

Leak Tester CETATEST 515



Operating principle	<p>The CETATEST 515 is a full automatically working leak tester for the detection of untight parts within the cycle time of the production process. The leak tester is available in three different types. The configuration “closed components - high resolution” can be used for test parts, which cannot be filled, so called “closed components”. It is possible to detect very small ratios of test part volumes [$0,03 \text{ ml} < \Delta V < 1,0 \text{ ml}$].</p> <p>The type “pressure loss - high speed” can be used for leak tests of very small test parts in high speed production cycles.</p> <p>The configuration “pressure rise” has a higher measurement signal (compared to the CETATEST 810) and integrated components (e.g. stop valve, primary pressure control), which are normally part of the external measurement circuit.</p>
Operating methods	One channel operation
Signal processing	Fast 24-Bit-A/D-Converter (internal resolution: effective 0.01 Pa) Real-time processing of the measurement signals
Pneumatic	Minimized volume to optimize the resolution
Processing	Real time microcontroller system, 16-Bit μC / 40 MHz
Sensors	Differential pressure sensor, relative pressure sensor
Measurement ranges	$\pm 500 \text{ Pa}$ / $\pm 5,000 \text{ Pa}$ (displayed resolution: 1 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
Electronically regulated test pressure ranges	-1,000 mbar, 200 mbar, 1,000 mbar, negative gauge pressure and positive gauge pressure ranges can be combined other pressures and mechanical pressure regulator on request
Test modes	Pressure loss, “closed component – high resolution”, pressure loss, “high speed”, pressure rise
Test options	Prefill (incl. multiple filling), program series, smooth filling, analysis of the filling and stabilizing curve, consecutive zero results, 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
Programmable test phases	Delay, pre-filling, filling, stabilizing, measuring, venting, reservoir filling, flooding, re-filling
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 individual parameter driven 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.

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Further functions Detailed result statistics, cycle counter, indicator for service intervals, countdown indicator, registration of parameter change, recording of measurement series and measurement curves, Dynamic Link Library (DLL) for RS-232 interface programming

Interfaces	Function	Digital I/O (Standard)	RS-232 (Standard)	Profibus DP (Option)	Ethernet (Option)
	Start / Stop / Reset	X	X	X	X
	Program Selection	X	X	X	X
	Device Status / System Fault	X	X	X	X
	Evaluation (Pass / Fail)	X	X	X	X
	Parameterization		X	X	X
	Measurement Results		X	X	X
	Detailed Fault Messages		X	X	X

Further interfaces on request

The optional RS-232 protocol converter enables the exchange of a CETATEST 510 that communicates via RS-232, against a CETATEST 515.

Power supply and 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)
Pneumatic connections	Input (compressed air supply): 6 mm plug-in fitting Port for test part: 3 x 1.7 mm fitting, 3 mm clamping ring [option] Up to three pneumatically driven outputs [option]
Dimensions	Width: 345 mm, Height: 145 mm (3U), Depth: 435 mm
Weight	Approximately 10 kg
Included in delivery	Special packing, power cord, operating manual and documentation on CD, declaration of conformity (CE), calibration certificate, D-Sub-plug including cable for inputs and outputs (PLC-communication)
DKD-Calibration and DKD-Certificate	New CETATEST 515 (pressure range -1 to 17 bar, 500 Pa measurement range) are delivered with DKD-certificate without extra costs. [DKD = Deutscher Kalibrierdienst = German Calibration Service]
Warranty	3 years in case of yearly maintenance, optional prolongation to 5 years
Accessories (optional)	Filter combination, standard leak, leak tight 3/2-way-valve, RS-232 / Ethernet-adaptor, control- and evaluation software, more in the CETA accessories catalogue

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