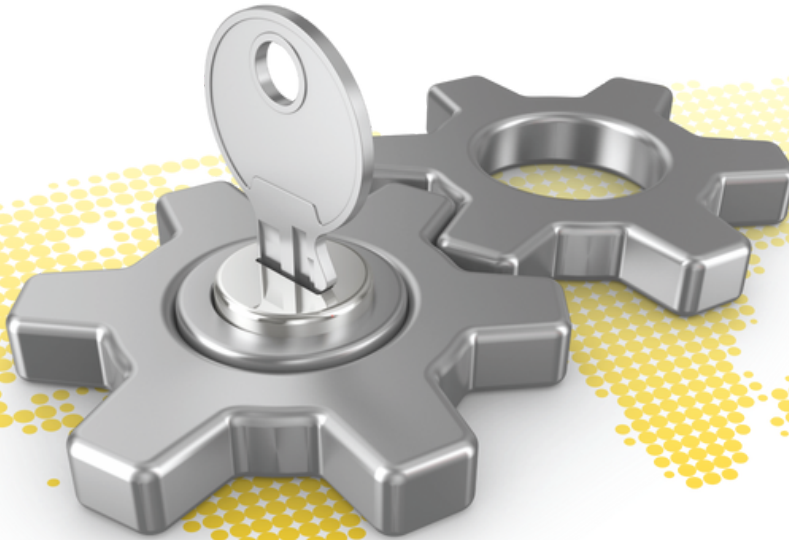


Managing key solutions to integrate
TECHNOLOGY & SERVICES



Product Overview

Reliable partner for your instrumentation needs



Company Profile

Founded in year 2002 by two first generation young technocrats with a thought '**MTS**' i.e. "**Managing Technology & Services**" operating from 2500 sq.ft head Office in Ahmedabad city, a hub of Gujarat the biggest industrial state of India. More than 30 + qualified Employees working in Sales, Marketing, Admin & Service departments altogether. Gaining respect in Industries domain & **Gujarat State's Leading Process & Analytical Instrumentation Solutions provider**. Sales team across Pan-India.

Practically "**PROVEN FLOW MEASUREMENT EXPERTS**" in Process & Analytical Industries.



Business Goal

To manage at it best the State-Of-Art Technology in the area crucial for process optimization & control as well as to diversify into latest upcoming technological innovation. Sensible solutions with intangible services will be our utmost priority.



Our Strength

Professionally trained technical team with wide application knowledge in Process & Analytical Instrumentation ensures optimum selection & customer satisfaction. Proven Flow Measurement Experts. Distribution & execution of latest technology with a creative approach is our key for survival. Continuous desired training to our employee is at our heart.



We Believe

Transparency & ethical approach with all stake holders will be at our heart for all decisions.



Our Service

Customer satisfaction with INTANGIBLE services is our top most priority. Going an EXTRA MILE to resolve customer's issues is our HABIT. Improving customer's production process is our BELIEF.



Bronkhorst - Netherlands is leader in low flow fluidics handling technology. We offer an extensive product range of thermal, Coriolis and ultrasonic flow meters and controllers for low flow rates of gases and liquids.

Bypass Type Thermal Mass Flowmeter & Controllers

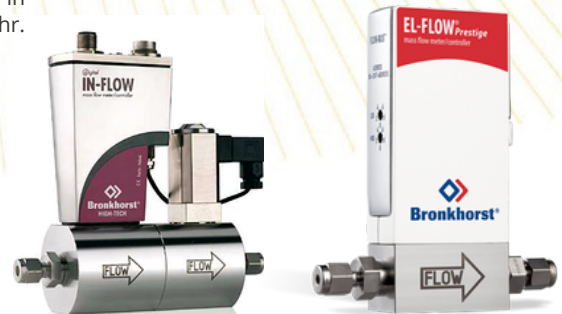
Mass flow Meters and Controllers for gas applications with an electronic housing suitable for laboratory conditions. EL-FLOW® series instruments are truly unique in their capability to control flow ranges between 0...0,7 ml n/min and 0...11000 m3/hr. ranging between vacuum and 400 bar - all in one range of instruments.

