

Capacitance Type Level Switch:

A number of level control application invariably require High & low level alarm annunciation. This entails the use of level switches. Capacitance type level switch is suitable for controlling the levels of liquid and solid in tank or vessel. To make the system economical, the switch is provided with two relays, thereby two different levels can be controlled by one switch only.



(C) Probe:

| | |
|-------------------------|--|
| Cable Entry | : 3/4" NPT. |
| Mounting | : 1 1/2" BSP Male. |
| Part Insulation | : Teflon / PTFE / PVC coated. |
| Rod (Active Probe) | : SS304 / SS316. |
| Reference Probe | : SS304 / SS316 |
| Probe Length | : 1000mm (other on request) for rod/rope probes. |
| Protection of Enclosure | : Weather proof/Ex-Proof. |
| Probe Head Enclosure | : Cast Aluminium. |

Applications:

- Ø Level limit detection of fine, coarse, bulk solid, liquid (water, oils, chemicals etc.), which could be conductive or non-conductive.
- Ø For switching of conveyors when vessel is full, to avoid overflow.
- Ø For indicating an empty tank, well in time to avoid production stoppage.

Salient Features :

- Ø Two point switching.
- Ø Set point adjustment for the two points by means of multi-turn trim pots.
- Ø Red LED provided for alarm indication and green LED for power ON.
- Ø Separate non-interacting control to ease calibration at site.
- Ø PTFE/Teflon/PVC sensing rod jacket allows operation in conductive and non-conductive liquids and corrosive applications also.

Technical Data:

(A) Evaluation Unit:

| | |
|-------------------------|---|
| Housing | : ABS Plastic, weather proof, back panel / wall mounting. |
| Cable Entry | : 3 Numbers. |
| Amb. Temp. | : 0°C to 70°C. |
| Operating Power Supply | : 110 VAC/230 VAC, 50Hz. |
| Relay Output | : SPDT (1NO + 1NC) / DPDT (2NO + 2NC). |
| Relay Contact Rating | : 6A at 230VAC |
| Fail Safe Mode | : Selectable through switch. |
| Indication | : Red LED for alarm & Green LED for normal. |
| Switching Delay | : Adjustable from 0.5 to 20 sec. |
| Connection to E.U. | : 3 core unscreened cable. |
| Protection of Enclosure | : Weather proof IP 65. |

(B) Electronic Probe Unit:

| | |
|----------------|--|
| Supply Voltage | : 12 VDC derived from evaluation unit. |
| Output | : 1-5 VDC. |
| Housing | : Plastic, potted in epoxy resin. |
| Ambient temp. | : 0°C to 70°C. |

| | | | | | | | | | |
|---|-------------------------|-----------------------------------|--------------------------|------------------------------------|-------|-------|-------|-------|-------|
| Model CLS-101- | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Enclosure | Cast Al., W-proof.....W | Cast Al., Ex-proof.....E | Non-Std.O | | | | | | |
| Probe Material | SS 316.....S | SS 304.....F | MS.....M | | | | | | |
| Electrode | Solid.....S | Solid with reference probe.....SR | Suspended.....R | Suspended with refer. Probe.....RR | | | | | |
| Insulation | PVC.....P | Teflon.....T | Hard rubber.....HR | Without.....W | | | | | |
| Process connection | 1 1/2" BSP.....B | 25 NB BS T'D' Flanged.....F | Non-Std.....O | | | | | | |
| Set Points | One.....1 | Two.....2 | Pump Control logic.....3 | | | | | | |
| Supply Voltage | 230 VAC.....X | 110 VAC.....Y | Other on request.....Z | | | | | | |
| ORDERING INFORMATION: Specify Model no., Preset Levels, Liquid & its temp., Pressure, Tank material & its size & initial capacitance. | | | | | | | | | |

Conductivity Type Level Switch:

PEPL make "CLS-501" series of level switches are successfully used in processing plants for liquids, with conductivity not less than 25mSiemens, in Food, Power, Chemicals, Sugar, Detergents, Steel, Minerals, Textiles, etc.



