

This data-recording device has been developed especially for use with the acoustic camera. It facilitates high scanning frequencies and high numbers of channels, but is lightweight and compact at the same time. In addition to the microphone signals, other parameters can be recorded in analog or digital format.

### Specifications

- 36 microphone channels in a 10-inch rack
- Optional 4 special channels with 16 bits each (1x digital plus 3x analog)
- Sampling rate: 12 to 192 kS/s per channel. 16 bits resolution
- Recording period: 1 million samples per channel (duration: 5 to 87 seconds)
- Compatible with all other microphone arrays due to MicBus – connector system
- Integrated programmable pre-amplifier –28 dB to 84 dB, 7 dB switch step
- Parallel port PC interface
- Input impedance typ. 30 kOhm (adapted to microphone impedances)
- Frequency response: 30 Hz...20 kHz: -1dB, 80 kHz: -3dB
- Input dynamic range: 160  $\mu$ V...30 Vpp (THD < 5%)
- Input-related noise < 10  $\mu$ Veff ~ 20 dB( $\mu$ )
- Timing error between channels typ. < 1 dB
- Channel crosstalk < -40 dB
- Start/Stop can be continuously triggered
- External trigger connection (TTL compatible)
- Additional connections: Clicker, Laser
- Internal power supply unit, 230 V~, 80 VA
- IP20 protection class
- Temperature range 0...40° C,
- Convection-vented
- Weight approx. 7 kg



### Special channels (optional)

Using an optional special channel card in the data recorder, additional sensors for the measurement of revolutions per minute and angle of rotation can be used.

U(t) and I(t) characteristics can also be logged in analog or digital format.

The data (analog and digital) is acquired together with the strobe signal of the A/D converters.

There are three analog inputs and one 16 bit digital input available

### Analog input (3 x 16 bits)

- Pseudo-differential, AC coupled,
- SMA input jack
- Sampling rate 12...192 kS/s, 1 MS buffer per channel
- Sensitivity 160  $\mu$ V...30 Vpp (THD < 5%)
- Supply current for SMA sensors typically 3 mA
- Gain, dynamic range and other parameters identical to MicBus inputs

### Digital input (1 x 16 bits)

- 16 channels of 1 bit, 8 bit TTL plus 8 bit TTL or differential
- Software support for 1 bit- and 3 bit- IGR transducers (revolutions per minute or angle of rotation)