trafag
sensors controls

trafag
industrial components

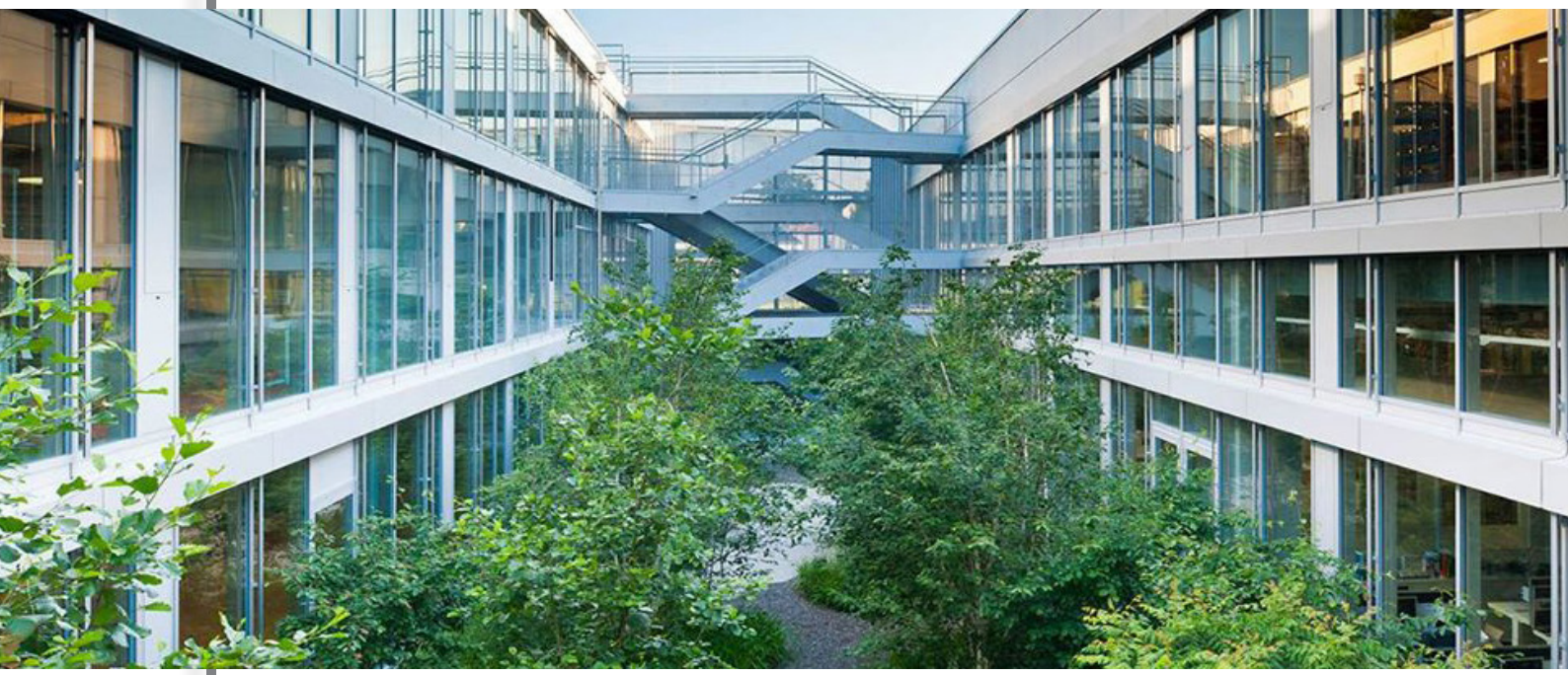
ABOUT US

Trafag – Sensors and monitoring instruments for pressure and temperature

Trafag, a Swiss-based company founded in 1942, is supported by a broad sales and service network in over 40 countries across the world. This allows Trafag to offer customers personalised and competent advice and ensures the best possible service. High-performance development and production departments not only guarantee the fast and reliable delivery of our high-quality and high-precision products, but also ensure that customisations can be implemented in a short time..

Competent and customer-oriented

Technological competence, manufacturing expertise and customer-orientation form the three cornerstones of Trafag as a company. Trafag is a completely independent company with headquarters in Bubikon, Switzerland, and further manufacturing companies in Germany and the Czech Republic.
A fifth of its employees in Switzerland are involved in the fields of research and development, production technology or applications engineering.



Application and solution-oriented

The direct availability of these resources enables Trafag to be extremely flexible in the areas of development and production as well as in its perception and implementation of customer requirements. Thanks to modular engineering, Trafag is able to efficiently adapt its standard products to the specific needs of customers and to develop special OEM solutions.

Market-oriented and always within reach

Trafag maintains an active presence in over 40 countries. A great number of customers in diverse industrial sectors such as mechanical engineering, hydraulics, engine manufacturing, shipbuilding, railway technology or high-voltage technology appreciate the cooperation offered by our technically competent customer advisory service.

