

Fixed Pick-up and Adjustable Drop-out



Adjustable Pick-up and Drop-out

CS series

Solid State Hybrid Voltage Sensor

- Close differential
- Choice of two types
  - – Fixed pick-up and knob adjustable drop-out
  - – Knob adjustable pick-up and drop-out
- Internal 2 Form C (DPDT) output relay

File E22575

File LR15734

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Sensing Modes

The CS can be used as an over or undervoltage sensor, depending upon whether the load is connected to the normally closed (NC) or normally open (NO) contacts of the sensor's output relay.

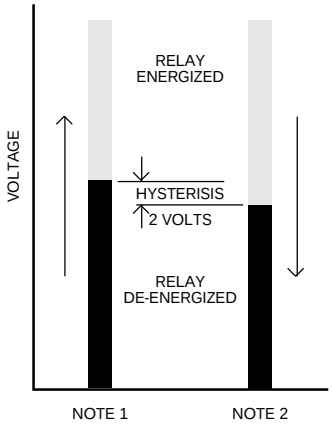
Overvoltage sensor – The NC contacts are used. The relay remains de-energized until an overvoltage is sensed.

Undervoltage sensor – The NO contacts are used. The relay remains energized until the voltage decreases to the preset level, where the sensor de-energizes the relay.

Engineering Data

Power Requirement: Typically less than 3VA or 3W.
Duty Cycle: Continuous.
Repeatability: ±1%, max.
Response Time: 10-25 ms, typ.
Internal Relay Contact Arrangement: 2 Form C (DPDT).
Internal Relay Contact Rating: 10A @ 28VDC , res., or 120VAC, 80% p.f.
Reverse Polarity Protection: On DC types.
Temperature Range: -10°C to +55°C.
Temperature Coefficient: 0.2%/°C, max.
Enclosure: Plastic dust cover.
Mounting: 8-pin octal style plug. Fits either 27E122 or 27E891 (snap-on) screw terminal sockets.
Weight: 8 oz. (227g) approximately.

Adjustable Voltage Sensor Operation



Note 1 – As voltage increases, the relay will pick-up at its selected point and remain energized while voltage is maintained at that level or higher.

Note 2 – As voltage decreases, after pick-up, the relay will drop-out at its selected point.

Note 3 – Minimum hysterisis, the voltage differential between pick-up and drop-out, is typically 2% of pick-up.

Ordering Information – Distributors are more likely to stock boldface items.

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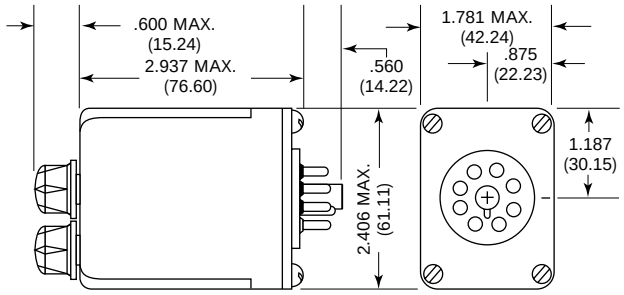
Part Number	Pick-Up (Volts)	Drop-Out Range (Volts)	Maximum Voltage
CSJ-38-71010	105	90-103	140VAC (50/60 Hz.)
CSL-38-31010	22	16-21	32VDC

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Part Number	Pick-Up Range (Volts)	Drop-Out Range* (Volts)	Maximum Voltage
CSJ-38-70010	92-140	90-138	150VAC (50/60 Hz.)
CSL-38-30010	20-30	18-28	32VDC
CSL-38-40010	40-58	38-56	60VDC
CSL-38-60010	92-140	90-138	150VDC

* Actual maximum drop-out voltage is the selected pick-up voltage less the hysterisis voltage.

Outline Dimensions



Wiring Diagrams – Bottom Views (pins numbered clockwise from keyway)

