

The **MAS-MICRO-III-X-Recorder**, our third MICRO-Generation, is a **future-oriented, efficient, directly recording** and **autonomous** data recording system and is now available in versions for **4 to 40 channels**.

The most important features of the new **MAS MICRO-III-X Recorder** are listed as below:

- Use in field testing as well as in the laboratory
- Small dimensions, lightweight design and low power consumption
- Wide sensor spectrum:
ICP sensors, inductive travel sensor (LVDT), Potentiometers, DMS as well as temperature sensors (Pt100, Pt1000)
- Direct connection of DMS-bridges, half-bridges and quarter-bridges
- Stabilised sensor supply up to 10V
- Supply of active sensors up to 15V
- Simultaneously scanning Delta-Sigma converters
- Up to 10000Hz sampling rate per channel
- Variable input filters
- CAN-BUS, RS232, PC-Card slot

The **MAS-MICRO-III-X** provides **vast reserves** in **processing power** for **executing complex algorithms**, e.g. **Fourier transformation** and **power spectral density (PSD) analysis** which, amongst others, is applied in the **Structural Health Monitoring System (SHM)**. In conjunction with **innovative SW evaluation tools**, the **actual prediction of fatigue life and damages** is possible, in particular in the area of fatigue strength monitoring!

The measured data **can be stored on memory cards or USB data media or be transmitted via Ethernet, RS232 and visualised with Diadem or Diadem-compatible software, e.g. Flexpro.**

NEW PRODUCT

SWIFT MICRO-III-X



Further features optionally available:

- Carrier frequency amplifier for LVDT and DMS
- Recording of GPS position data
- Remote data scanning via Remote-Link
- Ethernet port
- Supports Plug&Play USB-2.0 data media

General

- Analog inputs 4 to 40
- Real-time processor 16Bit, 40MHz
- Application processor ARM9E, 400MHz (optional)
- Optional external memory USB data media, ~~TA~~ flash cards
- Logbook more than 16000 entries
- Data retention 3V Lithium batter~~y~~, rechargeable
- Data management Delta-Sigma conveter

Sensor Interface

- Range of input voltage $\pm 1\text{mV}$ to $\pm 30\text{V}$ continuously adjustable by ~~software~~
- Sensor supply (DC) 2V to 10V and approx. 15V max. 50mA), adjustable by ~~software~~
- Sensor supply (AC) max. 3.5Vrms, max. 15kHz, adjustable by ~~software~~
- Sensor supply (ICP) approx. 2mA max. 24V
- Sensor types DMS, ICP sensor IVDT, Pt100, Pt1000, etc.
- Input filter 100Hz low-pass, other filter frequencies and types optional
- Bridge extension 1200hm to 1kOhm half and quarter bridges, configurable by ~~software~~

Communication Interface

- Interface Ethernet 10/100Mbit/s (optional), RS232

Miscellaneous

- Status monitoring Status LED: standby/operation
- Data LED
- Trans LED

Ambient Conditions

- Temperature -20°C to +60°C
- Humidity 0% to 80%, not condensing

Power Supply

- Voltage range 10V to 32V
- Power consumption approx. 20 ~~Watt~~
- Reverse voltage protection yes

Casing

- Dimensions (mm) 110x170x135 (W x H x D)
- Connector Sub-D
- Weight approx. 2kg
- Material Aluminium