

A high-angle photograph of a worker in a blue uniform and white hard hat, viewed from above, using a tablet computer. The worker is standing on a metal grating walkway in an industrial facility. In the background, there are yellow pipes and various industrial components. A decorative cyan line with geometric shapes (circles, squares, diamonds) runs across the image, framing the text.

**SIEMENS**

# Greater transparency and smarter decisions for your business

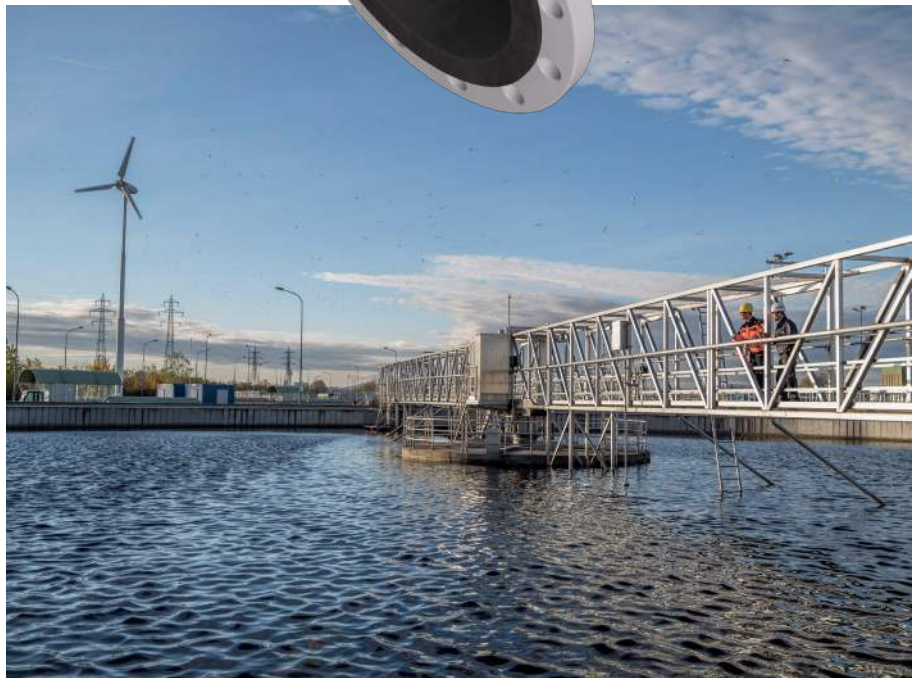
Your One-Stop Shop for process instrumentation, process analytics  
and weighing technology - Short Product Overview

# Measuring everything that matters

Siemens offers a complete service package as well as all measuring instruments to assist you in engineering, designing, supplying, installing and commissioning measurement solutions for complete industrial plants. Our “one-stop shop” concept supports selection of all process instrumentation and analytics all the way to integration with your process control system. Additional industrial components and systems are easily incorporated into the overall plant and ensure smooth process flows.



Whether process instrumentation, process analytics or weighing and dosing systems, our solutions meet the requirements of process industries such as chemicals, oil and gas and hydrocarbon processing, water and wastewater, pharmaceuticals, mining, aggregates, cement, pulp and paper, food and beverage or shipbuilding.





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# Everything flows: **SITRANS F**

Whether measuring gases, liquids or steam – choosing the right flowmeter is decisive for productivity. This is where the SITRANS F line comes in. Our portfolio contains the fitting flowmeter for every application and medium, with five different flow technologies available to suit a wide range of operating conditions: electromagnetic, Coriolis, ultrasonic, vortex and differential pressure.

## Electromagnetic



**SITRANS FM MAG** offers a modular pulsed DC meter lineup, including models like MAG 5000/MAG 6000 with various communication modules, tailored for water and wastewater (MAG 5100 W), process industries (MAG 3100 P), general industries (MAG 3100/MAG 3100 HT), and food, beverage, and pharmaceutical sectors (MAG 1100 F).



**SITRANS FMT020** is a new generation of MAG transmitters, backwards compatible with existing sensors. A more compact, robust enclosure protects a large, graphical, rotatable display in challenging environments. It comes with PROFINET, velocity and conductivity measurement, enhanced self-test and verification functions and 15% less energy consumption.



**SITRANS FM MAG 8000/MAG 8000 CT** are battery-operated water meters with a long lifespan, advanced communication and diagnostics.



**SITRANS FM MAG 8000 IIoT Wireless Communication Module** is a communication system consisting of a hardware part combined with a web-hosted application for device management, measurement data transfer, external pressure transmitter configurability and remote qualification certificate.

**SITRANS FM TRANSMAG 2** is designed for heavy-duty applications in mining slurries and the pulp and paper industry, featuring stable zero point, no moving parts, and comprehensive self-diagnostics.



