

This low cost ultrasonic switch detects two distinct levels on liquids, slurries and solids. It works effectively on bulk solids applications up to 3 meters (9.8 ft.) and on liquids and slurries up to 5 m (16.5 ft.) without ever touching the process. Unlike contacting point level devices, there is no material build-up or plugging on the sensor, eliminating many problems associated with invasive mechanical devices such as bubblers and floats.

Its rugged integrated design combines the sensor and the electronics in one durable package. With no moving parts, the ULS 200 provides virtually maintenance-free operation.

The sensor, available in Tefzel® or Kynar-Flex®, is inert to most chemicals. This extends the unit's broad application versatility to the chemical, petrochemical and water and wastewater industries. A sanitary version of the ULS 200, with an industry standard flange option, is easy to remove from the application for cleaning, a key requirement in food, beverage and pharmaceutical processes. The Pointek ULS 200 delivers superior performance while dramatically reducing your maintenance, downtime and equipment replacement costs.



Product Features

- Non-contacting point level measurement of liquids, slurries and bulk solids
- Built-in temperature compensation
- ac or dc power supply
- 2 switch outputs for high-high, high, low, and low-low level alarms
- Electronics provided with failsafe function
- Threaded and 3A approved Tri-clamp process connection
- Type 6 / NEMA 6 / IP67 polycarbonate or aluminium enclosures
- Easy, 2-button programming
- Simple installation and maintenance

Technical Specifications

Power

- ac version: 100 - 230 Vac, 15%, 50/60 Hz, 12 VA (5W) max.
- dc version: 18 to 30 Vdc, 3 W

Environmental

- location: indoor/outdoor
- altitude: 2000 m max.
- ambient temperature:
 - - 40 to 60°C (- 40 to 140°F),
 - - 20 to 60° C (-5 to 140°F) if mounted in metal
- relative humidity: suitable for outdoor (Type 6 / NEMA 6 / IP67)
- installation category: II
- pollution degree: 4

Range

- liquids: 0.25 to 5 m (0.8 to 16.4 ft.)
- solids: 0.25 to 3 m (0.8 to 9.8 ft.)

Process Pressure

- vented to atmosphere

Memory

- non-volatile EEPROM

Programming

- 2 keys

Temperature

- compensation: built-in to compensate over the operating range
- display:
 - liquid crystal
 - three 9 mm (0.35") digits for reading of distance between sensor face and material, multisegment graphic for operation

Electronics/Enclosure

- termination: terminal block, 2.5 mm² (14 ga) solid/1.5 mm² (16 ga) stranded, maximum
- material:
 - polycarbonate
 - OR
 - epoxy coated aluminium with gasket
- ingress protection: Type 6 / NEMA 6 / IP67
- conduit connection:
 - 2 connections 1/2" NPT, or
 - 2 connections PG 13.5

Sensor

- material: Tefzel® or Kynar-Flex®
- threaded mounting:
 - 2" NPT, 2" BSP or PF2
 - optional flange adapter, to 3" ANSI, DIN 65PN10 and JIS 10K3B
- sanitary mounting: 4" 3A compliant Tri-clamp fitting

Output

- ac version:
 - repeatability: 0.25 % of full range
 - resolution: 3 mm (0.1")
 - relay: 2 form 'C' (SPDT) contacts, rated 5 A at 250 Vac, non-inductive
- dc version:
 - repeatability: 0.25% of full range
 - resolution: 3 mm (0.1")
 - relay:
 - 2 form 'C' (SPDT) contacts, rated 5 A at 48 Vdc
 - OR
 - transistor: 2 switches, rated 100 mA max. at 48 Vdc

Approvals

- CE*, CSA_{NRTL/C} FM, 3A

* EMC performance available upon request.

Tefzel® is a registered trade mark of Dupont.

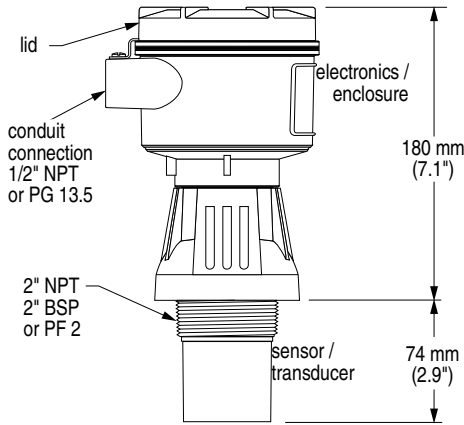
Kynar Flex® is a registered trademark of Elf Atochem North America.

