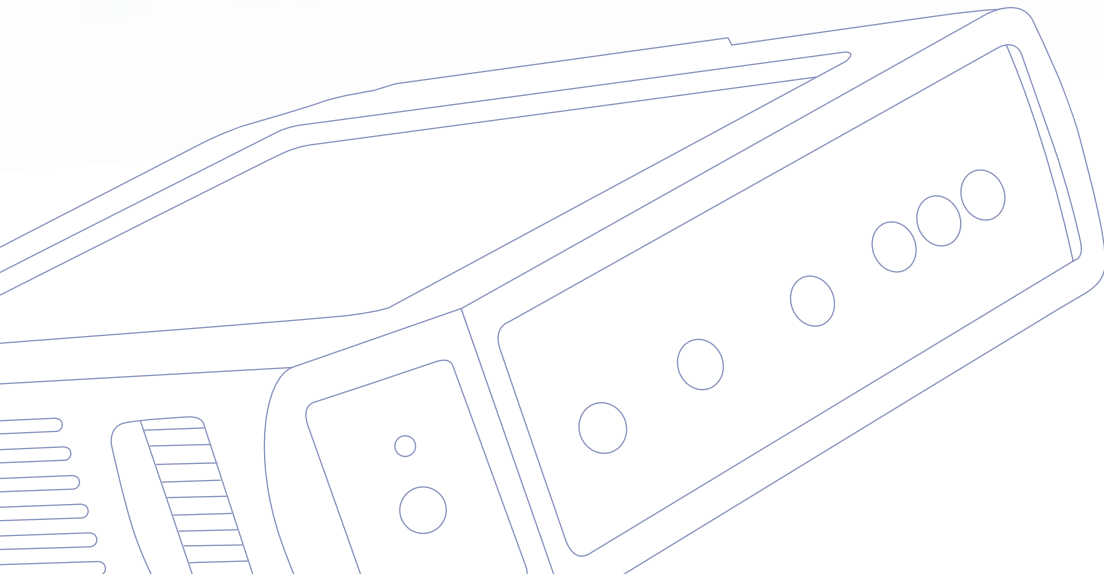




AVL DISCOPE 990
PC-BASED TWELVE-CHANNEL OSCILLOSCOPE

FUTURE SOLUTIONS FOR TODAY



THE NEW DIMENSION IN ENGINE MEASUREMENT TECHNOLOGY.

Diagnostics at the cutting edge.

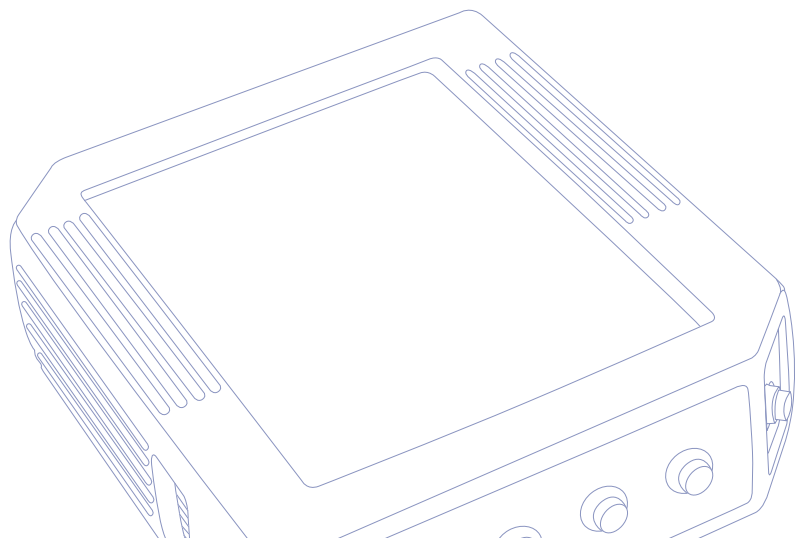
It is no coincidence that AVL DiTEST is the market leader in engine measurement technology. Because a system for perfect diagnosis of the engine including all the electrical and electronic systems can only be developed by a company with a true passion for motor vehicles.

And with AVL DiScope 990, AVL DiTEST proves once again what it means to hit the mark more squarely than any other in-service vehicles diagnostics. AVL DiScope 990 is an engine measurement module that sets new standards in technical perfection and flexibility. AVL DiScope 990 is your ideal partner. There is no substitute.

We are not satisfied merely keeping up with the advance of technology. We determine its course.

Setting new standards in versatility.

- Suitable for all vehicle types
- For all standard engine test functions and more
- Covers all common electronic components
- Automatic test settings for electronic sensors and actuators
- Ignition oscilloscope for conventional and distributorless ignition systems
- Reference signals to sensors and actuators stored in the system
- Easy, convenient operation



Don't be satisfied with good solutions.