**SITRANS FM100** is a stainless steel solution for small to medium flows with simultaneous flow and temperature measurements, dosing capability, easy local operation, bidirectional measurement, and IO-Link communication support, suitable for standard applications.



**SITRANS Verificator** is a highly advanced instrument for complex verification and performance checks. It monitors the general operating conditions of the flowmeter, including the sensor's magnetic integrity. This compact portable device is easy to use and can be fully operated via SITRANS Mobile IQ. Traceable according to international standards through a yearly calibration.

## Ultrasonic Inline



**SITRANS FSS100 sensor kit** is designed for retrofitting on existing water pipelines up to DN 2400. It pairs via FS DSL with transmitters FST020 and FST030, providing high inline accuracy. Allows single-path, two-path, and four-path installation.



**SITRANS FUS380 and FUE380** offer extended measuring ranges for energy measurements, dual-track options for district heating, and suitability for chiller plants, with approvals for billable heat measurements and heat meter type approval.

## Ultrasonic Clamp-on



**SITRANS FSS200** is a versatile clamp-on sensor family offering high-precision, universal, and high-temperature sensors suitable for various applications, including oil, gas, water, and challenging liquids.



**SITRANS FS220, equipped with FSS200 sensors and FST020 transmitter**, suits basic measurements with only single-path sensor measurement for applications in municipal utilities, water/wastewater, energy, HVAC, and the chemical industry, using WideBeam® transit time technology.



**SITRANS FS230 with FSS200 sensors and FST030 transmitter** provides advanced and high-accuracy measurements for various liquids, oil and gases in industrial applications. It features Ex zone housing options and WideBeam® transit time technology. It allows direct 1-2 sensor path installation or 3-4 path installation in combination with the FS DSL.



**SITRANS FS290** is a portable clamp-on system featuring the FST090 ultrasonic flow transmitter and SITRANS FSS200 portable sensors, designed for easy pipe flow checking, with a wide temperature and wall thickness range, long-lasting battery power, and advanced features for monitoring and communication.



**SITRANS FST070** transmitter facilitates flowmeter solutions with full system control integration into Siemens SIMATIC world. In combination with the FS DSL and the FSS200 sensors, it is an alternative architecture for seamless automation integration.

## Coriolis



Two transmitter versions, **SITRANS FCT020 standard** and **SITRANS FCT040 advanced**, provide a choice of performance, measurement functions, housing material, output types and a long service life with low maintenance costs and reliable performance. Transmitters can be combined with sensors in compact or remote installation.



**SITRANS FCS100** is the smallest sensor for highly accurate measurement at the lowest flows. The dual tube design compensates for fluctuations in density, temperature, pressure and environmental conditions.



**SITRANS FCS500** is a flexible, cost-effective sensor with superior turndown and lowest pressure drop. An ideal solution for highly accurate flow and density measurements. Features such as concentration measurement or the Tube Health Check function are available. It is designed and certified for food & beverage and pharmaceutical applications.



**SITRANS FCS600** offers the most robust and durable design for high performance in demanding and critical applications, such as high pressure or temperature. It meets the highest hygienic and safety requirements. The box-in-box design makes the product highly resistant to external mechanical influences and suitable for harsh environments.



**SITRANS FCS700** delivers best-in-class accuracy and most flexible installation at high flow rates. Also, with low flow rates, it offers unmatched accuracy, resulting in an outstanding turn-down ratio and maximizes flexibility from engineering to final operations.

## Vortex



**SITRANS FX330** enables precise measurement of steam, gas, conductive and non-conductive liquids, with integrated compensation for enhanced accuracy, increased turndown ratio, and SIL 2 safety compliance, along with cost-effective energy calculation and remote functionality.

## Differential pressure



**SITRANS FPS230/FP330** offers a streamlined and versatile solution with a single pressure transmitter for comprehensive measurement needs, including pre-mounted flowmeters, ensuring easy traceability in ordering.

# Takes pressure off your business: **SITRANS P**

SITRANS P offers a comprehensive set of measurement tools for relative, differential, and absolute pressure. With high accuracy and durability, this modular system prioritizes user-friendly operation, functionality, and safety.

## Pressure measurement



**SITRANS LH100/LH300** are durable submersible sensors for hydrostatic level measurement, suitable for various liquids, including corrosive substances, and can be installed in 1" pipes.



**SITRANS P200/210/220** offers single-range pressure measurement with stainless steel or ceramic sensors, converting measurements to 4–20 mA or 0–10 V signals.



**SITRANS P compact** is an analog transmitter for pressure measurement with a focus on hygiene, complying with EHEDG, FDA, and GMP guidelines, and featuring stainless steel components for accuracy.



**SITRANS P300** provides versatile pressure measurement with various process connections and communication options, meeting EHEDG, FDA, and 3A standards, and integrating flush-mounted pressure measuring cells.



