

SIEMENS
Ingenuity for life




Process Instrumentation

Because every
drop counts.

A full range of solutions for water
and wastewater applications.

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Instrumentation that puts you in control

Water is at the heart of life and economic activity. Accurate measurement of water and wastewater processes – with easy accessibility to the digital world – is critical for optimizing efficiency and sustainability throughout the life cycle of your plant.

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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 and service





Our COMOS software tool integrates all stages 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.

Level measurement

	Radar			
				
	SITRANS Probe LR	SITRANS LR250	SITRANS LR560	SITRANS LG
Brief description	Compact, 2-wire, loop-powered, 6 GHz pulse radar transmitter with polypropylene rod antenna for level measurement up to a range of 20 m (65 ft).	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 liquids up to a range of 100 m (328 ft).	Guided wave radar series for liquids, solids, slurries, inventory, process control, aggressive materials and more.
Features and benefits	<ul style="list-style-type: none"> • Uni-Construction polypropylene rod antenna standard • Easy installation and simple start-up • Patented Sonic Intelligence® signal processing • Extremely high signal-to-noise ratio • Auto False-Echo Suppression of false echoes • Measuring frequency: 5.8 GHz (6.3 GHz for North America) • Programming using infrared intrinsically safe handheld programmer, SIMATIC PDM or HART® handheld communicator • Communication: HART® • Approvals: CSA, FM, C-Tick, ATEX 	<ul style="list-style-type: none"> • Smaller process connections and narrow beam allows installation anywhere on a vessel • Short blanking distance • Process Intelligence® for advanced echo processing • Reliable and accurate for extremely high signal and low noise yields • 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 any other market systems via SITRANS DTM. • Graphical local user interface displays, echo profiles and diagnostic information • Communication: HART®, PROFIBUS PA and Foundation Fieldbus • Hazardous approvals: ATEX, FM, CSA, RCM, INMETRO, IECEX, NEPSI • Radio approvals: CSA, FM, RCM, ATEX, FCC, R&TTE, Industry Canada 	<ul style="list-style-type: none"> • 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, Foundation Fieldbus • Approvals: CSA, FM, FFC, RCM, IECEX, ATEX, INMETRO, NEPSI 	<ul style="list-style-type: none"> • 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
Typical applications	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.	Continuous level, interface and volume monitoring of liquids and solids. Measurement in storage and process vessels within water and wastewater treatment plants.
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Level measurement





Ultrasonic				
				
	SITRANS LU150/LU180	SITRANS Probe LU	SITRANS LUT400	HydroRanger 200 HMI
Brief description	Short-range, 2-wire, 4-to-20 mA, loop-powered ultrasonic level transmitters ideal for liquids, slurries and bulk materials in open or closed vessels to 5 m (16.4 ft). SITRANS LU180 includes certifications for intrinsically safe applications.	2-wire, loop-powered ultrasonic transmitter for level, volume and flow monitoring of liquids. Continuous level measurement up to 12 m (40 ft).	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).
Features and benefits	<ul style="list-style-type: none"> • Easy to install, program and maintain • Accurate and reliable level data with temperature compensation • Patented Sonic Intelligence echo processing algorithm discriminates between true and false echoes from acoustic or electrical noises • Transducer is available in PVDF copolymer, making the device suitable for use in a wide variety of applications • Approvals: CE, CSA, CSA: IS/Class 1 Div. 1, FM: IS/Class 1 Div. 1, ATEX II/IECEX/NEPSI: 1G Ex ia IIC T4 Ga 	<ul style="list-style-type: none"> • Integrated temperature compensation • ETFE or PVDF transducers for chemical compatibility • Sonic Intelligence signal processing • Extremely high signal-to-noise ratio • Auto False-Echo Suppression for fixed obstruction avoidance • Level to volume or level to flow conversion • Programming using infrared intrinsically safe handheld programmer, SIMATIC PDM or HART® Communicator • Communication: HART®, PROFIBUS PA • Approvals: ATEX, FM, CSA, INMETRO, IECEX, RCM 	<ul style="list-style-type: none"> • 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 • Sonic Intelligence is standard and is proven to provide superior performance in difficult conditions • Communication: HART® • Approvals: MCERTs, CSA, FM, UL, RCM 	<ul style="list-style-type: none"> • Single- or dual-point level monitoring • Improved display with Quick Start menus in 8 different languages, for faster commissioning via dedicated wizards • Sonic Intelligence signal processing for improved measurement reliability and Auto False-Echo 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, Smart Linx Cards for PROFIBUS DPV1 and SIMATIC PDM • Approvals: CE, CSANRTL/C, UL, FM, ABS, RCM
Typical applications	Continuous level and volume monitoring of liquids and slurries in anaerobic clarifiers, storage and process vessels in water and wastewater treatment plants.	Level, volume and flow monitoring in open channels, non-foaming chemical storage vessels, simple process vessels, filter beds, chlorine contact chambers, clarifiers, sumps, etc. in water and wastewater treatment plants.	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.
	siemens.com/sitranslu150	siemens.com/probelu	siemens.com/sitranslut400	siemens.com/hydroranger