Good is just not good enough. Especially in perfect diagnosis of the electrical and electronic systems of an engine. AVL DiScope 990 offers extensive measurement options, mature measurement programs and easy operation for maximum precision, optimal efficiency and the significant streamlining of your working routines. Expect nothing less than the very best from AVL DiScope 990.

Our success speaks for itself.

How intelligent can technology be? A question that has inspired and driven us from the beginning. For us, AVL DiScope 990 is another successful product of our visions. For you, it is the ideal solution for engine, electrical and electronic diagnosis.

Most extensive reference curve library and clear interpretation aids to help you find the error in the jungle of electronic components



Open for anything. Above all your needs.

AVL DiScope 990 combines high-quality measurement technology with the low weight and high mobility of a laptop computer. Its design as an open system and its sophisticated technology guarantee flexible use and user-friendly operation.

- Configuration with a laptop or stationary computer
- Analysis possible in a stationary state or while driving
- Reliable use for maximum efficiency
- Menu system easy to operate

Engine Test

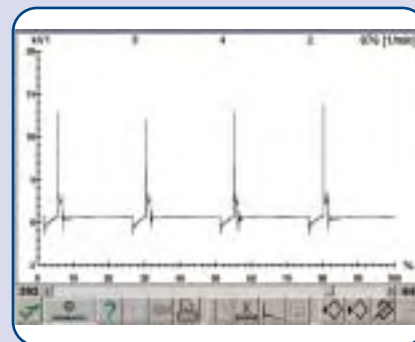
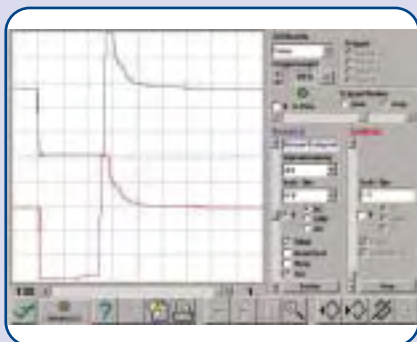
- Battery/start test
- Alternator test
- Lambda/exhaust
- Engine idle test
- Ignition system
- Primary and secondary ignition oscilloscope

Universal Oscilloscope

- Dual channel
- High sampling rate
- High resolution
- High memory capacity
- Long-term signal recording
- Easy to operate through automatic defaults

Twelve-Channel Oscilloscope

- Up to 12 signal sources can be connected
- Long-term signal recording
- Selection of individual signals after recording
- Functions for easy operation



Multimeter

- Voltage measurement
- Current measurement directly up to 1 A or via shunt
- Resistance measurement
- Frequency measurement
- Duty cycle
- Diode test
- Min/max value determination



Engine Test

| Testing Programs | Measurement Range | Resolution |
|----------------------|----------------------------------|---------------------|
| Ignition voltage | | 0.1 kV |
| Burn voltage | | 0.1 kV |
| Burn duration | 5 ms | 0.1 ms |
| Dwell angle | 50° VW | 1° VW |
| Ignition angle | - 20 ... 30° KW | 0.1° KW |
| Lambda probe voltage | 2/10 V | 0.01 V |
| Duty cycle | 100 % | 1 % |
| Pulse width | 10 ms ... 2 s | |
| Engine speed | 150 ... 10.000 min ⁻¹ | 1 min ⁻¹ |
| Voltage ripple | | 0.1 % |

Ignition Oscilloscope

| Range | Accuracy |
|---------------------------|------------------------|
| Primary 5/20/50/100/500 V | 3% (of range) |
| Secondary 5/10/25/50 kV | dependent on kV sensor |

Universal Oscilloscope

| Range | Accuracy |
|---|----------|
| 50/100/200/500 mV/div., 1/2/5/10/20/50 V/div. Time base: 20 ms...1 s, | 100 % |

12-Channel Oscilloscope

| Range |
|-------------------------|
| + 1/5/20/100/500 V |
| - 1/5/20/100/500 V |
| ± 0.5/2.5/10/50/250 V |
| Time base: 1 ms ... 1 s |