Features

- Bypass Technology with Extremely fast & dynamic response
- Multigas/Multirange functionality
- Various model with Pressure range upto 700 bar
- Various protection class available IP54, IP65, ATEX Zone-1 & 2
- User configurable control characteristics

Applications

- Analytical/environmental equipment
- Gas flow monitoring in food, chemical and petrochemical industries
- Gas consumption measurement in gas distribution systems for internal accounting purposes
- Surface treatment installations



Inline Thermal Mass Flowmeter & Controllers

It operates on the direct through-flow measurement principle, also called inline-sensor Constant Temperature Anemometry measuring principle, for mass flow ranges from 0.2 l/min Air (full scale range) up to 10000 l/min Air (full scale range).

Features

- Use able for virtually every kind of gases
- Compact and robust design with IP65 protection
- Very good repeatability
- Measurement without moving parts
- Great Price v/s Performance Ratio
- RS232, PROFIBUS DP, FLOW-BUS and Modbus-RTU options available

Applications

- Burner Controls
- Carburising, Nitriding Furnaces control
- Biogas plant, N2/O2 Generators
- Welding & Medical gases
- Compressed air & Natural gas monitoring



Coriolis Mass & Low Flow Ultrasonic Flowmeter & Controllers

Features

Coriolis Mass Flowmeter

- Direct Mass Flow measurement independent of fluid properties with in-built PID Control
- Flow rates 0.1gm/hr to 600kg/hr, operates upto 400 bar
- High accuracy upto $\pm 0.2\%$ of reading

Low Flow Ultrasonic Flowmeter

- Flow range 4 ... 1500ml/min, depending on e.g. the available pressure drop
- Innovative sensor with fast response time and high accuracy
- Low pressure loss due to the straight SS-316 tube

Applications

Coriolis Mass Flowmeter

- Additive & gas dosing, Flow Chemistry, Microreactor systems etc.
- Analytical installations (e.g. GC, HPLC or SFC systems)

Low Flow Ultrasonic Flowmeter

- Semiconductor industry
- Pharmaceutical industry & Food industry (flavors, additives)



Process Instruments

Flow Measurement Solutions



As a technology developer of Insertion Thermal Mass Flow Meters, LEOMI has a manufacturing facility at Gandhinagar- Gujarat meeting German technology standards that allows us to meet the needs of the industrial applications.

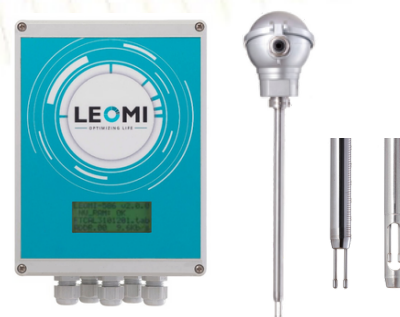
Insertion Type Standard Thermal Mass/ Volume flowmeter

Features

- Pipe/ Duct sizes from 15 mm to 10,000 mm
- No moving parts, Easy installation and maintenance
- With and without safety head protection available
- Probes with $\varnothing=12\text{mm}$ & Length up-to 2000 mm available
- Excellent tool for leak detection & saves energy
- Measuring Mass Flow independent of pressure and temperature variations
- High Accuracy & High Turndown ratio 100:1
- Wide max. operating Pressure upto 60 Bar & Temperature range upto 400°C

Applications

- Compressed Air Consumption recording & monitoring
- Combustion Air measurement in power plant
- Waste- to-energy gas - Landfill, Biogas Plant
- Air Input control in vitalizing basins of effluent treatment plant
- Ventilation air in HVAC



Insertion Type Actual Thermal Mass/ Volume flowmeter

Features

- Measuring actual mass/volume flow rate
- Suitable to 15mm to 10000mm pipe size
- Probes with $\varnothing=12\text{mm}/20\text{mm}(\text{HC276})$ & Length up to 2000mm available
- Better accuracy $\leq \pm 2\%$ RD of actual mass flow rate
- Upto 4 user selectable analogue input such as pressure, temperature, power or RH% etc
- Turnover ratio 100:1 or better
- Accurate measurement over temperature ranges upto 400°C
- In-built data storage with USB 2.0 in cvs format for input parameters
- In-built auto purging system for sensor cleaning
- Ideal for customized flow control application with PC software