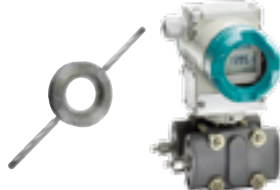

		Hydrostatic Pressure		Point Level	
					
	Echomax Transducers	SITRANS LH300	SITRANS LH100	SITRANS LVL100/200	SITRANS LVS100/200
Brief description	Range of ultrasonic transducers provides reliable continuous level measurement. Various models for a wide range of applications.	2-wire submersible pressure 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 has a contact-less electronic for use in hazardous locations.	Vibrating fork for dry bulk solids point level detection up to 20 m (65 ft).
Features and benefits	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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 H₂O (120 ft); 100 and 160 m H₂O (480 ft) on request• Approvals: UL, ATEX, IEC Ex, Intrinsic safety "i", WRAS, ACS, DVGW/KTW W270, DNV/GL, LR, BV, ABS	<ul style="list-style-type: none">• 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, 10 and H₂O (60 ft); 4 to 30 m H₂O (98 ft) on request• 4-20 mA 2-wire connection• Approvals: ATEX, ICEEx	<ul style="list-style-type: none">• 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: EHEDG, 3-A, FDA, WHG, ATEX, FM, CSA, SIL2, IECEx	<ul style="list-style-type: none">• 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	Installation in tanks, vessels, hoppers and open spaces such as dams or open channels.	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 measurement





Flow measurement





			Electromagnetic	
				
	Pointek CLS100/200	Pointek ULS200	SITRANS F M MAG 1100	SITRANS F M MAG 3100
Brief description	Compact, 2-wire inverse frequency shift capacitance switch for level detection in constricted spaces for interfaces, solids, liquids, slurries and foam.	Ultrasonic non-contacting switch with two detection points.	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.
Features and benefits	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Beam angle: 12 ° • 3-digit display • Programming using 2 push-buttons • 2 switch outputs for high-high, high-low and low-low level alarms or pump up/pump down control • Integral temperature compensation • AC or DC power supply • Electronics provided with fail-safe function • Polycarbonate or aluminum enclosures: Type 6 / NEMA 6/IP67 • Approvals: FM, CSA, RCM 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
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.	Non-contact level detection of bulk solids, liquids and slurries stored in storage tanks and in sumps of water and wastewater treatment plants. Simple pump control applications.	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.
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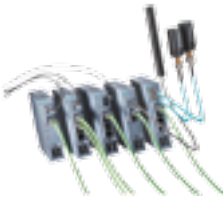


				Inline Ultrasonic
				
	SITRANS F MAG 5100 W	SITRANS F M MAG 5000 / 6000 / 6000 I	SITRANS F M MAG 8000 / CT / Irrigation	SITRANS F US SONOKIT
Brief description	Electromagnetic flow sensor in a rugged, fully welded design; can be upgraded to IP68 on site to be buried and flooded. Designed for the water and wastewater industry.	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.
Features and benefits	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 with FUS060
Typical applications	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.	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.
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	Clamp-on ultrasonic	Vortex	Orifice plates	Pressure measurement	
					