**SITRANS P320/420** is the first safety pressure transmitter with remote commissioning, supporting digitalization, and compliance with IEC 61508 SIL 2/3, featuring user-friendly displays, a maintenance-friendly design, and FM approval for reliability.

# Because every degree matters: **SITRANS T**

SITRANS T excels in temperature measurement, even in extreme conditions. It's versatile family, available as individual units or complete measuring points, offers precise connections to thermocouples or resistance thermometers and quick error-preventing parameterization with SIMATIC PDM software.

## Compact and Head Transmitter



**SITRANS TH100** is an affordable and compact Pt100 single-input transmitter with diagnostics LED and 4–20 mA signal support.



**SITRANS TH320** is a versatile universal single-input transmitter supporting various inputs, including RTD/TC/mV and resistances, with HART 7 compatibility and SIL 2/3 certification for comprehensive functionality.



**SITRANS TH420** is a versatile universal dual-input transmitter with hot backup, supporting RTD/TC/mV inputs, HART 7 compatibility, and SIL 2/3 certification for high reliability.



**SITRANS TH100slim** is a cost-effective Pt100 single-input transmitter with a 4–20mA output, designed for easy welding onto compact thermometers in a stainless steel enclosure.

## Rail Transmitter



**SITRANS TR320** is a versatile and compact universal single-input transmitter supporting various inputs, with HART 7 compatibility and SIL 2/3 certification for accurate and reliable measurements.

**SITRANS TR420** is a versatile universal dual-input transmitter with hot backup, supporting multiple inputs and offering enhanced reliability for critical applications with HART 7 compatibility and SIL 2/3 certification.

## Field Transmitter



**SITRANS TF320/420** is a temperature field transmitter configurable for various applications, with redundancy options, SIL 2/3 certification, HART 7 compatibility, and different protection types.

## Temperature Sensors



**SITRANS TS100 and TS200** are versatile temperature sensors, ATEX and IEC EX approved for Zone 0 operation, and customizable through a modular design.



**SITRANS TS300** is a clamp-on temperature sensor with an EHEDG-compliant design, ideal for the food, beverage, and pharmaceutical sectors, with replaceable measuring inserts.



**SITRANS TS500** temperature sensors offer versatile temperature measurement for pipes and vessels in various environments, with a modular system that includes thermowell options and compatibility with transmitters or displays, meeting diverse requirements.



**SITRANS TS Thermowell** offers extensive application coverage with customizable options, ensuring high stability through top-tier materials and quality controls.



# A new level of experience: **SITRANS L** **and more**

Siemens provides a complete range of level measurement devices for every application built on its global experience in the field. With the knowledge that no single technology can address the needs of all industrial challenges, Siemens offers a full range of contacting and non-contacting instrumentation for continuous and point level measurement.

## Radar level measurement



**SITRANS LR100 series** offers hassle-free level measurement with a compact 80 GHz radar transmitter, suitable for liquid and solid applications, featuring Bluetooth® wireless technology for easy setup via the Siemens SITRANS mobile IQ App.



**SITRANS LR500 series** is your first choice for radar level measurement. Featuring 80 GHz, this series has a solution for your liquid and solids applications. Advanced technology with diagnostics, our most advanced signal processing and easy-to-use Bluetooth wireless technology via SITRANS mobile IQ app.

## Ultrasonic level measurement



**SITRANS Probe LU240** is a cost-effective and compact intelligent level solution ideal for liquid chemical inventory management, small process vessel monitoring, and environmental industry level measurements.



**Echomax transducers** are durable ultrasonic transducers compatible with Siemens ultrasonic controllers, designed for hazardous environments, and equipped with a self-cleaning face for reliable performance in harsh conditions with potential buildup.

## Level controllers



**SITRANS LT500** is the next evolution of level, flow, and pump controllers for radar and ultrasonic transmitters, transducers – or any 2-wire 4-20 mA device. It is the first choice for any level controller application and features single and dual point measurements, 6 relays, and Modbus RTU, HART, PROFIBUS DP, PROFIBUS PA and PROFINET.

## Continuous capacitance



**SITRANS LC300** is an ideal level controller for standard and industrial applications in various industries, including chemicals, hydrocarbon processing, food and beverage, mining, aggregate, and cement.



## Guided wave radar



**SITRANS LG240** is designed for use in hygienic and corrosive applications.

**SITRANS LG250** is a highly flexible solution suitable for various liquid level and interface applications.

**SITRANS LG260** is ideal for measuring the level in medium-range solids applications such as grains, plastics, and cement.

**SITRANS LG270** offers configuration options for extreme conditions, including high-temperature and high-pressure applications.

All versions include features like automatic buildup adjustment, remote display options, 2 mm accuracy, backlight with a full graphic display, SIL 2/3 approval options, field-replaceable probes, quick setup wizards, and a USB service port option.

