

PRESS RELEASE



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Piezoresistive OEM pressure transmitters with I²C interface for areas at risk of explosion

Intrinsically safe D Ei series

The KELLER D-line boasts a unique combination of highly robust industrial pressure transducers and the popular I²C interface. This successful series has undergone further development and an intrinsically safe version is now available too. The new D Ei series is approved for gas group II applications and can be used to measure absolute and relative pressures in zone 0.

Various possible combinations for all manner of different applications

With its modular structure, the series permits numerous combinations, making it the ideal component for customisations using an I²C interface:

- OEM pressure transmitters for fitting directly into a system's existing drilled holes: 4 LD Ei...9 LD Ei
- OEM pressure transmitters with ultra-flexible pressure connection for screwing into existing pressure systems: 20 D Ei
- Pressure transmitters with a pressure connection and cable gland: 21 D Ei, 23 D Ei
- Level sensor for measuring the contents of a tank up to a maximum fill level of 3 m: 26 D Ei

The OEM pressure transmitters are available in various sizes and form the basis for the other models with ultra-flexible pressure connections or level sensors for measuring the contents of a tank up to 3 m.

The 21 D Ei and 23 D Ei models are pressure transmitters with metal casings and cable outlets. Each offers a different level of accuracy, dimensions, potential applications and numbers of variants. For example, the slightly cheaper 21 D Ei model has a simple cable gland to relieve strain and is suited to use in dry environments, while the 23 D Ei has a premium-quality cable gland boasting protection level IP 68, allowing it to be used underwater and making it ideally suited to use in flooded areas.

The I²C interface

Pressure transmitters with an I²C interface are normally only available in plastic or ceramic "consumer" housings, with only the compensatory parameters being stored in a memory. The intrinsically safe OEM transmitters from KELLER, however, have their own built-in DSP (digital signal processing) core, which balances and standardises the output values. The I²C (inter-integrated circuit) interface is designed to connect elements directly on a circuit board. The I²C is a bus system in that it connects multiple transmitters (slaves) to the same communication line. For instance, the intrinsically safe D-line combines a pressure interface for industrial use in tougher environments with an electrical interface for OEM applications.

Robust and flexible in equal measure

The D Ei series consumes very little energy and is optimised for battery-powered applications. The total error band is just $\pm 0,7$ %FS over a temperature range of $-10...80$ °C. The hermetically sealed sensor electronics and the compact stainless-steel housing (optional Hastelloy C-276) are extremely resistant to environmental factors.

With pressure ranges of 1 to 1000 bar and an internal two-chip solution that keeps the pressure sensor separate from the signal processing, the D Ei series is extremely flexible.

II 1G
Ia IIC T4...T6 Ga
EPS 14 ATEX 1661 X
IECEx EPS 14.0027 X

CE 0081

