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Process Instrumentation

Because every drop counts.

A full range of solutions for water and wastewater applications.

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Take control of any water or wastewater application with process instrumentation from Siemens. We offer not only accuracy and reliability of measurement, but also full integration of our field devices with a wide range of powerful digital tools – bringing you to a new, higher level of process management.

A complete portfolio

Siemens brings you a dedicated portfolio of instrumentation that meets the strictest requirements of diverse water industry applications, including certifications and flexible communication options to connect you with the digital world. From flow, level and pressure to temperature, positioning and weighing, our measurement devices are engineered with special features to ensure continuous operation even in challenging process conditions. Custody transfer approvals guarantee accurate billing of the world's most precious asset: water.

Our strategic partner Hach completes the offering with solutions for higher quality water analysis. Combined, the expert know-how of Siemens and Hach supports you in operating your plant at maximum cost effectiveness.

More efficient operations with digital tools, apps and services

More efficient operations with digital tools, apps and services of your project, while the PIA Life Cycle Portal makes it easy to select and configure the right devices. The Interoperability Lab provides compatibility checks for smoother incorporation into control systems.

Siemens puts advanced service options right at your fingertips with SIMATIC PDM, providing on-site or remote access to all parameters, diagnostics and maintenance information of both stationary and mobile devices. Make the most of your intelligent field instruments with the SITRANS Library, which unlocks smart features with minimal programming effort.

Furthermore the digitalization of water management processes is creating impressive new possibilities to increase efficiency and reduce costs. Our smart digitalization solutions can make your operating processes more efficient and reliable.

With SITRANS SAM IQ – the app for smart asset management – you can manage your field device data, with comprehensive possibilities of diagnostics and monitoring. SITRANS SAM IQ is one application for all field devices and protocols and reduces upcoming device failures by overviewing the health state of field devices. This helps with decreasing maintenance costs through event-driven maintenance.

With the Siemens Water (SIWA) applications specially developed for the water and wastewater industry, you as the operator can optimize energy efficiency, avoid water loss, prevent flooding and take predictive maintenance measures. Various SIWA products can support with the detection of larger and creeping leaks in water transport lines. SIWA LeakPlus uses cloud computing, artificial intelligence and hydraulic simulations to detect leaks easily and fully automatically and remedy them at an early stage. With the cloud-based SIWA Optim app, pump schedules are optimized based on the current system data and demand forecasts as well as the daily updated energy prices. In this way you can reduce energy consumption and costs by up to 15% and ensure security of supply.

