MAD - 23

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Meßtechnik, Ortung und Datenverarbeitung

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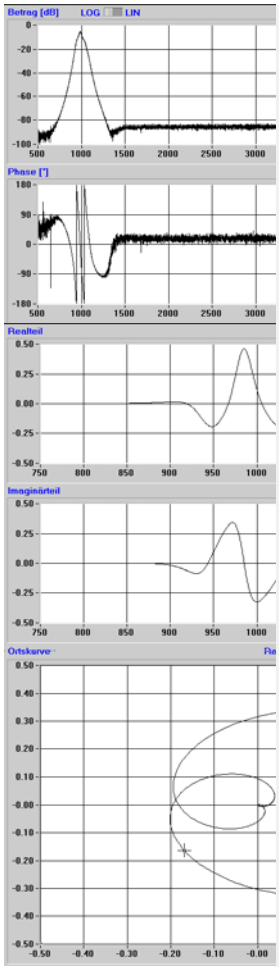

MAD - 23 Acoustic detection, classification and automation

The MAD-23 is able to cost-effectively register and classify noises and vibrations in real-time. This capability makes it ideally suited for machine and plant automation in control management systems (CMS) as well as for more general noise analysis including quality control.

The MAD-23 registers noises or vibrations with suitable sensors such as microphone, radar or mechanical vibration. The noises or vibrations are processed in the main unit and the real-time result is provided as output which may be directly fed to the plant or machine control system(s).

The main unit contains a high performance digital signal processor (DSP) which controls and classifies the sensor measurments in very short measurement and analysis cycles.

A PC is used to programme and collect protocols from MAD-23s but is not required for operation. This makes the MAD-23 small, robust, powerful and reliable. The MAD-23 has been designed to be universally applied to specific application measurement requirements through a short noise or vibration learning phase.

Application areas include:

- Automation of machine or plant maintenance planning and decisions e.g. replacement of worn parts, co-ordination of plant operation
- Quality control of components expected to provide a particular noise
- Customisation of devices for the deaf or hard of hearing
- Analysis of dopplar radar signals

Analogue technology:
Connectors: BNC or LEMO
Input voltage: 5 mV - 60 mV (microphone)
100 mV - 10 V (Standard)
Input Amplification: 0...22.5 dB (programmable)
Input Frequency range: 20 Hz...20 kHz
Output Voltage: 10 mV ..2,5 V (programmable)
Output Bandwidth: 20 Hz... 20 kHz
Dynamic: 80 dB

AD/DA Converter:
Type: Delta Sigma Converter
Resolution: 16 Bit
Sampling rate: 345 Hz ... 51.2 kHz
Calibration: self-calibration and software

Digital technology:
Signal processoer: TMS320C33, 120 MHz
Menmory: 34K x 32-Bit SRAM,
512 kByte Flash-ROM
Interface: RS232, max. 1 Mbaud

Power supply:
Voltage: 12 V or 24 V DC

Housing:
Class: IP-40 ... IP64 (DIN 40050/IEC 529)
Dimensions: 150mm x 32mm x 106mm
Mass: ca. 600g