

H21L01 – Emitter: V_f max. 1.6V @ 20mA. V_R max 6V.
Detector: Schmitt trigger. Power dissipation 150mW @ 25°C. Operating voltage 4V to 15V. Turn-on threshold current I_f (on) 20mA typ. for $V_{CC} = 5V$, $R_L = 270\Omega$, $t_r = 100ns$ typ. (Mfr. QT)

HOA2001 – Emitter: V_f max. 1.5V @ 20mA. V_R max 3V.
Detector: Includes amplifier, voltage regulator, Schmitt trigger and output stage for direct interfacing to TTL/STTL/CMOS. Power dissipation 250mW @ 25°C. Operating voltage 4.5V to 16V. Max. O/P sink current 40mA when light beam interrupted. Supply current 5mA typ. t_r 60ns typ. t_f 6ns typ. (Mfr. Honeywell).

HOA6990-T51 – Emitter: V_f max. 1.5V @ 20mA. V_R max. 3V.
Detector: Includes amplifier, voltage regulator, Schmitt trigger and totem pole output stage for direct TTL interfacing. Output is low when excitation is zero. Operating voltage 4.5V to 7.0V. Max. supply current 15mA, t_r t_f 70ns typ. (Mfr. Honeywell).

OPB625 – Emitter: V_f max. 1.6V @ 10mA. V_R max. 3V.
Detector: Includes linear amplifier, Schmitt trigger and output stage 10K pull up, buffered for TTL/STTL interfacing. Max o/p sink current 16mA. Supply current 5mA typ. t_r 30ns typ. (Mfr. Optek).

EE-SX4101 – Emitter: V_f max. 1.4V @ 20mA. V_R max. 4V.
Detector: Includes amplifier, voltage regulator, Schmitt trigger and output stage for direct interfacing to TTL/STTL/CMOS. Power dissipation 80mW @ 25°C. Operating voltage 2.2V to 7V. Consumption current 2.3mA typ. for $V_{CC} = 7V$. Propagation delay – 5 μs (H \rightarrow L), 18 μs (L \rightarrow H). (Mfr. Omron).

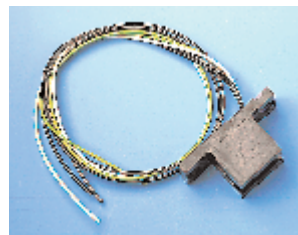
EE-SX4070 – Emitter: V_f max. 1.5V @ 20mA. V_R max. 4V.
Detector: Includes amplifier, voltage regulator, Schmitt trigger and output stage for direct interfacing to TTL/STTL/CMOS. Power dissipation 250mW @ 25°C. Operating voltage 4.5V to 16V. Consumption current 3.2mA typ. for $V_{CC} = 16V$. Propagation delay – 3 μs (H \rightarrow L), 20 μs (L \rightarrow H). (Mfr. Omron).

EE-SY410 – Emitter: V_f max. 1.5V @ 20mA. V_R max. 4V.
Detector: Includes pre-amplifier circuit with temperature-compensating circuit, voltage regulator, Schmitt trigger and output stage for direct interfacing to TTL/STTL/CMOS. Power dissipation 250mW @ 25°C. Operating voltage 4.5V to 16V. Response delay time – 3 μs (H \rightarrow L), 20 μs (L \rightarrow H). (Mfr. Omron).

OPB760T – Emitter: V_f max. 1.8V @ 40mA. V_R max 3V.
Detector: Includes built-in hysteresis amplifier, Photologic™ output, TTL Totem Pole Buffered output. Total device power dissipation 300mW @ 25°C, diode forward current 40mA, (Mfrs. Optek)

Dual Channel Transmissive Sensor with cable harness

SILONEX



- Dual "OVER/UNDER" configuration
 - Cable harness for remote termination
- Dual emitter/sensor transmissive optical sensor with phototransistor output. Ideal for sensing objects at two positions of movement or direction of movement.