Level measurement

Controllers			Ultrasonic
			
SITRANS LUT400	MultiRanger 200 HMI	SITRANS LT500	SITRANS Probe LU240
Brief description			
Compact, single-point, long-range ultrasonic controllers for continuous level or volume measurement of liquids, slurries and solids, and high-accuracy monitoring of open channel flow. ±1 mm high accuracy in standard operation. Measuring range up to 60 m (197 ft).	This versatile, short- to medium-range ultrasonic single- and multi-vessel level monitor/controller can be used for virtually any level application in environmental industries up to a range of 15 m (50 ft).	Is a controller for level, volume, volume flow, and pump applications for radar and ultrasonic transmitters – or any other 2-wire 4 to 20 mA devices.	Cost-effective, compact, intelligent level solution for liquid chemical inventory, monitoring small process vessels and level monitoring measurement in the environmental industry.
Features and benefits			
• Separated transceiver/transducer (Echomax) protects the electronics from extreme vibration • High-frequency, non-contacting ultrasonic transducer is free of electronic components and fully potted to provide long-term reliability • Energy-saving algorithms for minimizing pump operation during high-cost energy periods • State-of-the-art process intelligence echo processing • Communication: HART • Approvals: MCERTs, CSA, FM, UL, RCM	• Single- or dual-point level monitoring • Improved display with quick start menus in 8 different languages, for faster commissioning via dedicated wizards • State-of-the-art process intelligence echo processing • Suppression of fixed obstructions • Anti-grease ring/tide mark buildup • Differential amplifier transceiver for common mode noise rejection and improved signal-to-noise ratio • Standard relays for up to 6 pumps, providing differential control and open-channel flow monitoring • Communication: Modbus RTU via RS485, SmartLinx Cards for PROFIBUS DPV1 and SIMATIC PDM • Approvals: CE, CSA, NRTLC, UL, FM, ABS, RCM	• Single- and dual-point measurements • Quick Start Wizards with 6 different display views and optional view information • Compatible with SITRANS LR110/120, SITRANS Probe LU240 and generic mA inputs • Six fully programmable relays rated at 5A for pump control and alarming • Datalogging, parameter backup and copy configuration on micro memory card • Communications: HART, Modbus RTU, PROFIBUS DP or PROFIBUS PA options • Approvals: CE, CSA, NRTLC, UL, FM, ABS, RCM	• Maintenance-free active face technology keeps the sensor clean • IP68 fully potted option with fully encapsulated PVDF sensor is resistant to corrosion, chemicals and extreme shock • State-of-the-art process intelligence echo processing • Battery and solar-power friendly, with low start-up current and 10.5 Volt operation • Reduced blanking distance • 4-button user interface or remote configuration • Communication: HART 7.0 • Approvals: CE, C, CSA, US, FM, ABS, RCM, MCERTS
Typical applications			
Open-channel flow monitoring in sewers, combined sewer overflow. Wet well level and pump control, storm water tank and level monitoring in holding tanks/vessels in water and wastewater treatment plants.	Level monitoring and control of wet wells, open-channel flow monitoring of flumes/weirs. Bar screen control, level monitoring and control of screenings/sludge storage hoppers, non-aggressive chemical storage, liquid storage, and dry solids storage tanks in water and wastewater treatment plants.	Level monitoring and control of wet wells, open-channel flow monitoring of flumes/weirs. Bar screen control, level monitoring and control of screenings/sludge storage hoppers, non-aggressive chemical storage, liquid storage, and dry solids storage tanks in water and wastewater treatment plants.	Chemical storage inventory control, wet well monitoring, liquid storage, water bed levels and open channel flow monitoring.
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Level measurement

Ultrasonic	Radar		
			
Echomax Transducers	SITRANS LR100 series	SITRANS LR250 series	SITRANS LR560
Brief description			
Range of ultrasonic transducers provides reliable continuous level measurement. Various models for a wide range of applications.	80 GHz compact radar transmitters with Bluetooth wireless technology. SITRANS **LR100** – basic measurement to 8 m with cable SITRANS **LR110** – with communications, hazardous approvals options, and range to 15 m SITRANS **LR120** – with communications, longest range to 30 m, and optional submergence shield for flooding protection SITRANS **LR140** – basic measurements to 8 m SITRANS **LR150** – with communications, hazardous approvals, HMI options, and range to 15 m	2-wire, loop-powered, 25 GHz pulse radar level transmitter with a full range of antennas: horn-/PVDF-/fully encapsulated flanged antenna up to 20 m (66 ft).	2-wire, 78 GHz FMCW radar level transmitter for continuous monitoring of solids and iquids up to a range of 100 m (328 ft).
Features and benefits			
• Narrow beam angle from 6 to 10° • Chemically resistant PVDF copolymer enclosure and CMS rubber face • Fully submersible • Integral temperature compensation • Max. cable length of 365 m (1198 ft) • Choice of mounting brackets available for ease of installation • Pair with ultrasonic controllers such as the SITRANS LUT400 or HydroRanger 200 to form a complete ultrasonic level or flow measurement system • Approvals: ATEX, FM, CSA	• Narrow beam for flexible installations in existing vessel openings – or non-intrusively through plastic vessels • Bluetooth wireless technology • Process connections: 1 ½" thread • Accuracy: SITRANS LR100/140 5 mm (0.2"), SITRANS LR110/120/150 2 mm (0.08") • Optional submergence shield, HMI • Approvals: ATEX, IECEX, CSA, FM, INMETRO, NEPSI, EAC • Communications: 2-wire, 4 to 20 mA/HART or 4-wire, Modbus	• State-of-the-art process intelligence echo processing • Reliable and accurate for extremely high signal and low noise • Quick Start Wizard for easy configuration and operation in just a few minutes • Programming using infrared intrinsically safe handheld programmer, SIMATIC PDM, HART handheld communicator or SITRANS DTM • Graphical local user interface displays, echo profiles and diagnostic information • Communication: HART, PROFIBUS PA and Foundation Fieldbus • Approvals: ATEX, FM, CSA, RCM, INMETRO, IECEX, NEPSI, EAC	• High-frequency technology ensures reliable operation in dusty and vaporous environments • Lens antenna eliminates large parabolic or horn antennas and provides a narrow 4° beam angle. Highly resistant to product buildup • Integrated air purge connection as standard for particularly sticky solids • Communication: HART, PROFIBUS PA • Approvals: CSA, FM, FFC, RCM, IECEX, ATEX, INMETRO, NEPSI
Typical applications			
Installation in tanks, vessels, hoppers and open spaces such as dams or open channels.	Level and volume measurement of aggressive liquids such as acids, lime and other slurries, alum, polymers, sodium hypochlorite <20 %, etc. in chemical storage tanks within water and wastewater treatment plants.	Continuous level and volume monitoring of aggressive liquids and slurries in chemical storage and process vessels, e.g. acids/alkalis, polymers, sodium hypochlorite >20 %, chlorinates, buffer and mixing tanks in water and wastewater treatment plants.	Continuous level monitoring of bulk solids and powders such as lime and activated carbon in water and wastewater treatment plants for both batch and continuous operation. Long range liquids monitoring, for example in rivers or dams.
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Level measurement

