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Siemens offers a complete range of point level instruments for every application



Point level

Answers for industry.

SIEMENS

Pointek CLS100

Pointek CLS100 is a compact 2-wire inverse frequency shift capacitance switch for level detection in constricted spaces, interfaces, solids, liquids, slurries, and foam.

Pointek CLS100's short insertion length of 100 mm (4") and versatility in various applications and in vessels or pipes makes it a good replacement for traditional capacitance sensors.



Pointek CLS200

Pointek CLS200 is 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. The digital version (with PROFIBUS PA) includes a display and provides additional diagnostic features.



Pointek CLS300

Pointek CLS300 is an 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. The digital version (with PROFIBUS PA) includes a display and provides additional diagnostic features.



Pointek inverse frequency shift capacitance level switches

Siemens Pointek inverse frequency shift capacitance point level switches provide accurate, reliable, and repeatable measurement in dusty, turbulent, and vaporous environments or applications with product buildup. Small changes in level create large changes in frequency. As a result Pointek devices have greater sensitivity and consistently outperform conventional devices. With their robust aluminum enclosures and process connections, Siemens Pointek switches are proven superior performers even in tough bulk solids applications.

Pointek CLS100

Approvals	Performance	Advantages
<p>CE, CSA, FM, ATEX, WHG/VbF Overfill protection (Germany), PED 97/23/EC, Lloyd's Register of Shipping, categories ENV1, ENV2, and ENV5, C-TICK (Australia)</p>	<ul style="list-style-type: none"> • Process temperature up to 100 °C (212 °F) • Pressure up to 10 bar g (146 psi g) • General purpose and/or dust ignition proof: 12 to 33 V DC • Intrinsically safe: 10 to 30 V DC* • Measurement range up to 100 mm (4") • Process connection: 316 stainless steel (1.4404) 	<ul style="list-style-type: none"> • Compact design and short insertion length. • Ideal for constricted spaces and for small vessels or pipes up to 100 mm (4") • Inverse Frequency Capacitance technology results in higher accuracy and resolution • Advanced Sensitive-Tip technology for accurate and repeatable switch point • Easy installation with verification by built-in LED • Low maintenance with no moving parts • Sensitivity adjustment • Intrinsically Safe, Dust Ignition Proof, and General Purpose options available • Tank walls, variations in product quality, vapor, and dust have a negligible effect on the measurement • Choice of PPS or PVDF probes, and PPS or stainless steel process connections • The optional SensGuard cover protects from shearing, impact, and abrasion in tough primary processes

Pointek CLS200

<p>CE, CSA, FM, ATEX, SIL-2, C-TICK, WHG Overfill Protection (Germany), Lloyd's Register of Shipping, categories ENV1, ENV2, and ENV5, Pattern Approval (China)</p>	<ul style="list-style-type: none"> • Process temperature up to 85 °C (185 °F) • Process temperature up to 125 °C (257 °F) • Pressure to 25 bar g (365 psi g) (standard version) • Process connection: 316 stainless steel (1.4404) (standard or cable) <p>Digital version</p> <ul style="list-style-type: none"> • Configuration: Remotely using SIMATIC PDM, locally using 3 button keypad (standalone) • Display: local digital LCD display 	<ul style="list-style-type: none"> • Potted construction protects signal circuit from shock, vibration, humidity, and/or condensation • High chemical resistance with PVDF or PPS probes • Level detection independent of tank or pipe earth reference • Insensitive to product buildup due to high frequency oscillation • High sensitivity allows installation in a wide range of liquids, solids, or slurry applications • Integral LCD display allows for easy setup of CLS200 when you can configure switching threshold, even under the most demanding process conditions (digital version). • Extended rod, cable, and sanitary versions available allowing flexibility on many applications • Standard version: 3 LED indicators for adjustment control, output status, and power • SIL/IEC61508 compliant for use in safety integrated level applications for overfill protection (SIL-2) • Digital version: integral LCD display, and optional PROFIBUS PA communication, external self test location
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Pointek CLS300

