Flow Tester

CETATEST 925

Applikationssoftware
CETA Soft 2G for free!

DKD

ilac-MRA

DAkkS
Deutsche
Akkreditierungsstelle
D-K-19566-01-00

Flow Tester CETATEST 925 - *for volume flow measurement*

The CETATEST 925 test device is suitable for flow testing using compressed air as test medium. The measuring method uses the fact that in a laminar flow, the pressure difference between two measuring points is directly proportional to the volume flow. Laminar flow elements (LFE) are used to laminarise the air flow. The pressure difference is measured with a differential pressure sensor. In the direct method, the air flow supplied by the pressure regulator first flows through the LFE and then through the test part. In the indirect method, the LFE is located in the outlet flow of the test part. The use of an electronic pressure regulator and flow calibrations at different LFE pressures results in an extended range of applications.

System | Signal processing

Industrial PC: Quad Core CPU, 1.8 GHz, 4 GB RAM, 128 GB SSD. Micro-controller system for the test process control: 32-bit ARM µC/ 84 MHz. Fast 24-bit A/D converter, real-time processing of measurement signals

Pressure sensors

Gauge pressure sensor (test pressure)
Differential pressure sensor (pressure difference at LFE)

Pressure ranges

Electronical pressure regulator (EPR): -1 bar, -1/+1 bar, -1/+6 bar, 200 mbar, 1 bar, 6 bar
Mechanical pressure regulator (MPR): -1 bar, -1000 mbar/+150 mbar, 150 mbar, 1 bar, 6 bar, Other ranges on request

Maximum Deviations

Gauge pressure: 1 % *
Specification for combined devices based on positive gauge pressure
Volume flow: 2 % *

