## Overview

<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
<th>Programming Software</th>
</tr>
</thead>
</table>
| **Point level measurement - Capacitance switches** | **Pointek CLS100/CLS200/CLS300/CLS500**  
- CLS100: compact 2-wire inverse frequency shift capacitance switch for level detection in constricted spaces, interfaces, solids, liquids, slurries, and foam  
- CLS200: a versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam, and interfaces; digital version (with PROFIBUS PA) includes a display and provides additional diagnostic features  
- CLS300: inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam and interfaces in demanding conditions where high pressure and temperatures are present; digital version (with PROFIBUS PA) includes a display and provides additional diagnostic features  
- CLS500: inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of high temperature and pressure; HART® communication for remote commissioning |
|                              | 5/10  
5/15  
5/41  
5/61 |
| **Point level measurement - Vibrating switches** | **SITRANS LVL100/LVL200**  
- LVL100: compact vibrating level switch for use in liquid and slurry applications such as overflow, high, low and demand level applications. Also ideal for dry run protection  
- LVL200: advanced vibrating level switch for use in liquid and slurry applications. Suited for most hazardous area applications such as: overflow, high, low, demand, and dry run protection; can also be used for SIL-2 Safety Functions in terms of IEC 61511-1 First Edition 2003-01. |
|                              | 5/78  
5/84 |
| **Point level measurement - Rotating paddle switch** | **SITRANS LPS200**  
- LPS200: rotating paddle switch for detection of high, low, and demand levels for a wide variety of bulk solids industries. Unique engineering provides long-lasting reliable performance. |
|                              | 5/110 |
| **Point level measurement - Ultrasonic switch** | **Pointek ULS200**  
- Rugged design, no moving parts and virtually maintenance-free  
- Transducer available in ETFE or PVDF copolymer and therefore inert to most chemicals |
|                              | 5/122 |
## Continuous level measurement - Ultrasonic transmitters

<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
</tr>
</thead>
</table>
| Compact level transmitter with integrated transducer for accurate level measurement for liquid applications | The Probe  
- Simple, compact and competitively priced ultrasonic level transmitter in several versions for maximum versatility  
- Three-wire system with 5 m model 24 V DC  
- Two-wire system with current loop | 5/126 |
| 2-wire loop powered ultrasonic transmitter for level, volume and flow monitoring of liquids in open channels, storage vessels and simple process vessels | SITRANS Probe LU  
- Continuous level measurement up to 12 m (40 ft) range  
- Patented Sonic Intelligence signal processing  
- Extremely high signal-to-noise ratio  
- Auto False-Echo Suppression of false echoes | 5/129 |

## Continuous level measurement - Ultrasonic controllers

<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
</tr>
</thead>
</table>
| Ultrasonic level controller for up to six pumps - control, differential control and open channel flow monitoring | HydroRanger 200  
- An economical, low-maintenance solution delivering control efficiency and productivity needed to meet today’s exacting standards  
- Auto False-Echo Suppression of false echoes | 5/133 |
| Versatile short- to medium-range ultrasonic single- and dual-vessel level controller for virtually any application in a wide range of industries | MultiRanger 100/200  
- Using non-contacting ultrasonic technology, the controller measures the level in short to medium range applications up to 15 m (50 ft) of solids, liquids or slurries  
- Auto False-Echo Suppression of false echoes | 5/138 |
| Non-contacting, cost-effective solution for reliable control of level and flow measurements in water and wastewater applications | HydroRanger Plus  
- Available as 19” rack, for panel mounting or in wall enclosure  
- Compatible with Echomax® ultrasonic transducers | 5/142 |
| Complete ultrasonic level controller for monitoring and control of water distribution and wastewater collection systems, with energy-saving algorithms | SITRANS LUC500  
- Monitoring and control in one device  
- Integral telemetry interface (Modbus® RTU/ASCII)  
- Expandable platform to handle any liquid application from tank level measurement to pump control | 5/146 |
| Ultrasonic long-range level monitoring system for liquids and solids | SITRANS LU01/LU02/LU10  
- Automatic conversion of level into volume for standard or custom tank shapes  
- Easy to install and program  
- Optional fieldbus card, e.g. PROFIBUS DP | 5/151, 5/156 |

