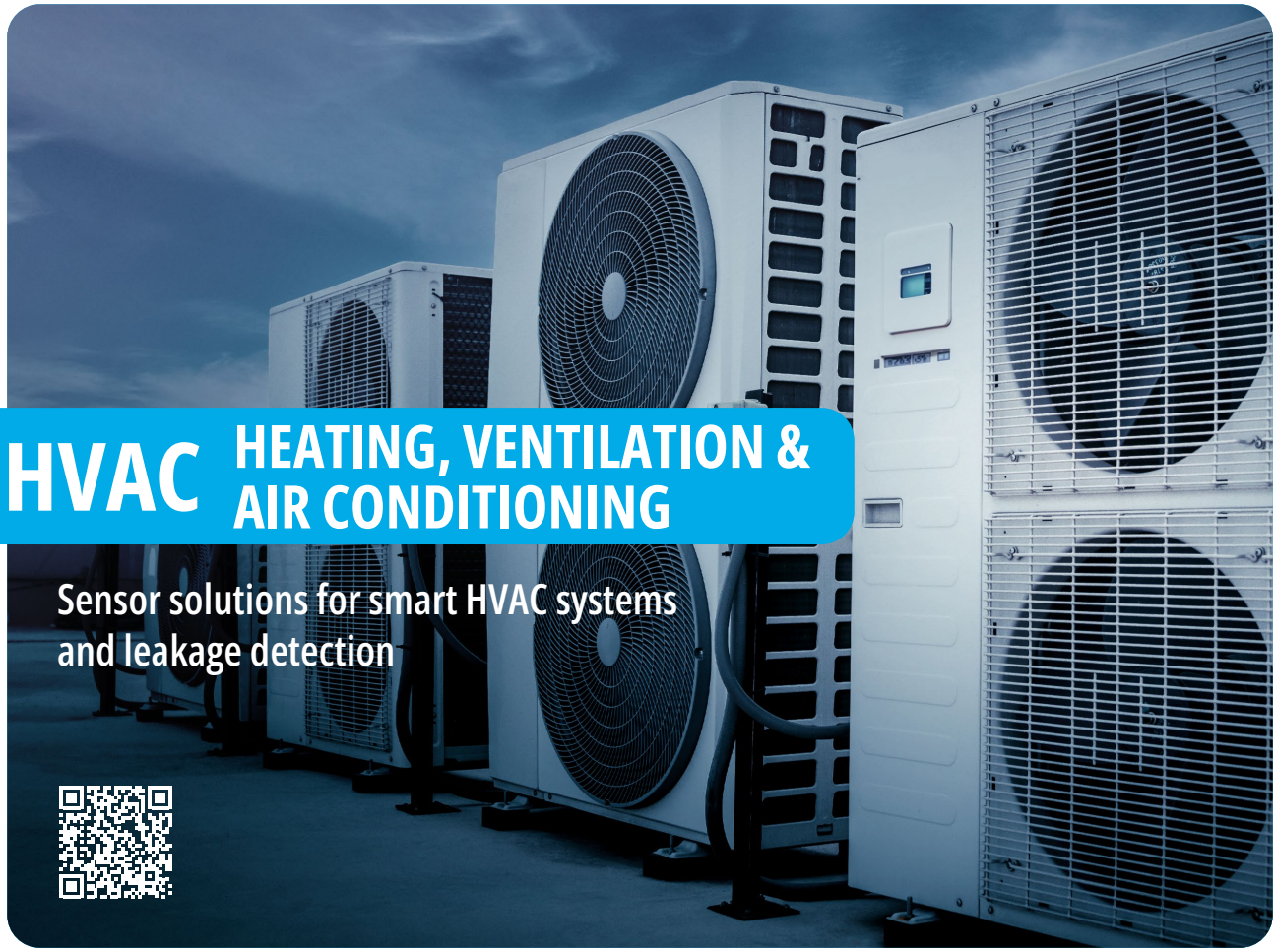
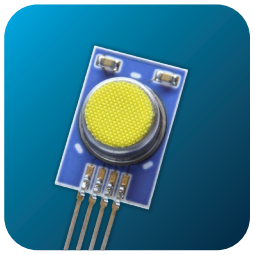
innovative
Sensor
Technology



HVAC HEATING, VENTILATION & AIR CONDITIONING

Sensor solutions for smart HVAC systems and leakage detection







physical · chemical · biological

HEATING, VENTILATION & AIR CONDITION

Temperature

Long-term stable, reliable Platinum and Nickel RTDs available:

- In standard SMD formats 0805 and 0603 for high-volume automated assembly
- Paired by selection or using transmitted measurement data for heat metering and cooling
- Soldered on copper for excellent thermal coupling and fast surface temperature sensing



Product code 101865

Pt1000 0805 2ST

High quality with automated electrical and optical inspection



Product code 155528

Pt1000 3K

Robust, versatile and easy to handle with ESD layout according to IEC/EN 61000-4-2



Product code 154587

Pt1000 2L

Flexible assembly with directly welded insulated wires

Flow switch in ventilation ducts and valves

Thermal flow sensors with superior sensitivity at low flowrates and a wide dynamic range suitable for any air duct dimensions. A high reliability without any moving parts makes iST's flow sensors perfect for safety applications including smoke detectors.