Adaptable and efficient

The ability to develop and manufacture its strategically important components in-house means that Trafag can both mass-produce and manufacture on a small scale at short notice. Rigorous quality management in accordance with ISO 9001, state of the art production facilities under clean room conditions and stringently monitored production processes ensure that Trafag meets the highest quality demands.

Trafag Industrial Components

The label Trafag Industrial Components extends the Trafag brand name to instruments manufactured by qualified partner companies.
Trafag Industrial Components complement the genuine Trafag product range to offer customers a complete portfolio from one single source.


SP1
SP2
187.4

Product line: Sensor with display

FEATURES

- Parameterization also via NFC-smartphone App (Android)
- Display and electrical connection are independently rotatable 335°/343°
- Analogue output switchable mA or V
- Integrated datalogger
- Measuring range adjustable

DPC e DPS

Technical Data	
Measuring principle	Thick-film-on-ceramic or Thin-film-on-steel
Accuracy@25°C typ.	± 0.5 % FS typ.
Measuring range	0 ... 0.2 to 0 ... 100 bar (DPC) or 0 … 2.5 to 0 … 600 bar (DPS) adjustable
Media temperature	-25°C ... +85°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V
Ambient temperature	-25°C ... +85°C
NLH@25°C (BSL) typ	± 0.2 % FS typ.
Pressure unit for display	bar, psi, MPa, kPa, mWC, mmWC, %, user scale
Switching output	2 transistors PNP
Logger Ring buffer	3518 data points
Sampling time	0.1 ... 999.9 s, Off (0)

DTP

Technical Data	
Measuring principle	PT 1000, DIN EN 60751 class A, 2 conductors
Accuracy@25°C typ.	± 0.5 % FS typ. + temperature sensor error
Measuring range	-50°C ... +150°C adjustable 50 ... 100 % FS
Ambient temperature	-25°C ... +85°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V
Temperature unit for display	°C, °F, K, user scale
Switching output	2 transistors PNP
Logger Ring buffer	3518 data points
Sampling time	0.1 ... 999.9 s, Off (0)

DLF

Technical Data	
Measuring principle	Magnetic float with reed contacts
Resolution	5, 10 or 20 mm
Media temperature	-30°C ... +105°C
Measuring range	Max. Level 2000 mm
Ambient temperature	-30°C ... +85°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V
Unit for display	mm, inch, user scale, %FS
Switching output	2 transistors PNP
Logger Ring buffer	3518 data points
Sampling time	0.1 ... 999.9 s, Off (0)

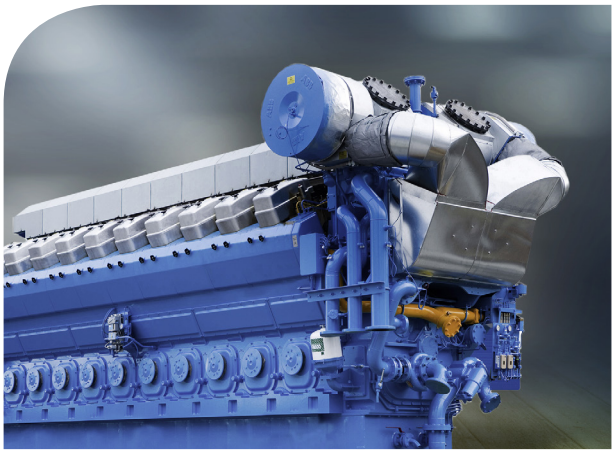
Our products are at home where you are

Shipbuilding

- Propulsion
- Pumps
- Ballast water treatment
- Steering
- Separators
- Tank level

Hydraulics

- Construction machinery
- Agricultural machinery
- Injection molding machines
- Community vehicles
- Elevators



Engines

- Common rail injection
- Cooling water
- Oil pressure
- Fuel pressure
- Turbo charger

Railways

- Brake system
- Pantograph
- Air compressor
- Control and safety systems
- Air-conditioning systems

Test & measurement

- Engine and transmission test benches
- Mobile vehicle testing
- Testing of hydraulic components
- Material testing
- Brake and chassis test benches

Various

- Water treatment
- Level monitoring
- Machine building industry
- HVAC
- Oil and gas
- Chemical industry, process technology

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sensors controls

Pressure transmitters and electronic pressure switches

Trafag pressure transmitters and electronic pressure switches are used for measuring and evaluating pressure. Over the decades, they have proven themselves in a multitude of demanding applications in harsh environments. Superior technology and precise manufacturing ensure that the transmitters work perfectly, especially in areas where high requirements are placed on long term stability, vibration resistance, electromagnetic compatibility, shock resistance or temperature insensitivity. Trafag pressure transmitters and electronic pressure switches are available in many different designs to suit pressure and electrical connections, measuring procedures, electrical output signals. They are available with Ex- and ship approvals as well as with railway conformity.

