PRESS RELEASE

PISELLO (Series 21 PY) Fully Compensated Mini Pressure Transmitter

KELLER AG, the pressure measurement technology specialist, has now introduced miniaturized absolute pressure transmitters (Pisello type, series 21 PY), featuring optimized temperature compensation and measuring ranges from 10 bar to 600 bar.

Keller developed the ingenious PromComp principle as many as 20 years ago, and it can now be exploited to full advantage thanks to the general miniaturization of electronics. A circuit no larger than a cent coin compensates the Pisello pressure transmitter perfectly against fluctuations in operating temperature.

A temperature sensor in the PromComp divides the temperature range into fields with a width of 1.5 Kelvin each. Two values are assigned to each field in an EEPROM: one value for the zero point and another for the amplification, determined by mathematical interpolation in the calibration process. During operation, the corresponding values are ,switched in' at the relevant temperatures. Temperature fluctuations of up to 100 K can be compensated in this way, enabling KELLER to achieve typical measurement accuracy of ± 0.5 %FS - including nonlinearity and hysteresis - over the compensated temperature range. Pisello is the first application to use this compensation technology, which is a milestone along the path to ,plug&work' in the pressure measurement sector.



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The output signal from the pressure transmitter - which reacts extremely quickly thanks to its signal bandwidth of 2 kHz - is 0.5...4.5 V (3-conductor technology). The Pisellos can operate with voltage supplies of as little as 8 VDC and up to 28 VDC; combined with their diameter of only 13 mm or so and a weight of 11 grams, this makes them ideal for mobile use as well as other applications. The housing with its threaded pressure connection (M8, M6 or 10-32 UNF) is entirely welded and meets the requirements for protection class IP67.