

AWARD WINNING PRESSURE SENSOR RAISES THE BAR

The innovative design features and benefits of a **robust pressure sensor** have been recognised with the **Innovations Showcase Award** which was recommended by a panel of experts at the recent **Process Expo** event in **Chicago**. The award, within the Dairy Product category, was given to **sensing and instrumentation** specialists **BAUMER** for their **PP20H** pressure sensor. The sensor prevailed against the 17 finalists due to its wide range of features ensuring outstanding performance in challenging hygienic applications.

A senior product manager at Baumer confirmed that features such as a condensate resistant silicon measuring cell providing exceptional precision across the entire temperature range, combined with an IO-Link interface, were pivotal to the performance of the sensor and to securing the award. An IO-Link interface is the latest trend for these types of sensor hence its incorporation into the PP20H sensor. However, Baumer pushed the boundaries to ensure additional benefits for customers, such as additional analogue output which when combined with digital IO-Link interface, offers users even more flexibility than other pressure sensors.

The result of these features means that during commissioning of the sensor, users benefit from all the IO-Link advantages ensuring simplified sensor parameterisation whilst still allowing optimum process control by the sensor via the 4-20mA analogue output. Furthermore, the IO-Link means users can call up additional process data such as the pressure of the measurement cell, or the temperatures of the pressure sensor and even the microchip in the central processing unit.

Access to this information allows for crucial investigations, such as whether an unusual temperature rise has occurred in a container which may indicate a defect or faulty dosage of ingredients in a tank. As high temperatures may decrease the service life of the sensor or other system components this acts as an important early warning for the need for preventative maintenance, one of the promises of Industry 4.0.

The PP20H sensor also exceeds all standards in terms of robustness as its measurement cell is completely sealed, even during relative pressure measurement. This prevents the ingress of warm and humid ambient air, which in certain applications may precipitate with low process temperatures, for example in milk or ice cream processing. At the same time however, the sensor must be 'open' to the surroundings to enable users to determine the difference to the ambient pressure. To resolve this Baumer engineers devised a unique solution by placing a barometric pressure sensor in the back of the sensor housing which measures the reference pressure of the environment via an opening. This design ensures an actual silicon measurement cell in the front of the sensor which remains hermetically sealed. This means the PP20H sensor is not only suitable for CIP (Clean in Place) and SIP (Sterilisation in Place) processes, but also in applications where sudden changes in process media temperatures can occur.

The compact PP20H sensor covers a wide media temperature range from -20° to 125°C without the need for a cooling line, so less space is needed for installation. Also, a wide variety of applications can be covered by just one sensor model ensuring cost and space savings. ENDS

More at: <https://www.baumer.com/gb/en/product-overview/process-sensors/pressure-measurement/hygienic-pressure-sensors/with-hygienic-connection/pp20h/p/38450>

Tel: +44 1793 783839 email: sales.uk@baumer.com www.baumer.com/gb/en/

Contact: Jon Sumner, Baumer Ltd. 33 / 36 Shrivenham Hundred Business Park, Majors Road, Swindon, UK, SN6 8TZ