Sensor technology

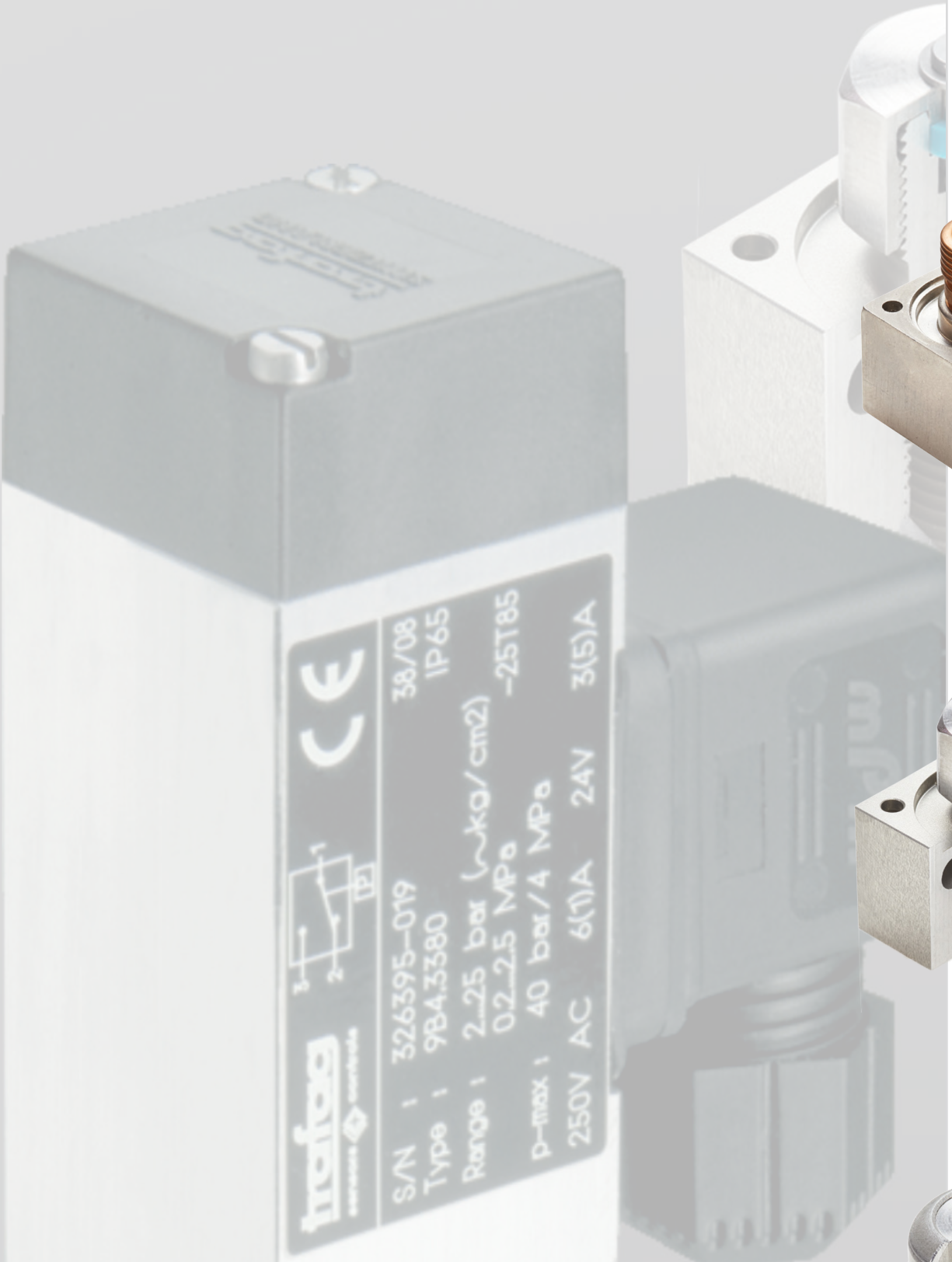
Key components of Trafag pressure transmitters are pressure sensors based on thin-film-onsteel technology (welded design without O-ring) or thick-film-on-ceramic technology. Both sensor technologies come from Trafag's own production and were developed in-house together with the ASIC (application-specific microchip).
As a result, pressure sensors and electronics work in perfect partnership and achieve a unique level of long-term stability and reliability, even under the most adverse environmental conditions.

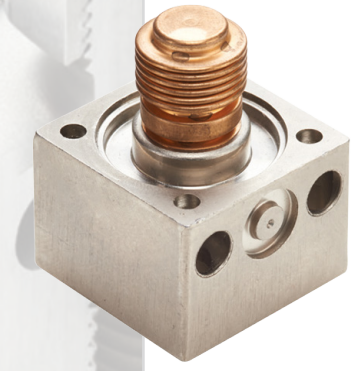
Thin-film-on-steel technology

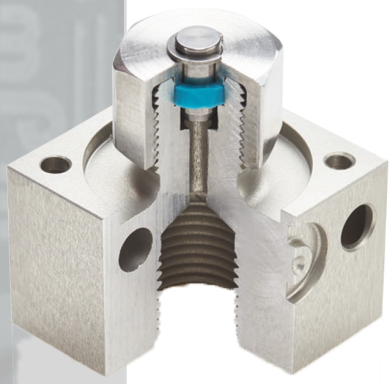
- Very good long term stability
- Resistant to high media temperatures
- Completely welded stainless steel sensor system without O-rings
- Resistant to very high over pressures and ideal for nominal pressures up to 3000 bar

