Press Release Release Date: MCD Elektronik GmbH 14.08.2017 Hoheneichstr. 52 - 75217 Birkenfeld Page 1 of 3 **ELEKTRONIK GMBH** Tel. +49-7231 78405-0 - Fax: +49-7231 78405-10 Document Version: Summary Title: Editor: Managing Director: Bruno Hörter MCD 17 002 V1.0 Queries to: Verena Hörter, For immediate publication Verena.Hoerter@mcd-elektronik.de

No empty vessel

MCD Elektronik develops blower test stand

Birkenfeld, Germany, August 14, 2017: The measurement and testing specialist MCD Elektronik got the order to develop an end-of-line test stand for blowers. These cross-flow fans are part of small heating units, that are integrated in air conditioning systems and floor heating systems of buses and trains. Multilevel blower testing, current and voltage measurements as well as density tests are performed with this testing device. The test stand is delivered on a trolley to be comfortably driven to the operation place. The operator contacts the blower via quick adaptions. Input and selection of individual production orders within serial production is performed by a touch screen monitor.

Functional testing of multilevel blower functions will then take place. For the DUT's measurements, the MCD ULC MSR functional card with programmable current sensors is used. Density test is performed via comparison procedures between input and output pressure. At the end of the testing procedure, which lasts between 12 and 30 seconds depending on the version of the heating device (multilevel performance), a label printer creates the device label. MCD's software "MCD Toolmonitor Order Management" documents the whole testing procedure and creates the corresponding shipment documents.

MCD was able to fall back on intern hardware and software products like the measurement software "TestManager CE" to control the test sequences and to integrate the data to the customers' QS system. The MCD Toolmonitor SerIO, ULC and Order Management are controlling the individual test functions. MCD's ULC Multifunctional Card is a multi-talent with its complex FPGA components, which provides many possibilities (e.g. A-D, D-A, logical analysis, counter, self-test, calibration, and many more) via USB interface.

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Within this application, this card assumes the measurement of physical and temporal values, like current, curve progressions, voltage and pressure. A pressure station with valve terminals, filter regulators and pressure sensors from the company FESTO supplies the DUT application. By changing the device parameters and customizing of the fixtures, this test stand can easily be used for other products.

Density, functional and EOL tests of mechatronic assemblies can be performed with the current equipment, as well as multilevel blower testings.

Pictures:



Picture 1: End-of-Line test system for floor heating systems.

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Picture 2: Pressure station with pressure control valve, valve terminal and pressure sensors.

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About MCD Elektronik GmbH:

MCD Elektronik GmbH was founded in 1983 and currently employs 80 people. The owner- managed company is headquartered in Birkenfeld, near Pforzheim, Germany. MCD Elektronik is active in Germany, Hungary, and China, and delivers to 48 countries around the world.

MCD Elektronik GmbH manufactures measurement and test systems for electronic production for their customers, who include OEMs in the automotive sector, companies in machine and systems design, medical technology, defense and security systems, quality technology, sensor manufacturing, and aerospace. The company relies consistently on zero tolerance in quality control.