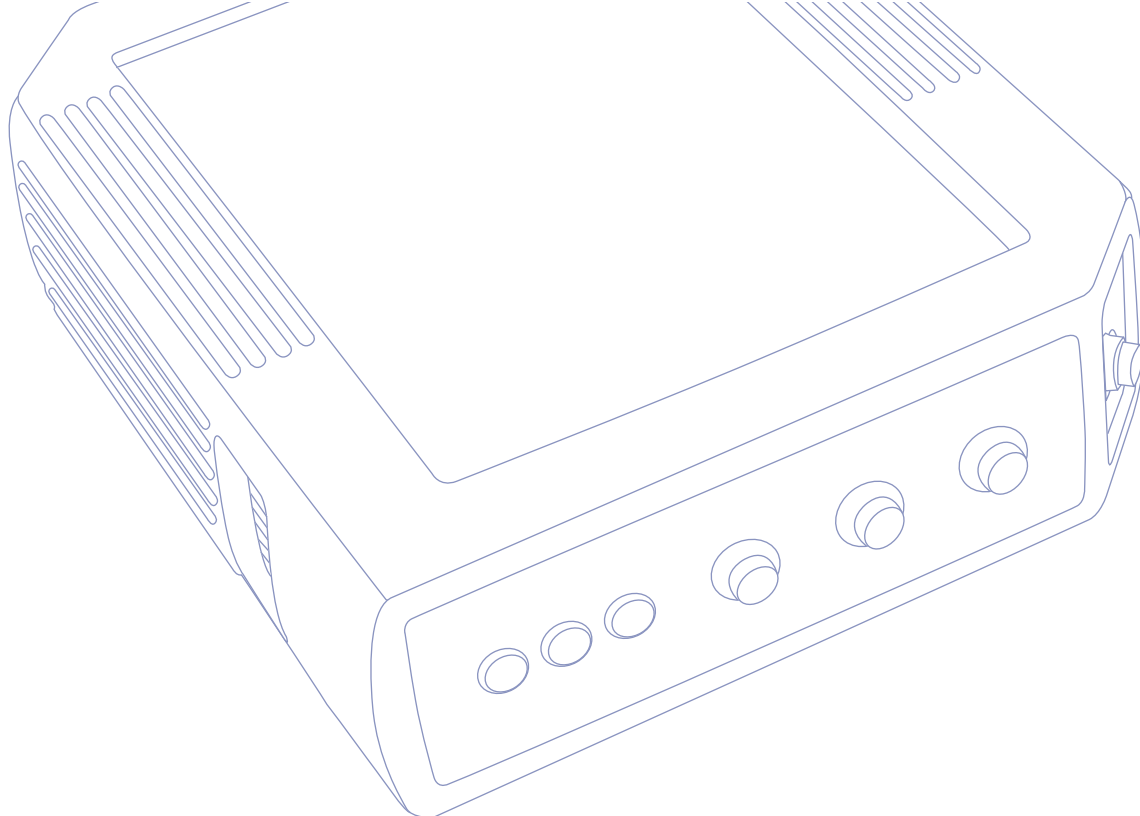
AVL and AVL DiTEST.

A Supreme Combination of Technical Flexibility with Future-Oriented Perspectives.

The philosophy of AVL – looking at the world of automobiles in its entirety – perfect development of vehicles while safeguarding faultless daily use. In keeping with our principle, AVL DiTEST is up to the challenge of providing workshops and testing centres with high-tech diagnostic systems on the cutting edge of technical standards. The result - optimum performance with individualised service based on pioneering AVL technology. Our know-how accumulated over more than 50 years of passion for technology ensures unsurpassed precision.

Electrically Insulated Digital Multimeter

| Values | Range | Resolution | Values | Range | Resolution |
|------------|---------|------------|-------------|----------------------------------|------------|
| Voltage | ± 5 V | 1 mV | Temperature | - 40 ... + 125 °C, 1 or 10 mV/°C | 1 °C |
| | ± 50 V | 10 mV | Pressure | DS 02: - 850 ... +7000 hPa | 10 hPa |
| Resistance | 200 Ω | 0,1 Ω | Diode test | U < 3 V (1 mA meas. current) | 1 mV |
| | 2 Ω | 1 Ω | Current | ± 1 A | 1 mA |
| | 20 Ω | 10 Ω | | 1 or 10 mV/A | 1 A |
| | 200 Ω | 100 Ω | | KR 015: ± 500 A | 0,1 A |
| | 2 Ω | 1 Ω | | | |
| Frequency | 200 Hz | 1 Hz | | | |
| | 2 kHz | 1 Hz | | | |
| | 20 kHz | 10 Hz | | | |
| | 200 kHz | 100 Hz | | | |



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Technical Data:

Power supply:

| | |
|-------------------|------------------------------|
| Voltage | 8 ... 36 V DC (at HMS input) |
| Fluctuation | ≤ 20 % |
| Power consumption | ~ 25 W |

Miscellaneous:

| | |
|-----------------------|----------------------------|
| Operating temperature | 0 ... 50 °C |
| Storage temperature | - 10 ... 60 °C |
| Relative humidity | ≤ 95 %, non-condensing |
| Dimensions (WxDxH) | 270 mm x 320 mm x 85 mm |
| Weight | 3.5 kg net w/o accessories |