Radar	Hydrostatic Pressure		Point Level	
				
SITRANS LG240/250/260/270	SITRANS LH300	SITRANS LH100	SITRANS LVL100/200	SITRANS LVS100/200/300
Brief description				
Guided wave radar series for liquids, solids, slurries, inventory, process control, aggressive materials and more.	2-wire submersible pressure transmitter for measurement of hydrostatic pressure with protective caps in stainless steel, PPE and ETFE.	2-wire submersible pressure transmitter for measurement of hydrostatic pressure; compact version.	Compact vibrating fork for liquid slurry point level detection. SITRANS LVL200 for use in hazardous and aggressive applications.	Vibrating point level switches for dry powder, fine grain, and granular bulk solids with densities from 5 to 30 g/l (0.3 to 1.9 lb/ft³).
Features and benefits				
• Versatile and reliable level measurement even with aggressive vapors, high temperatures and pressure, dust, steam or material buildup • No setup required due to preconfigured sensor delivery • Measures level, level interface and volume in a wide range of applications from material storage to bypass pipes • Rod and cable lengths can be easily adjusted to fit your application • Low dk measurement using probe end tracking • Auto buildup adjustment to ensure against false readings • Communication: HART, PROFIBUS PA, Foundation Fieldbus and Modbus • Approvals: ATEX, IECEX, FM, CSA, marine and regional approvals	• IP68 stainless steel housing (30 mm/1.2 in including protection cap) with piezoresistive sensor and 99.6% ceramic diaphragm • Converts the level-proportional hydrostatic pressure into a standardized 4–20mA signal • Accuracy ≤0.15% (typical) • 2-wire design; 300 m (984 ft) free suspended length • Measuring range: 1–6, 10, 20 and 40 m H_2O (120 ft); 100 and 160 m H_2O (480 ft) on request • Approvals: UL, ATEX, IEC Ex, Intrinsic safety "i", WRAS, ACS, DVGW/KTW W270, DNV/GL, LR, BV, ABS	• IP68 stainless steel housing (23.4 mm/0.9 in diameter) with a piezoresistive sensor and ceramic diaphragm • Converts the level-proportional hydrostatic pressure into a standardized 4–20 mA signal • Accuracy ≤0.3% • Measuring range: Standard 4, 5, 6, and 10 m H_2O (60 ft); 4 to 30 m H_2O (98 ft) on request • 4–20 mA 2-wire connection • Approvals: ATEX, IECEx	• Compact insertion length of 40 mm (1.6 in) for tight spaces • Test function standard to confirm correct operation • Fault monitoring for corrosion, loss of vibration or line break to the piezo drive • Independent of dielectric and other material conditions such as vapors, gases, bubbles, foam • Robust design with threaded piezo drive system to prevent failure in aggressive applications • Approvals: Hygienic approvals, WHG, ATEX, FM, CSA, SIL2, IECEx	• High or low level alarm • Compact design • Top, side, angle mount • Rotatable enclosure • Replaceable electronics • Interface model with detection of solids in liquids • Best-in-industry density measurement below 5 g/l • Independent of dielectric and other material conditions such as vapors • Unaffected by external vibrations • Short fork option for short insertion lengths • Remote electronics option • Communication: 4–20 mA • Approvals: FM, CSA, ATEX, C-Tick
Typical applications				
Continuous level, interface and volume monitoring of liquids and solids. Measurement in storage and process vessels within water and wastewater treatment plants.	Level monitoring in deep wells, very foamy sumps and wet wells, grease traps, irrigation canals, dams and reservoirs in water and wastewater treatment processes.	Level monitoring under harsh environmental conditions and for installation in tight spaces, e.g. in deep narrow wells, very foamy sumps and wet wells, grease traps, irrigation canals, dams and reservoirs in water and wastewater treatment processes.	High and low point level detection for liquid or slurries in various chemical and process water storage tanks and sumps within water and wastewater treatment plants.	High and low point level detection for bulk solids storage tanks such as lime, activated carbon, dry chlorine powder, etc. in water and wastewater treatment plants.
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Level