Result units

ml/min, ml/h, l/min, l/h, mbar•l/s

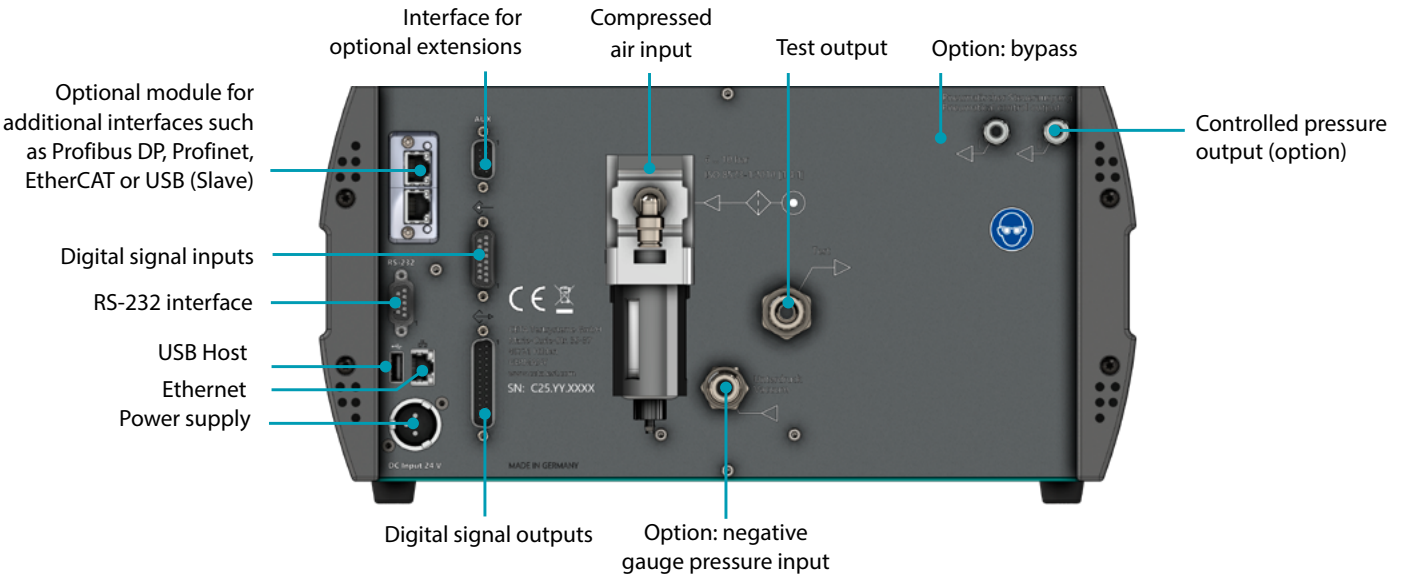
* referred to full scale value

Measurement ranges of the laminar flow elements

Type of LFE	Flow at positive gauge pressure of 50 mbar in the LFE				Test connections
1 RGK	3	-	250	ml/min	8 x 1 mm fitting
1 RK	4	-	310	ml/min	8 x 1 mm fitting
1 RM	11	-	890	ml/min	8 x 1 mm fitting
1 RG	60	-	2,450	ml/min	8 x 1 mm fitting
2 RG	110	-	5,000	ml/min	8 x 1 mm fitting
3 RG	175	-	7,500	ml/min	8 x 1 mm fitting
5 RG	16	-	750	l/h	8 x 1 mm fitting
8 RG	24	-	1,200	l/h	8 x 1 mm fitting
20 RG	70	-	2,850	ml/min	8 x 1 mm fitting
30 RG	130	-	4,650	l/h	8 x 1 mm fitting
55 RG	3.5	-	140	l/min	8 x 1 mm fitting
80 RG	5.8	-	200	l/min	10 x 1 mm fitting
100 RG	7.5	-	200	l/min	10 x 1 mm fitting
148 RG	10.2	-	200	l/min	10 x 1 mm fitting

Flow Tester

CETATEST 925



Test options | Additional functions

Standard: Direct method, nominal pressure optimisation
With EPR: prefill, pulsing, smooth filling
Optional: Indirect method, bypass, program series, exponential extrapolation, free programmable control valves

Display | Operation

7-inch touch screen, dual jog dial, separate start/stop-buttons, password protected user level
Various graphical diagrams (measurement curves, histogram, measurement series overview), list of results

Interfaces

I/O interface for start/stop/reset, program selection, device status, system errors, test results (pass/fail)

RS-232, USB (host), Ethernet and optional interfaces allow additional functions like parameterisation, measurement results, detailed information in real time (e. g. measurement curve), failure messages. Optional: Profibus DP, Profinet, EtherCAT, USB (Slave).

The CETATEST 925 is fully interface compatible with the CETATEST 915 and well prepared for Industry 4.0 requirements.

Memory

More than 1 million measurement results, 256 individually parameterisable test programs with alpha-numeric program names, export / import of test programs via device interfaces or USB storage device

Further functions

Result statistics, cycle counter, recording of measurement series and measurement curves, Dynamic Link Library (DLL) for RS-232 interface programming, integration of test part image / barcode / QR code, user administration, export of test parameters, measurement curves and measurement series to USB storage media.

System monitoring

Supply pressure monitoring

Power supply | Power consumption

Test device: 24 VDC / max. 50 W
External power supply (optional):0
Input 100 - 240 VAC / 47 - 63 Hz
Output 24 VDC
UL certified power supply unit

Compressed air supply

At least 1 bar above test pressure (max. 10 bar) resp. 50 mbar below evacuation pressure
Quality or purity according to ISO 8573-1:2010 [1: 4: 1]

Pneumatical connections

Input (compressed air supply):
6 mm plug-in fitting
Port for test part depending on the LFE
Up to three pneumatically driven outputs (option)

Dimensions | Weight

W x H x D: 367 mm x 183 mm (4 U) x 435 mm
Weight: approx. 12,5 kg

DAkkS-accredited calibration

All leak, mass and flow testers as well as pressure manometers and calibration standards are delivered with a DAkkS-accredited calibration certificate in accordance with DIN EN ISO/IEC 17025 at no extra cost.

DAkkS = German Accreditation Body

Special calibration

Flow calibrations at different test pressures optional

Scope of delivery

Special packaging, documentation on device, DAkkS-accredited calibration certificate, EU declaration of conformity, spare sealing caps and spare caps for union nuts coupling

Warranty

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

Accessories (optional)

Power supply with UL certification, power cord, filter combination, master jet, D-Sub connector incl. cable for inputs and outputs (PLC communication), leak-tight 3/2-way valve, RS-232 / Ethernet adapter, CETA Soft 2G application software, scanner interface, further accessories in the CETA accessories catalogue.

CETA Testsysteme GmbH
Marie-Curie-Str. 35-37 | 40721 Hilden - Germany | phone +49 2103 2471 - 75 | fax +49 2103 2471 - 76 | sales@cetatest.com | www.cetatest.com