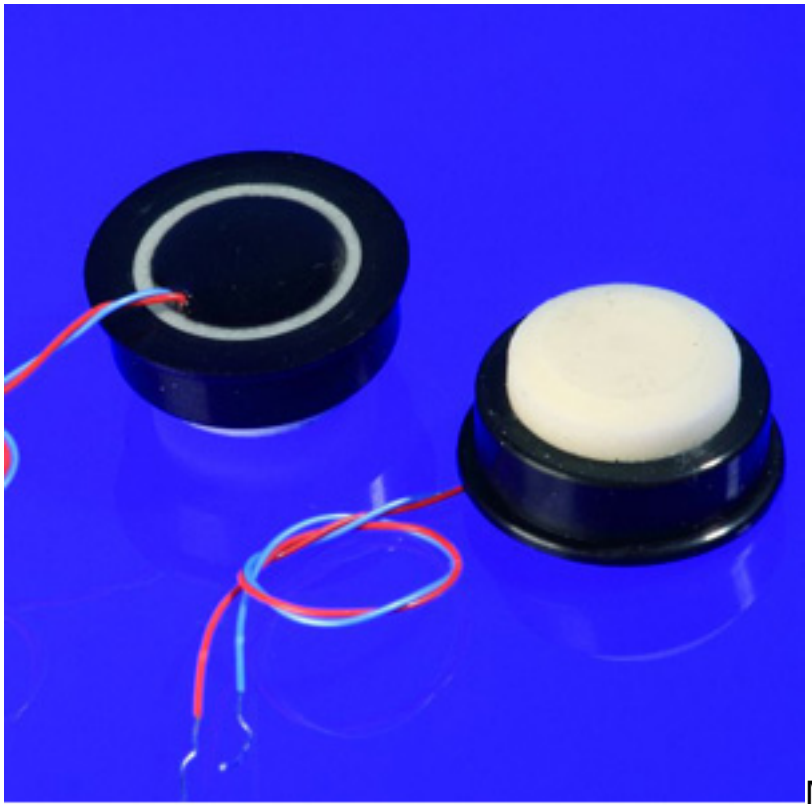
Ultrasonic sensors designed for gasflow measurement



Morgan Technical Ceramics (MTC) announces its new line of ultrasonic sensors for gasflow measurement, ideal for integrating into acoustic anemometry systems and SMART metering systems for measuring natural gas usage, as well as air-coupled level measurement of liquids and solids. The transducer transmits and receives ultrasonic waves across a gas channel for time of flight measurement.

The new, 20mm diameter sensors provide accurate information in one dimension (a line), two dimensions (an area), or three dimensions (a volume). Using the latest high-performance piezoceramic materials, the new ultrasonic sensors offer exceptional mechanical and electrical properties, excellent bandwidth, and sensitivity for accurate measurement readings. The materials' outstanding temperature stability ensures accurate measurement across the whole spectrum of conditions a meter may be exposed to.

With no moving parts, the new ultrasonic sensor is not subject to wear making it more reliable than alternative methods of flow measurement. The sensors suffer no pressure loss, offer nearly maintenance-free operation, and are more accurate than many competing systems. In addition, they are more adaptable to the electronic display of energy favored for SMART meters.

Using innovative tools like 3D finite element analysis, MTC's transducer research and development team works closely with customers to provide virtual prototype

transducers, cutting down development time considerably. Design engineers can adjust the sensor's architecture, manufacturing process, and material properties for a particular application, and can produce the sensors in low, medium or high volumes.

www.morganplc.com [1]

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