



SIMPLIFY YOUR MEASURE MENT

IFTA AD4PRO

with Flexense Technology

IfTA AD4Pro. New!

The new IfTA AD4Pro measurement module has four input channels with Flexense technology. Dynamic signals can be sampled at up to 51.2 kHz with true 24-bit resolution. Developed on the basis of feedback from our users, Flexense provides precision and flexibility.

Flexense Technology.

Flexense unites the measurement of voltage and current signals, includes charge amplifiers, pre-amplifiers and (Wheatstone) bridge circuits for strain gauges und Kulites and also has IEPE power supply for every input. All channels are galvanically isolated. The input mode for each channel can be defined via software. Additional external signal conditioning is not necessary.

Flexense. Makes Sense.

Use every input in your data acquisition system. You don't have to worry about whether you have enough appropriate inputs - each input is compatible with each sensor: Flexense makes sense - technologically and economically.

IFTA AD4PRO



FleXense Technology

01 Voltage	04 Charge
02 Current	05 Strain gauge
03 IEPE	06 Kulite

Individually configurable in software

4 inputs, each with 6 signal modes: FleXense technology simplifies measurement setup

Measurement Scenario

Low-emission combustion systems are subject to continuous development. Combustion dynamics and their effect on the structure of the combustor are important aspects to be considered in this process. To measure these dynamics, dynamic pressure sensors, acceleration sensors and strain gauges are used.

Without FleXense:

Due to high temperatures, instead of the usual IEPE sensors, high-temperature piezoelectric sensors with external charge amplifiers are used. Strain gauge sensors also require external pre-amplifiers and bridge resistors. All this results in complex measurement setups with a multitude of sources of error. Effort and costs are high.

With FleXense:

High temperature sensors, strain gauges and IEPE-sensors can be connected directly to the IFTA AD4Pro. The need for external amplifiers is eliminated. This simplifies measurement setup, reduces costs and increases your productivity.

Compatibility

The new IFTA AD4Pro is compatible with the IFTA DynaMaster dynamic data-acquisition system as well as the IFTA OMDS® monitoring and protection system.

Technical Specifications

4 analog data-acquisition inputs for static and dynamic signals

- galvanic isolation up to $\pm 250V$
- synchronous sampling
- switchable AC/DC coupling
- high SNR up to 145dB
- sample rate up to 51.2 kHz with true 24 bit resolution

Mode per-input freely selectable via software:

- 01 Voltage
 - $\pm 25 V / \pm 2.5 V$
 - 1 M Ω input impedance
- 02 Current
 - $\pm 44 mA / \pm 25 mA$
 - 100 Ω input impedance
- 03 IEPE power supply
 - 10 mA (at up to 20 V)
 - cable length up to 100 m
- 04 Charge
 - $\pm 2000 pC / \pm 200 pC$
 - Differential amplifier
 - Adjustment for „popcorn effect“
- 05 Strain gauges
 - 1/4, 1/2 and full-bridge
 - internal reference resistors
 - $\pm 50 mV / \pm 5 mV$ max. bridge voltage
- 06 Piezo-resistive sensors, e.g. Kulite sensors
 - 5 V bridge power supply
 - $\pm 50 mV / \pm 5 mV$ max. bridge voltage

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