

Pressure sensors

TDK offers high-precision pressure transmitters with extremely low-profile design

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TDK Corporation (TSE: 6762) presents the AVD series of new pressure transmitters, distinguishable by their extremely low-profile design and high precision. The transmitters with B58621V* ordering codes are available in three versions for different pressure measurement ranges including 0 to 16 mbar, 0 to 100 mbar, and 0 to 7 bar.

The series offers high precision levels for low-pressure ranges, such as $\pm 1.75\%$ full scale (FS) with a pressure range of 100 mbar. With a 31 x 40 mm footprint, the insertion height is only 12.9 mm, which enables use even in applications in confined spaces. The compact piezoresistive pressure transmitters based on MEMS technology are suitable for the pressure measurement of air and non-aggressive gases. In addition to differential pressure measurement, they can also be used for overpressure measurement in a temperature range of $-20\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$.

The transmitters have two self-locking pressure ports for assembling hoses with an inner diameter of 4 mm and offer an I2C (Inter-Integrated Circuit) digital output with 14-bit resolution; I2C is a standard digital interface for communicating with controls in industrial applications. An additional temperature signal output is also available via the I2C digital interface. The transmitters come equipped with two plug connectors to easily implement daisy chain systems which enable several sensors in one single network. By combining these benefits, the sensor systems are ideally suited for demanding industrial applications such as pressure level measurement, flow control, and filter monitoring. Applications include pumps and compressors, pneumatic systems, building management systems, and more within Industry 4.0 markets.

Main fields of application

- Pumps and compressors
- Pneumatic systems
- Building management
- Industry 4.0

Main features and benefits

- Pressure ranges of 0 to 16 mbar, 0 to 100 mbar, and 0 to 7 bar
- High level of precision of up to $\pm 1\%$ full scale (FS)
- Extremely low insertion height of 12.9 mm
- I2C digital output with a 14-bit resolution

About TDK Corporation

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately “Attracting Tomorrow.” It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK’s comprehensive, innovation-driven portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2021, TDK posted total sales of USD 13.3 billion and employed about 129,000 people worldwide.

You can download this text and associated images from www.tdk-electronics.tdk.com/en/220216

Further information on the products can be found under

www.tdk-electronics.tdk.com/en/pressure_sensor_transmitters

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