	SITRANS FS220	SITRANS FS230	SITRANS FX330	SITRANS P310 FO	SITRANS P200/210/220
Brief description	Cost-efficient digital clamp-on ultrasonic flowmeter for straightforward liquid measurement.	Advanced, highly accurate digital clamp-on ultrasonic flowmeter for measurement of virtually any liquid application.	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.
Features and benefits	<ul style="list-style-type: none"> 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 Approvals: UL, ULC, CE Communication: Modbus RTU; compatible with SIMATIC PDM 	<ul style="list-style-type: none"> High 0.5-1% accuracy and 0.25% repeatability according to ISO 11631 100 Hz data update rate 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 and servicing Ease of use with fully graphical display, simple menu navigation and multiple setup wizards No pressure drop or energy loss Approvals: UL, ULC, CE, FM, ATEX, IECEx (Zone 0, 1 and 2) Communication: HART® 7.5 or Modbus; compatible with SIMATIC PDM 	<ul style="list-style-type: none"> Compact or remote design (max. 15 m/49 ft) Flow, pressure and temperature reading at one single point Accuracy: $\pm 0.75\% \dots 2.5\%$ (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 	<ul style="list-style-type: none"> 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 standardized The additional electronics required can be used a long distance away from the measuring location 	<ul style="list-style-type: none"> 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
Typical applications	Water leak detection and monitoring, wastewater influent and effluent, processed sewage and sludge.	Water leak detection and monitoring, wastewater influent and effluent, processed sewage and sludge.	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.
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Temperature

			Temperature measurement	
				
	SITRANS P300	SITRANS P310	SITRANS TS sensors	SITRANS TH, TR, TF transmitters
Brief description	Digital pressure transmitter for gauge pressure, absolute pressure and level measurement.	Advanced digital pressure transmitter for gauge, absolute and differential pressure, level and flow measurement.	Temperature sensors for a wide range of temperature applications.	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.
Features and benefits	<ul style="list-style-type: none">• 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, 3-A	<ul style="list-style-type: none">• 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 0.075 %• High long-term stability up to 0.25% per 60 months• Configuration through push buttons / LCD• Ingress protection up to IP68• Extensive diagnostics and simulation functions with PDM• Communication: 0–20 mA, HART®, PROFIBUS PA, PROFIsafe or Foundation Fieldbus• Approvals: ATEX, FM, CSA, NEPSI, FDA, EHEDG	<p>SITRANS TS100</p> <ul style="list-style-type: none">• Cable thermometers with different electrical connection options• Ideal for unfavorable space conditions <p>SITRANS TS200</p> <ul style="list-style-type: none">• Compact thermometer with misc. plugs• Ideal for unfavorable space conditions <p>SITRANS TS300</p> <ul style="list-style-type: none">• Hygiene-based design for in-pipe or clamp-on measurement <p>SITRANS TS500</p> <ul style="list-style-type: none">• Modular system of tubular or barstock thermowell, extension, connection head with optional transmitter and display• Available in explosion-protected design according to ATEX and IECEx	<p>SITRANS TH</p> <ul style="list-style-type: none">• Installation in connection head Form B• Galvanic insulation and fault detection• EMI-resistant signal transmission <p>SITRANS TR/TW</p> <ul style="list-style-type: none">• 2-wire or 4-wire rail-mount <p>SITRANS TF</p> <ul style="list-style-type: none">• Die-cast aluminum or stainless steel housing• LCD display• Available in explosion-protected design according to ATEX and IECEx• Communication: 4–20 mA, HART®, PROFIBUS PA, FOUNDATION Fieldbus, WirelessHART®
Typical applications	Pressure measurement in raw water intake, sludge line, grit wash water, methane gas, chemical storage, industrial utility applications, desalination and irrigation.	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, e.g. surfaces, bearings, machinery, equipment, in vessels and pipes.	For all temperature applications.
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	Weighfeeders	Belt scales	Remote displays	
				
