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Representative photograph, actual product appearance may vary.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

HOA6990-T51

HOA Series IR Opaque Optoschmitt Sensor, Transistor Output, Two Mounting Tabs, 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

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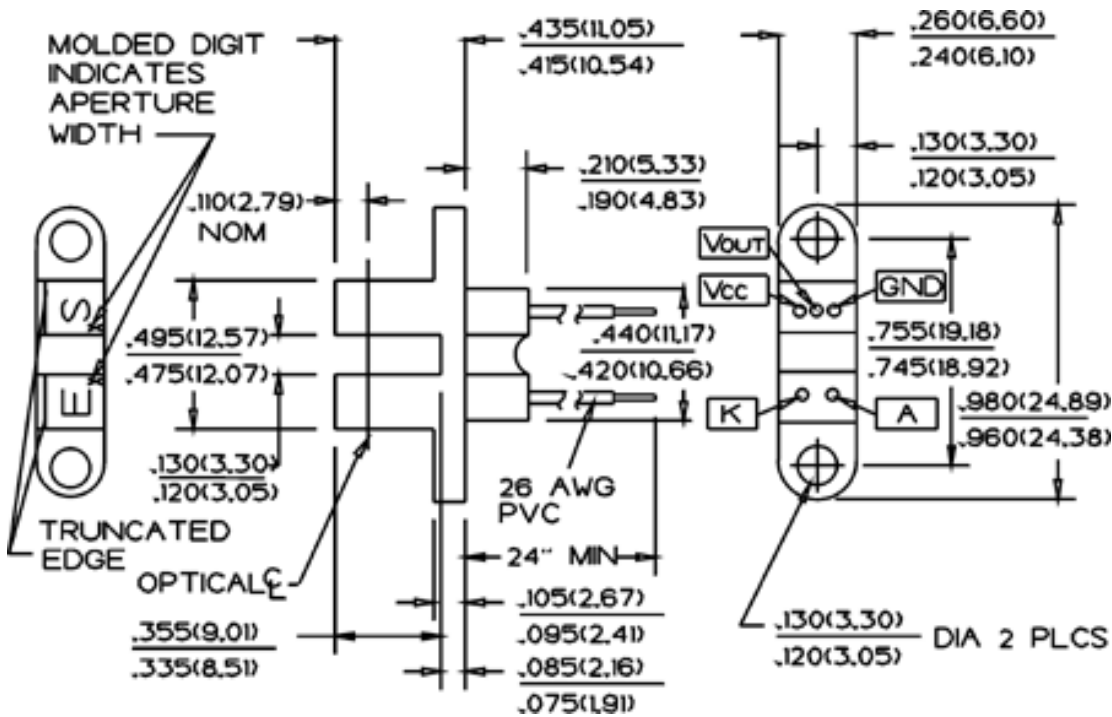**HOA Series IR Opaque Optoschmitt Sensor, Transistor Output, Two Mounting Tabs, Plastic Package**

Product Specifications	
Product Type	IR Switch
Output	Totem-Pole
Output Logic	Buffer
Mounting Configuration	Two Mounting Tabs
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)	5%

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
Product Name	Optoschmitt Sensor
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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⚠ WARNING

PERSONAL INJURY
DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

⚠ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.