



# HONEYWELL

## HOA6992-P51

*See full Datasheet below...*

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### HOA6992-P51



Actual product appearance may vary.

**HOA Series IR Opaque Optoschmitt Sensor, Transistor Output, Single Mounting Tab, Detector Side, Plastic Package**

#### Features

- Direct TTL interface
- Buffer or inverting logic available
- Three device output options
- Four mounting configurations
- Choice of detector aperture
- 0.125 in [3.18 mm] slot width
- 24.0 in [610 mm] min. 26 AWG UL 1429 wire leads

#### Description

The HOA698X/699X series consists of an infrared emitting diode facing an Optoschmitt detector encased in a black thermoplastic housing. Detector switching takes place whenever an opaque object passes through the slot between emitter and detector. The photodetector consists of a photodiode, amplifier, voltage regulator, Schmitt trigger and various output configurations. The user can choose from available options: (1) detector aperture, (2) mounting tab configuration, (3) detector output configuration, and (4) housing material.

The HOA698X series utilizes an IR transmissive polysulfone housing which features smooth optical faces without external aperture openings; this feature is desirable when aperture blockage from airborne contaminants is a possibility. The HOA699X series employs an opaque polysulfone housing with aperture openings for use in applications in which maximum rejection of ambient light is important, and situations in which maximum position resolution is desired. The HOA698X/699X series employs plastic molded components. For additional component information see SEP8506 and SDP8XX4.

Housing material is polysulfone. Housings are soluble in chlorinated hydrocarbons and ketones. Recommended cleaning agents are methanol and isopropanol.

Device Polarity:

Buffer - Output is LO when optical path is blocked.

Inverter - Output is HI when optical path is blocked.

Wire color code and functions are:

- Red - IRED Anode
- Black - IRED Cathode
- Green - Detector Ground
- White - Detector Vcc
- Blue - Detector Output

#### Supporting Documentation

[▶ Dimensions](#)

[▶ Schematics and Performance Charts](#)

[▶ Engineering Drawing](#)

| Product Specifications                 |  |
|--|--|
| Series Name                            | Optoschmitt Sensor   |
| Product Type                           | IR Switch  |
| Output                                 | Totem-Pole   |
| Output Logic                           | Inverter   |
| Mounting Configuration                 | Single Mounting Tab, Detector Side   |
| Package Components                     | Plastic  |
| Package Color                          | Black  |
| Continuous Forward Current             | 50 mA  |
| Forward Voltage                        | 1.6 V  |
| Reverse Breakdown Voltage              | 3 V  |
| Reverse Current                        | 10 µA  |
| Maximum Trigger Current                | 15 mA  |
| Housing Material                       | Polysulfone, Opaque  |
| Power Dissipation                      | 100 mW   |
| Operating Temperature Range            | -40 °C to 70 °C [-40 °F to 158 °F]   |
| Hysteresis (H)                         | 0.05   |
| Operating Supply Voltage               | 4.5 V to 7.0 V   |
| Supply Voltage                         | 7.0 Vdc  |
| High Level Output Voltage              | 2.4 V minimum  |
| High Level Supply Current              | 15 mA  |
| Low Level Output Voltage               | 0.4 V maximum  |
| Low Level Supply Current               | 15 mA  |
| Short Circuit Output Current           | -20 mA to -100 mA  |
| Output Rise Time                       | 70 ns  |
| Output Fall Time                       | 70 ns  |
| Propagation Delay, Low-High, High-Low  | 5.0 µs   |
| Duration of Output Short Vcc or Ground | 1.0 second   |
| IRED Trigger Current                   | 15 mA  |
| IRED Anode Color                       | Red  |
| IRED Cathode Color                     | Black  |
| Detector Vcc Color                     | White  |
| Detector Output Color                  | Blue   |
| Detector Ground Color                  | Green  |
| Comment                                | Output is LO when incident light intensity is above the turn-on threshold level. |
| Availability                           | Global   |
| Sensor Aperture                        | 1,52 mm x 0,25 mm [0.060 in x 0.010 in]  |
| Slot Width                             | 3,18 mm [0.125 in]   |

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