Applications

- Pre-heated hot air flow in thermal power plants
- Compressed Air FAD application
- Audit applications such as Energy audit, air blower audit and compressor efficiency audit
- Natural gas, Bio gas, Blast furnace gas applications



Inline Thermal Mass flowmeter

Features

- Air/Gas Mass flow meter independent of pressure and temperature variations
- Velocity ranges up to 120 nm/s
- Highest accuracy in it's class $\pm 3\%$ RD
- Wide turn down ratio 100:1
- Inline rugged stainless steel body
- Easy sensor cleaning and Integral display
- I/O Plug-n-play connector
- Protection class IP 65
- Programmable units via Terminal software

Applications

- Compressed Air Consumption recording & monitoring
- Nitrogen gas, Welding gas, CO_2 , O_2 , Natural gas and Bio gas flow measurements
- Boiler and Burner flow measurement





Katronic - UK's excellent reputation has been built on offering accurate and intuitive clamp-on flow meters supported by market-leading customer service and technical support.

Non-Contact Ultrasonic Hand-Held Clamp-On Flowmeter

Features

- Lightweight and tactile for easy one-handed use
- Stainless steel sensors, cable and connectors as standard
- Pipe diameter range 10 mm to 6,500 mm
- Temperature range for sensors -30 °C to +250 °C (-22 °F to +482 °F)
- Robust IP 65 enclosure with added rubber shock protector
- Selectable three-line LCD display and full keypad
- Battery life up to 24 hours with standard NiMH AA batteries for simple replacement

Applications

- Pump testing and inspection, Testing of heating circuit, Balancing of heat exchangers
- Measurement of sterile fluids in pharmaceutical
- Clean in process (CIP) system testing & Measurement of raw ingredients and finished product in food production
- Water and Wastewater industry
- Monitoring of hydraulic systems
- Leakage and blockage detection



Advanced Clamp-On Ultrasonic Flowmeter

Features

- Dual flow monitoring with sum, average, difference and maximum calculations
- Process outputs including current, open-collector, relay
- Communication options RS 485, Modbus RTU and HART* compatible output
- Current inputs for temperature, pressure and density compensation
- Pipe diameter range 10 mm to 6,500 mm
- Temperature range for sensors -30 °C to +250 °C (-22 °F to +482 °F), higher temperatures available on request

Applications

- Cooling systems on injection moulding machines and Measurement of paint flows in Manufacturing and Process
- Replacement of large bore electromagnetic flowmeters
- Measurement of furnace cooling flows
- Fuel and oil consumption measurements



Clamp-On Ultrasonic Flowmeter for Hazardous Areas

Features

- Dual flow monitoring with sum, average, difference and maximum calculations
- IP 68 stainless steel sensors as standard
- Optional current inputs for pressure, temperature and density compensation
- Pipe diameter range 10 mm to 3,000 mm
- Temperature range for sensors -50 °C to +115 °C (-58 °F to +239 °F)
- Process output options current, open-collector, relay
- Ex-certified Pt 100 probe for temperature compensation

Applications

- Coiled tubing systems & produced water measurements
- Measurement of corrosive or toxic chemicals
- Marine and Shipbuilding Industry
- Effluent measurement in hazardous areas



Process Instruments

Flow Measurement Solutions



Flomec - USA provides quality turbine flowmeters, Oval gear flowmeters, turf irrigation flow sensors and other liquid flowmeters for: process chemicals, water, fuels, & oils, dairy and beverage, and many other industrial fluids.

Oval Gear Flowmeter

Features

- Size available from 4 mm (1/8") to 100 mm (4")
- High Accuracy $\pm 0.5\%$ of RD and Repeatability
- True Volumetric measurement Measure low and high viscosity liquids
- Optional mechanical & electronic totaliser, flowrate & batchers available
- ATEX/ PESO Certifications for hazardous area versions in all sizes
- No need for flow conditioning (straight pipe run etc.)
- Flanged and hygienic process connections available

Applications

- Fuels such as Diesel, Furnace Oil, LDO, Crude Oil etc
- Extremely viscous lubricants such as grease, oils etc
- Non-Conductive solvents such as alcohols, xylene, toluene, ethanol etc



