Hot levels, harsh conditions

Inverse frequency shift capacitance level switch

Pointek CLS300

Answers for industry.

SIEMENS

Pointek® CLS300

In harsh process conditions with high chemical and physical abuse, reliability and accuracy are critical for safe and economical operation. For these conditions, Pointek CLS 300 is the ideal level switch. It is used for high and low level alarm of interfaces, solids, liquids, slurries and viscous materials. This capacitance switch handles temperatures up to 400 °C (752 °F) and pressures from full vacuum to 35 bar g (511 psi g).Pointek CLS 300 applies a unique approach to capacitance technology that is based on extensive field experience. It includes patented Active-Shield and Inverse Frequency Shift technology, ensuring high accuracy, resolution and repeatability.

- Inverse Frequency Shift capacitance technology results in higher accuracy and resolution.
- Patented Active Shield provides superior reliability.
- Tank walls, variations in product quality, vapor and dust have a negligible effect on the readings.
- Automated Sensor Test program tells you if circuitry and sensor are fully functional; no need to remove the unit from the tank.
- Online commissioning of parameters allows for full advantage of sensitivity and accuracy of the instrument: number of counts, setpoints, adjustable hysteresis, time delay, and output status. you can make adjustments from the control room or other remote locations.
- A wide range of models are available: rod and cable sensors up to 25 meters (82 ft); high temperature up to 400 °C (752 °F); intrinsically safe and explosion proof.

Pointek CLS300	Standard	Digital
Power		
	• 12 to 250 V AC/DC, 0-60 Hz, galvanically isolated 2W	• Standard: 12 to 30 V DC; 12.5 mA • Intrinsically safe: 12 to 24 V DC, 12.5 mA max.
Interface		
Configuration	Locally using dip switches and potentiometers	• Remotely using SIMATIC PDM • Locally using 3 button keypad (stand alone)
Display	Transmitter with 3 LED indicators	Local digital LCD display
Communication		• PROFIBUS PA (IEC 61158 CPF3 CP3/2) • Bus physical layer: IEC 61158-2 MBP(IS) • Device profile: PROFIBUS PA profile for Process Control Devices Version 3.0, Class B • FISCO field device
Output	• Relay: 1 SPDT Form C relay • Solid state switch • Time delay: (ON and/or OFF) 1 to 60 s • Fail-safe operation (high or low)	• Solid state switch: galvanically isolated • Time delay: (ON and/or OFF) programmable by user • Fail-safe operation (high or low)
Mechanical		
Enclosure	• Powder-coated aluminium with gasket • Optional thermal isolator, 316 stainless steel (1.4404) • Type 4/NEMA 4/IP65, IP68 optional	
Process connection	316 stainless steel (1.4404) (standard and cable)	
Sensor	• PFA (standard), stainless steel (1.4404) (cable), 316L and PEEK (high temperature) • Max. 1 m (40") standard and high temperature • Max. 25 m (82 ft); stainless steel with FEP coating (cable)	
Process conditions		
Ambient temperature	-40 to 85 °C (-40 to 185 °F)	
Process temperature	• -40 to 200 °C (-40 to 392 °F) • -40 to 400 °C (-40 to 752 °F)	
Pressure*	-1 to 35 bar g (-14.6 to 511 psi g)	-1 to 35 bar g (-14.6 to 511 psi g)
Dielectric constant ε_r	Min. 1.5	
Approvals		
	CE, CSA, FM, ATEX, WHG Overfill Protection (Germany), Lloyd's Register of Shipping Categories ENV1, ENV2, and ENV5, Pattern Approval (China), C-TICK (Australia), SIL 2 (Overspill)	

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SIMATIC PDM is a registered trademark of Siemens AG. Specifications are subject to change without notice.