Flow measurement

Point Level	Electromagnetic		
			
Pointek CLS100/200	SITRANS F M MAG 1100	SITRANS F M MAG 3100	SITRANS F MAG 5100 W
Brief description			
Compact, 2-wire inverse frequency shift capacitance switch for level detection in constricted spaces for interfaces, solids, liquids, slurries and foam.	Electromagnetic flow sensor with stainless steel housing for chemical dosing.	Electromagnetic flow sensor in a rugged, fully welded design; can be upgraded to IP68 on site to be buried.	Electromagnetic flow sensor in a rugged, fully welded design; can be upgraded to IP68 on site to be buried and flooded. Designed for the water and wastewater industry.
Features and benefits			
• Tip-sensitive switch, unaffected by conductive or non-conductive buildup • Potted construction protects signal circuit from shock, vibration, humidity and/or condensation • High chemical resistance • Level detection independent of tank or pipe grounding • Insensitive to product buildup due to high-frequency oscillation • High sensitivity allows installation in a wide range of liquid, solid, slurry or interface applications • Integral LCD display allows for easy setup to configure detection threshold, even under the most demanding process conditions • Communication: PROFIBUS PA • Approvals: CSA, FM, ATEX, C-Tick, WHG, Pattern approval China	• Compact wafer design meets EN 1092, DIN and ANSI flange standards • Corrosion-resistant AISI 316 L stainless steel sensor housing • Highly resistant liner and electrodes for aggressive media • Medium temperature rating up to +200 °C (+390 °F) • IP67 NEMA 4X/6 enclosure rating • Designed for patented in-situ verification of the whole flowmeter using the SENSORPROM fingerprint • Easy commissioning; SENSORPROM unit automatically uploads calibration values and settings • Approvals: ATEX-2GD Zone I, FM CL1 Div. 2	• Wide pressure range flanges: PN 6 to PN 100, ANSI Class 150 / 300, AS 2129 / AS 4087, AWWA or JIS • Wide range of electrode and liner materials including EPDM (drinking water approved) • Fully welded construction that suits the toughest applications and environments • Designed for patented in-situ verification of the whole flowmeter using the SENSORPROM fingerprint • Easy commissioning; SENSORPROM unit automatically uploads calibration values and settings • Approvals: Drinking water approvals and certificates according to national and international standards ATEX, FM, CSA	• Hard lining guarantees consistent accuracy throughout the entire pressure and temperature range • Integrated grounding and measuring electrodes • Increased low flow accuracy for water leak detection • Built-in length according to ISO 13359 • Designed for patented in-situ verification of the whole flowmeter using the SENSORPROM fingerprint • Easy commissioning; SENSORPROM unit automatically uploads calibration values and settings • 0xD of straight pipe required upstream and downstream from the sensor • Approvals: According to regional and national standards, CT, OIML R49, MI 001, PTB K 7.2, BEV OE 12 / C040, MCERTS, WRAS, NSF/ANSI Standard 61, DVGW 270, ACS and BelgAqua
Typical applications			
High and low point level detection for clean and contaminated liquid and slurry holding tanks and sumps in water and wastewater treatment plants. Overspill and pump protection in wet wells.	Volumetric flow measurement for chemical dosing in water treatment processes, with a minimum electrical conductivity of 5 µS / cm.	Volumetric flow measurement for water, salt water and all liquids and chemicals with a minimum electrical conductivity of 5 µS / cm.	For all water applications such as groundwater, drinking water, cooling water, wastewater, sewage and sludge applications. Installation in water networks for leak detection and billing.
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Flow measurement

