

Inverse frequency shift capacitance level switch

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.







Standard

1 Officer CL3300	Juliana	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) 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) 	
Manhautaal			

Mechanical

Pointek CLS300

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 &	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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* Pressure is temperature dependent. SIMATIC PDM is a registered trademark of Siemens.

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