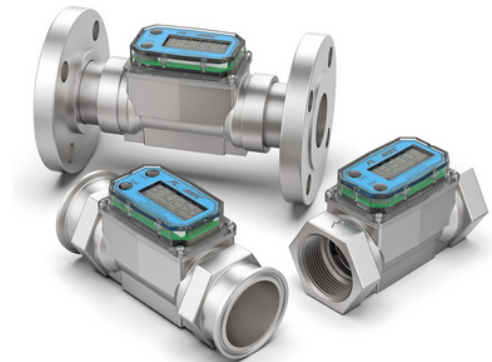
Precision Turbine Meters

Features

- Meter is designed for thin fluids < 100 cp
- Modular design allows for use with Output Modules, Sensors and Remote Transmitters
- 2 Totals (Batch = Resettable, Cumulative = Non resettable); Rate of Flow, Factory calibrated in gallons or litres. Field calibratable. Includes nonvolatile totals
- High accuracy meter
- AAA Alkaline battery life: 2 years

Applications

- Batching and Blending
- Food & Beverage Processing
- Fuel & Water Products
- Monitoring Clean and Industrial Fluids
- Plant Process Water
- Plating Solutions
- Chemical Feed Lines
- Ammonium
- Harsh Chemicals (Sulfuric Acid & Bleach)



Insertion Ultrasonic Flowmeter SADDLE

Features

- Advance Technology and simplicity
- High accuracy: $\pm 2.0\%$ of reading (compared to full-scale accuracy)
- Compatible with irrigation controllers (common name brands)
- Protection Structure IP 65
- Provides extended leak detection down to 0.1 fps (0.03 m/s)
- LED light indicators: (green for power and amber for pulse)
- Patented design (QS200)
- Ideal for clean water flow measurement

Applications

- Agriculture Irrigation
- Turf | Landscape Irrigation Systems
- Micro Irrigation Systems
- Groundwater Monitoring
- Sub-Metering Applications: High Rise Tenant Buildings, Apartment Complex, Universities, Commercial Businesses, Processing Facilities



*NOTE: Pipe not included

 Huba Control

Huba Control -Switzerland develops, manufactures and markets components designed exclusively for the measurement of pressure and flow - pressure switches, sensors and pressure transmitters.

Pressure Transmitter / Switch

Features

- Compact construction
- Automated manufacture in large quantities for ideal price / performance ratio
- Rugged ceramic sensor technology
- No mechanical creepage
- High resistance to extreme temperatures

Applications

- HVAC - Heat Pumps, Chiller, Drinking Water Systems
- Industry Hydraulics applications (e.g. Hydraulic Valves, Actuators, ...)
- Water treatment and Water Irrigation Systems
- Oxygen Distribution Network in Hospital
- Industry - Hydraulics (e.g. Hydraulic Valves, Actuators, ...)
- Food and Beverage processing applications



Differential Pressure Transmitter / Switch

Features

- Robust construction, sensor element has no contact with media
- High overpressure safety margin, even in the lowest pressure range
- Rugged measured value detector, owing to outstanding synergy obtained by combining diaphragm technology with a ceramic element
- Easy to install and commission
- No maintenance required
- High Protection standard

Applications

- HVAC - Gas/Oil/Biomass Boilers, Furnaces and Burners applications
- Industry - Cooking Centers / Combi Steamer
- Air Handling Units
- Water – Reverse Osmosis / Disinfection / Filtration Units



Vortex Flow Sensor

Features

- Flow measuring with voltage, current, pulse or frequency output
- Temperature non-sensitive measuring principle
- Excellent media resistance (measuring element not in contact with the media)
- Available with temperature measurement
- Excellent EMC capacity by reinforcement on measuring cell
- Measuring element not sensitive to debris
- Direct temperature measurement in the medium
- Drinking water approval

Applications

- HVAC - Heat Pumps
- Fresh water station (Drinking Water) and Storage Water Tank
- Solar Heating/Cooling
- Building Automation - Heating/Cooling Water Distribution
- Industrial Cooling - Tooling Machines (Cutting, Injection Molding, ...)
- Liquids Filling/Dispensing Equipment (Bottling, Canning, Dosing, ...)



Process Instruments

Temperature, Humidity, Flue Gas and other Measurement



Testo - Germany is a world market leader in design, development and manufacturing of portable and stationary measurement solutions since 55 years.

