



## HOA7720-M22

### HOA Series Connectorized Transmissive Optoschmitt Sensor, Transistor Output, Plastic Package

*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.*

#### Features

- Direct TTL interface
- No interface circuits required
- Inverting logic
- Two device output options
- High resolution
- 0.118 in [3.00 mm] slot width

#### Description

The HOA7720/7730 series consists of an infrared emitting diode facing an Optoschmitt detector encased in a black thermoplastic housing. The photodetector consists of a photodiode, amplifier, voltage regulator and Schmitt trigger with two output configurations. The user can choose from available options of totem pole (HOA7720-M22) or open collect (HOA7730-M22) output. The totem pole output is well suited for applications which require fast transition times. The open collector allows the output of the sensor to interface with circuit elements driven by supply voltages other than Vcc supply. The inverting logic provides a high output when the optical path is interrupted, and a low output when the path is clear. The infrared emitting diode is biased internally eliminating the need for any external circuitry. Interconnection is simplified through the use of an integral Molex three pin connector.

Both emitter and detector have a 0.020 in (0.508 mm) x 0.070 in (1.78 mm) vertical aperture. The narrow aperture is ideal for use in applications in which maximum rejection of ambient light is important, and maximum position resolution is desired. The HOA7720/7730 series employ plastic molded components. For additional component information see SEP8506, SDP8014 and SDP8314.

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

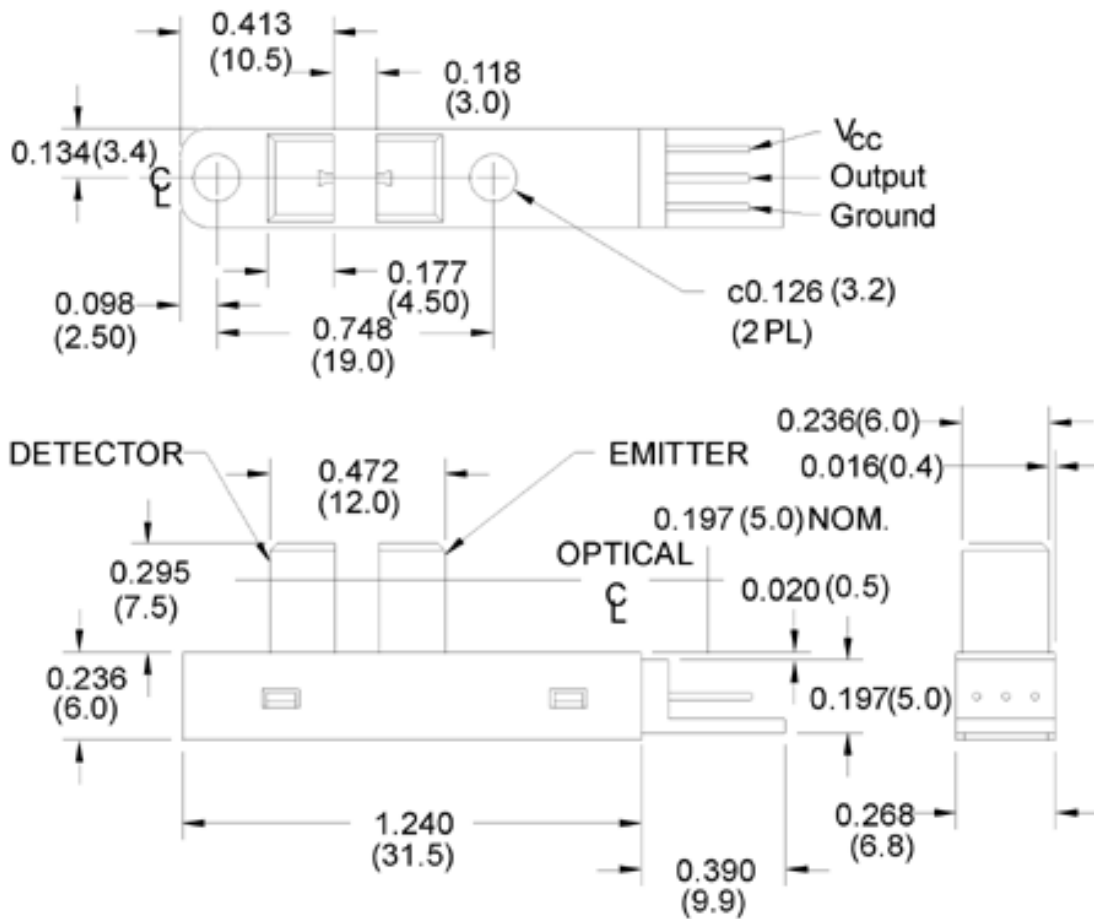
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Product Specifications	
Product Type	IR Switch
Output	Totem-Pole
Output Logic	Inverter
Package Components	Plastic
Housing Material	Polysulfone, Opaque
Power Dissipation	220 mW
Operating Temperature Range	-40 °C to 70 °C [-40 °F to 158 °F]
Hysteresis (H)	5%
Operating Supply Voltage	4.5 V to 5.5 V
Supply Voltage	5.5 Vdc
High Level Output Voltage	2.4 V minimum
Low Level Output Voltage	0.4 V maximum
Low Level Output Current	12.8 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
Comment	Output is HI when incident light intensity is above the turn-on threshold level.
Availability	Global
Product Name	Optoschmitt Sensor
Sensor Aperture	1,78 mm x 0,51 mm [0.070 in x 0.020 in]
Slot Width	3,00 mm [0.118 in]
Supply Current max.	40 mA @ 25 °C

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Connector Molex10-32-1033  
 Mating Connector Molex10-01-4034  
 Mating Connector Contact: Molex08-70-0073

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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.**