Thick-film-on-ceramic technology

- Resistant to aggressive media
- Ideal for low pressure ranges and absolute measurement
- Economical


S/N : 326395-019
Type : 9843380
Range : 2...25 bar (~kg/cm2)
0.2...2.5 MPa
p-max : 40 bar/4 MPa
250V AC 6(1)A 24V 3(5)A
38/08
IP65
-25T85





Mechanical pressure switches

Trafag's electromechanical pressure switches provide high vibration resistance and switch point precision in combination with an extremely robust and durable design. This results in switches that can be operated for decades without requiring maintenance, even under harsh conditions. Various designs with bellows, membrane and piston sensors cover a wide variety of pressure ranges, media and load profiles for many different applications.
Pressostats are available with Ex- and ship approvals as well as with railway conformity.

Bellows sensors

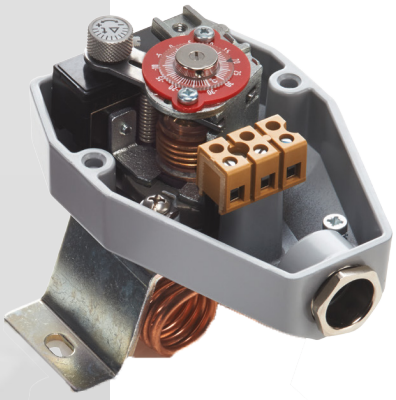
- High switching point precision and repeatability
- Stainless steel, bronze and brass designs
- Optionally welded/soldered design for absolute impermeability
- Measure liquid, vaporous and gaseous media

Piston sensors

- Suitable for high pressure ranges
- Not sensitive to pressure surges
- Suitable for applications with many load cycles
- Ideal for hydraulic systems

Membrane sensors

- Resistant to high overpressures and not sensitive to pressure surges
- Suitable for applications with many load cycles
- Measure liquid, vaporous and gaseous media



Thermostats

For 70 years Trafag thermostats have proven their robustness in order to withstand the most adverse environmental conditions. Industry usage ranges from air conditioning applications to engine and ship manufacturing and even to offshore oil and gas platform production. The appeal of Trafag thermostats lies in their high switching point precision even after decades of operation under harsh conditions without maintenance. Trafag thermostats are available in various sensor and housing versions, with various Ex and ship approvals as well as in railway-compliant versions.

Measuring principle

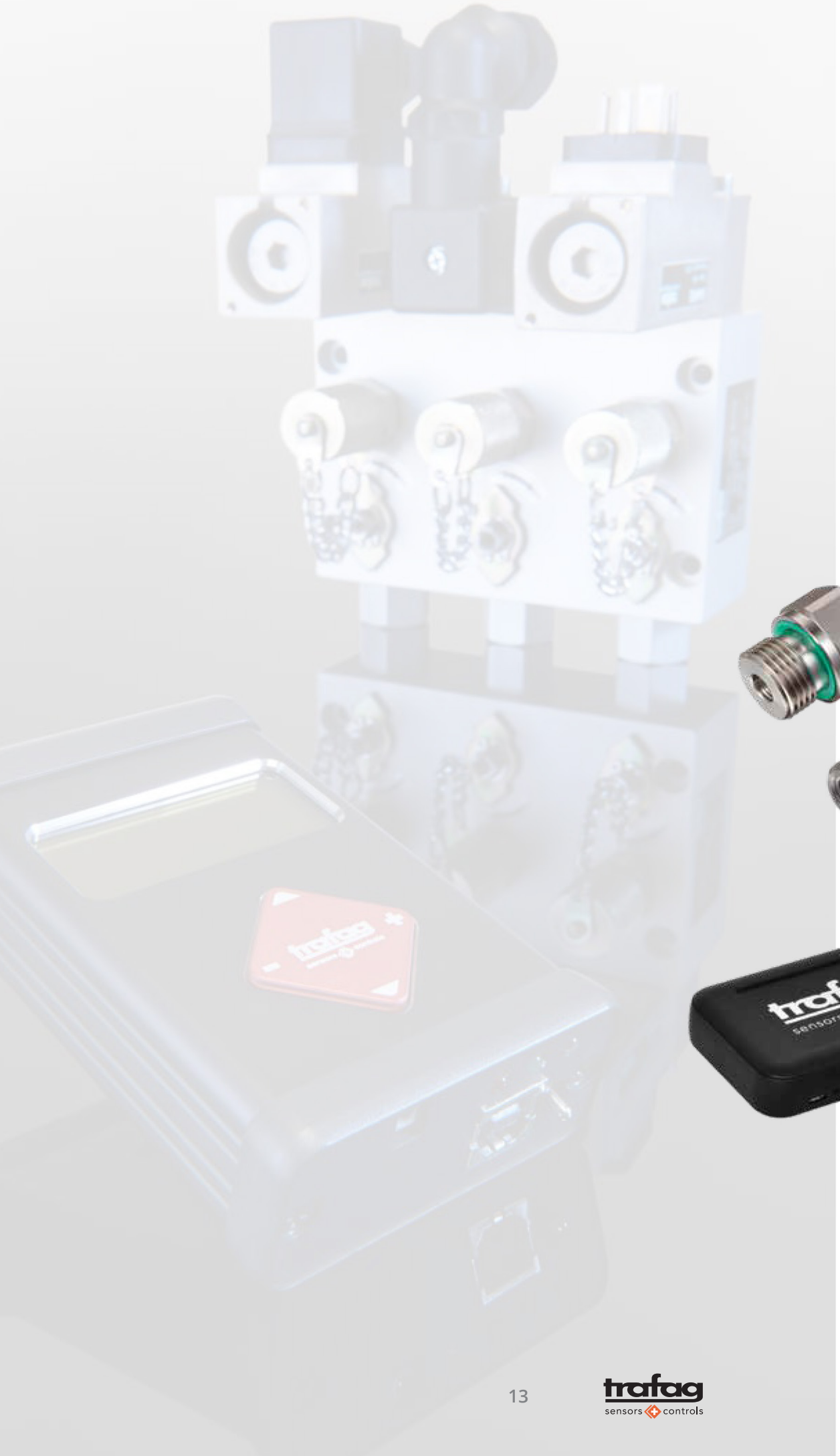
A capillary tube filled with liquid reacts to a temperature change as a result of the principle of thermal expansion. This expansion is detected using a precision structure which switches one or multiple microswitches.