Electromagnetic		Inline Ultrasonic	Clamp-on ultrasonic
			
SITRANS F M MAG 5000/6000/6000 I	SITRANS F M MAG 8000/8000 CT	SITRANS F S SONOKIT	SITRANS FS220
Brief description			
Electromagnetic flow transmitters for flow and volume measurement in combination with any electromagnetic flow sensor.	Battery-operated electromagnetic water meter for stand-alone water applications; optional built-in wireless communication module. Can be upgraded to IP68 on site to be buried and flooded.	Simple and accurate alternative to traditional flowmeters because it can be retrofitted onto existing pipelines. IP68 version for burial and flooding applications. Includes the FUS060 or FUS080 transmitter.	Cost-efficient digital clamp-on ultrasonic flowmeter for straightforward liquid measurement.
Features and benefits			
• Superior signal resolution for optimum turndown ratio • Automatic reading of SENSORPROM data for easy commissioning • User-configurable operation menu with password protection • Flow rate in various units • Totalizer for forward, reverse and net flow plus additional information • Multiple functional outputs for process control, minimum configuration with analog, pulse/frequency and relay output (status, flow direction, limits) • Comprehensive self-diagnostic for error indication and error logging • Compact or remote version • Communication: HART®, Modbus RTU, PROFIBUS PA/DP, DeviceNet, FF	• Compact or remote solution • Flexible power supply – internal or external battery pack or line power supply with battery backup. 6 years' battery life in typical revenue applications • Bidirectional measurement • Data logger with up to 26 months of recording and consumption profile • Alarm: Current consumption too high or too low • Advanced statistics and diagnostics • 0xD of straight pipe required upstream and downstream from the sensor • Communication: Modbus RTU, Sensus radio encoder and 3G networks • Approvals: CT, MI 001 (cold water) OIML R49, MCERTS, WRAS, KTW, DVGW 270, ACS, Belgaqua, NSF/ANSI Standard 61, KIWA, Fire Marshal (FM), NMI 10 for SITRANS F M MAG 8000 Irrigation	• Cost-effective solution – contains all necessary components for retrofitting • Easy to install in pipeline sizes DN 100 to DN 4000 (4" to 160") – without process shutdown or flow interruption. • High accuracy – the bigger the pipe, the more accurate the result • Solid construction and no moving parts for 100% maintenance- and obstruction-free flowmetering • Automatic calculation of the calibration factor when pipe geometry data is entered in the transmitter • Battery-powered option with FUS080 • Communication: HART®, PROFIBUS PA, IrDA optical eye via Modbus RTU (FUS080 only) • Approvals: ATEX (FUS080 only)	• High 1% accuracy and 0.25% repeatability according to ISO 11631 • Exceptional zero stability • Low maintenance and cost of ownership as sensors have no moving parts and never make contact with the fluid • Removable SensorFlash® microSD card for unique data analysis opportunities and servicing • Ease of use with fully graphical display, simple menu navigation and multiple setup wizards • No pressure drop or energy loss • Communication: Modbus RTU; compatible with SIMATIC PDM • Approvals: UL, ULc, CE
Typical applications			
For all electrically conductive liquids and slurries. The rugged die-cast aluminum housing of the SITRANS F M MAG 6000 I provides exceptional protection, even in the most rugged environment.	Water distribution network: Optimize water supply and reduce leakage. Revenue metering: CT approved meter for accurate billing. Irrigation: Long-term performance, maintenance-free fair billing.	For retrofit of all the following applications: Raw water intake for water treatment plants, water distribution systems, irrigation systems, hydropower stations, district heating and cooling plants, cooling systems, sewage treatment plants.	Water leak detection and monitoring, wastewater influent and effluent, processed sewage and sludge.
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Flow measurement

