**New multi-bus data logger as smart gateway to the Internet of Things**

****With the new imc BUSDAQ*flex* data logger, imc Meßsysteme GmbH is offering a new multi-bus logger that can directly acquire data from all relevant vehicle and machine buses. Modern networking possibilities via WLAN/UMTS allow a wireless connection: whether to a tablet or directly to the Internet of Things (IoT). In addition, the system can be expanded by clicking on analog inputs from the imc CANSAS*flex* measurement module family. It can also synchronously record analog sensor signals. Possible application areas include monitoring of remote industrial facilities, testing on mobile equipment or fleet testing on prototype vehicles with direct cloud connection.

In the standard, basic configuration, imc BUSDAQ*flex* has two CAN nodes. Depending on the housing size, this can be extended to up to 12 nodes for different field and vehicle buses. In addition to the CAN interface, the devices can be individually equipped with interfaces to LIN, FlexRay, ARINC, MVB, EtherCAT, XCPoE or CAN FD. Besides the recording of raw data streams and protocol channels, live decoding of individual channels as well as complex protocols such as CCP, KWP2000, XCP, OBD2, UDS, DiagOnCan, TP2.0 and GMLAN are also supported. In addition, the data logger offers the option to connect any other protocols and buses via the programmable APPMOD interface with Ethernet or RS232 interface.

**Prepared for the future**

With imc BUSDAQ*flex*, users are already in a position to communicate with the vehicle bus of the future: CAN FD. The new bus is an extension of the standard CAN protocol and offers faster data rates and higher bus capacities. This reduces the bus load and saves time during programming, testing and diagnostics. The optional imc CAN FD interface is equipped with 2 CAN nodes and allows bidirectional communication. Particularly convenient for users: the interface supports both the classic CAN and CAN FD and is simply switched over by software.

**A complete measurement system in just one click**

The new data logger is perfectly complemented by the imc CANSAS*flex* series measurement modules. Thanks to the click-mechanism, modules can be directly attached to the logger without tools or cabling. A wide range of module types cover all typical signals and sensors – from universal measurement amplifiers up to special measurement modules for complex tasks such as highly-isolated measurements on hybrid and electric vehicles. In a very short time, a field bus logger can be transformed into a complete measurement system that can synchronously record and store all data.

**Integrated real-time functionality**

With the optional integrated real-time platform imc Online FAMOS, the data logger becomes a smart gateway for incoming measurement data. Data streams coming from each channel are decoded and completely scaled live from bus protocols and can already be processed, analyzed and reduced in real-time on the device. Thus, the system is able to deliver data as compressed and meaningful results. These are then available for automated decisions directly on site and can also be transferred to higher-level systems or the Internet of Things (IoT).

In addition to a connection via Ethernet, imc BUSDAQ*flex* can also be connected wirelessly via an optionally integrated WLAN adapter or a mobile radio modem. This allows remote access to the device and the data and enables automated synchronization with the imc cloud. The system supports standardized protocols such as UDP, FTP or HTTPS to connect to existing IoT platforms.

**Autarkic and robust**

All imc BUSDAQ*flex* devices work independently and without a PC and are specified for an extended temperature range from -40 to + 85°C, making them ideal for mobile use. They have very low power consumption and thanks to integrated UPS, data integrity is secured even in the event of power failure.

**One software for everything**

imc systems are particularly productive thanks to the imc STUDIO measurement software. It is used to configure all measurement parameters, create personal operating and display pages, automate measurement sequences, perform analyses and generate measurement reports. The intuitive and individually customizable operating concept of the software makes for easy access to extensive functionality.

Additional information:  
<http://www.imc-berlin.com/busdaqflex>

**imc Meßsysteme GmbH, Berlin, Germany**

For over 25 years, imc Meßsysteme GmbH has been developing, manufacturing and selling hardware and software solutions worldwide in the field of physical measurement technology. Whether in a vehicle, on a test bench or monitoring plants and machinery – data acquisition with imc systems is considered productive, user-friendly and profitable. So whether needed in research, development, testing or commissioning, imc offers complete turnkey solutions, as well as standardized measurement devices and software products.

imc measurement systems work in mechanical and mechatronic applications offering up to 100 kHz sampling rate per channel with most popular sensors for measuring physical quantities, such as pressure, force, speed, vibration, noise, temperature, voltage or current. The spectrum of imc measurement products and services ranges from simple data recording via integrated real-time calculations, to the integration of models and complete automation of test benches.

Founded in 1988 and headquartered in Berlin, imc Meßsysteme GmbH employs around 160 employees who are continuously working hard to further develop the product portfolio. Internationally, imc products are distributed and sold through our 25 partner companies.