

## The ES2 turns intelligent

Since September 2007 MESSRING offers the sophisticated InDummy Data Acquisition solution also for the ES2 and ES2re. The M=BUS<sup>®</sup> upgrade revalues the complete dummy and its instrumentation. The system redefines the work with the dummy. Dummy handling and measurement are made easy and efficient.

Clothes are expected to fit. What about InDummy Data Acquisition? Shouldn't it fit to the dummy too? – M=BUS<sup>®</sup> does!

The decentralized M=BUS<sup>®</sup> system uses the free space inside of the dummy structure. The integration of the decentralized M=BUS<sup>®</sup> components all over the dummy is done without changing the dummy properties and behaving. As a result of that overheating by centralized electronics is a thing of the past and additional masses can be balanced very easy.

The M=BUS<sup>®</sup> interfaces which hold the DAS units (M=BUS<sup>®</sup> Loggers) and sensors can easily be removed for calibration and for retrofitting the struck side of the dummy. The ES2 Rib Extension Upgrade was also considered during development so M=BUS<sup>®</sup> is applicable to the standard and the rib extension version of ES2.

The M=BUS<sup>®</sup> Loggers (miniaturized data acquisition units) really turn the ES2 intelligent: These units acquire the data directly at the sensors, even independently if necessary. The analog sensor wires are reduced to a minimum in length to minimize the danger of data loss. All units are inter-linked in a daisy chain manner. So only one small coaxial line enters the dummy from outside. The M=BUS<sup>®</sup> Software tool scans the M=BUS line automatically. The technical electronic data sheets (TEDS) inside of the Loggers provide information of the sensor and its locations. Therefore test preparation and even test execution are finished within a few minutes. In case the struck side needs to be changed the ISO code is automatically adapted by an integrated accelerometer which provides information to the orientation of the M=BUS<sup>®</sup> Loggers. Main feature is the integrated backup system in all bus members, which means no more data loss in case of cable ruptures and the possibility of stand alone configurations of the M=BUS<sup>®</sup> system components.



Figure 1: ES2-Dummy

**If you want to learn more about M=BUS please contact us directly or visit our homepage [messring.de](http://messring.de)**