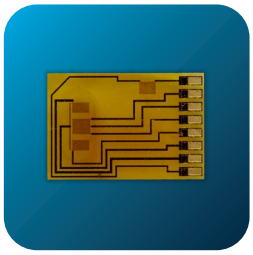
innovative
Sensor
Technology

FLOW SENSORS & MODULES

Thermal measuring principle for gas and liquid applications. Easy integration, signal processing and customization







physical · chemical · biological

AEROSPACE | APPLIANCE | AUTOMATION | AUTOMOTIVE | BIOTECHNOLOGY

Flow sensors

Thermal gas flow sensor FS7

- Anemometric gas mass flow
- Temperature range -20 °C up to +150 °C
- Ceramic sensor with response time <200 ms
- Excellent sensitivity and reproducibility from low flow rates
- With optional hotmelt housing for positioning (easy customization to fit flow channel geometry)



Product code 103705



Product code 103706

FDS.A Gas flow sensor with decoupled heater & temperature elements

- Minimized cross-talk for high sensitivity at low flow rates
- Excellent long-term stability with proven thin-film platinum technology
- High reliability with no moving parts
- Suitable for various technical gases and industrial applications
- Easy fluidic and electronic integration
- Simple calibration and excellent reproducibility over a wide dynamic range



Product code 155846

Thermal gas flow sensor FS2

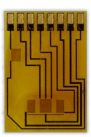
- Calorimetric gas flow sensor for mass flow and direction detection
- 4 structures on one chip for temperature compensation / extended flow range with CTA
- Ceramic sensor with response time <200 ms
- Temperature range -20 °C up to +150 °C



Product code 103663

MicroFlowSens MFS02

- For highly sensitive calorimetric mass flow measurements at low flow rates and extended measuring range up to 150m/s in CTA mode
- Glas membrane sensor with fast response time t_{63} < 10ms
- Temperature range from -20 °C up to +80 °C
- High chemical resistance against aggressive gases and vapours



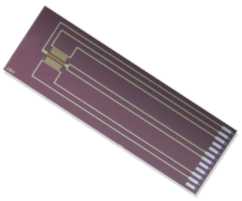
Product code 103743



Product code 103746

Silicon flow sensor SFS01

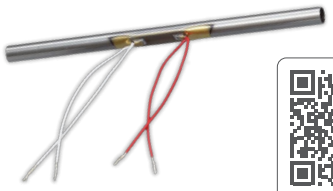
- Calorimetric gas mass flow sensor with very low energy consumption
- For flow range up to 3.5 m/s and temperature range up to +80 °C
- Easy to linearize raw signal
- Silicon membrane sensor with response time <5 ms



Product code 105050

Out-Of-Liquid (OOL)

- For sensitive low flow range in liquids
- For usage in aggressive liquids with stainless steel as single wetted material
- For sensitive, anemometric mass flow measurement in ml/h to ml/min range
- Suitable as leakage detector or flow switch



Product code 104171

Flow modules

SFS flow module

- Ready-to-use and factory calibrated with <2% f.s. accuracy
- Available in 3 flow ranges: ±50, ±200, ±1000 sccm
- Integration ready with digital I²C and 0-1V outputs
- Add-on fluidic adapter available
- Suitable for process control in manufacturing equipment and gas analyzers for gas supply or dosing systems and manifolds



Product code 154807

Flow Switch Module with adjustable threshold

- Reliable and reproducible air flow detection
- Thermal anemometric principle without moving parts
- Switched ground output, suitable for alarm or direct control purposes
- Long and reliable operation
- Compact, flat design for easy integration
- Ideal for HVAC systems, e.g. air filter monitoring, dust extractors, gas velocity verification in air supply, air quality monitoring
- Adjustable switching point between ~0.1 – 15 m/s



Product code 156027



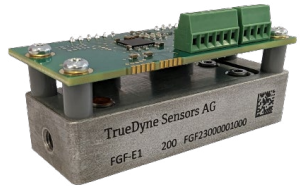
iST offers a wide range of sensors based on different technologies suitable for any application.