## Output modules for SITRANS LU10

<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
</tr>
</thead>
</table>
| SITRANS LU SAM/SITRANS LU AO  
- SITRANS LU SAM satellite alarm module provides up to 20 relay contacts for the measurement points connected to a SITRANS LU10  
- SITRANS LU AO analog output module provides remote analog outputs for the measurement points of the SITRANS LU10 transceiver | | 5/159, 5/161 |
## Continuous level measurement - Ultrasonic transducers

<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
<th>Programming Software</th>
</tr>
</thead>
</table>
| ST-H: ETFE or PVDF transducer for chemicals XRS-5: Standard transducer for applications to 8 m (26 ft) | ST-H/Echomax XRS-5  
- The narrow design of the ST-H allows the sensor to be mounted using a 2” connection  
- XRS-5: narrow beam angle of only 10°, measuring range maximum 8 m (26 ft) for measurement of liquids, solids and slurries | 5/164 & 5/167 | - |
| Transducers for liquids and bulk solids XPS and XCT series: Hermetically sealed PVDF enclosure for chemical immunity XLT: Designed for high temperature and long range applications | Echomax XPS and XCT/XLT  
- XPS series offers versions for various distances up to 40 m (130 ft) and up to a max. temperature of +95 °C (+203 °F)  
- XCT series for applications at high temperatures, for measurement of levels at distances up to 12 m (40 ft) and temperatures of max. +145 °C (+293 °F)  
- XLT: measuring ranges from 0.9 to 60 m (1.8 to 200 ft) and temperatures up to +150 °C (+302 °F). Beam angle of just 5° provides accurate readings in solids storage bunkers | 5/170 & 5/180 | - |