Thermal Imager

- Resolution: 320x240 pixels / Thermal sensitivity <50 mK at +30°C
- Measuring range: -20 to +100°C; 0 to +350°C / Upgradable to 550°C
- Movable cursor, two point measurement, isotherm function
- Inbuilt digital camera & Laser pointer



Air Velocity & IAQ measuring Instrument

- Can measure °C, %RRH, CO, CO₂, m/s, lux
- Intuitive menu for important applications
- Universal probe handle with Bluetooth
- Memory recall on instrument for up to 7500 measurements



Portable Stack Emission / Fluegas Analyzer

- Measurement upto 4 gases out of O₂, CO, CO₂, NO, NO_x, SO_x in single instrument
- Gas dilution ratio for higher concentration
- Automatic flow-controlled gas pump modular gas sampling probes
- Internal data logging



Smart Probes

- For Pressure, Humidity, Air Velocity, DP, Temperature
- Measurement data analyzed and sent via Smart Probes App



Dewpoint Transmitter

- Absorption dryers of compressed air, medical compressed air and nitrogen gas
- Measures dewpoints in the range from -60° Ctd to +30° Ctd
- Auto self-adjustment



Cooking Oil Tester

- Ergonomic and robust design
- With temperature sensor along with TPM
- Clear alarms via backlit display
- HACCP certified



IR Thermometer

- Measuring range up to 1500° C
- 50:1 optics with 4 point laser marking
- Integrated emissivity table
- Integrated memory card USB data transfer
- Connection of external TC - probe
- Automatic detection of emissivity with the help of external probe
- Variant available with humidity measurement



Humidity & Temperature Data logger

- Two Channel temperature and humidity data logger with internal & external sensor
- Memory capacity : 16000 readings
- Battery life : 3 years
- Transfer to a PC via testo USB interface / SD card/ mini DIN USB





Multisensor Systems is a developer and supplier of Water and Air Analyzers specializing in oil in water, hydrocarbon analyzers, oil in water detectors, THM Analyzers and Ammonia Analyzers based in the United Kingdom.

Online VOC / Fuel Monitor for Water

Features

- Non-Contact Electronic Nose patented technology unaffected by turbidity, low maintenance, No reagents, and low recurring costs.
- Measures both Polycyclic Aromatic Hydrocarbons (PAHs) and VOCs
- High sensitivity: ideal for potable water
- Can be calibrated for specific substances: used to monitor known spills
- Catches VOC chemical spills not just hydrocarbons
- Catches fluorescent and non-fluorescent compounds
- Alarms to SCADA and other communication interfaces

Applications

- Monitor water abstraction points such as raw river water, boreholes and reservoir water
- Detect VOC or Phenols contamination in industrial wastewater effluent discharge
- Monitor drain and stormwater systems for flammable liquids
- Detect VOC breakthrough in carbon beds
- Pre-filtration monitoring for RO Membrane filter protection
- Oil detection in cooling, produced, and processed water



MS-1200
Range:01-3000 ppb



MS-1900
Range:0.1-10 ppm ppb
MS-1700
Range:01-100 ppm

VOC in Gas Analyzer

Features

- Low operating and maintenance costs
- High reliability
- No reagents
- Field proven technology

Applications

- Monitoring of VOCs in gas streams
- Monitoring of drains and effluent discharges
- Detection of explosive gases
- Oil and Fuel Leak Detection
- Odour Control
- Land Remediation



Online Trihalomethane (THM) Monitor for Drinking Water

Features

- Online Total Trihalomethane(THM) Monitoring with ranges from 0 to 200ppb conc.
- Field Proven Non-contact "e-Nose" Technology
- Analyze THMs post treatment and in the distribution network
- Monitor THMs post-chlorination for enhanced process control
- High reliability
- No reagent

Applications

- Protection of the drinking water network
- Controlling THM reduction processes
- Regulatory compliance guidance



MTS Solutions Division

Executing various process & plant automation projects

MTS SOLUTIONS division will be engaged in providing customized solutions as per customer's application in various process industries, mainly as below:

Process Industries

- Chemical & Fine-chemical
- Water & Wastewater Treatment Plants
- Defence Research & Allied Industries

