



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.

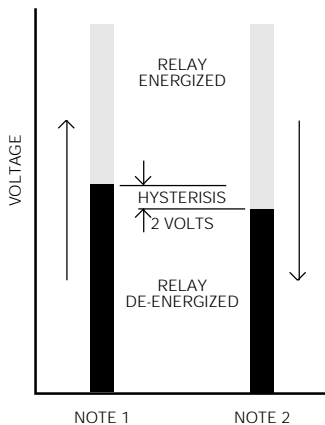
### Sensing Modes

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.

### 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 hysteresis, the voltage differential between pick-up and drop-out, is typically 2% of pick-up.

### Engineering Data

**Power Requirement:** Typically less than 3VA or 3W.

**Duty Cycle:** Continuous.

**Repeatability:**  $\pm 1\%$ , 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:**  $-10^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$ .

**Temperature Coefficient:**  $0.2\%/^{\circ}\text{C}$ , 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.

### Ordering Information –

Distributors are more likely to stock boldface items.

#### Fixed Pick-Up and Adjustable Drop-Out

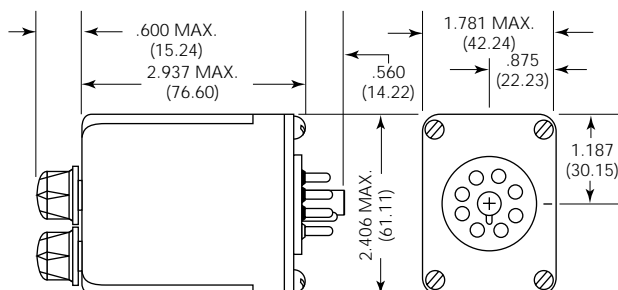
Part Number	Pick-Up (Volts)	Drop-Out Range (Volts)	Maximum Voltage
<b>CSJ-38-71010</b>	105	90-103	140VAC (50/60 Hz.)
<b>CSL-38-31010</b>	22	16-21	32VDC

#### Adjustable Pick-Up and Adjustable Drop-Out

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

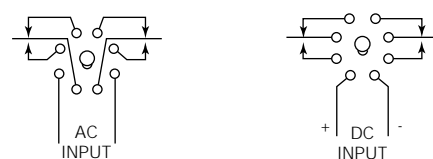
\* Actual maximum drop-out voltage is the selected pick-up voltage less the hysteresis voltage.

### Outline Dimensions



### Wiring Diagrams – Bottom Views

(pins numbered clockwise from keyway)



# Mouser Electronics

Authorized Distributor

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[CSL-38-60010](#)