



# Acoustic emission measurement system

Vallen AMSY-6

Fully digital multi-channel acoustic emission (AE) measurement system with data processing unit capable of analysing data online and offline.

## Features and benefits

- Versatility: well-structured software with the most flexible and user-definable processing and visualisation capabilities
- User-friendliness: easy to use – efficient dialogues available in seven languages, extensive online help and premium quality results all help to save time and costs
- Remote control: easily control the AMSY-6 from any place using an internet connection – perfect for long-term online monitoring

## Some applications

- Monitoring of hydrogen embrittlement, hydrogen-induced cracking and other damage mechanisms
- Fatigue crack initiation detection using acoustic emission monitoring
- Advanced condition monitoring for the assessment of wind turbine rotating parts, blades, and static structure
- Continuous data collection for establishment of data baselines and development of pattern recognition methods
- Carbon-fibre-reinforced plastic failure investigation

## Technical specification

- High resolution: 40MHz sampling rate at 18-bit dynamic range to support the high resolution of the dual-channel AE signal processor
- Application-specific filters: optimum bandwidth can be selected without interfering with the hardware for any kind of application
- AE feature extraction: processes arrival time, peak amplitude, rise time, duration, counts, true energy and signal strength, as well as background noise (before a hit) as true RMS and absolute average level
- Parametric inputs: monitor environmental conditions such as temperature and load, and correlate it to AE-data.
- Transient recording: samples of a burst signal can be recorded at a user-specified sample rate
- Waveform-based analysis: FFT, wavelet transform, enhanced feature extraction and pattern recognition processing are available