Design variations

- With internal or external temperature set-point adjustment
- Internal or external measuring scale
- With or without a manual reset switch
- With or without DT-switching differential adjustment
- Switch designs for inside or outside applications
- Optional capillary tube safeguard
- Single or double-step circuit
- CE, EX or ship certifications

Sensor systems and accessories

- Sensors that are fixed or can be mounted freely
- Copper (Cu), Cu nickel-plated or stainless steel sensor material
- Nickel-plated bronze or stainless steel protective sensor tube
- Additional capillary tube protection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Accessories

Trafag offers a wide range of original accessories which are ideally matched to our products. These include devices for monitoring or configuring transmitters such as hand pumps with precision pressure gauge or the Sensor Communicator, a handheld device which provides direct access to the calibration values of the transmitter in the Trafag ASIC. Trafag also offers a wide range of accessories that meet specific application requirements and make installation easier, such as diagnostic valve manifolds, snubbers and pressure peak damping elements. For thermostats various protective pipes are available.

Measuring principle

A capillary tube filled with liquid reacts to a temperature change as a result of the principle of thermal expansion. This expansion is detected using a precision structure which switches one or multiple microswitches.

Accessories for pressure measurement instruments

- SMI Sensor Master Interface
- SC Sensor Communicator
- CAN2USB CANopen Configuration Tool
- DVB Diagnostic valve block
- Hand pump with precision manometer
- Switch amplifier
- Venting box
- Cable hanger
- Pressure peak damping element
- Snubber
- Adapters for different pressure connections
- Stop valve

Accessories for thermostats

- Protection tubes for direct mounting and remote sensors
- Duct mounting bracket
- Capillary tube holder
- Mounting brackets
- Screwed cable glands, ship approved, for retrofit

Pressure and temperature gauges

Applications

Oil & Gas

Petrochemical

Food and Beverages

Water and waste water treatment

Steel and power

Cement

Glass

Pharmaceutical

Product lines: pressure gauges

In order to get a precise pressure measurement in a wide range of different application, it's possible to choose between different measurement systems as Bourdon tube, diaphragm or capsule. Pressure elements are also available in different materials as copper alloy, stainless steel or special alloys, in order to satisfy requirements of every industrial applications.

Bourdon tube pressure gauges for generic applications

These gauges are used for liquid or gaseous fluids, not highly viscous or crystallizing and are manufactured according to EN 837-1.
For any measurements with high dynamic loads, we recommend the use of liquid filling with glycerin or silicone oil.

Diaphragm pressure gauges for aggressive fluids

The application areas for these gauges with diaphragm measuring element are aggressive gaseous and liquid fluids. Gauges are also available with flanged connections forhighly viscous and contaminated fluids, also suitable for aggressive environments.
Special materials for wetted parts are available as option.

Capsule pressure gauges for very low pressures

This type of pressure gauges is particularly suitable for gaseous fluids. These instruments are mainly used in medical, vacuum technology and laboratories applications.

Pressure gauges for differential pressure

Differential pressure gauges are available with a wide range of measuring elements.
They are used to monitor the degree of clogging in filter systems, the level in closed tanks and the flow of gaseous and liquid fluids.

Product line: temperature gauges

Temperature gauges work with bimetallic or gas expansion measuring principle and temperature ranges from -200 ° C to +700 ° C with different classes of accuracy, response time and the ability to withstand environmental changes. They are available with different process connection, diameter and length of the bulb, allowinga flexible design for reaching the measuring point. If required by the application, the thermometers can be installed inside a thermowell.