Product code 103705

FS7 anemometric gas flow sensor

Customizable housing and assemblies with hotmelt, injection moulding or pressure tight glass sealing

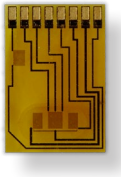
NEW



Product code 155846

FDS.A anemometric gas flow sensor

Gas flow sensor with decoupled heater and temperature elements. Excellent sensitivity from low to high gas velocities. Simplified temperature compensation.



Product code 103743

MFS02 thermal gas flow sensor

Membrane gas flow sensor component compatible with calorimetric & CTA signal processing for fast response time <10 ms, high sensitivity an extended gas velocity range up to 150 m/s

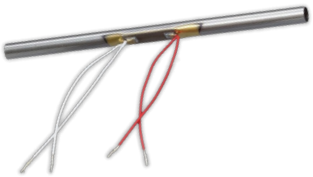
OOL Mass Flow Meter

Flow monitoring and leakage detection of various liquids. Accurate, robust and ready-to-use: The compact and corrosion-resistant module is suitable for continuous low flow monitoring and leakage detection. An adjustable heating setting (per I²C command) allows to achieve leakage level <1 ml/h flow detection with various liquids incl. oils or coolants.

- Liquid flow sensor, thermal principle
- Minimal pressure loss with only stainless steel tube wetted
- Detect smallest liquid flow quantities with an accuracy of <3% F.S. and a repeatability of <0.3 % F.S
- Response time of 500 ms



Product code 153331



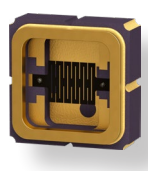
Product code 104171

OOL (out-of-liquid) anemometric flow sensor for liquids

Thermal flow sensor suitable for various liquids (incl. water, oil, coolants, lubricants, cleaning solutions)

Gas leakage detection & environmental analysis

High-power, pulsable thermal emitters with a near black-body emittance in the mid-infrared range (2...20 µm). A free-standing monolithic radiating element with a patented nanostructured surface in a hermetically sealed housing create unsurpassed energy efficiency and long-term stability even in harsh environments common in environmental gas analysis. Suitable for sensitive leakage detection of flammable coolants like propane or fast and dependable CO & CO_2 analysis. The compact SMD versions are suitable for battery powered gas analysers and allow for a simple flow channel design.



Product code 154391

HISsmd

Small and powerful IR-Emitter in reflow solderable 3x3 mm² packaging with filter, up to 40 mW output power, measuring range 2...14 µm



Product code 154370

HISpower

Hermetically sealed with soldered BaF_2 filter and filled with N_2
Up to 740 mW output power, measuring range 2...14 µm

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

Standard or customized

Humidity

Passive sensor components with capacitive measuring principle for high-end gas analysis applications, including emission and waste gas monitoring. Compact, interchangeable RH/T modules with factory calibration customizable to application specific ranges.Suitable for indoor, outdoor and industrial applications focused on accurate measurement for energy efficient process control.



Product code 150464

K5 capacitive RH component

with superior linearity in low humidity range <30%RH suitable for low dew point analysis



Product code 154417

HYT 939 P RH/T module

with optional membrane filter. Custom assembly options with housing, cable or connector



Product code 151331

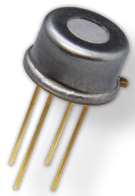
HYT223 RH/T module

with integrated heater for in-process reconditioning

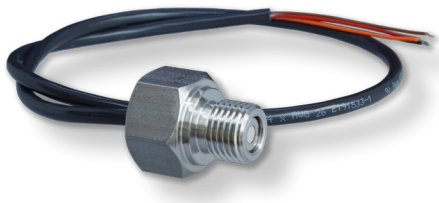
Dew point monitoring for dry room manufacturing

Processing moisture sensitive materials, as common e.g. in lithium batteries, pharmaceutics, or metal additive manufacturing, requires an ultra-dry environment. A modular approach with accurate low humidity sensors, monitoring individual zones and process or purge gas streams in addition to the dryer output, can bring significant improvement to energy footprint and process stability:

- Save costs in dehumidification
- Pre-calibrated for low humidity conditions (0..10 % RH)
- Designed for long-term stability and easy integration
- HYT939 K5 represents the most compact digital sensor solution to monitor <5 % RH operating conditions



Product code 153398



Product code 153326

A pre-assembled version with a minimalistic process connector housing is available to operate off the shelf in a range corresponding to -40°C..+20°C Td dew point. Customization to fit individual geometry and interface requirements is supported by iST's quick-turn prototyping approach to co-creation projects.

iST – Innovative Sensor Technology

Your manufacturer and partner for physical, chemical and biological sensors

With more than 30 years of experience Innovative Sensor Technology IST AG is one of the world's leading manufacturers of physical, chemical and biological sensors. We specialize in the development and manufacturing of temperature sensors, thermal mass flow sensors and modules, humidity sensors and modules, conductivity sensors and biosensors.

In addition to our standard products, we offer sensor adaptions to individual, customer-specific application needs – right up to the joint development of new technologies. iST sensors are characterized by their accuracy and consistency in various measurement conditions. They are used in measuring and monitoring instruments for numerous applications across all industries.

Out of our state-of-the-art-facilities we manufacture varying quantities from small order numbers to fully automated high-volume manufacturing.

iST is a company of the Endress+Hauser Group, headquartered in Reinach, Switzerland. Endress+Hauser is among the global leaders in measuring instruments, services and solutions for industrial process engineering.



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

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