Hollow-Shaft Version of Magnetic Rotary Encoder

POSITAL's MAGNETOCODE (MCD) absolute rotary encoders have always featured excellent reliability, accuracy and adaptability. Now, a new hollow-shaft version of the MCD encoder makes it easy to mount these devices on shafts up to 20mm in diameter.
Like other members of the MCD family, the new devices are available with analog (voltage/current) or digital electrical interfaces. The analog versions are a great substitute for traditional potentiometers, offering superior reliability, longevity and accuracy. The measurement technology is based on a rotating magnet and a Hall-effect sensor. Unlike traditional potentiometers, there is no contact between these components and no loss of accuracy due to wear or surface contamination. Another significant advantage is the flexible range-setting feature. With this, the installer can ‘teach’ the device the limits of mechanical motion that will be experienced during operations. Once these limits have been defined – which can involve multiple rotations – the device will automatically self-calibrate so that the full range of the electrical output (e.g. 0-5 volts) will exactly match the full range of mechanical movement. This can significantly improve the overall accuracy of the control system. Buttons and LEDs on the casing of the analog-output models simplify set-up. MCD encoders are ideal for applications requiring extended multi-turn capabilities (up to 8192 revolutions). A self-powered rotation-counter (based on Wiegand wire technology) records the number of rotations – even if these occur when there is no power supplied to the sensor.

Digital outputs for MCD encoders include serial (SSI), CANopen and DeviceNet.

MCD encoders are tough. Heavy-duty enclosures protect the measurement components from mechanical loads, shock and vibration, dust and moisture (up to IP 69K ratings). Hollow-shaft versions have a permanently lubricated steel and brass gear-set for a long, trouble-free service life.

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