## Continuous level measurement - Radar transmitters

<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
<th>Programming Software</th>
</tr>
</thead>
</table>
| 2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in storage vessels with nominal pressure and temperature, to a range of 20 m (66 ft) | SITRANS Probe LR  
- Uni-Construction polypropylene rod antenna standard  
- Patented Sonic Intelligence signal processing  
- Auto False-Echo Suppression of false echoes | 5/191 | SIMATIC PDM  
AMS |
| 2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including high temperature and pressure, to a range of 20 m (66 ft) | SITRANS LR200  
- Program without opening the lid, even in hazardous areas, using patented infrared IS handheld programmer  
- Special Uni-Construction hermetically sealed polypropylene rod antenna has integrated threaded connection  
- Built-in alphanumeric display with support in four languages | 5/195 | SIMATIC PDM  
AMS |
| 2-wire, 25 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including high temperature and pressure, to a range of 20 m (66 ft); ideal for small vessels and low dielectric media | SITRANS LR250  
- Simple operation using the graphical local user interface (LUI)  
- Plug-and-play setup using the intuitive Quick Start Wizard  
- 25 GHz high frequency allows for small horn antennas and easy mounting in nozzles  
- Process Intelligence signal processing for improved measurement reliability and Auto False-Echo Suppression of fixed obstructions  
- Communication using HART® or PROFIBUS PA | 5/210 | SIMATIC PDM  
AMS |
| 2-wire, 25 GHz pulse radar level transmitter for continuous monitoring of solids up to 30 m (66 ft); ideal for measurement in extreme dust | SITRANS LR260  
- Simple operation using the graphical local user interface (LUI)  
- Plug-and-play setup using the intuitive Quick Start Wizard  
- 25 GHz high frequency allows for small horn antennas and easy mounting in nozzles  
- Process Intelligence signal processing for improved measurement reliability and Auto False-Echo Suppression of fixed obstructions  
- Communication using HART® or PROFIBUS PA | 5/218 | SIMATIC PDM |
<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
<th>Programming Software</th>
</tr>
</thead>
</table>
| 4-wire, 24 GHz FMCW radar level transmitter for continuous monitoring of liquids and slurries in storage and process vessels including high temperature and high pressure, to a range of 50 m (164 ft); ideal for low dielectric media | SITRANS LR400  
- Minimum maintenance requirements and wear as result of non-contacting measuring principle  
- High long-term stability resulting from self-calibration with highly stable internal reference  
- High measuring accuracy and repeatability as result of 24 GHz; narrow beam angle for tall, narrow vessels | 5/223 | SIMATIC PDM |
| 4-wire, 24 GHz FMCW radar level transmitter with extremely high signal-to-noise ratio and advanced signal processing for continuous monitoring of solids up to 100 m (328 ft); ideal for measurement in extreme dust | SITRANS LR460  
- Process Intelligence for advanced signal processing and quick and easy adjustment  
- Self-guided Quick Start Wizard for plug and play start-up  
- 100 m (328 ft) range for long-range and difficult applications | 5/230 | SIMATIC PDM |
| Guided wave radar transmitter - Guided wave radar transmitters | SITRANS LG200  
- Measures accurately on materials with dielectric (dK) as low as 1.4  
- Guided wave radar measurement for up to 2.5 mm (0.12”) accuracy  
- Measures level and interface on challenging applications including foam  
- 3 button programming for quick setup  
- Reliable level measurement on harsh applications with pressure up to 430 bar g (6250 psi g) and temperatures as high as +427 °C (+800 °F) | 5/239 | SIMATIC PDM |
| Continuous level measurement – Capacitance transmitters | SITRANS LC300  
- Sophisticated, but easy-to-adjust microprocessor combined with field-proven probes  
- Patented active shield technology ensures measurements are unaffected by vapors, product deposits, dust and condensation | 5/262 | - |
| Level and interface transmitter for extreme and critical process conditions, such as oil and liquid natural gas (LNG), toxic and aggressive chemicals and vapours | SITRANS LC500  
- Equipped with the HART® Smart protocol for remote setup and calibration  
- Patented active shield technology ensures measurements are unaffected by vapors, product deposits, dust and condensation | 5/273 | SIMATIC PDM |
| Continuous level measurement - Open channel flow - Ultrasonic controller | OCM III  
- Compatible with most standard open channel weirs and flumes  
- AC and DC operation  
- Automatically switches to battery operation for uninterrupted power  
- MCERTS approved device | 5/298 | - |
## Communications and Displays

<table>
<thead>
<tr>
<th>Application</th>
<th>Device description</th>
<th>Page</th>
<th>Programming Software</th>
</tr>
</thead>
</table>
| SmartLinx Module, Dolphin Plus software | - Optional communication modules, SmartLinx, provide direct digital connection to popular industrial fieldbus systems  
- Dolphin Plus for quick and easy configuring, monitoring, tuning and diagnostics of Siemens devices | 5/301 | - |
| 2-wire loop powered, NEMA 4X enclosed remote digital display for process instrumentation and for hazardous locations | SITRANS RD100  
- Versatile loop-powered meter that displays process variables in level, flow, pressure, temperature and weighing applications  
- FM and CSA approved device that can be installed in range of environments, including hazardous areas  
- Large, easy-to-read display  
- Easy to install and set up using quick two-step process | 5/304 | - |
| Universal input, panel mount remote digital display for process instrumentation. Supports RTD, TC, current and voltage inputs, and supporting software allows for remote configuration and data logging. | SITRANS RD200  
- Universal remote display that accepts various inputs, making it an ideal fit for use with most field instruments  
- Standard panel mount display with optional enclosures  
- Two optional relays for alarm indication or process control applications  
- Meter Copy feature to reduce setup time, cost and errors  
- RD Software supporting remote configuration, monitoring and logging for up to 100 displays | 5/306 | - |