

HOA7720-M22

Connectorized Transmissive Optoschmitt Sensor
Totem-Pole Output

ELECTRICAL CHARACTERISTICS (-40°C to +70°C unless otherwise noted)						
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Operating Supply Voltage	V _{CC}	4.5		5.5	V	T _A =25°C
Supply Current	I _{CC}			40	mA	V _{CC} =5.5 V
Low Level Output Voltage	V _{OL}			0.4	V	V _{CC} =4.5 V, I _{OL} =12.8 mA
High Level Output Voltage	V _{OH}	2.4			V	V _{CC} =4.5 V, I _{OH} =-800 µA ⁽²⁾
Short Circuit Output Current	I _{OS}	-20		-100	mA	V _{CC} =5.25 V, Output=GND
Hysteresis ⁽³⁾	HYST		50		%	
Propagation Delay, Low-High, High-Low	t _{PLH} , t _{PHL}		5		µs	V _{CC} =5 V
Output Rise Time, Output Fall Time	t _r , t _f		70		ns	R _L =8 TTL Loads

Notes
1. It is recommended that a bypass capacitor, 0.1 µF typical, be added between V_{CC} and GND near the device in order to stabilize power supply line.
2. Output is HI when the optical path is interrupted.
3. Hysteresis is defined as the difference between the operating and release threshold intensities, expressed as a percentage of the operate threshold intensity.

ABSOLUTE MAXIMUM RATINGS	
(25°C Free-Air Temperature unless otherwise noted)	
Operating Temperature Range	-40°C to 70°C
Storage Temperature Range	-40°C to 85°C
Power Dissipation	220 mW
Supply Voltage	5.5 V
Supply Current	40 mA
Low Level Output Current	12.8 mA
Duration of Output	
Short to V _{CC} or Ground	1.0 sec

Honeywell reserves the right to make changes in order to improve design and supply the best products possible.

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HOA7730-M22

Connectorized Transmissive Optoschmitt Sensor
Open-Collector Output

ELECTRICAL CHARACTERISTICS (-40°C to +70°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Operating Supply Voltage	V _{CC}	4.5		5.5	V	T _A =25°C
Supply Current	I _{CC}			40	mA	V _{CC} =5.5 V
Low Level Output Voltage	V _{OL}			0.4	V	V _{CC} =4.5 V, I _{OL} =12.8 mA
High Level Output Current	I _{OH}			100	μA	V _{CC} =5.5 V V _{OH} =28 V
Hysteresis ⁽³⁾	HYST		50		%	
Propagation Delay, Low-High, High-Low	t _{PLH} , t _{PHL}		5		μs	V _{CC} =5 V
Output Rise Time, Output Fall Time	t _r , t _f		70		ns	RL=8 TTL Loads

Notes
1. It is recommended that a bypass capacitor, 0.1 μF typical, be added between V_{CC} and GND near the device in order to stabilize power supply line.
2. Output is HI when the optical path is interrupted.
3. Hysteresis is defined as the difference between the operating and release threshold intensities, expressed as a percentage of the operate threshold intensity.

ABSOLUTE MAXIMUM RATINGS

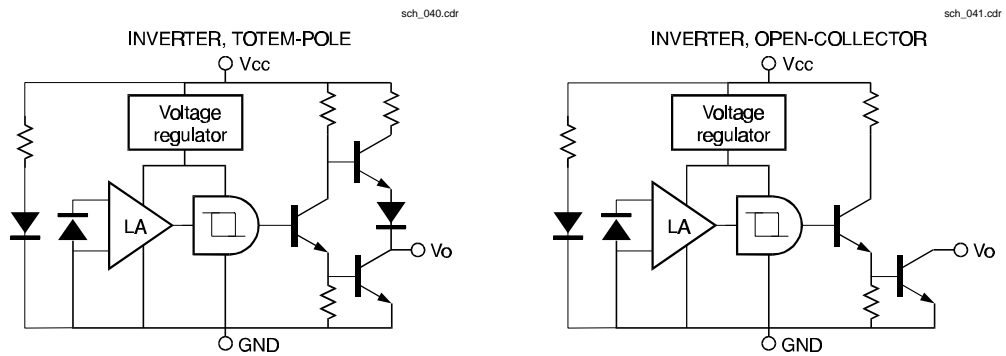
(25°C Free-Air Temperature unless otherwise noted)

Operating Temperature Range	-40°C to 70°C
Storage Temperature Range	-40°C to 85°C
Power Dissipation	220 mW
Supply Voltage	5.5 V
Supply Current	40 mA
Low Level Output Current	12.8 mA
Duration of Output Short to V _{CC} or Ground	1.0 sec.
Applied Output Voltage	35 V

HOA7720/7730

Connectorized Transmissive Optoschmitt Sensor

SCHEMATICS FOR HOA7720/7730



SWITCHING WAVEFORM FOR INVERTERS

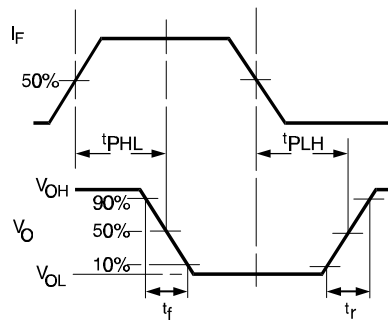
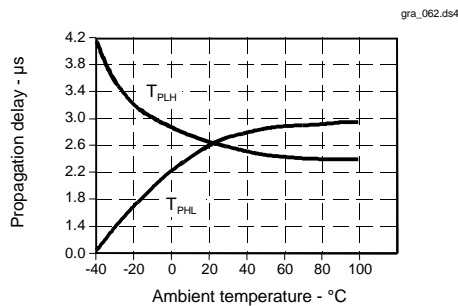


Fig. 2 Delay Time vs Temperature



All Performance Curves Show Typical Values

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