

C-Series OEM-Sensor Analog

Temposonics® C-Series
Measuring Length 72...250 mm

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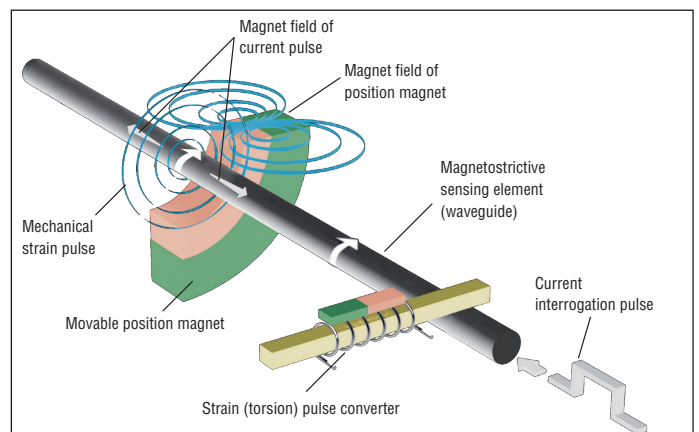


- Contactless measurement – entirely wear-free
- Low weight – ideal for small portable OEM products
- Cost-efficient
- Space-saving
- Low energy requirement – can be operated from 5 VDC or 12 VDC supply
- No need for periodic re-adjustment
- Available with various position magnets
- Optional: direct or inverse analog output signal
- Optional: assignment of output signal to measuring length

The sensor is a function of the customer requirements according to the application, and considering the environment, environmental influences, including EMC protection effects.

Measuring technology

For position measurement, the absolute, linear Temposonics® position sensors make use of the properties offered by the specially designed magnetostrictive waveguide. Inside the sensor a torsional strain pulse is induced in the waveguide by momentary interaction of two magnetic fields. One field is produced by a moving position magnet, which travels along the outside of the sensor rod, and the other field is generated by a current pulse applied to the waveguide. The interaction between these two magnetic fields produces a strain pulse, which is detected at the head of the sensor. The position of the moving magnet is determined precisely by measuring the time elapsed between the application of the current pulse and the arrival of the strain pulse. The result is a reliable position measurement system capable of ensuring accurate and repeatable measurement.



Application examples:

The target in customer solutions is a high degree of efficiency and synergy to the product. During the design phase measurements need to be taken which enable the product to meet customer requirements suitable for the application.

In this respect, close cooperative partnership between the customer and MTS is desirable.

All constructive measures relating to operating parameters (vibration, temperature and ESD) require consultation with MTS. This also includes the CE marking of components used for installation.



Level measurement in medical technology

An analyser for immunodiagnosics applications uses magnetostrictive level sensors in containers to monitor the levels of consumables and of the collected waste products of the analysis. Through continuous measurement, it is always known how much fluid is in the containers. This enables continuous reloading without interruption of the analysis and anticipatory planning.



Increased dosing accuracy, reduced consumption

The dosing accuracy during preparation of damping solution and precise control of the IPA concentration are of considerable importance for the production and process stability in printing systems. The continuous discussion relating to the toxic load of the ambient air at work places and the need for cost reduction in printing companies also requires further reduction of isopropyl alcohol in the damping solution. The Temposonics® OEM-sensor plays an important part for dosing of damping solutions and thus for decreasing the overall costs.



Position feedback in process measurement and control systems

The valve position feedback combines well-proven sensor technology and state-of-the-art design for optimized applications. Our development activity focused on the requirements and wishes expressed by our customers in the liquid processing industry.

In addition to safe control and monitoring of all functions of process valves in breweries, dairies, facilities for production of fruit juice and production plants in the pharmaceutical industry, the C-Series provides a high degree of efficiency.



Position feedback in steering systems

The customer-specific sensors are used to monitor the steering position of rear drives and to provide position feedback. Based on the linear C-series position sensor, these sensors are equipped with a special housing, which was developed by the end user and realized by MTS. The sensors measure the stroke of steering cylinders on the port side and the bow side. Typically installed in multi-engine boats, the boat control system uses the sensor signal to permit control of the boat movement using a joystick: A solution termed "Steer-By-Wire".



Cabin suspension

To reduce the human vibration, directive 2002/44/EC (human vibration directive) of the European Union has been implemented into national law in March 2007. This directive defines binding limit values (reference period of 8 hours < value 0.5 m/s²) for the hand-and-arm area as well as whole-body vibration values, which must not be exceeded.

These limit values are met by effectively reducing the induced vehicle vibration using C-series position sensors in a cabin suspension system. The cabin suspension system permits reduction of the accelerations mainly in the Z axis. Due to this reduction, the vibration load acting on the driver is alleviated considerably, without affecting driving experience and operability.

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The availability of components on the market is subject to considerable fluctuation and to accelerated technical progress.

Therefore we reserve the right to alter certain components of our products depending on their availability.

In the event that product approvals or other circumstances related to your application do not allow a change in components, a continuous supply with unaltered components must be agreed by specific contract.

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