## Hydrostatic



**SITRANS LH100 and SITRANS P320** are versatile instruments suitable for diverse applications within the chemical and petrochemical industries, known for their exceptional resistance to extreme chemical, mechanical stress, and electromagnetic interference.

## Gravimetric



**SIWAREX WP321** is a technology module designed for the SIMATIC ET 200SP distributed I/O system, facilitating level measurements in silos and bunkers and providing convenient integration of platform scales directly into the automation environment.

## Point level detection



**SITRANS LPS200** is a rotary paddle switch capable of detecting solids with low densities, offering motor protection, SIL 2 certification for reliability, and options for fail-safe rotation monitoring and alarming.



**SITRANS LVL100 and LVL200** are vibrating level switches designed for liquid and slurry applications, offering high, low, and demand level alarms, pump protection, and a wide application range, including high temperatures and pressures, hygienic versions, various enclosure materials, SIL 2/redundant SIL 3 options, and remote testing capabilities.



**SITRANS LVS100, LVS200, and LVS300** are vibrating level switches known for their best-in-class sensitivity detection, capable of detecting solids with low densities down to 5 g/l, and designed to handle and monitor buildup. They also offer options for detecting solids interfaces within liquids.

## RF Capacitance



**SITRANS LCS050 and LCS100** are level sensors suitable for detection in constricted spaces, featuring 1/2 inch process connections, IO-Link communication, M12 connectors, and offering Sensguard protection for harsh environments. They also provide various options for customization to meet specific application needs.



**Pointek CLS200 and CLS300** are level sensors designed for demanding conditions with high pressures and temperatures, including aggressive applications with very high temperatures and pressures. They offer SIL 2 options, Smart PROFIBUS versions with digital displays, and the capability for remote operation via PROFIBUS for status and function testing. Additionally, they can remotely detect buildup and monitor other process condition changes.

# Always in pole position: **SIPART Positioners**

As the interface between control system and valves, positioners play an important role in ensuring reliability and optimal performance in process plants around the world. Our proven portfolio with the SIPART PS2 and SIPART PS100 precisely controls the entire range of valves and masters even special tasks with absolute reliability.

## Positioners



**SIPART PS100** is a user-friendly and robust valve positioner with one-push initialization for fast commissioning. It offers various valve positioning modes, utilizes a non-contacting sensor for durability, features a non-corrosive sound absorber for harsh environments, and provides a plain-text display with status icons. It also allows for remote operation via smartphone or tablet with a retrofittable Bluetooth adapter and the SITRANS mobile IQ app.



**SIPART PS2** is a versatile positioner suitable for linear and part-turn actuators, offering various enclosure options including polycarbonate, aluminum, and stainless steel. It includes an Ex d explosion-proof version and supports communication via 4...20 mA, PROFIBUS PA, FOUNDATION Fieldbus, or HART. It also provides an integrated booster option for controlling large drives and is known for its low operating costs due to minimal air consumption.



### More functions, more possibilities

SIPART PS2 offers an extensive range of functions and diagnostic capabilities, including optional pressure sensors for improved valve diagnostics, digitalization support for predictive maintenance, regular partial stroke tests for emergency shutdown valves, Fail in Place and Fail Safe modes for safety, and Valve Performance Tests (VPT) for on-site assessment of valve maintenance needs.



The positioner with remote control electronics is designed for use in environments with high-energy radiation.



The positioner with various external position transmitters provides easier access to valves located in challenging locations.



# Early detection protects your process

Process protection devices can be used as early-warning systems to avoid costly interruptions and breakdowns of equipment. They detect flow problems, blockages, screen faults, machinery slowdowns or burst filter bags. Their rugged construction makes them impervious to dust, dirt, buildup and moisture.

## Acoustic sensors



**SITRANS AS100** detects high-frequency acoustic emissions from solids, signals flow/no flow or high/low flow, and is compatible with SITRANS CU02 for signal processing, providing relay and analog outputs for connection to a process or PLC.



**SITRANS DA400** is an acoustic analyzer designed for monitoring oscillating displacement pumps, offering simultaneous monitoring of up to four independent delivery valves with easy configuration and operation locally or via PROFIBUS DP/PA.

## Motion sensors



**SITRANS WM100** is designed for detecting the motion of rotating, reciprocating, and conveying equipment, featuring a heavy-duty alarm switch.



**SITRANS WM300 MFA** offers motion failure alarm, differential speed detection, and non-contacting tachometer functions with multiple alarms, intuitive programming, and an on-board display for ease of use.



**Milltronics MFA 4p** provides plant protection by detecting motion absence, underspeed, or overspeed conditions with probes suitable for hazardous, high-temperature, and harsh environments, including MSP or XPP probes.

