Flexible Position Sensor up to 20 m

The absolute, non-contact Temposonics® RF position sensor facilitates installation in tight spaces or long measuring ranges up to 20 m. Its bendable sensor pipe, consisting of a flexible plastic tube with fabric coating, houses the sensor element, which provides the positioning signal. An optional, pressure-proof hydraulic rod (up to 350 bar static and 700 bar peak) protects the measuring pipe against environmental influences.

The RF sensor can be installed or dismounted with ease, even when the space around the machine is limited and the ceiling and walls are critically close. In addition, a redundant mounting is now possible for increased safety in a minimum space environment. Thanks to its flexible design, the RF is available for measuring lengths up to 20 m. It enables shipping at a lower cost because the sensor can be shipped in a rolled up position with up to 400 mm radius. The sensor is also able to operate in a curved position to detect curvilinear measurements, at a radius up to 250 mm.

Even at long measuring distances, the high-performance electronics inside the sensor head provide accurate sensing results. With a 0.0025 mm repeatability, and a linearity deviation of < +/- 0.02 % F.S., the sensor detects the smallest movements. A variety of output options are also available for the model RF sensor, along with various interfaces (Analog, SSI, CANbus, Profibus-DP, EtherCAT, and POWERLINK). If more than one position value has to be monitored, the RF can perform up to 30 independent displacement measurements (or up to 5 displacements and 5 velocity measurements) with only one single sensor and the appropriate amount of position magnets.