Pressure

Clamp-on ultrasonic	Vortex	Orifice plates	Pressure measurement
			
SITRANS FS230	SITRANS FX330	SITRANS P320 FO	SITRANS P200/210/220
Brief description			
Vortex flowmeter that provides accurate volumetric and mass flow measurement of steam, gases and liquids, with integrated temperature and pressure compensation.	Universal flow measurement for liquids, gases and vapors. Differential pressure measurement with orifices always provides accurate results even with large bores, high temperature and extreme pressure.	Compact single range transmitters for measurement of process, absolute and hydrostatic pressure. Available in a ratiometric version for the MAG 8000 GSM.	Digital pressure transmitter for gauge pressure, absolute pressure and level measurement.
Features and benefits			
• Compact or remote design (max. 15 m / 49 ft) • Flow, pressure and temperature reading at one single point • Accuracy: ±0.75% ... 2.5% (depending on media) • Fully welded stainless steel construction; high corrosion, pressure and temperature resistance • Isolation valve to protect pressure sensor during pressure / leak testing in the pipe • Communication: HART® • Approvals: FM, ATEX, IEC Ex	• Very robust and available in a wide range of nominal diameters • Suitable for a wide range of temperatures and pressures • No calibration required as the process is standard-ized • Clear display with diagnostic icons according to NAMUR NE 107 and 4 push buttons • Reduced response time for high-accuracy flow measurement • Extended diagnostic functions with trend log and up to 1500 points • Communication: HART® 7	• Piezoresistive measuring cell with ceramic diaphragm (P200) or SS diaphragm (P210/220) • Fixed-range transmitter • Measuring range starting at 100 mbar up to 600 bar • For aggressive and non-aggressive gases, vapors and liquids • High measuring accuracy <0.25% • Rugged stainless steel enclosure • Compact design • EPDM gaskets for drinking water • Ingress protection up to Fully IP67 • Available in explosion-protected design according to ATEX	• Piezoresistive measuring cell, oil-filled • Measuring range from 10 mbar to 400 bar • High measuring accuracy up to 0.075% • Configuration through push buttons and LCD, HART® or PROFIBUS PA • Ingress protection up to IP68 • Front flush mounted membrane and housing made of stainless steel • FDA-compliant filling oils • Excellent surface quality (Ra value ≤ 0.8 µm for process wetted parts) • Communication: 0–20 mA, HART®, PROFIBUS PA or FF • Approvals: EHEDG, 3A
Typical applications			
Consumption measurement in compressed air systems and other industrial gases or steam installations.	Air, compressed air, biogas, steam flow measurement.	Compressors, steam lines from boiler, chemical storage tanks, pump suction and discharge pressure in booster pumping stations.	Pressure measurement in raw water intake, sludge line, grit wash water, methane gas, chemical storage, industrial utility applications, desalination and irrigation.
www.siemens.de/FS230	siemens.com/fx330	siemens.com/sitransp320	siemens.com/p200

Pressure

Temperature

Weighing

	Temperature measurement		Weighfeeders
			
SITRANS P320	SITRANS TH/TR/TW/TF transmitters	SITRANS TS sensors	SITRANS WW weighfeeders
Brief description			
Advanced digital pressure transmitter for gauge, absolute and differential pressure, level and flow measurement.	Portfolio of temperature transmitters for head, rail or field mounting, for connection to many different thermocouples, resistance thermometers, as well as mV and resistance sensors.	Temperature sensors for a wide range of temperature applications.	SITRANS WW100 and WW200 weighfeeders provide continuous feed rate control of lime for slaking in water purification processes. With dust-tight enclosure options and high temperature belts, these proven weighfeeders ensure uninterrupted control for optimum process quality.
Features and benefits			
• Piezoresistive measuring cell, oil-filled • Measuring range from 1 mbar up to 700 bar • Separate replacement of measuring cell and electronics without recalibration • High measuring accuracy up to 0.065% • High long-term stability up to 0.125% over 5 years • Configuration through push buttons / LCD • Ingress protection up to IP67 • Extensive diagnostics and simulation functions with remote commissioning via PDM • Clear display with diagnostic icons according to NAMUR NE 107 and 4 push buttons • Communication: 0–20 mA, HART® • Approvals: ATEX, FM, CSA, NEPSI, FDA, EHEDG	• Two inputs, hot backup, 2x4-wire RTD connection with drift detection and monitoring (predictive maintenance) • Long-term stability of <0.05% per year **SITRANS TH** Compact design for installation in connection head form B **SITRANS TR/TW** • Rail-mount version **SITRANS TF** • Waterproof dual-chamber enclosure or low-cost single-chamber enclosure in aluminum or stainless steel 316L • Conforms with C5M corrosion-protective paint standards according to ISO 12944 • Clear display with diagnostic icons according to NAMUR NE 107 and 4 push buttons • Communication: HART® 7 • Approvals: ATEX, IECEx	**SITRANS TS100** • Cable thermometers with different electrical connection options • Ideal for unfavorable space conditions **SITRANS TS200** • Compact thermometer with misc. plugs • Ideal for unfavorable space conditions **SITRANS TS300** • Hygiene-based design for in-pipe or clamp-on measurement **SITRANS TS500** • Modular system of tubular or barstock thermowell, extension, connection head with optional transmitter and display • Approvals: ATEX, IECEx	• ±0.25–0.5% accuracy over a 10–100 % capacity rate range • Compact design for easy retrofit or new installations • Painted mild steel and stainless steel options • Dust-tight, easy-open enclosure options • Self-cleaning belt supports pans or bars • Up to 100 tph flow rate capacity • Complete process control with Milltronics BW500 integrator • Communication (BW500): 4–20 mA, Modbus ASCII, Modbus RTU, Modbus TCP / IP, Ethernet / IP, PROFINET, PROFIBUS DP, DeviceNet • Approvals: Hazardous rated component options available
Typical applications			
Various pressure, level and flow measurements in water/wastewater plants, chemical storage and other utility installations, as well as desalination and irrigation installations.	For all temperature applications.	For all temperature applications, e.g. surfaces, bearings, machinery, equipment, in vessels and pipes.	Lime slaking.
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Weighing