## Process controllers



**SIPART DR** controllers are highly reliable and user-friendly, featuring comprehensive hardware that can be easily upgraded for specific applications with optional input/output modules and communication plug-in modules like RS 232/RS 485 or PROFIBUS DP.

## Process recorders



**SIREC D200, D300, and D400** display recorders provide continuous process monitoring, maintenance, optimization, and troubleshooting solutions for various industrial needs.

# First-class solutions for almost any weighing task

The flexible design of our products makes it possible to implement weighing solutions from simple platform scales and gravimetric level measurement up to highly complex automatic scales with minimal conversion costs. Using SIWAREX load cells and electronic modules for weighing systems together with Siemens Milltronics belt scales and SITRANS weigh feeders and solids flowmeters, you can design an optimal system for practically every task.

## SIWAREX weighing electronics for SIMATIC



**SIWAREX WP231** is a versatile weighing module designed for level monitoring in silos and bunkers, platform scales, and hazardous areas. It seamlessly integrates with SIMATIC S7-1200 and can be programmed in TIA Portal or operated without SIMATIC CPU. It holds legal-for-trade certification (OIML R-76) for precision weighing applications.



**SIWAREX WP241** is a versatile weighing module designed for belt scale applications, offering features like a simulation mode for testing, full integration into SIMATIC S7-1200 and TIA Portal, and the flexibility to operate without a SIMATIC CPU. It provides various factory-provided interfaces, including Modbus TCP/IP and Modbus RTU, as well as digital and analog connections for seamless integration.



**SIWAREX WP251** is a versatile weighing module designed dosing and filling control. It integrates seamlessly with SIMATIC S7-1200 and TIA Portal, offers standalone operation, and provides various interfaces. It's certified for legal trade applications and supports multi-range/multi-interval scales up to 3x3000d precision.



**TM SIWAREX WP321 ST** is an adaptable technology module for silo and bunker level measurements. It integrates with platform scales in automation systems, offers a high sample rate (up to 600 Hz), and is compatible with SIMATIC ET 200SP I/O. It allows easy commissioning, rapid solution development, and seamless integration into PCS 7 for improved control and monitoring.



**TM SIWAREX WP341 HF** is an ultra-compact weighing electronics module with fast and precise performance, seamlessly integrated into the ET 200SP system. It's suitable for continuous belt weighing and can connect to various controllers via SIMATIC ET 200SP Interface Modules for versatile applications.



**TM SIWAREX WP351 HF** is an ultra-compact weighing electronic module known for its precision, seamless integration with various controllers, fast performance, and versatility in applications such as filling, bagging, dosing, and more. It's certified according to OIML standards and can be integrated into PCS 7 systems for enhanced control and monitoring.



**TM SIWAREX WP521 ST and WP522 ST** are ideal for platform scales, silo/bunker level monitoring, and hazardous areas. They are technology modules compatible with the SIMATIC S7-1500 Advanced Controller family. WP521 ST is a single-channel design for one-scale systems, while WP522 ST is a two-channel design for two-scale systems.

## Digital junction box



**SIWAREX DB** is a remote diagnostic solution that simplifies load cell service and connects to SIMATIC systems via SIWAREX WP weighing electronics. It offers comprehensive monitoring of the weighing process, including error detection, and can connect up to four load cells per scale. This digital solution is rugged, with an IP66 rating, and can be easily retrofitted into existing plants by replacing analog junction boxes with SIWAREX DB.

## Weighing terminals



**SIWAREX WT231 and WT241** are standalone solutions with touch panel interfaces and various factory-provided interfaces like Modbus TCP/IP and Modbus RTU. They are independent of automation systems, making them ready-to-use for various applications.

## IIOT Weighing solutions



**SIMATIC IOT SG-Shield** simplifies digitalizing weighing applications, enabling remote monitoring of strain gauge cell measurements. It digitalizes analog data, sends it to the cloud via the SIMATIC IOT2050 gateway, and stores it in Insights Hub. OEMs can opt for an RS485 interface with a standard protocol. Ideal for various industries with specific requirements.

## Milltronics integrators for dynamic weighing systems



**Milltronics BW500/L, SIWAREX WT241, Milltronics SF500, and SIWAREX WP241** cater to a range of belt scale applications. BW500/L offers basic operation, while BW500 and SF500 add advanced control functions. SIWAREX WP241 integrates with SIMATIC S7-1200 PLC for high functionality.

## Belt scales



**Milltronics belt scales** are the ideal solution for continuous bulk solids weighing in various industries. They offer reliability, easy installation, and market-leading performance under tough conditions, providing accurate measurements and overload protection.

## Weigh feeders



These products offer maximum weighing accuracy, reliability, and low maintenance, making them ideal for optimizing mixing, process sequences, and balance calculations in various customer-specific designs.