Primary focus areas

- Water Infrastructure Automation
- Research Process Automation

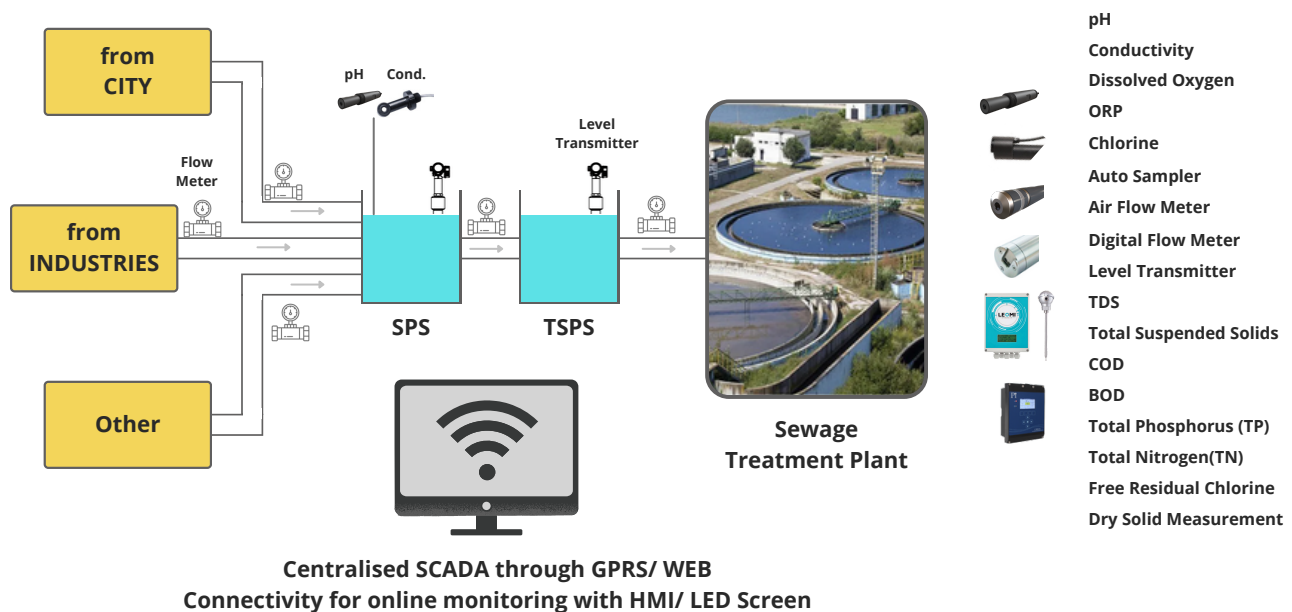
Our Scope

- Application Study
- Hard ware selection (Process Instruments & Automation)
- Software development (PLC, HMI, IIOT)
- Control Panel Manufacturing
- Testing & Commissioning of the panel

Type of Automations

- AC / DC drives for speed control of motors
- Sequential operations by PLC + HMI+SCADA
- Process control by use of PLC+ HMI+SCADA
- Process calculations by use of PLC+ HMI+SCADA
- Man machine interface / operator control using display & key pads.
- Connectivity to host computers
- Accurate speed and positioning controls with Servo Drives and Motors
- IIOT solutions

INDICATIVE INSTRUMENTS FOR WEB BASED ON LINE MONITORING SYSTEM FOR SPS/TPS/MPS AND STP



Due to industries expectation on improving productivity, process efficiency, preventive maintenance & report generation & analysis, MTS Solutions division involved in developing skills for Industry 4.0 automation as well. We are open to discuss your needs in this domain.

Our Esteemed Customers



Power & Energy Industries



Oil & Gas Industries



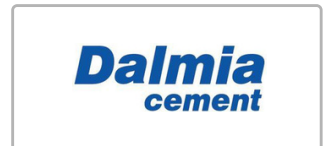
Automobile & Ancill Industries



Food & Pharma Industries



Textile Industries



Education & Research Industries



Chemical, Plastic & Poly Industries





Innovative Partners



MTS Engineers Pvt. Ltd.
305,306, Shreeya Amalga
Opp. Avalon Hotel, Thaltej,
AHMEDABAD - 380059, Gujarat, INDIA.

T: +91 79 2640 0063
M: +91 9879592951/54
E: sales@mtsengineers.com
W: www.mtsengineers.com