

Solution examples.

TSA modules with high sensitivity for controls.

Wherever measurement data is detected precisely and securely, the TSA modules send a strong signal in terms of quality and precision. In test stands in the automotive industry or in machine and plant engineering, they deliver real-time measurement data which permits precise conclusions about the quality of assemblies. With their high signal processing quality, the TSA modules have become a reliable constant in development and production.

Application examples

- Monitoring of machines and systems
- Detection of status changes of sensitive processes
- Vibration analysis of wind power plants
- Dynamic actuation of servo valves



IMTRON

Member of GHM GROUP

TSA modules.

Precise measurements in real time.

SIGNAL
CONDITIONING &
DATA ACQUISITION



Contact information.

Our customer service.

We would be glad to assist you with any questions about our TSA modules.

We look forward to your enquiry

+49 7551 9290-21

info@ghm-group.de

www.ghm-group.de/tsa

GHM GROUP
Specialists by Competence.

GHM Messtechnik GmbH | GHM GROUP – Imtron
Carl-Benz-Straße 11 | 88696 Owingen | GERMANY





Top quality in real time.

Regardless of whether it involves the monitoring of running plants, complex test stand technology or the detection of individual sensor data – without precise and reliable signal conditioning, the detected measurements are not longer meaningful.

With purely analogue technology, the TSA modules provide top signal quality without delay thanks to galvanic 3-way isolation.

Expertise implemented

Key points

Speed: limit frequencies of up to 30 kHz possible

Precision: synchronous with high speed and stability

From a single source: modules available for all analogue sensor signals

Special requests: tailored solutions possible, even in small quantities

Standard modules

- Detection of voltage, current, DMS bridges, potentiometers, Pt100, thermocouples, ICP® and IEPE sensors
- Conversion of different sensor signals to standard signals
- Replaceable signal filters
- Amplification and linearisation
- Sensor feed and bridge extension
- Optional second output with dedicated filter

Advantages

- Cost reduction: a separate isolator is unnecessary
- More signals: optional second output
- High signal quality: flexible interference suppression
- Real-time signal conditioning



Standard modules

Two-channel modules

Two-channel isolating amplifiers for ICP® / IEPE sensors and standard signal

ICP® / IEPE areas of application

- Signal conditioning of Piezo electric sensors
- Power supply via T-bus or front terminal
- Replaceable filter modules for each channel
- Switchable amplification
- Integrated sensor feed
- Disengageable AC coupling

Advantages

- Space-saving 2-channel amplifier
- Independently configurable channels for maximum flexibility



Special modules

TSA-RMS & TSA-MATH mathematical modules

- Mean value formation (TSA-RMS) of signals of voltage transmitters, DMS bridges, potentiometers, ICP® / IEPE sensors and standard signals
- Mathematical linking (addition, subtraction, multiplication), division of two voltage signals (TSA-MATH)

Advantages

- Synchronous signal conditioning and mathematical preparation in one module

Conversion module TSA-IF

- Signal conversion of pulse transmitters to TTL output

Advantages

- Pulse conversion with up to three channels in one module
- Optional open-collector output