<p>CE, CSA, FM, ATEX, WHG Overfill Protection (Germany), Lloyd's Register of Shipping, categories ENV1, ENV2, and ENV5, Pattern Approval (China), C-TICK (Australia)</p>	<ul style="list-style-type: none"> • High temperature version up to 400 °C (752 °F) • High pressure version up to 35 bar g (511 psi g) • Process connection: 316 stainless steel (1.4404) • Sensor: PFA (standard), stainless steel (1.4404) (cable), 316L and ceramic (high temperature), max. 1 m (40) standard and high temperature, max. 25 m (82 ft); stainless steel with FEP coating (cable) <p>Digital version</p> <ul style="list-style-type: none"> • Configuration: Remotely using SIMATIC PDM, locally using 3 button keypad (standalone) • Display: local digital LCD display 	<ul style="list-style-type: none"> • Patented Active-Shield technology so measurement is unaffected by material buildup in Active-Shield section • Performs in extremely abrasive conditions because of solid rod construction • Standard version: 3 LED indicators for adjustment control, output status, and power • Digital version: integral LCD display, and optional PROFIBUS PA communication, self test facility • Push-button calibration, full-function diagnostics • SIL/IEC61508 compliant for use in safety integrated level applications for overfill protection (SIL-2) • Variations in product quality, vapor, and dust have a negligible effect on the readings. • A wide range of models available: rod and cable sensors up to 25 meters (82 ft); high temperature up to 400 °C (752 °F); Intrinsically Safe and Explosion Proof, allowing further flexibility of application to the Pointek range.
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Typical Applications



Pointek CLS100 is ideal for level detection in constricted spaces, interfaces, solids, liquids, slurries, and foam. It is precise, economical, reliable, and easy to install. It is ideal for high, low, and demand level alarms in small vessels or pipes due to its shaft insertion length of 100 mm (4")

- Food and beverage industry: oil, fat, foam, sugar, flour, starch and water interface, dairy, heavy foam in micro-breweries
- Pharmaceuticals: pure water, talc, additives, solvents
- Oil and gas: storage tanks, process tanks, side valve stations, overfill protection, fail-safe applications, condensation vessels, LPG
- Power generation: cooling oils, lubricating oils, water, chemicals
- Chemical industry: solvent water interface, acids, alkaline, cooling waters, bulk chemicals in liquids and solids industry
- Water: oil water interface, water treatment chemicals
- Shipping: process water, oils, fuels



Pointek CLS200 is a versatile level switch ideal for high and low level alarm, or as a back-up for continuous systems of liquids, solids, slurries, foam, pump control, and interfaces in general process conditions with high chemical and physical demands.

- Food and beverage industry: foam including heavy foam in micro breweries, margarine oil, semolina, vegetable fat, food paste slurry, pet food production, cornstarch, fat liquid, sticky dense products with high build up such as chocolate, flour, corn, milk powders, pellets
- Aggregate and Cement: high levels in silos, dusty applications, fine powder, fly ash, high and low level of cement and fly ash on mobile tankers, anti-blockage of the hopper in aggregates industry, clay slurry
- Pharmaceuticals: clean water, bulk chemicals/additives
- Oil and gas: interface oil/water, dewatering process, cooling water, chemical additives
- Power generation: cooling water, treatment chemicals, acids, biomass
- Chemical industry: acids, adhesives, paper, pulp, glucose, petrochemicals, water based paints, air dry enamels, fertilizer, solvents, storage and reactor vessels (agro-chemical), high level detection of powders in moist conditions, borax, silica, glue, plastic
- Water: treatment chemicals (liquids or solids), sump level, pump control
- Mining: high acid level detection in nickel production, sulfuric acid
- Shipping: interface in larger vessels with higher temperatures, condensate tanks, oils, fuels



Pointek CLS300 is ideal for harsh process conditions with high chemical and physical demands where reliability and accuracy are critical for safe and economical operation. It is used for high and low level alarm, or as a back-up for continuous systems in high pressure and temperature applications.

