

ZEDmod

ZEDmod is the solution for complex leak testing and functional testing. The modular structure allows the use of up to 4 ZEDcores. In addition, ZEDmod can also be used to control external measuring circuits such as the ZEDsatellite. This allows parallel testing on up to 8 channels. The measurement results are displayed on a 17" capacitive display.

TYPICAL APPLICATIONS

- + **Automotive:** Complete engines, cylinder heads, transmission, heat exchangers, control electronics, batteries, pipes, valves, fuel cells, pumps, etc.
- + **Medical technology:** catheters, dialysis filters/boxes, flushing systems, tubing systems, secretion containers, syringes, respirator devices, etc.
- + **Packaging / cosmetics:** dosing pumps, plastic bottles, cartridges, etc.
- + **Domestic appliances:** water diverters, water pumps, gas valves / fittings, stoves, compressors, etc.
- + **General industry:** cylinders, safety / check valves, couplings, grippers, ball valves, seals, etc.

Accessories (optional):

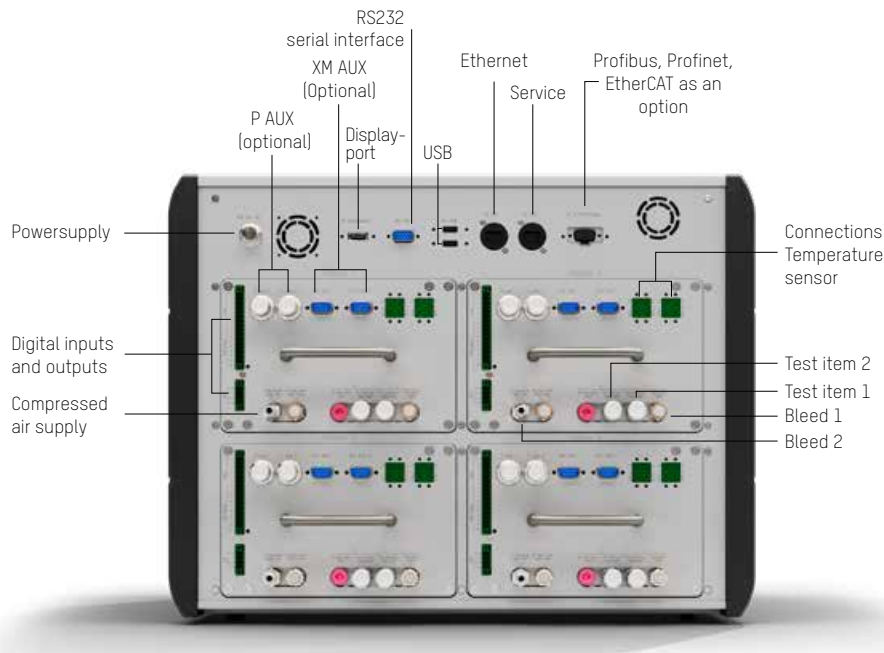
- + Test leak
- + Leak calibrator
- + Data matrix scanner

MEASUREMENT METHODS

- RD** Relative pressure
(optional: 2-channel)
- RD / GP** Relative pressure with bell testing
- RD / iDF** Relative pressure with indirect flow
- RD / DF** Relative pressure with flow
- DD** Differential pressure
- DD / GP** Differential pressure with bell test
- SD** Dynamic pressure
- MF** Mass flow

(for available pressure ranges, see technical data)





Product features:

- Control unit: PC-based control with powerful multi-core CPU and Windows 10 IoT Enterprise
- Slots for up to 4 ZEDcore measuring modules
- 17" TFT color display with capacitive touchscreen
- Graphical representation of the measurement process per channel
- Data storage > 1,000,000 test results
- > 1,000 freely configurable test programs
- Self-test function
- Statistics function
- Automatic test pressure monitoring
- Electronic pressure regulator
- Leak simulation connection for connecting a test leak or leak calibrator
- Sequential tests / parallel test
- Automatic volume determination with a reference leak
- Control of ZEDsatellite

Control options:

PROFIBUS/PROFINET/ETHERCAT*	
Ethernet (Modbus, WebAPI, OPC-UA)	RS232 (Modbus, barcode control)

Interfaces:

- Display port for connecting an external monitor
- USB and Ethernet interface:** e.g. for data export to CSV, XML
- RS232 interface:** e.g. for the leak calibrator
- Dimensions (H x W x D):** 385 x 498 x 468 mm
- Weight:** 24.9 kg (without measuring circuits)
- Power supply:** 230 VAC, internal 24 VDC (+10 / -5%) 6.7A
- Test medium ZEDcore:** Compressed air (oil and anhydrous according to ISO 8573-1 class 3)
- Media/ambient temperature:** 50 ... 104°F / 10 ... 40 °C
- Rated power:** 25 ... 100 W

*optional

Technical specifications:	ZEDcore Relative pressure	ZEDcore Differential pressure	ZEDcore Dynamic pressure	ZEDcore Mass flow	ZEDcore Flow
Test pressure range <small>(several gradations possible)</small>	Negative pressure* -0.9 bar - Overpressure 20 bar**		0 ... 6 bar**	Negative pressure* -0.9 bar - Overpressure 16 bar**	
Test pressure accuracy	1.0% v. E.	1.0% v. E.	1.0% v. E.	1.0% v. E.	
Measuring range	like test pressure range	-100 ... 100 mbar	10,000 ... 450,000 ccm/min ml/min	-50 ... 50 or -250 ... 250 ccm/min ml/min	up to 250,000 ccm/min ml/min
Measurement resolution	0.5 ppm v. E.				
Smallest measurable pressure change (type-specific)	0.5 Pa (1 bar) ... 4 Pa (20 bar)	0.1 Pa	0.1 Pa (50 mbar) ... 1.5 Pa (6 bar)		
Measurement accuracy (leak rate)	depending on the test setup		depending on the test setup	Typically 5% v. M. not less than 0.5% v. E.	
Repeatability	depending on the test setup		depending on the test setup	< 0.5% v. M. not less than 0.05% v. E. (depending on the test setup)	

Further accuracies, test pressures, control options, customer-specific protocols for higher-level data acquisition and evaluation systems on request.

* Depending on the source of negative pressure
 ** Recommended working pressure range: 10-95% FS