

AVL

AVL M.O.V.E GAS ADVANCED

Portable emission measurement system for in-vehicle application

INDUSTRY CHALLENGES

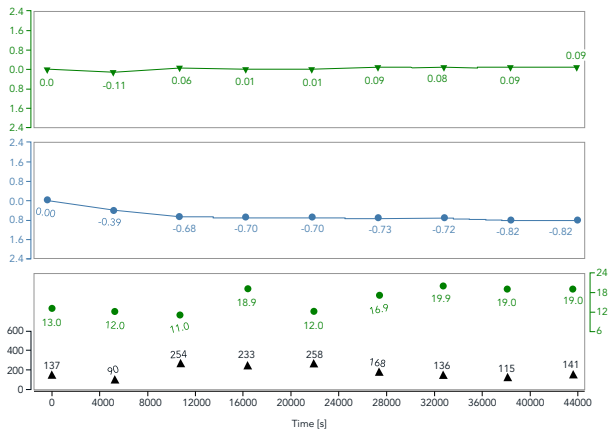
Euro 7 and upcoming Global Real Driving Emission (RDE) regulations like China 7/ VII will make RDE development and testing with portable emissions measurement systems (PEMS) even more challenging. Existing limits will be reduced further. China is expected to follow the original Euro 7 proposal in China 7/VII. Global OEMs will need to ensure compliance with the new, tighter limits for both heavy-duty and light-duty vehicles. Therefore, high accuracy and, more importantly, stability and low drift will be key requirements.

THE AVL SOLUTION

The AVL M.O.V.E GAS ADVANCED is based on the well-known AVL M.O.V.E GAS PEMS iS+ and features a new NDUV (Non-dispersive Ultraviolet) Low NO_x Analyzer which ensures highest accuracy and lowest drift over the entire ambient conditions range to support lowest uncertainty.

KEY BENEFITS

- Support of low uncertainty needs through high accuracy at the entire measurement range and low drift
- Extended operating temperature range to ensure reliable operation within a wide ambient operating range
- Robust against vibrations through internal and external dampers
- Existing M.O.V.E iS+ equipment can be re-used as same user interface and connections from AVL M.O.V.E Gas PEMS iS+ are used



Zero drift during 12 hrs. road test



High accuracy at low NOx ranges

COMPLETE RDE TESTING SOLUTION

The AVL M.O.V.E GAS ADVANCED is embedded in the comprehensive AVL M.O.V.E iS+ vehicle testing platform which covers all LD and HD In-Use testing aspects by using a central data logger and controller. This key device guides you step by step through the relevant legislative testing procedures. The AVL M.O.V.E iS+ platform includes several additional devices like a PN /PM PEMS and solutions for fuel economy and hybrid vehicle testing. The post-processing software AVL CONCERTO 5™ M.O.V.E Data Toolbox automatically evaluates and processes the testing data.

TECHNICAL DETAILS

General

Dimension (W x H x D)	~498 x 334 x 377 mm
Weight	~28 kg
Operating conditions	-10 to +45 °C 700 to 1,050 mBar (0 to 3,000 m)
Power demand	22.5 to 28.8 V, approx. 300 W @ 20 °C ambient temperature (with 1.25 m sample line and after warm-up)

Analyzer

Measurement principles	NDUV (NO / NO ₂) NDIR (CO / CO ₂)
Measurement ranges	NO: 0 – 1,500 ppm NO ₂ : 0 – 1,000 ppm CO/CO ₂ : 0 – 5 / 0 – 20 vol. %
Measurement accuracy	NO: 0 – 999 ppm ±1 ppm or ±1.5 % rel. 1,000 – 1,500 ppm ±2% rel. NO ₂ : ±1 ppm or ±1.5 % rel. CO: ±30 ppm or ±2 % rel. CO ₂ : ±0.3% FS or ±2 % rel.
Zero drift / 4 hrs.	NO _x : ≤ 1 ppm CO/CO ₂ : ≤ 15 ppm / ≤ 0.05 vol. %

AVL List GmbH

Hans-List-Platz 1
8020 Graz
Austria

Phone +43 316 787-0
Fax +43 316 787-400
E-mail info@avl.com
www.avl.com