- Food and beverage industry: glucose, flour, sugar, pellets
- Aggregate and Cement: hotstone (asphalt), bitumen, paper and pulp, abrasive materials such as crushed stone, fly ash, cement, milling, mining, limestone filler, sand
- Pharmaceuticals: process water, additives, feeding and reaction vessels
- Oil and gas: interface of petrochemicals - oil and water
- Power generation: transformer oils, cooling water, high temperature water, refrigerants, biomass, PFS
- Chemical industry: reactors, high temperature chemicals, corrosive or volatile chemicals, acids, water, lyes, phenols, heating oil
- Mining: bulk mineral storage, cooling water
- Shipping: bulk material storage, oils, fuels

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*Intrinsically Safe barrier required.

SITRANS is a registered trademark of Siemens AG.

Rotary and vibratory point level switches

Siemens rotating or vibrating point level switches are a cost-effective solution for solids and liquids applications. Their robust design lasts in harsh and abrasive environments. They detect high, low, and demand levels in solids and liquids applications, specializing in low bulk density applications. Standard aluminum enclosures and stainless steel process connections provide exceptional resistance to mechanical forces, long service life, and low cost of ownership.

SITRANS LVL100/LVL200



SITRANS LVL100 and LVL200 are vibrating liquid level switches for high, low, and demand level alarms and pump protection for liquid applications. These compact switches are reliable, easy-to-use, and are unaffected by changing conditions such as conductivity, dielectric constant change, vapors, or bubbles.

SITRANS LPS200



SITRANS LPS200 is a rotary paddle switch for level detection in bulk solids.

The paddle switch detects full, empty, or demand conditions of materials such as grain, feed, cement, plastic granulate, and wood chips. The paddle switch can handle bulk densities as low as 15 g/l (2.19 lb/ft³).

SITRANS LVS100/LVS200



SITRANS LVS100 and LVS200 are vibrating point level switches for high or low levels of bulk solids.

The standard LVS200 detects high, low, or demand levels of dry bulk solids in bins, silos or hoppers. The liquid/solid interface version can also detect settled solids in liquids or solids in confined spaces such as feed pipes. It is designed to ignore liquids to detect the interface between a solid and a liquid.

SITRANS LVL100/LVL200

Advantages	Performance	Approvals
<p>SITRANS LVL100</p> <ul style="list-style-type: none"> • Low maintenance • Ideal for confined space applications and pipelines down to DN25 • Hygienic process connections • Advanced fault monitoring • Function test outside housing 	<ul style="list-style-type: none"> • Process temperature up to 150 °C (302 °F) • Pressure up to 64 bar g (928 psi g) • Minimum material density 0.7 to 2.5 g/cm³ (0.025 to 0.09 lbs/in) • Enclosure: 316L stainless steel (1.4404) and plastic PEI 	<p>CE, Shipping approvals, Overfill protection (WHG)</p>
<p>SITRANS LVL200</p> <ul style="list-style-type: none"> • Low maintenance • SIL-2 qualified for high level and dry run applications • Hygienic process connections • Advanced fault monitoring • Sensitivity adjustment • Ease of installation, no setup required • Rotatable enclosure 	<ul style="list-style-type: none"> • Process temperature up to 250 °C (482 °F) • Pressure to 64 bar g (928 psi g) • Minimum material density 0.5 to 2.5 g/cm³ (0.018 to 0.09 lb/in) • High and low sensitivity switch sets density value from 0.5 to 0.7 g/cm³ • Enclosure: aluminum die-cast-powder coated 	<p>CE, FM, SIL-2, Shipping Approvals, EHEDGE, 3A, FDA, WHG</p>