## Solids flowmeters



These products provide dust-tight inline weighing solutions for continuous measurement of dry bulk materials, free-flowing powders, granulates, and critical functions like batch loading and mixing processes.

## Load cells



**SIWAREX WL200 load cells** are suitable for hazardous areas, offering a large measuring range from 0.3 kg to 500 t, hermetically sealed for durability. They come with options for redundancy and high-temperature applications, featuring smart-design fastening parts for easy installation and a high degree of protection (IP). These load cells are certified in accordance with OIML R-60.

# Information **where it is needed**

Supplementary components enhance your operations through seamless wireless communications, remote displays and remote monitoring solutions. Data capturing and alarming anywhere, at anytime? Remote monitoring is your answer. Opening up new communications options? WirelessHART meets that challenge. Whatever your need, Siemens' supplementary components are here to help.

## Remote Terminal Units



**SIMATIC RTU3000C** is a compact remote terminal unit designed for remote measuring points, offering easy configuration through a web browser. It supports flexible power supply options, connects to various process instrumentation, and ensures secure communication via mobile wireless or LAN. It operates in an extended temperature range and offers multiple versions to suit different needs, including optional GPS and modem integration for enhanced functionality and connectivity.

## Remote digital displays



**SITRANS RD100** is a loop-powered display suitable for various applications, including level, flow, pressure, temperature, and weighing. It's versatile and can be used in different environmental conditions, including hazardous areas, offering a simple setup and installation process.



**SITRANS RD150** is a remote display designed for 4 to 20 mA and HART devices, offering basic HART instrument configuration using HART commands. It provides user-friendly operation with a backlit menu-driven display, four buttons, and flexible mounting options.



**SITRANS RD200 and RD300** are versatile and feature-rich remote displays suitable for various applications, including flow rate, total, and control. They work well with most field devices, offer data logging and display via free RD software, feature sunlight-readable displays, and provide standard serial communications output (Modbus RTU). Additionally, they support pump alternation control, linearization, square root, and math functions.



**IE/PB Link** simplifies communication between PROFINET and PROFIBUS networks, treating PROFIBUS DP slaves as PROFINET IO devices, facilitating parameter assignment via SIMATIC PDM. Two versions available: IE/PB LINK PN IO for standard use and IE/PB LINK HA optimized for the process industry in harsh conditions, supporting redundant AS as PROFINET IO controller.



# For efficient **gas composition analysis**

The analysis of process gases is very complex. To obtain exact results on the composition of the gases, the measurement results must be very precise. Whether innovative analysis technology or in-depth knowledge of your application – we support you when it comes to efficient process analysis in compliance with strict legal requirements.

## Extractive Continuous Process Gas Analytics



**SIPROCESS GA700** series offers gas analysis solutions with wall and rack enclosures featuring IP65 protection, ATEX and IEC Ex approvals. These systems are suitable for various hazardous area classifications, including Zone 1 and Zone 2 for flammable gases, as well as Zone 2 for non-combustible gases. The 19" rack-mounted version is operational in Zone 2 with suitable outer housing for both combustible and non-combustible gases.



**SIPROCESS GA700 Ex-field device** series offers pressure-resistant enclosures for Ex-field devices suitable for Zone 1 and Zone 2 applications (only for OXYMAT 7), ensuring reliable gas analysis in hazardous environments.



**SIPROCESS GA700 ULTRAMAT 7** is designed for precise measurements in incineration plants and chemical processes, offering high accuracy with complex gas mixtures through a dual-beam NDIR method and a preventive maintenance function.



**SIPROCESS GA700 OXYMAT 7** is ideal for measuring oxygen concentrations, offering a wide measuring range, high accuracy using a paramagnetic alternating pressure principle, and suitability for high ambient temperatures up to 50 °C.



**SIPROCESS GA700 CALOMAT 7** is designed for quantitative determination of H<sub>2</sub> and He in binary or quasi-binary gas mixtures, offering a wide measuring range and thermal conductivity detection for accurate measurements.



**CALOMAT 6** is an approved gas purity measurement device suitable for hazardous areas, capable of measuring gas component concentrations in binary or quasi-binary mixtures, with applications spanning various industrial processes and safety levels up to SIL 1.



**CALOMAT 62** is purpose-built for measuring hydrogen and noble gases in corrosive environments, particularly chlorine, utilizing the thermal conductivity principle (TCD) for accurate and reliable measurements.



**FIDAMAT 6** is an ideal solution for measuring total hydrocarbon concentration in the air or gas mixtures with high boiling points, making it suitable for various applications, from emission control to analyzing hydrocarbon traces in pure gases or high hydrocarbon concentrations, even in the presence of corrosive gases.



**OXYMAT 6/61** is an oxygen analyzer suitable for standard applications and can operate with ambient air as the reference gas, delivered to the analyzer unit by the built-in pump. It is approved to Safety Integrity Level 2 (SIL 2).