Evaluation Unit :

- Ø Mains supply: 110/230 VAC.
- Ø Power Consumption: <5VA.
- Ø Voltage on probe: 12 V AC.
- Ø Current (between reference & sensing electrode): <3mA.
- Ø Response time: <1sec.
- Ø Output relay: One/two set of potential free change over Contacts (rated at 6A 230VAC,50Hz) for load other than inductive.
- Ø Maximum sensitivity: 25µ Siemens.
- Ø Operating mode: Fail-safe (High/Low) field selectable.
- Ø Indication: Red for alarm, Green for normal.
- Ø Operating Temperature: 0 -70°C.

Applications :

- Ø For switching off pumps when tank is full.
- Ø For maintaining a constant level to avoid material wastage.
- Ø For switching off pumps when running dry and indicating empty tank to avoid wear & tear and production stoppage.

Salient Features :

- Ø Adjustable sensitivity.
- Ø Suitable for different level switching.
- Ø No moving parts, so free from maintenance.
- Ø Electrolysis free.
- Ø Settable delay to tackle turbulence.
- Ø Variety of probes available for various process conditions.
- Ø Not affected by material build up on the probe.
- Ø Selectable HIGH/LOW level alarm (fail/safe).

Specifications:

Probe Unit :

- Ø Probe type: Rod probes.
- Ø Length of insertion: According to the level to be detected.
- Ø Reference electrode: SS316/SS304.
- Ø Sensing electrode: SS316/SS304.
- Ø Coating on electrode: PTFE (200°C), PVC (70°C).
- Ø Probe head enclosure: Cast Al.
- Ø Ingress protection: IP 65.
- Ø Mounting: Horizontal / Vertical, 1½" BSP Male.
- Ø Cable entry: ¾" NPT.
- Ø Process connection: To suit 2.5mm conductor.
- Ø Sensing input: High, low & common.
- Ø Working pressure: 20kg / cm².

| CLS-501 | |
|---|----|
| Series Mode | |
| One point switch..... | 1 |
| Two point switch..... | 2 |
| Pump control logic..... | 3 |
| Submodes | |
| Single relay..... | a |
| Two relay in parallel..... | b |
| One relay for each set pt..... | c |
| Two pump control logic fn..... | d |
| 1 pump control+1 pt switch..... | e |
| Probe Material | |
| SS 316..... | SS |
| SS 304..... | SF |
| MS..... | M |
| SS 316 with Hastelloy 'C' Tip..... | SH |
| SS 304 with Titanium Tip..... | ST |
| Enclosure | |
| Cast Al., Weatherproof-IP65..... | W |
| Cast Al., Ex-proof..... | E |
| Non-Std. | O |
| Insulation | |
| PVC..... | P |
| PTFE(Teflon)..... | T |
| Without..... | W |
| Process connection | |
| 1 ½" BSP..... | B |
| 25 NB BS T'D' Flanged..... | F |
| Non-Std. | O |
| Process connection(MOC) | |
| MS..... | M |
| SS 304..... | SS |
| SS 316..... | SF |
| Non-Std. | O |
| No. Of electrodes | |
| Two..... | 2 |
| Three..... | 3 |
| Four..... | 4 |
| Five..... | 5 |
| Supply Voltage | |
| 230 VAC..... | X |
| 110 VAC..... | Y |
| Other on request..... | Z |
| ORDERING INFORMATION: Specify Model no., Preset Levels, Liquid & its temp., Pressure and Min conductivity. | |

Specifications are subject to change without prior notice.

Manufacturing facilities :

Pyrotech Electronics Pvt. Ltd.
F-16 A, Road No. 3, MIA, Udaipur-313003
Ph. : 91-294-2492123-25, Fax : 2492126
Email : pyrotech@peplelectronics.com
Web: www.peplelectronics.com

Delhi office :

Pyrotech Electronics Pvt. Ltd.
917-920, International Trade Tower,
Nehru Place, New Delhi - 110019
Ph. : 91-11-26262743, 26419702
Fax : 26464922
Email : pmppl@pyrotechindia.com

Branch Offices :

Bangalore - 09342530078
Baroda - 09327226863
Bhopal - 09329476677
Durgapur - 09332271711
Hyderabad - 09391385939
Jamshedpur - 09334625450
Muzaffarnagar - 09358919280
Lucknow - 0933-5232330
Nagpur - 09372391487
Raipur - 093-29485257
Rourkela - 09337407452

Our Associates :

Chennai -09840177668
Kolkata -03323241105
Korba -09425532765
Mumbai -09322676597
Tinsukia -09435035800
Vizag -08912550479