SITRANS LPS200

<ul style="list-style-type: none"> • High or low level alarm for dry bulk solids such as cement, grain, feed, plastic granules, and wood chips • Bulk solids with densities as low as 15 g/l (2.19 lb/ft³) • Unique friction clutch mechanism prevents gear failure and motor damage • Adjustable paddle sensitivity • Rotatable enclosure with captivated screws for ease of installation in difficult locations • Installation through 1 (2.54 cm) threaded opening • Hinged measuring vane for lower densities and for mounting through small process connections • Compact, extended models, and cable extension up to 10 m (30 ft) • Extended motor life due to motor power down when switched, friction clutch design, and motor cage protection 	<ul style="list-style-type: none"> • High temperature version up to 350 °C (662 °F) • High pressure version up to 10 bar (145 psi) • Densities as low as 15 g/l (2.19 lb/ft³) • Installation through process connection 1 NPT or BSP • Switch selectable power supply 	<p>CSA, CE, FM, ATEX, C-TICK</p>
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SITRANS LVS100/LVS200

<ul style="list-style-type: none"> • High or low level alarm for dry bulk solids and light dusty powders such as cement, styrofoam, lime, flour and plastic granules • Bulk densities as low as 5 g/l (0.3 lb/ft³) • Advanced vibrating fork technology prevents tunneling • High-low sensitivity switch • Standard aluminum rotatable enclosure with captivated screws • Self-cleaning fork • Buildup detection option • Hazardous approvals • Impervious to external vibrations 	<ul style="list-style-type: none"> • High temperature version up to 150 °C (302 °F) • High pressure version up to 10 bar (145 psi) • High or low level alarm • Compact design • Top, side, angle mount • Rotatable enclosure • Extended model up to 20 m (65 ft) • Interface model with detection of solids in liquids <p>Options</p> <ul style="list-style-type: none"> • Short fork option for short insertion • Remote electronics option 	<p>CE, CSA, FM, ATEX, C-TICK</p>
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Typical Applications

SITRANS LVL100 and LVL200 are especially suited for narrow space applications, pressurized vessels, and dry run protection. They can be installed in any orientation, (top, bottom, and side mount including pipelines down to DN25.)

- Food and beverage industry: milk, alcohol, liquid CO₂
- Pharmaceuticals: process water, additives, feeding and reaction vessels
- Oil and gas: storage tanks, process tanks, side valve stations, overfill protection, fail-safe applications, condensation vessels, LPG
- Power generation: flue gas scrubber, lubricant bulk storage (chemicals, cooling water)
- Chemical industry: ammonia, resins, cooling towers, Freon, acids, chlorine, phosgene, chemical additives such as hydrogen peroxide, sodium hydroxide, sodium silicate, soaps, acids, and fragrances
- Water wastewater: acids, alkaline, limewater, ferric chloride, dry run protection
- Shipping: water ballasts, bilge detection, oil, leakage switch



The LPS200 has a rugged design for use in harsh conditions in the solids industry. The sensitivity of the paddle can be adjusted for varying material properties like buildup on the vane.

Key Applications: bulk solids such as grain, feed, cement, plastic granulate, wood chips

- Cement: finished cement, clinker, kiln dust, fly ash, gypsum, pulverized coal
- Food: processed foods, flour, sugar, salt
- Grain and feed: milling, rice, soybean, pet food, livestock feed
- Chemical: plastic pellets, carbon black, fertilizer, pharmaceutical, styro-foam beads and chips



SITRANS LVS100 and LVS200 detect high, low, or demand levels of dry bulk solids in bins, silos, or hoppers. The liquid/solid interface version can also detect settled solids in liquids or solids in confined spaces such as feed pipes. It is designed to ignore liquids to detect the interface between a solid and a liquid.

High or low level alarm for light dusty powders, pneumatically conveyed, in storage and batch mixing vessels. May be top, side, or angle mounted. Applications in target industries are:

- Cement: finished cement, clinker, kiln dust, fly ash, gypsum, pulverized coal
- Food: processed foods, flour, sugar, salt
- Grain and feed: milling, rice, soybean, pet food, livestock feed
- Chemical: plastic pellets, carbon black, fertilizer, pharmaceutical, styro-foam beads and chips



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