**OXYMAT 64** is a specialized analyzer designed for measuring trace oxygen in the ppm range, making it suitable for applications in air-separation systems or technical gas production.



**ULTRAMAT 23** is a versatile gas analyzer for standard applications, including emissions monitoring. It combines UV and IR technologies for measuring various gases, requires minimal maintenance, and uses ambient air for calibration, eliminating the need for extra gases.



**ULTRAMAT 6** is a versatile gas analyzer suitable for emission monitoring and process control, including corrosive gases. It can measure up to four infrared-sensitive components in one unit and is approved for Safety Integrity Level 2 (SIL 2).



**ULTRAMAT/OXYMAT 6** is a compact 19" gas analyzer that combines the features of ULTRAMAT 6 and OXYMAT 6, approved for Safety Integrity Level 2 (SIL 2).



**Ex versions** of gas analyzers, including CALOMAT, OXYMAT, and ULTRAMAT, are available in field housings and can measure both non-flammable and flammable gases.



**SIPROCESS UV600** is a UV gas analyzer designed for measuring very low concentrations of gases like NO, NO<sub>2</sub>, SO<sub>2</sub>, or H<sub>2</sub>S. It can simultaneously measure up to three components and determine the total NO<sub>x</sub> concentration without additional devices.

## Physical measurements in the flow

In situ analyzers enable the measurement of physical properties directly in the flow of the actual process gas line. This means gases can also be measured under extreme conditions. Gas measurements with diode lasers are characterized by exceptional selectivity and flexibility. Integrated reference gas cells for line locking ensure extremely stable operation and long maintenance intervals.

### In Situ Continuous Gas Analyzers



**SITRANS TDL** series offers oxygen measurement at high process temperatures up to 1100°C, features a long optical path of up to 30 meters, supports various industrial communication protocols, and provides easy configuration and monitoring through an intuitive HMI and Ethernet connection, making it suitable for a wide range of industrial applications and future customization.



**SITRANS SL** series is designed for oxygen measurements in harsh environments, offers reliable measurements even in the zero range using patented technology, and is suitable for use in SIL 1 safety systems according to IEC 61508/IEC 61511.



**LDS 6** gas analyzer is designed for measuring NH<sub>3</sub>, HCl, HF, H<sub>2</sub>O, CO, or CO<sub>2</sub> in flue gas, making it suitable for applications such as monitoring gas levels before and after gas purification. It comprises a central unit and up to three in-situ optics housings.





## Standardized system solutions for various industries

The same application is required time and again in different branches of industry. To minimize effort, we have developed standardized system solutions for industry-specific applications. These complement the range of individual system solutions. Ready-to-use systems also help minimize the technical risk for customers.

### Analytical Application Sets



**Set CEM CERT** provides reliable and continuous emission measurement for various components in industrial processes. This modular system is easy to operate, certified according to industry standards, and supports multiple analyzers for accurate monitoring.



**Continuous Emission Monitoring: Set CEM 1** is an efficient emission measuring system designed for continuous monitoring of various gases in industrial emissions. It utilizes ULTRAMAT 23 and LDS 6 analyzers, offering flexibility, accuracy, and a cost-effective solution for emission measurement.



**Energy: Set GGA** is an efficient emission measuring system designed for continuous monitoring of various gases in industrial emissions. It relies on the reliable ULTRAMAT 23 and LDS 6 analyzers, offering cost-effectiveness and flexibility through integrated ULTRAMAT 23 modules.



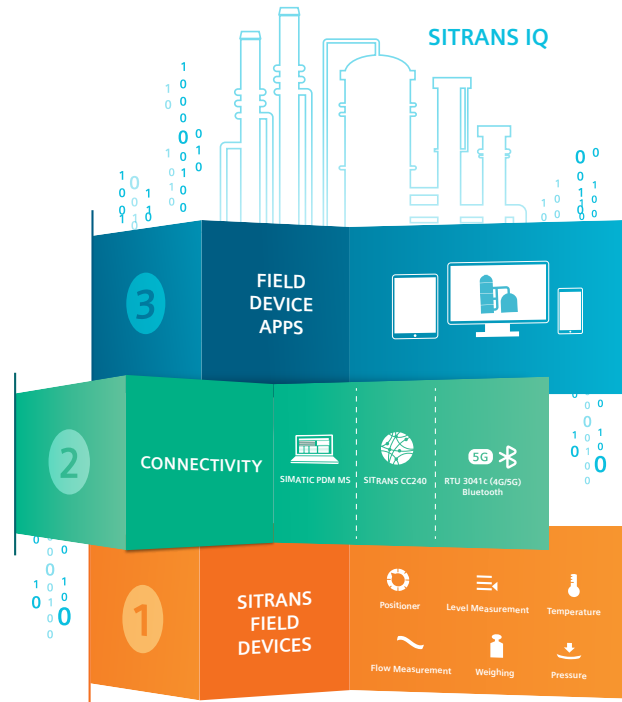
**Biogas: Set BGA** offers a TÜV-tested, four-component ULTRAMAT 23 gas analyzer system for the safe monitoring of key biogas components such as CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, and H<sub>2</sub>S. Its modular design supports multiple measuring points and ensures durability in industrial environments.