Components

Communication & Software

Belt scales	Remote displays		Industrial remote communication/telecontrol	
				
Milltronics MSI	SITRANS RD100/RD150	SITRANS RD200/300	SCALANCE M	Modular RTUs
Brief description				
The Milltronics MSI belt scale has more approvals than any other belt scale on the market with general, food, hazardous and trade approvals.	2 wire 4 to 20 mA loop remote display with HART suitable for monitoring and adjustment of connected sensors' primary HART variables or 2-wire loop-powered enclosed remote digital display for process instrumentation.	Universal input, panel mount, or dual-line, panel mount, remote digital display for process instrumentation.	In telecontrol applications, the communication connection of the RTUs plays an important role. With our industrial routers from the SCALANCE M family, you can connect your RTUs to private or public communication structures for communication with the control center.	The compact RTUs of the SIMATIC RTU3000C family are autonomous low-power remote terminal units with their own power supply. They can be used to monitor remote measuring points – even when there is no local power supply or communication infrastructure available.
Features and benefits Features and benefits				
• ±0.5% accuracy over a 20–100% capacity rate range • Single idler compact design for easy retrofit or new installations • Painted mild steel, galvanized or stainless steel options • Proven triple-beam parallelogram stainless steel load cells • Up to 12,000 tph flow rate capacity • Complete process control with Milltronics BW500 integrator • Communication (BW500): 4–20 mA, Modbus ASCII, Modbus RTU, Modbus TCP / IP, Ethernet / IP, PROFINET, PROFIBUS DP, DeviceNet • Approvals: CSA, FM, Atex, IEC Ex, GOST-R Ex	• 3.5 or 5 digits • Two-step configuration • Intrinsically Safe, non-incendive • Serviceability without loop interruption • Factory calibrated • Remote display with sensor configuration via HART • Monitor extended data via HART • Flexible field and panel mount options • Menu driven backlit display • Plastic, aluminum and stainless housing options	• 4 digit or dual-line 6 digits • Easy to read in all conditions • Temperature and process meter • Software supports monitoring and configuration • Alarm indication and process control • Provides power to instrument • Modbus RTU output • 32-point linearization and square root function • Nine digit totalizer • Flexible outputs with up to eight relays and eight digital I/O for process control alarming • Multi-pump alternation control	**Connection via mobile wireless:** • Stationary or mobile devices can be connected via mobile wireless over 2G/GSM, 3G/UMTS or 4G/LTE **Connection via Internet/Ethernet:** • Connection of devices over existing 2-wire or multi-wire cables or via wired telephone or DSL networks (ADSL, SHDSL) • All industrial routers from the SCALANCE M family allow simple establishment of secured VPN connections using the SINEMA Remote Connect management platform	• Flexible power supply concept: Battery, accumulator or 12–24 Volt power connection – freely combinable • Flexible connection to any SCADA system through different protocols: TeleControl Basic, IEC 60870-5-104, DNP3 and SINAUT ST7 • Direct connection of sensors for data acquisition on site through integrated analog inputs and digital inputs and outputs including data preprocessing • Operates in adverse ambient conditions (temperature range –40 to +70 °C/–40 to 158 °F, flooding areas) • New HART and Modbus module for advance connection
Typical applications				
Solids sludge transport on conveyors.	Remote processing monitoring.	Remote processing monitoring.	Connection of RTUs to public or private networks (remote networks) to enable communication with the control center.	Monitoring of distributed processes, e.g. in water supply, wastewater treatment, irrigation or flood protection.
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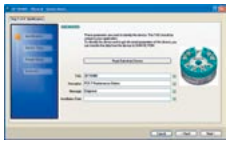
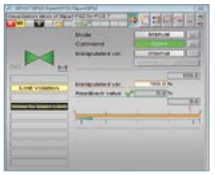
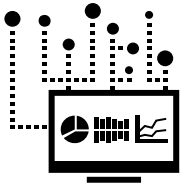
Communication & Software

