no detent with end stops. This enables flexible use in a wide range of applications, such as machine control, settings on tractors and construction machinery, control of setting variables in sound and lighting technology, but also in medical technology. The stainless steel shaft with a diameter of 6 mm ensures high load capacity and stability. The analog voltage output signal of the MPE19 moves clockwise from 0 V DC to the supply voltage VCC at a current resolution of 0.017 V per degree. The HALL sensor also simulates the typical voltage curve of regular potentiometers with an initial OV phase and an extended highest output voltage at the end of the rotation angle. In addition, the sealed shaft together with the panel seal ensures complete protection against the ingress of dust and water in accordance with IP protection requirements.

Easy Integration and Operation

For easy integration into existing systems, the potentiometer is equipped with a standardized MicroMatch connector. The MPE19 has been specifically tested for industrial environments and works with a supply voltage of up to 5 V DC at a maximum current of 20 mA. With the MPE19 panel potentiometer EBE offers a future-proof, wear-free and precise solution that can be used in a wide range of industrial HMI applications. Thanks to magnetic sensor technology, the potentiometer remains functional even after many years of use.



Picture file: PR_EBE_MPE19.jpg Picture text: The HALL potentiometer MPE19 impresses thanks to wear-free signal detection with a particularly long service life. Picture source: EBE Elektro-Bau-Elemente GmbH

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Short Profile

EBE Elektro-Bau-Elemente GmbH (brand name: EBE sensors + motion), headquartered in Leinfelden-Echterdingen near Stuttgart, develops and manufactures OEM products in the field of sensor technology, components for human-machine interfaces (HMI) as well as actuators and mechatronics. The focus is on sensors and encoders based on in-house technologies for industry, household appliances, medical technology and mobility. The range of sensors includes, among others, level and quality sensors for fluids, position sensors and capacitive touch probes. EBE's magnetic encoders are optimized for reliable operation in demanding applications. EBE also develops and manufactures customer-specific electromagnets as well as robust rotary switches, push-buttons and mechatronic systems.

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