# SITRANS IQ lets you talk with your plant

An immense amount of condition data is generated in a process plant. Our SITRANS IQ portfolio extracts this data, evaluates it and edits it according to the specific needs of the operator. This sets completely new standards for improving processes.

Our SITRANS IQ portfolio provides a flexible, scalable suite of solutions to capitalize on your already smart instrumentation. Typically, we only read a primary variable from these smart instruments and dig deeper once we have a problem. But there is an immense amount of other valuable, but unused condition data in a plant. Why not read this stranded data and prevent problems in commissioning, operation or maintenance? Our SITRANS IQ connectivity solutions establish a second data channel to access stranded data without affecting your process.

Free yourself of routine tasks like manually capturing remote measurements, monitoring thresholds yourself or doing extra rounds to check your mechanical assets. SITRANS IQ sets completely new standards for improving processes, enabling predictive maintenance and increasing plant performance. Start now!



**SITRANS SCM IQ** offers intelligent condition monitoring for mechanical plant assets, detecting potential equipment failures and enabling predictive maintenance. It monitors vibrating or rotating components like pumps, compressors, and gearboxes, using SITRANS MS200 multisensors and a SITRANS CC220 industry gateway for data collection. With artificial intelligence, it predicts failures and provides event-related warnings, ensuring uninterrupted plant operations.



**SITRANS store IQ** is a cloud-based inventory monitoring and management tool that offers real-time monitoring of fill levels in tanks, silos, and shelves. It provides various scaling options, configurable dashboards, alarms, and notifications. It can integrate multiple measured variables and technologies for comprehensive inventory insights and connects seamlessly with Siemens Insights Hub for data transmission from HART devices and PLCs.



**Analyzer System Manager (ASM)** is a comprehensive monitoring and optimization solution for process analyzers. It offers monitoring of all analyzer-related assets, analysis of measurement values and device data for anomalies, execution and evaluation of validation/calibration data, maintenance management, and KPI reporting.



**SITRANS AID IQ** is an on-premise solution designed for predicting maintenance needs for Siemens Analyzers. It provides diagnostic data for evaluating the health status of each analyzer, analyzes this data to predict potential device downtime, offers service recommendations, and allows access via HMI or a web-based application.



**SITRANS mobile IQ** is a free app for easy commissioning, parameterization, and monitoring of Bluetooth-enabled field instrumentation via a smartphone or tablet. It automatically detects and displays supported field devices, offers quick commissioning or detailed setup, and displays device status and selected measurements. It supports devices like SITRANS LR1xx series, SITRANS Probe LU240 with a retrofittable Bluetooth adapter, and SIPART PS100 with a retrofittable Bluetooth adapter. Download the SITRANS mobile IQ app for free from either the App Store or Google Play using the QR codes below.



## Seamless data flow throughout the entire lifecycle of your plant

Empower your data! Clever, integrated engineering tools and solutions such as COMOS and SIMIT let you take control – and greatly increase the efficiency of processing and manufacturing plants.

### **SIMIT**

The SIMIT simulation platform enables comprehensive tests of automation applications and provides a realistic training environment for operators even before the real startup. This creates opportunities for process optimization and know-how retention, which results in a reduced commissioning time and significantly shortened time-to-market.

### **COMOS**

COMOS is the engineering tool from Siemens for the entire lifecycle of your plant. Through direct integration of our PIA Lifecycle Portal, we guarantee the seamless integration of our field devices in the engineering environment. We can offer you the field devices best suited to your processes, properties and measuring requirements.

### **PIA Lifecycle Portal**

This portal helps you select, size and configure your ideal piece of instrumentation. Interfaces to COMOS and exports to the online ordering portal of Siemens: the Industry Mall ([mall.industry.siemens.com](http://mall.industry.siemens.com)). You are able to track the lifecycle of your instrument, see warranty and extended exchange option information as well additional information such as factory certificates (for example for calibration or validation).

### **SITRANS Library**

- Easy use of device-specific functions and data from devices of the SITRANS and SIPART product families, such as dosing or totalizer functions in solutions with SIMATIC PCS 7
- Library with device-specific function blocks, block symbols and faceplates
- Fully compatible with SIMATIC PCS 7 Standard Advanced Process Library (APL) throughout the entire lifecycle, from engineering to running of the plant

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