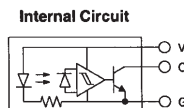
Input I _{RED}	Output Phototransistor	Coupled
V_f V typ	I_f μ A max	I_{CO} nA max
2.4	100	100
		BV_{CEO} V min
		30
		BV_{ECO} V min
		5
		V_{CE} (sat) - V max
		0.4
		I_C (on) μ A min
		400
		I_{CX} nA max
		200

OPT677

Mfrs. List No.	Order Code	1+	Price Each	25+	100+
STS-8831	316-8384				

Snap-In Fitting 5mm & 15mm Slots, Photo-Logic Outputs

OMRON



H = 23.6, W = 30 (inc. connector), D = 11

- Photo-Logic output
- 5mm slot (EE-SX460-P1) & 15mm slot (EE-SX461-P11)
- Easy snap-in mounting
- Connection uses OMRON connector EE-1005 with 1 metre of cable (available separately)

EE-SX460-P1: $I_{CC} = 30mA$ max. $V_{CC} = 5V$ (V_{CC} max. = 10V), $V_{OL} = 0.3V$ max. $V_{OH} = (V_{CC} \cdot 0.9)$ V min. $f = 3kHz$ min.

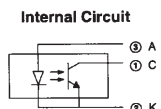
EE-SX461-P11: $I_{CC} = 35mA$ max. $V_{CC} = 5V$ (V_{CC} max. = 7V), $V_{OL} = 0.3V$ max. $V_{OH} = (V_{CC} \cdot 0.9)$ V min. $f = 3kHz$ min.

OPT686

Mfrs. List No.	Order Code	1+	10+	25+	50+	100+
EE-SX460-P1	316-8724					
EE-SX461-P11	316-8736					
EE-1005	316-8748					

Snap-In Fitting 5mm Slots, Photo-Transistor & Photo-Logic Outputs

OMRON



H = 15.9, W = 27 (inc. connector), D = 8

- Photo-Transistor (EE-SX1235A-P2) or Photo-Logic (EE-SX4235-P2)
- Compact size with a 5mm slot
- Snap fits into plates up to 1.6mm thick
- Connection via standard AMP connector

EE-SX1235A-P2: $I_C = 20mA$ @ $I_f = 50mA$, t_r & $t_f = 8\mu s$ typ. V_{CE} (sat) = 0.4V max.

EE-SX4235A-P2: $I_{CC} = 16.5mA$ max. $V_{CC} = 5V$ (V_{CC} max. = 7V), $V_{OL} = 0.35V$ max. $V_{OH} = (V_{CC} \cdot 0.9)$ V min. $f = 3kHz$ min.

OPT687

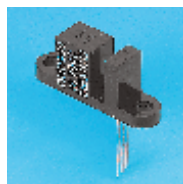
Mfrs. List No.	Order Code	1+	10+	25+	50+	100+
EE-SX1235A-P2	316-8750					
EE-SX4235A-P2	316-8761					

continued

Mfrs. List No.	Order Code	1+	25+	100+	1K+
Transmissive Sensing					
H21L01	327-219				
HOA2001	327-220				
HOA6990-T51	491-410				
OPB625	491-342				
EE-SX4101	558-448				
EE-SX4070	558-461				
Reflective Sensing					
EE-SY410	567-723				
OPB760T	139-841				

Hall Effect Sensor

OPTEK



- Hall element, linear amplifier and Schmitt trigger on a Hallogic® silicon chip
- Non-contact motion sensing
- May be used in high dust and dirt environments in preference to opto devices
- Operates over a wide range of voltages
- 3.18mm wide gap, similar to optically slotted switches

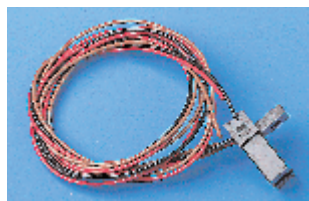
H = 10.8, W = 26.0, D = 6.4

OPT557

Mfrs. List No.	Order Code	1+	10+	25+	50+	100+
OHB900	139-853					

Tab Mounted Transmissive Switch with cable harness

SILONEX



- Single channel configuration
 - Cable harness for remote termination
 - Tab mounting on package side
- Single emitter/sensor transmissive optical sensor with phototransistor output. Cable fitted for remote termination

Input I _{RED}	Output Phototransistor	Coupled
V_f V typ	I_f μ A max	I_{CO} nA max
1.2	10	100
		BV_{CEO} V min
		30
		BV_{ECO} V min
		5
		V_{CE} (sat) - V max
		0.4
		I_C (on) μ A min
		1.5

OPT679

Mfrs. List No.	Order Code	1+	25+	100+
STS-8857	316-8396			