

# PRESS-RELEASE

## Pressure/temperature transmitter for dual-mode engines

With the approval of the Series 22 DT transmitter Keller AG für Druckmesstechnik, Winterthur (Switzerland) has succeeded in moving into the area of production engine applications that are governed by extreme demands.

So-called dual-mode vehicles have experienced a tremendous boom due to the voluntary commitment of European car manufacturers to reduce CO<sub>2</sub> emissions to 140 g/km by 2008. These vehicles can be operated using normal petrol during the start-up phase and then with natural gas during continuous operation. The combustion of natural gas such as methane (CH<sub>4</sub>) creates 25% less CO<sub>2</sub> than petrol with the same engine performance. The pan-European introduction and promotion of this dual-mode technology has forced leading manufacturers to undergo additional system optimisation that includes exact control of the gas pressure and highly-dynamic measurement of the gas temperature directly at the distributor (rail).

Keller AG für Druckmesstechnik has developed the transmitters in the Series 22 DT for precisely this type of application. At 14 bar, the measuring range covers all known engine maps for electronic engine controllers. The special design with a diaphragm at the front is defined by the rapid-response temperature sensor (NTC or Pt) that is integrated in the front part. The actual pressure sensor is separated from the measuring point by a capillary filled with fluorosilicone oil and is mechanically tension-free.

Due to the proximity of ignition cables, special emphasis was placed in the electronics and the design on having EMC resistance up to 200 V/m, and the relevant specifications of EN 61000 were strictly complied with. The same applies to the vibration resistance that is required in the proximity of the engine and the extensive deployment temperature range of -40 to 140 °C. The Tyco AMP C-284716 connector is used as standard.



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