Dynamic Test Center

Crash-protected data storage

EUROCAE ED-112A and ED-155

Our accreditation as a testing laboratory (ISO/ICE 17025) means that the performed tests and test documents are internationally recognized. We will be happy to provide you with professional and efficient support in formulating your technical problems.

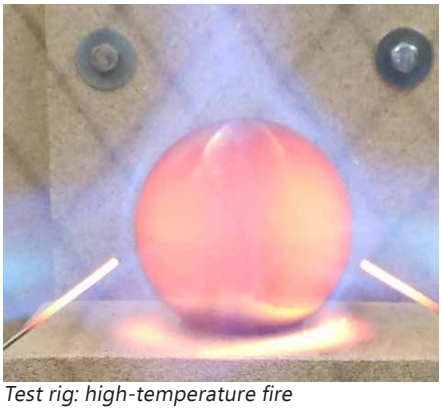
- **CRASH SURVIVAL TESTING**
- **CRASH-PROTECTED RECORDER**
- **ROBUST MEMORY MODULE**
- **FIXED RECORDING SYSTEMS**
- **DEPLOYABLE RECORDING SYSTEMS**

As an accredited testing body, the following tests can be carried out on crash-protected data storage devices for aircraft: ED-112A: impact shock, shear and tensile, penetration resistance, static crush, high temperature fire, low temperature fire, deep sea pressure and sea water immersion und fluid immersion. ED-155: impact shock, static crush, high temperature fire.

Test rig: static crush

STATIC CRUSH

Static crush test in accordance with the standard specifications of ED-112A (22.25 kN, 5 min). Further options for static crush: ED-112A (8.9 kN, 5 min). ED-155 (4.54 kN, 5 min).



Test rig: high-temperature fire

HIGH TEMPERATURE FIRE

High-temperature fire test in accordance with the standard specifications of ED-112A (thermal flux 158 kW/m^2, 60 min, 1'100 °C nominal flame temperature).

YOUR BENEFITS

In-house testing
The tests are carried out by a single testing body, which saves you logistical effort and costs. You also benefit from an optimised test procedure in terms of time, that is adapted to your needs.

Confidentiality
We guarantee absolute confidentiality of projects, designs, processes and prototypes.

High flexibility
Individual, customer-specific requirements can be immediately incorporated in the tests.

Reliable test rigs
State-of-the-art test facilities, professionalism and reliability are our watchwords.

- Cockpit audio recording systems (CARS)
- Aircraft data recording systems (ADRS)
- Airborne image recording systems (AIRS)
- Data link recording systems (DLRS)
- Automatically deployable and combined recorders

Test rig: deep sea pressure and seawater immersion

DEEP SEA PRESSURE AND SEA WATER IMMERSION

Deep sea pressure and sea water immersion test in accordance with the standard specifications of ED-112A (depth 3 m, nominal temperature 25°C, 30 days or pressure 60 MPa, equivalent to 6'000 m, 20'000 feet, 30 days).

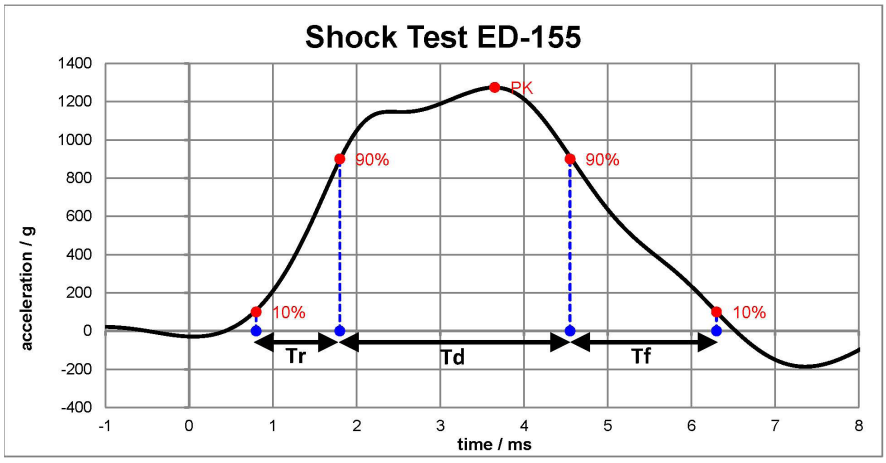


Diagram Impact Shock ED-155

IMPACT SHOCK

The chart shows the measured values of a test carried out in accordance with ED-155 (specifications: Peak 1'000 g, 9'806 m/s2, area under the curve min. 3.183 gs, time interval Tr max 3 ms, Td min 2.2 ms und Tf min 0 ms). The blue dotted vertical lines determine the three time intervals Tr (interval between 10% bis 90% von 1'000 g during impulse rise), Td (interval between 90% during impulse rise to 90% of 1'000 g during impulse fall) and Tf (interval between 90% to 10% of 1'000 g during impulse fall).

The deceleration profile of the test rig can be adapted to your requirements.

Test rig: shear and tensile

SHEAR AND TENSILE

Shear and tensile test in accordance with the standard specifications of ED-112A (26.689 kN, 1 min). Further options for shear and tensile: ED-155 (4.54 kN, 5 min).

Test rig: penetration resistance

PENETRATION RESISTANCE

We have test rigs for fixed recorder ED-112A (227 kg weight, drop height 3 m, circular steel pin 6.35 mm, bed of sand 0.5 m). Further options for penetration resistance: Deployable recorders ED-112A (25 kg, drop height 0.15 m, penetrator 0.64 cm x 2.5 cm). For impact shock and penetration resistance testing, a high-speed camera is used as additional test evidence and for analysis purposes in case of failure.

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