AVL X-ion™ PA2

Introducing the Power Analysis Solution

Experience unparalleled, high-precision power analysis with this feature-packed solution.

AVL X-ion™ PA2 - the latest addition to our state-of-the-art lineup - is perfect for a wide variety of applications.

ELECTRIFICATION TESTING

High-precision power analysis is more than just examining electrical power results. No matter if your application is in automotive, power generation, grid, marine, aerospace, or other low- to medium-voltage regulatory applications.

Record time-stamped results as well as raw data values. Perform mechanical analysis for angular position, speed, torque, and power. Go hybrid for non-standard test applications with native combustion analysis or NVH integration.

Advanced systems testing is complex enough, make it easy with out-of-the-box testbed and automation system integration.

High Level of Connectivity

The device offers a broad range of connectivity from digital inputs for speed, torque, incremental encoders, 3x bi-directional CAN, and extensions for 2x rotor resolver inputs.
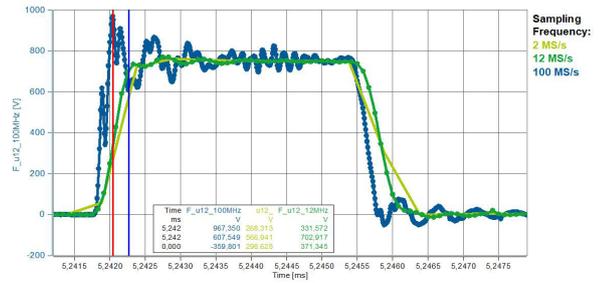

High-Speed Transient Analysis

Best of both worlds: high-speed acquisition of transient waveforms at high resolution, while data-optimized long-term recording.

Precise and reliable electric power analysis over a wide frequency spectrum with multi-physics capability

AVL X-ION™ PA2

Native integration of NVH measurement modules and cascading functionality with AVL X-ion combustion analysis devices enables a wide range of applications from automotive to heavy duty, aerospace, marine, and power generation.

FEATURES

- Galvanically isolated high-voltage inputs, CAT III PD2 1,000 V acc. IEC 61010-1

- Automatic setup and measurement of AVL current sensors

- Voltage-current phase shift correction

- Speed, torque, and resolver acquisition for up to two e-machines per X-ion PA2

- Snapshot acquisition for evaluation of switched power electronics

- Comprehensive AVL BEAT™ software for measurement control, scripting, recording, display, and postprocessing

- Seamless power measurement solution from the sensor to the final measurement result

TECHNICAL DETAILS

Power accuracy	± (0.015 % rdg + 0.04 % rg)
Sampling	Up to 12 MS/s, 18-bit, BW 1 MHz
Snapshot acquisition	Up to 100 MS/s, 14-bit, BW 17.5 MHz
Galv. isolated inputs	± 1,500 V_p, ± 750 V_p, ± 0.5 A_p, ± 1 A_p, ± 1.5 A_p, ± 3 A_p
Interfaces	6 ch. RS422 (rotor position/torque), 4 ch. TTL (speed), 3 ch. CAN, Gbit-Ethernet
Dimensions and weight	439 (W) x 107 (H) x 371 (D) mm @ 12 kg
Operating environment	-30°C to +50°C, 80% til 30°C then 50% humidity non-cond.