Standard or customized

FGF – Thermal gas flow and density module

- Multiparametric module for density and pressure compensated gas mass flow
- CleanGas identification
- Binary gas ratio evaluation and flow compensation
- Suitable for medical devices and industrial process monitoring

truedyne



Visit our website

Mass flow meter – OOL Module

- Factory calibrated liquid mass flow meter
- Calibration range 0.1...20 kg/h and accuracy of ±3 % f.s.
- For sensitive low flow / leakage analysis
- Mass flow and temperature outputs as digital I²C signal via M8 connector
- Compatible with water, oil or alcohol based media



Product code 153331

OOL Bubble Detector

- Detection of gas bubbles in liquid with thermal principle
- Fast response time <6 ms.
- Resolution of ~1 mm sized individual bubbles
- Compatible with aggressive liquids with stainless steel as single wetted material, including coolant, ink and oils



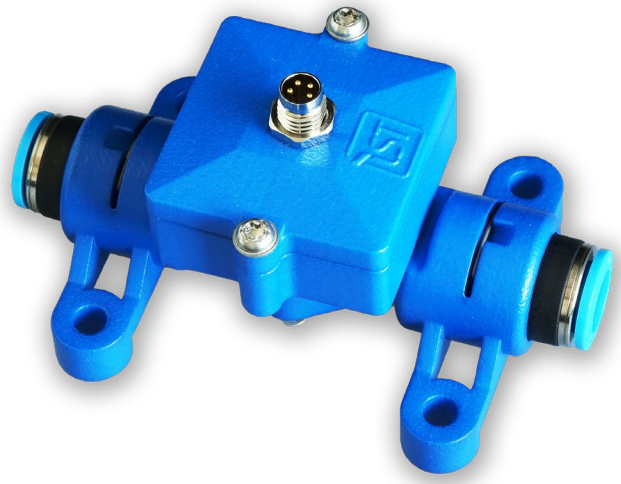
Product code 153512

FS calibrated module

Coming soon

Based on our proven FS sensors type, this module offers precise and accurate flow measurements. Engineered to perform even under variable pressure and temperature conditions, it can excel in applications like leakage detection and maintenance monitoring, reducing maintenance costs and supporting compact integration into OEM systems.

- Ready-to-use calibrated gas module with digital output (analog upon request)
- Application specific customization possible
- Flow range 0-45000 sccm (customizable)
- High accuracy, even at variable temperature and pressure
- Easy integration
- Customizable calibrations possible
- Customizable design
- Robust
- Vibration resistant



Do you want to test this product?
Prototypes are available upon request.
Contact us!



YOUR GLOBAL SUPPLIER

SENSING WHAT MATTERS

Customized sensor solutions for your application

Benefit from an agile co-creation of your next sensor solution. Use our competence at component level and focus on your added value for fast and successful product development - from simple design adaptations to new measuring principles: from concept prototyping to high-volume manufacturing.

Design

- Conceptioning
- Material selection
- Process technology
- Layout & geometry

Patterning

- Photolithography
- Screen printing
- Laser trimming
- Dry & wet etching

Packaging

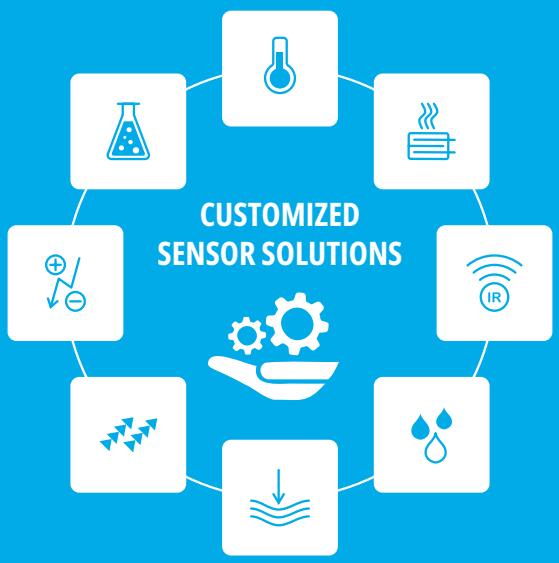
- Welding
- Bonding
- Soldering
- Hot-melt molding
- Injection molding

Services

- Electrical testing
- Optical/AOI testing
- ESD testing
- Calibration
- Metrology

Connection

- PTFE or PEEK insulated
- Ag, Ni/Au, Pt wire
- Cu/Ag, Cu/Ni wire
- AWG 34 to 20
- Flat or round wire
- Multistranded cables
- Ultra-thin wires
- Custom lengths
- Bondable, solderable
- Brazeable, weldable
- SMD & FlipChip
- ...and many more



Substrate

- Alumina
- Zirconia
- Sapphire
- Steel
- Copper
- Glass
- Polyimide
- Aluminium nitride
- Silicon

Metal thin film

- Pt
- Rh
- Ti
- Ni
- W
- Cr
- Ag
- Au
- Al
- Mo
- Alloys

Metal thick film

- Pt
- Au
- Ag
- Ni/Cr and other alloys

Dielectric thin film

- SiO_2
- Si_3N_4
- Ta_2O_5
- Polymers

Dielectric thick film

- Glass
- Organic polymers

Innovative Sensor Technology IST AG
Stegrütistrasse 14 · 9642 Ebnat-Kappel · Switzerland
+41 71 992 01 00 · info@ist-ag.com

www.ist-ag.com