Bimetal temperature gauges

Temperature measurement is made by a bimetal system placed inside the thermometric sensor.
The temperature variation causes the bimetal spiral or helix to rotate on its axis: value of this rotation is then indicated on a graduated temperature scale. Bimetal thermometers are available for temperature ranges from - 70°C up to 500°C with an accuracy according to class 1, standard EN 13190.

Inert gas temperature gauges

These thermometersare made with a bulb sensor, a capillary and a case containing a tubular spring filled with a pressurized inert gas. Any temperature changes causes a change in the inner gas pressure: this pressure variation is then measured by a Bourdon tube system and indicated on a dial with a scale with temperature units. Inert gas temperature gauges are available for temperature ranges from -200°C to 700°C with an accuracy according to class 1. They are designed for heavy applications, and can sustain severe shocks, vibrations and resist to high ambient temperatures and humidity.

Temperature sensor

Applications

The label Trafag Industrial Components extends the Trafag brand name to instruments manufactured by qualified partner companies. Trafag Industrial Components complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

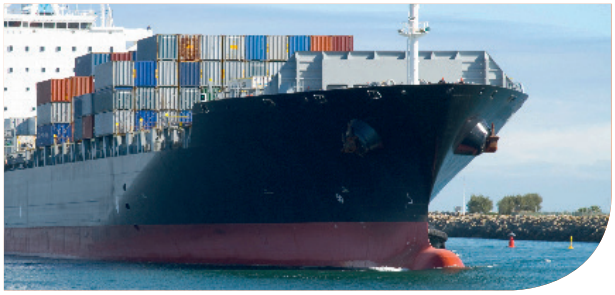
Oil & Gas

Chemical

Food and Beverages

Hydraulics

Railway



Shipbuilding

Automotive

Test & Measurement

Product lines: temperature sensor

In order to get a precise temperature sensor in a wide range of different application, it's possible to choose between resistance thermometers and thermocouples. Temperature sensors are also available with temperature transmitter, thermowell and other options, in order to satisfy requirements of every industrial applications.

Resistance thermometers

Resistance thermometers have a platinum sensor element which changes it electrical resistance as a function of temperature.
In our products portfolio are available resistance thermometers with cable and with connection head.
A temperature transmitter can be installed directly in the connection head.
Resistance thermometers are available in classes A, 1/3 DIN, 1/5 DIN and 1/10 DIN in accordance with IEC 60751. They are available also the ATEX versions (Ex ia and Ex d)

Thermocouples (TC)

Thermocouples directly supply a temperature-dependent voltage.
They are particularly suitable for high temperatures.
In our products portfolio are available thermocouples with cable and with connection head.
For thermocouples, the accuracy classes in accordance with IEC 60584-1 or ASTM E230.
The type J, K, N, T, S, E are available in our products portfolio.
A temperature transmitter can be installed in the connection head.
They are available also the ATEX versions (Ex ia and Ex d)

Temperature transmitters

The transmitters for DIN/B head or for DIN rails convert a signal acquired by RTD (with 2, 3 and 4 wire connections) or Thermocouples into a 4 ... 20 mA signal (2 wires technology) or 0 … 10 VDC signal (3 wires technology). These converters ensure high accuracy on the reading scale with 16-bit conversion and they are available with parameterization via NFC-smartphone App (Android) and with integrated datalogger. Available also the ATEX version (Ex ia) and with galvanic isolation.

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Thermowells

Thermowells are available for different applications whether in aggressive or abrasive process media, to prevent direct exposure of their temperature probes to the medium.
Thermowells can be manufactured from solid-body material or from tube sections and can either be screw, weldor flange fitted.
They are available in standard and special versions (stainless steel 1.4571, 316L, Hastelloy® or titanium).

Level Sensors

Applications

Water treatment

Machine tools

Hydraulics

Food and Beverages

Chemical

Pharmaceutical

Product lines: level sensors and level switches

In order to get a precise level measurement in a wide range of different application, it's possible to choose between different measurement systems as reed contact, conductive or optoelectronic.
The level sensors or level switches are also available in different materials as stainless steel, PP, PVFD, PVC or brass, in order to satisfy requirements of every industrial applications.

Level sensor - TFC

The principle of operation is of potentiometric type, based on the gradual shutdown of a chain of resistors and reed contacts, placed inside the guiding rod, by a magnetic float. An analogue output signal in provided with a measuring resolution of 5, 10 or 20mm.

Level switch - TFS

The principle of operation of these instruments is based on the drive of one or more magnetic reed contacts, placed inside of the measuring rod, by one or more floats. Up to 6 floats with individual switchpoints are available for comprehensive monitoring of the liquid level.

Optical level - TOS

The optical sensor is located in a metallic body which includes a polysulfone prism inside of which there is inserted an infrared transceiver.
As soon as the sensor is immersed in the liquid, the refraction index of the prism changes and a large part of the infrared beam is dispersed in the liquid, causing the output to change state.

