

CAN Newsletter Online

MEASUREMENT MODULE

Fit for extreme climate testing

The Cansas-Fit measurement module by IMC is suited for mobile testing in harsh environments. Its temperature range from -40 °C to +125 °C allows testing during summer or winter.

Whether positioned in the engine compartment of a car or in the cab of a piece of heavy machinery, the housing of the measurement module offers protection against water spray, dirt, and vibrations. The IP65-rated product's temperature range from -40 °C to +125 °C allows testing to be performed during summer or winter, as well as in climate chambers.

“By means of our innovative click-mechanism, we particularly had usability in mind. With one click, users can connect the modules both mechanically and electrically – and without requiring tools or additional cables. This reduces setup time, reduces costs, and increases productivity when test driving”, said Ralf Winkelmann, Head of Development at IMC.

These modules can acquire typical analog signals like temperature and voltage, but also rotation per minute, displacement or velocity, as well as digital statuses and then output them via galvanically-isolated CAN channel at up to 1 Mbit/s. Thanks to the input voltage range of 7 V_{DC} to 50 V_{DC}, safe operation of the module in different vehicle electrical systems is ensured. Combined modules behave as a single unit – the power supply and CAN network need only to be connected to the first module – all others are automatically connected via the click-mechanism. In addition, integrated LEDs inform the operator about supply fault, sensor breakage, and module status.



With measurements of 138 mm x 31 mm x 53 mm, the module can be placed in confined spaces such as under a vehicle's interior trim (Photo: IMC)

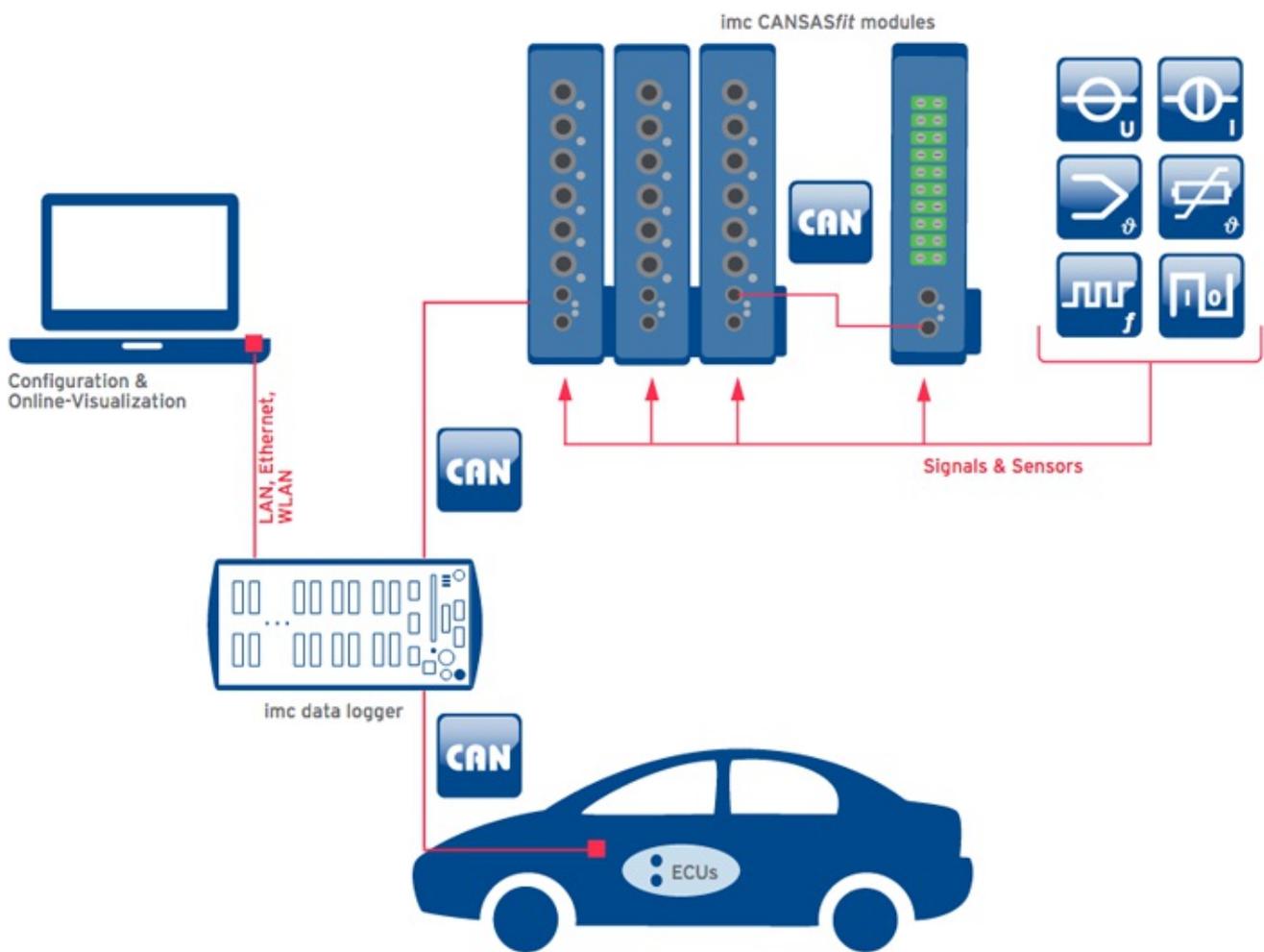


Fit for testing in climate chambers (Photo: IMC)

All data in a single system

The module works with all of the German company's measurement systems with CAN interfaces. The systems synchronously save all data, provide interfaces to common fieldbuses such as CAN, LIN, Flexray, and XCPoE and support ECU protocols like KWP2000, CCP, XCP or OBD-II.

IMC systems are especially productive when used with the company's Studio test and measurement software. With this software, users can configure all measurement parameters, create personal operation and display pages, automate test sequences, perform analyses, and create print-ready test reports.



The digitized measurement signals are output as CAN messages and can be read or recorded by any measurement, automation or control system with a CAN interface (Photo: IMC)

The sealed housing design protects the module from condensation and corrosion, even under harsh environmental conditions. The design makes the modules suitable for the engine compartment. In large installations and machines, such as wind turbines, the measuring points are often far apart. In this type of setting, a spatially-distributed measurement system has advantages: Taking the measurements close to the sensor reduces the amount of wiring and minimizes the chance of electrical interference. As a result, the quality of the results is increased. Combining the product with an IMC datalogger lets users create multi-channel measurement networks, even over long distances.

[CW](#)