Specifications are subject to change without notice.

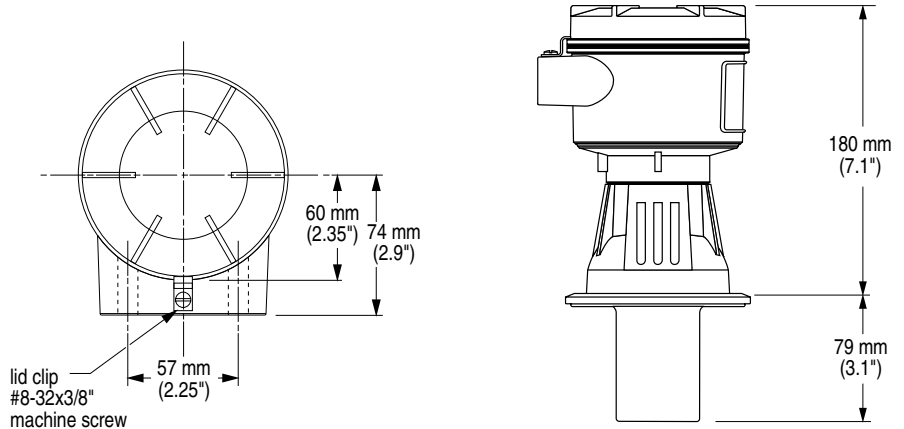
Pointek ULS 200

Dimensions

Threaded

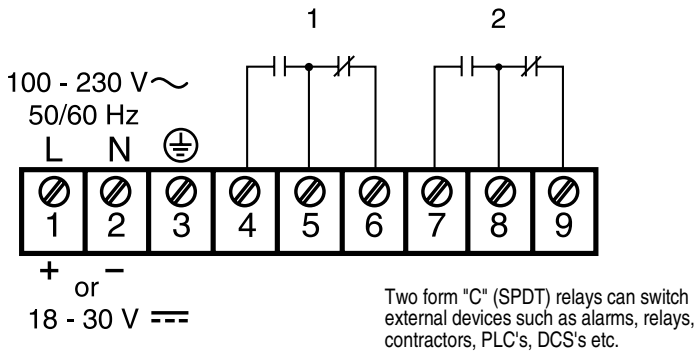


Sanitary

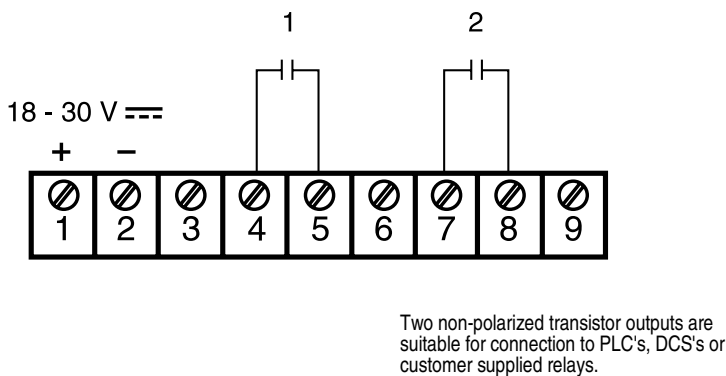


Wiring

Relay Output



Transistor Output: dc version only



Installation

The Pointek ULS 200 should be mounted in an area that is within the temperature range specified and that is suitable to the housing rating and materials of construction. The cover should be accessible to allow programming, wiring and display viewing.

It is advisable to keep the Pointek ULS 200 away from high voltage or current runs, contactors and SCR control drives.

Locate the Pointek ULS 200 so that it has a clear sound path perpendicular to the material surface. The sound path should not intersect the fill path, rough walls, seams, rungs, etc.

Mounting

The Pointek ULS 200 is available in three thread types: 2" NPT, 2" BSP or PF2 and can be fitted with the optional 75 mm (3") flange adapter for mating to 3" ANSI, DIN 65PN10 and JIS 10K 3B flanges.

Interconnection

Separate cables and conduits may be required to conform to standard instrumentation wiring or electrical codes.



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