Conductive level - TCS

Conductive probes constitute a valid solution for controlling the level of liquid with minimum value of conductivity of 5µS/cm.
The resistance between two measuring electrodes changes by the presence or absence of a medium. In single-rod probes, the electrically conductive tank wall serves as a counter electrode.

Product lines: level sensors and level switches

In order to get a precise level measurement in a wide range of different application, it's possible to choose between different measurement systems as capacitive, ultrasonic and High-frequency level sensor.

Capacitive Level Meters

The capacitive level meters are intended for continuous level measurement of liquid and bulk solids in tanks, vessels, sumps or silos, hoppers etc. They are comprised of a housing with electronic module and measuring electrodes. The electronic part converts the size of the capacity to the current signal (4 ... 20 mA) or voltage signal (0 ... 10 V). Level meters are made in several modifications of measuring electrodes (rod and rope). The electrodes can be covered by an insulating coating in case level measurement of adhesive, aggressive or electrically conductive media. Rod electrodes are also available in a version with reference (coaxial) tube for level measurement of liquids in tanks made from non-conductive material.

Ultrasonic Level Meters

The ultrasonic level meters are compact measurement devices containing an ultrasonic transmitter and an electronic module. Using an transmitter, level meters transmit the series of ultrasonic pulses that spread towards the level surface. The transmitter recuperates reflected acoustic waves that are subsequently processed in the electronic module. Based on the period during which the individual pulses spread towards the level and back, this period is averaged by the electronics that performs temperature compensation and subsequently a conversion to an output current 4 -20 mA, voltage 0 - 10 V or output RS-485 Modbus.

Capacitive Level Switch

Capacitive level sensors are designed for limit sensing of the level of liquid and bulk solids in tanks, sumps, tubes or, hoppers, silos, etc. The sensors are manufactured in several modifications of sensing electrodes (rod and rope). The electrodes can be given an insulating coating, a useful feature in case of adhesive, aggressive or conductive media sensing. Rod electrodes are also available in a version with reference tube for measuring fluids in tanks made from non-conductive material.

Ultrasonic Level Switch

The ultrasonic level sensor are compact measurement devices containing an ultrasonic transmitter and an electronic module. Using an transmitter, level sensor transmit the series of ultrasonic pulses that spread towards the level surface. The transmitter receives reflected acoustic waves that are subsequently processed in the electronic module. Based on the period during which the individual pulses spread towards the level and back, this period is averaged by the electronics that performs temperature compensation and subsequently a conversion to an output. The output of the ULS sensor consists of a PNP transistor with an open collector or a two-state current switch 4 mA / 20 mA.

High-frequency level sensor

The high-frequency level sensor is designed for industrial use for limit sensing of the level of liguid and paste-like media. The high-frequency level sensor may be a direct replacement of a vibrating level sensor, or of a capacity level sensor in case of more demanding applications.
The media may be electrically conductive or non-conductive with any permittivity. It can be installed in metal or plastic tanks, pipes, filling tanks, sumps, etc. It is mainly designed for mounting into the wall of a tank or pipe, in which the actual detection of the level will take place. The sensor works in the high frequency band, enabling reliable detection of the level of media, and eliminating deposits or foam on the electrode. The sensor suppresses the influence of deposits of viscous media (ketchup, yoghurt, pastes, syrups, jams and jellies, creams, soap) as well as electrically conductive adhesive products (detergents, alkalis, chemicals).

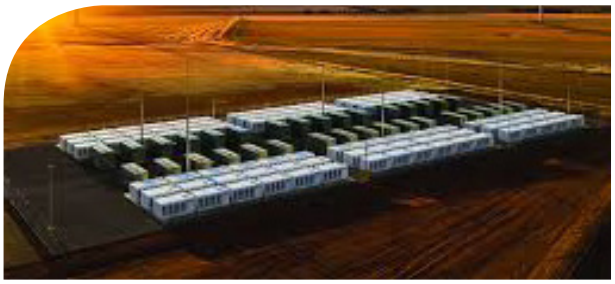
Distributed by trafag sensors controls

Flow sensor and flow switches

Applications

Shipbuilding

Water treatment



Energy and power

Paper industry

Scientific reserch

Heat pump systems

Cooling and lubricating circuits

Oil & Gas

Distributed by trafag sensors controls

Product lines: flow sensor and flow switches

Trafag Italia Srl is the official distributor in Italy for Eletta products. In order to get a precise flow measurement in a wide range of different application, it's possible to choose between different measurement systems as flow sensors or flow switches.

Flow Meter measuring Gas, Liquid flow and DP – M3

The well-documented differential pressure measuring principle with exchangeable orifice-plates is the base for this construction. In combination with two independent absolute piezoresistive pressure sensors it gives you a compact Flow Meter which aslo can be used for three different modes. Through the Eletta software Flow Center you can easily change function to:

- Gas flow measurement
- Liquid flow measurement
- Diferential Pressure

The M-series is one of the smallest gas flow meters on the market to measure most gases with an automatic compensation for changes in pressure and temperature.