	Software		App
			
SIMATIC RTU3041C	SITRANS Library	SITRANS Library	Siemens Water (SIWA) apps, SITRANS SAM IQ
Brief description			
The compact RTUs of the SIMATIC RTU3000C family are autonomous low-power remote terminal units with their own power supply. They can be used to monitor remote measuring points – even when there is no local power supply or communication infrastructure available.	The SITRANS Library consists of function blocks, block icons and faceplates for a growing number of field instruments in the SITRANS and SIPART families. Target systems are SIMATIC PCS 7 and SIMATIC PLCs in parallel with SIMATIC WinCC and panels.	The SITRANS Library consists of function blocks, block icons and faceplates for a growing number of field instruments in the SITRANS and SIPART families. Target systems are SIMATIC PCS 7 and SIMATIC PLCs in parallel with SIMATIC WinCC and panels.	With the Siemens Water (SIWA) applications specifically developed for the water and waste water industry operators can optimize energy efficiency, avoid water loss, reduce contamination of water bodies and take predictive maintenance measures. With SITRANS SAM IQ – the app for smart asset management – you can manage your field device data, with comprehensive possibilities of diagnostics and monitoring. This helps with decreasing maintenance costs through event-driven maintenance.
Features and benefits			
• Flexible power supply concept: Battery, accumulator or 12–24 Volt power connection – freely combinable • Flexible connection to any SCADA system through different protocols: TeleControl Basic, IEC 60870-5-104, DNP3 and SINAUT ST7 • Direct connection of sensors for data acquisition on site through integrated analog inputs and digital inputs and outputs including data preprocessing • Operates in adverse ambient conditions (temperature range –40 to +70 °C/-40 to 158 °F, flooding areas) • New HART and Modbus module for advance connection	• Devices supported include SITRANS F M MAG 6000, SITRANS LUT400 and SIPART PS2 with PROFIBUS PA and 4–20 mA / HART® interface • Same look and feel as the standards in SIMATIC PCS 7 • No additional training for operators • Usage of features in field devices without additional cost: customers use what they already have paid for	• Devices supported include SITRANS F M MAG 6000, SITRANS LUT400 and SIPART PS2 with PROFIBUS PA and 4–20 mA / HART® interface • Same look and feel as the standards in SIMATIC PCS 7 • No additional training for operators • Usage of features in field devices without additional cost: customers use what they already have paid for	**Siemens Water (SIWA) applications:** • Various smart apps for greater efficiency and security of supply • Offer higher transparency and help to identify optimization and savings potential for stronger security of supply **SITRANS SAM IQ:** • One application for all field devices and protocols • Reduces upcoming device failures by overviewing the health state of field devices • Decrease maintenance costs through event-driven maintenance
Typical applications			
Monitoring of distributed processes, e.g. in water supply, wastewater treatment, irrigation or flood protection.	Examples: Innovative dosing at a lower cost using the dosing feature of MAG 6000; faster and more flexible valve operation with SIPART PS2.	Examples: Innovative dosing at a lower cost using the dosing feature of MAG 6000; faster and more flexible valve operation with SIPART PS2.	Maintenance, pump monitoring, leak detection
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