

VW General Type Test

Application Note #1



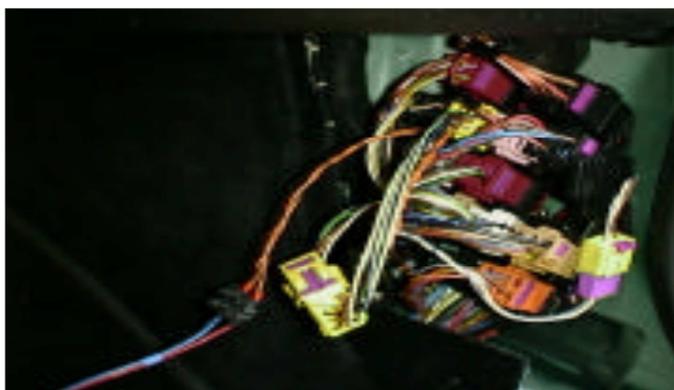
Over the last few years, automobile testing has undergone a complete transformation. While its development time has been substantially reduced, the modern car's complexity has increased dramatically.

Quite apart from the standard mechanical parts, electronics make today's cars more powerful, clean running, efficient and much safer than those of a short time ago. As a result, final inspections or general type-tests play a vital role in the process of car development.



A VW test-car is ready to start

With the help of imc technology, several hundred VW automobiles have been tested over thousands of kilometers on test tracks or on the road. With its flexible structure specially designed for in-vehicle tests, the measurement system is not only designed to measure many analog signals accruing during a test ride, but it is able to measure CAN-bus signals, too.



CAN interface inside the car

In contrast to other instruments on the market, imc μ -MUSYCS can be equipped with an absolutely synchronized

CANbus interface to collect analog alongside CAN data. Several hundred CAN messages can be acquired together with analog data during a test ride. Data can be displayed together—regardless of source.

But this is just the start of the features imc μ -MUSYCS can provide a Volkswagen test engineer. In addition to providing self-start capabilities and ample, 'hot-changeable' data storage, the system can do much more. Extensive triggering on a channel-by-channel basis allows reaction to all kinds of signal events.

Online FAMOS, an integrated DSP board, provides the system with its most powerful feature—online data evaluation and calculation. Online data reduction, FFTs, digital filters, class-counting functions (LDC), order tracking and an 'Event Log-book' are all featured in the broad scope of the 100 online functions. The system allows a measurement's results to be displayed while it is still running.



imc μ -MUSYCS-T with a special back panel

An external online display or the direct connection to a PC allows online data monitoring. A modem interface can be used to transfer data directly to the office via PPP protocol. With its intuitive, ready to go software, the system makes configuration easy for Volkswagen engineers and technicians to configure it. The tedious learning of a programming language can be dropped. Thus, configurations and setups can be done very quickly. The efficiency offered by the use of the program even allows a complete change of setup within minutes.

Last but not least, the imc offline analysis and evaluation program imc FAMOS rounds out the measurement chain—all the way from sensor to report.