

Application story

Druck delivers sensor technology to support data gathering in automotive applications

The Druck team was approached by its channel partner for a multinational car manufacturer who was experiencing challenges in the design and testing of automotive air conditioning systems (AC).

Druck's customer's challenge

The testing for automotive air conditioning systems is carried out on vehicles in normal driving conditions. In this application, 15 to 20 sensors are employed throughout a system and need to be small enough to operate alongside other equipment. As assessment takes place over several weeks, sensor failure can result in the loss of important data or even cause a test to have to be re-run. For sensing equipment, a road vehicle presents an environmental challenge, with variations of temperature from hot to cold, high levels of vibration, as well as dust and dirt being present. For a standard industrial pressure sensor, measuring the low pressures in an AC system is close to the limit of sensitivity and accuracy.

 **Industry supplied**
Automotive

 **Application**
Testing automotive air conditioning systems (AC)

 **Product/service**
Druck's UNIK5000 Series

 **Customer type**
Multinational car manufacturer

Druck's solution

With in-depth knowledge of the application, Druck's Channel Partner had many years of working with the car manufacturer and helping with a variety of instrumentation challenges. Knowledge of Druck's product range allowed the Channel Partner to recognise that the UNIK5000 would give the customer the sensitivity they required, in a welded 316L stainless steel package that is robust, reliable and small enough for the application.



They selected a high-grade MIL-C electrical connector to allow quick fitting, high-temperature operation and a standard voltage output compatible with the manufacturer's data collection system. A G1/8 female pressure connection that worked with existing installation pipework was added to the product through a process known as a CPO. This process allows customers to propose customisation of existing sensors within Druck's sensor portfolio or to create an entirely new sensor to meet the needs of their application.

Druck's added value

The introduction of Druck's UNIK5000, part number PMP5063-TD-A1-CA-H0-RT 0 to 2 psig, has provided significant benefit to the end user:

The design of the PMP5063 is compatible with all existing customer infrastructure, making interchangeability easy for the customer.

The small size of the product means it readily fits vehicle applications during testing.

The robust reliable design ensures 100% of required data is collected during a test.

The high-sensitivity, low-pressure sensor ensures that small changes in the AC system are seen in the test data, allowing improvements to be made to the AC design.

View the UNIK5000 datasheet here:

https://www.industrial.ai/sites/g/files/cozyhq596/files/2019-07/unik_5000_datasheet_-_english.pdf

Find out about Druck's products and services for the automotive industry here: <https://info.industrial.ai/sensor-testing-to-the-limits-automotive-lp.html>

Find out more information about Druck on LinkedIn here:

<https://www.linkedin.com/company/druckcompany/?viewAsMember=true>



Picture 1: Druck's UNIK5000 pressure sensing platform