Back lit display and 4-20 mA output signal - D

The D2 and D5 Flow Monitor is the new model with microprocessor based electronics and back lit digital display.The display can be rotated 90 degrees (electronically) which makes it possible to install the monitor both vertically and horizontally in any piping system.

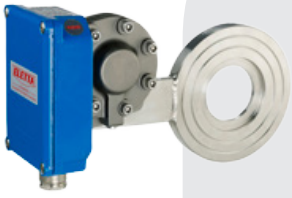
The D2 and D5 is equipped with a 4 … 20 mA output signal as well as local alarms. A linearization possibility of the flow curve is built in and can be programmed by the user. Also included is a re-settable flow totalizer. In order to conveniently set up a flow system at dry conditions, a simulation mode for the analogue and frequency output signal can be activated.

Mechanical flow monitor with two set points or without – S2/S0

The S-series have a large and easy readable dial of 130 mm which is clearly visible even in a harsh and dusty industrial environment. It has two micro switch setpoints which are independently adjustable within the measuring range and they can be set for high and low flow alarms for example, to protect expensive equipment in various piping systems.

The Monitor is insensitive to surrounding magnetic fields and it combines the long-standing proven mechanical function with outstanding reliability.

The S-series can also be ordered without the micro switches, designated S0-series, and is then used a a direct reading flow meter only.



Flow Monitor with one set point - V

The V Series comes without local indication as standard. A small indicating window can be quoted as alternative. V series has one micro switch set-point, it is adjustable within the flow range of the monitor.

You can easily up-grade a V-series to a flow monitor with local indication or analog output by changing the indicating unit as the different series uses the same pipe-sections.

The mechanical construction of the V-series means that it is insensitive to magnetic fields, it is also well suited for rough industrial applications.

Liquid Flow Switch of paddle – PR1

PR1 liquid Flow Switch is suitable for applications with limited demands on accuracy. Its speciality is full flow or no flow. The lowest possible set point in a 50 mm pipe is appr. 100 l/min, the set point increases accordingly with larger dimensions. It can be mounted on pipe-sizes from DN50 up to DN250, the process connection is 25mm thread (through pipe wall).
The paddle aligns fully with the flow and creates a very small pressure drop.

Elettromagnetic Flow meter – EMF

The magnetic flow meterisone of the most flexible&universally applicable flow measurement instruments available for conductive liquids.It is avolumetric Flow meter working on Far a day's Law of Magnetic Induction & does not have any moving parts.The same is ideal for clean&dirty Water or liquids that a reconductive specifically designed to measure flow at high velocities ranging from0.3 to 10m/s.The Eletta EMF models of Mag meters are available from DN6 to DN2200 line sizes with variety of liner materials like Propylene Oxide, PTFE, PFA and electrode material from SS316L, HastelloyC, Tantalum, Titanium and Platinum-Iridium. They consume very low Power of<20W. Also available insanitary connections & insertion types (up to 3000 mm line size) and even a battery operated model.

Variable Area Flow meter – EVA

The variable area flow meter includes a vertical tube in which fluid flows from bottom to top or a horizontal tube for line sizes DN15 to DN250.It is equipped with Mechanical & LCD display & very robust in design serving wid errange of flows. Suitable applications are in different kinds of liquid and gas flows or aggressive fluids with high pressure & temperature ratings.Also contains hygienic process connection i.e. Tri-Clampfor food,pharma & beverage sector from DN15 to DN100.

Vortex Flow meter – EVX

Vortex Flow meter measure the Water, Gases,Steam and other liquids flowing through pipeline using the Karman Vortex Street Principle.The EVX vortex type flow meter can work upto a temperature range of 350°C, while offering pressure& temperature compensation option for gases and steam too & can serve upto a line size of DN300. The standard material of construction is stainless steel within the range of product. Insertion Type variant is also available.

Liquid Turbine Flow meter – ETL

ETL series is specially designed for water, diesel, gasoline, & other fluid measurement. These instruments operates on the turbine principle. They are available from DN4 to DN 200.

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CALIBRATION SERVICE

The calibration of an instrument has the purpose to define its metrological characteristics and usually occurs with comparison with a known sample having appropriate requirements. Our Laboratory has adequate equipment for the carrying out the calibration activities that can be summarized
in the following points:

- cleaning of the instruments and functional verification;
- calibration with possible tuning, to be agreed with the customer, if necessary and technically feasible;
- issue of CERTIFICATES or calibration reports;
- calibration labels showing the identification code of the instrument, the number of the certificate or calibration report, the date of issue and possible expiration.

Temperature

Calibrations with calibration report of thermocouples, thermistors, thermometers resistor with or without indicator instrument, transmitter, thermostats, bimetal thermometers.
Range from -40°C to +660°C

Pressure and vacuum

Calibrations with calibration report of pressure gauges, vacuum gauges, transmitters, pressure switches, differentials, barometers, absolute pressure meters.
Range from -1 bar to 700 bar

APPROVALS & CERTIFICATIONS

Note

Note

Trafag Italia Srl

HEADQUARTERS

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