	SITRANS weighfeeders	Milltronics MSI	SITRANS RD100/200	SITRANS RD300
Brief description	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.	The Milltronics MSI belt scale has more approvals than any other belt scale on the market with general, food, hazardous and trade approvals.	SITRANS RD100 is a loop-powered remote display and RD200 is a universal remote digital display for many products including Probe LU, providing easier access to process measurements.	Dual-line, panel mount, remote digital display for process instrumentation for Probe LU, Probe LR, SITRANS P MPS to install at areas with easier access.
Features and benefits	<ul style="list-style-type: none"> • $\pm 0.25 - 0.5$ % 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, PROFIBUS DP, DeviceNet • Approvals: Hazardous rated component options available 	<ul style="list-style-type: none"> • ± 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, PROFIBUS DP, DeviceNet • Approvals: CSA, FM, Atex, IEC Ex, GOST-R Ex 	<ul style="list-style-type: none"> • Make measurement data visible and accessible from a remote location • Compatible with all types of field instruments in varying process conditions • Easy to set up and program • SITRANS RD200 includes freely available logging and monitoring software, allowing multiple displays to be monitored from one PC • SITRANS RD200 has optional large display with 35 mm (1.2") high LED 	<ul style="list-style-type: none"> • Easy-to-read, dual-line display with eight brightness levels • Flexible outputs with up to eight relays and eight digital I/Os for process control alarming
Typical applications	Lime slaking.	Solids sludge transport on conveyors.	Remote process monitoring.	Remote process monitoring.
	siemens.com/weighing	siemens.com/weighing	siemens.com/sitransrd	siemens.com/sitransrd

	Industrial remote communication/telecontrol			Software	
					
	Modular RTUs	SIMATIC RTU3000C	SCALANCE M	SITRANS PDM	SITRANS Library
Brief description	With our telecontrol systems, you can control and monitor remote terminal units (RTUs) from the control center. RTUs are located at the substations of telecontrol plants and monitor widely distributed measuring points. Different RTUs are used depending on the complexity of the task.	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.	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.	SIMATIC PDM (Process Device Manager) forms the basis for data and condition acquisition by intelligent field devices in the maintenance station. It is an universal, manufacturer-independent tool for configuration, parameterization, commissioning, diagnostics and maintenance of intelligent devices and automation components.	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.
Features and benefits	<p>With modular remote terminal units based on SIMATIC controllers, you can adapt substations flexibly to your requirements. For the connection of stations to a telecontrol control center, we offer communication modules including communication processors (CPs) and telecontrol interface modules (TIMs).</p> <ul style="list-style-type: none"> • RTUs based on SIMATIC S7-1500 offer flexibility and optimum performance • RTUs based on SIMATIC S7-1200 are extremely versatile and cost-effective • RTUs based on SIMATIC ET 200SP are compact, modular and easy to handle 	<ul style="list-style-type: none"> • Flexible power supply concept: Battery, accumulator or 12-24 Volt power connection – freely combinable • Flexible connection to any SCADA system through different protocols: Tele-Control 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) 	<p>Connection via mobile wireless:</p> <ul style="list-style-type: none"> • Stationary or mobile devices can be connected via mobile wireless over 2G/GSM, 3G/UMTS or 4G/LTE <p>Connection via Internet/Ethernet:</p> <ul style="list-style-type: none"> • 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 SINE-M Remote Connect management platform 	<ul style="list-style-type: none"> • Possibility for data collection, analysis and further processing in the cloud • Independent of the technological project and automation system used • Compact, flexible and expandable maintenance station • Option for multiple maintenance stations per project • Supports various communication types and gateways between bus systems, such as Ethernet • PROFINET, PROFIBUS DP/PA, HART® • Parameterization and detailed diagnostics of field devices via integrated SIMATIC PDM 	<ul style="list-style-type: none"> • 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
Typical applications	Challenging process control tasks, e.g. in water supply and wastewater treatment, where remote terminal units (RTUs) are connected over long distances.	Monitoring of distributed processes, e.g. in water supply, wastewater treatment, irrigation or flood protection.	Connection of RTUs to public or private networks (remote networks) to enable communication with the control center.	Configuration, parameterization, commissioning, diagnostics and maintenance of intelligent field devices and field components.	Examples: Innovative dosing at a lower cost using the dosing feature of MAG 6000; faster and more flexible valve operation with SIPART PS2.
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