CETA®

DKD    ilac-MRA    DAkkS
Deutsche
Akkreditierungsstelle
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## Leak Tester CETATEST 815 - *makes precision work*

The CETATEST 815 is a fully automatic working leak tester for the detection of untight parts within the cycle time of the production process. The pressure in the test part volume due to a leakage is compared with the pressure in a tight reference volume (differential pressure method).

### Operating methods
One channel operation

### Signal processing
Fast 24-bit-A/D-Converter
Real-time processing of the measurement signals

### Valve types
Depending on the application: sliding valve or poppet valve

### Processing
Real time microcontroller system, 16-bit µC / 40 MHz

### Pressure sensors
Differential pressure sensor gauge pressure sensor

### Measurement ranges
± 500 Pa / ± 5,000 Pa (displayed resolution: 1 Pa, internal resolution: effective 0.01 Pa), other ranges on request

### Result units
Pa, hPa, PSI, Pa/s, hPa/s, mbar*l/s, ml/min, ml/h, l/min, l/h, mmHg, mmWs, Torr

### Pressure ranges
-1 bar, +/-5 mbar, +/-50 mbar, 200 mbar, 1 bar, 6 bar, 10 bar, 20 bar, 30 bar, negative gauge pressure and positive gauge pressure ranges can be combined, (e.g. -1 bar/ +1 bar), other pressure ranges and mechanical pressure regulator on request

### Test modes
Pressure decay
Optional: sealed component, RAM pressure, pressure steps, pressure rise (with double leak connector)

### Test options
Prefill (multiple filling), program series, smooth filling, repeated filling, temperature compensation, variable zero point, test repetition / automatic test time adjustment, free programmable control valves for each program

### System control
Still-Alive-Check with differential pressure sensor control, patented automatic function control (option), control of the compressed air supply, consecutive zero results

### Programmable test phases
Delay, prefilling, preventing, filling, stabilising, measuring, venting, reservoir filling, flood, refilling
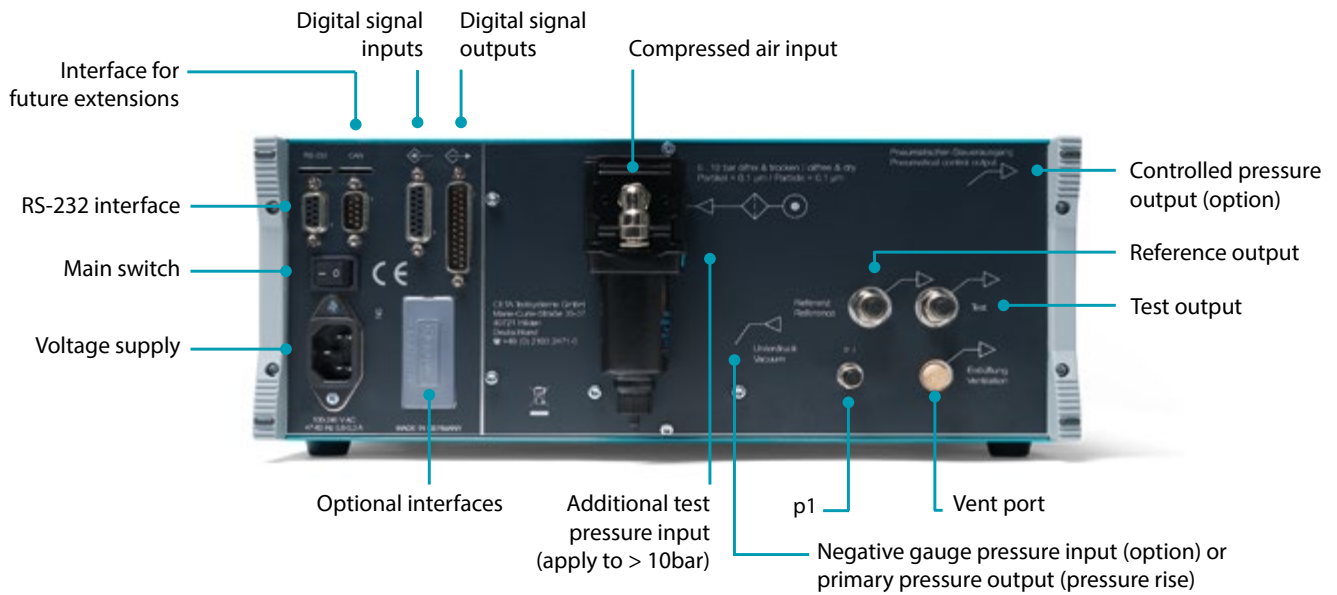
### Test mode specific limits
Prefill pressure, filling pressure, test part specific reject and rework levels

### Handling
Intuitive menu including password protected user levels

### Parameter memory
64 individually parameterizable test programs with alpha-numeric program names, parameters of the test programs can be exported resp. imported via the test device interfaces or by usage of a USB storage device.

Digital signal inputs
Digital signal outputs
Compressed air input
Interface for future extensions
RS-232 interface
Main switch
Voltage supply
Controlled pressure output (option)
Reference output
Test output
Optional interfaces
Additional test pressure input (apply to > 10bar)
p1
Vent port
Negative gauge pressure input (option) or primary pressure output (pressure rise)

## Interfaces

| Function | Start / Stop / Reset | Program selection | Device status / system fault | Evaluation (Pass / Fail) | Parameterization | Measurement results | Detailed fault messages |
|---|---|---|---|---|---|---|---|
| Digital I/O (standard) | ■ | ■ | ■ | ■ | | | |
| RS-232 (standard) | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Profibus DP (option) | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Profinet (option) | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Ethernet (option) | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| EtherCAT (option) | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

Further interfaces on request  The optional RS-232 protocol converter enables the exchange of a  CETATEST 810 that communicates via RS-232, against a CETATEST 815.

### Further functions

Result statistics, indicator for service intervals, registration of parameter change, recording of measurement series and measurement curves, Dynamic Link Library (DLL) for RS-232 interface programming

### Power supply / Power consumption

100 - 240 V AC, 47 – 63 Hz, 0.6 - 0.3 A, depending on stage of expansion max. 60 W

### Compressed air supply

6 - 10 bar and 0.5 bar above test pressure resp. 50 mbar under evacuation pressure (ISO 8573-1:2010 [1:4:1]).
Test devices with pressure ranges higher than10 bar have an additional connection for the external compressed air >10 bar.

### Pneumatic connections

Input (compressed air supply):
6 mm plug-in fitting
Port for test part: 6 x 1 mm fitting,
6 mm clamping ring (option),
up to three pneumatically driven outputs (option)

### Dimensions  and weight

W x H x D:
345 mm x 145 mm (3 U) x 435 mm
Weight: appr. 10 kg

### Included in delivery

Special packaging, power cord, documentation and PC-software on CD, calibration certificate, declaration of conformity, D-Sub-plug including cable for inputs and outputs (PLC-communication), spare sealing caps and spare caps for union nuts coupling or spare clamp rings

### DAkkS calibration and DAkkS calibration certificate

All new CETATEST 815 devices will be delivered free of charge with DAkkS calibration certificate according to DIN EN ISO/IEC 17025.

### Warranty

3 years in case of yearly maintenance, optional prolongation to 5 years

### Accessories (optional)

Filter combination, standard leak, leaktight 3/2-way valve, RS-232 protocoll converter, RS-232/Ethernet adapter, application software CETA Soft 2G, scanner interface, more in the CETA accessories catalogue.

Subject to modification due to technical progress | January 2019