






Cat. No.	Package	Color	Chromaticity Coordinates	Luminous Intensity Typ.@20mA (mcd)	Viewing Angle 20½	Net Price
<b>WHITE THRU-HOLE LED</b>						
LTL33BCWK5AT	T1½ (5mm)	White	x=0.30 y=0.33	4800	20	<b>\$1.44</b>
LTL42CW65AT	T1 (3mm)	White	x=0.30 y=0.32	2600	25	<b>1.44</b>


Cat. No.	Package Size	Color	Dominant Wavelength λd (nm)	Luminous Intensity Typ.@20mA (mcd)	Viewing Angle 20½	Net Price
<b>AS/TS AlInGaP AND InGaN THRU-HOLE LED</b>						
LTL2P3SEK	 T1 3/4 (5mm)	Red	630	4800	22	<b>\$0.50</b>
LTL2P3SYK		Amber-Yellow	592	3700	22	<b>.34</b>
LTL2R3VRKNT		Red	631	990	30	<b>.24</b>
LTL2R3VEKNT		Orange-Red	624	1200	30	<b>.24</b>
LTL2R3VAKNT		Orange	615	1300	30	<b>.24</b>
LTL2R3VFKNT		Amber	605	1300	30	<b>.24</b>
LTL2R3VYKNT		Amber-Yellow	592	1300	30	<b>.24</b>
LTL2R3VSKNT		Yellow	587	1200	30	<b>.24</b>
LTL2R3KRK		Red	631	500	30	<b>.23</b>
LTL2R3KEK		Orange-Red	624	700	30	<b>.11</b>
LTL2R3KAK		Orange	615	700	30	<b>.11</b>
LTL2R3KFK		Amber	605	700	30	<b>.11</b>
LTL2R3KYK		Amber-Yellow	592	700	30	<b>.11</b>
LTL2R3KSK		Yellow	587	700	30	<b>.11</b>
LTL1CHCBK5	 T1 (3mm)	Blue	470	880	30	<b>1.63</b>
LTL2T3TBK4		Blue	470	680	30	<b>.51</b>
LTL2T3TGK6		Green	530	2500	30	<b>.68</b>
LTL1CHKGKNN		Green	571	300	45	<b>1.20</b>
LTL1CHKRKNN		Red	631	250	45	<b>1.30</b>
LTL1CHKSKNN		Yellow	587	320	45	<b>.11</b>
LTL1CHTBK5		Blue	470	880	30	<b>.70</b>
LTL1CHTBK4		Blue	470	680	30	<b>.56</b>

Cat. No.	Package	Color	Dominant Wavelength λd (nm)	Total Flux (lm)		Viewing Angle 20½	Net Price
				Type.@70mA	Type.@50mA		
<b>AS/TS AlInGaP AND InGaN SUPER FLUX LED</b>							
LTL911SEKSA		Orange-Red	628	3750		90	<b>\$3.38</b>
LTL911SHKSA		Red-Orange	620	3750			<b>.38</b>
LTL911SYKSA		Amber/Yellow	594	2090			<b>.38</b>
LTL911CBKS5		Blue	470		550	75	<b>1.55</b>
LTL912SEKSA		Orange-Red	628	3750		60	<b>.38</b>
LTL912SHKSA		Red-Orange	620	3750			<b>.38</b>
LTL912SYKSA		Amber-Yellow	594	2090			<b>.38</b>
LTL914SYKS		Orange-Red	628	3750		30	<b>.42</b>
LTL914SHKS		Red-Orange	620	3750			<b>.42</b>
LTL914SYKS		Amber-Yellow	594	2090			<b>.42</b>

Cat. No.	Package Size	Color	Dominant Wavelength λd (nm)	Luminous Intensity Typ.@20mA (mcd)	Viewing Angle 20½	Net Price
<b>FULL COLOUR (RGB) SMD LED</b>						
LSTC-C19FD1WT	 1.6(L) X 2.1(W) X 0.55(H) mm	Red	605	60	130°	<b>\$2.08</b>
		Green	525	120	130°	
		Blue	470	30	130°	
LSTC-C17FB1WT	 2.0(L) X 2.4(W) X 0.80(H) mm	Red	615	60	130°	<b>2.08</b>
		Green	525	120	130°	
		Blue	470	30	130°	

## INFRAREDS LED, PHOTODETECTORS AND DISPLAYS

### INFRARED EMITTING DIODES

Cat. No.	Dominant Wavelength λd (nm)	Lens color	Aperture Radiant Incidence (Ee Typ.@IF=20mA) mW/cm²	Viewing Angle (Degree)	Net Price
	880	Water Clear	1.4	20	<b>\$0.46</b>
	850	Water Clear	8.0@IF=50mA	30	<b>.40</b>
	940	Water Clear	0.7	20	<b>.21</b>
	940	Water Clear	0.2	30	<b>.20</b>

# Honeywell



FIG. 1

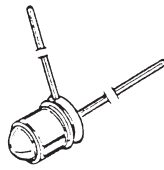


FIG. 2

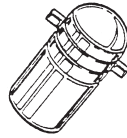


FIG. 3



FIG. 4



FIG. 5

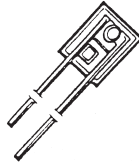


FIG. 6



FIG. 7

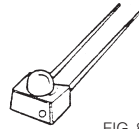


FIG. 8

## INFRARED SENSORS

Cat. No.	Fig.	Beam Angle	V <sub>f</sub> Max.	V <sub>f</sub> Max. Rated @I <sub>f</sub> (mA)	Output Min.		Peak Wavelength nm	Net Price
					(mW./cm <sup>2</sup> )	@I <sub>f</sub>		
SE1470-002	1	24°	1.8	50	0.65	20	880	\$2.50
SE1470-003	1	24°	1.8	50	1.10	20	880	2.50
SE1470-002L	2	24°	1.8	50	0.65	20	880	3.04
SE1470-003L	2	24°	1.8	50	1.10	20	880	2.80
SE5450-012	5	20°	1.7	100	0.50	100	935	2.09
SE5450-013	5	20°	1.7	100	1.00	100	935	2.19
SEP8505-002	7	15°	1.5	200	1.00	20	935	.83
SEP8705-002	7	15°	1.7	20	1.40	20	880	.96
SEP8705-003	7	15°	1.7	20	2.70	20	880	.92
SEP8506-002	6	50°	1.5	20	0.33	20	935	.70
SEP8506-003	6	50°	1.5	20	0.45	20	935	.74
SEP8706-002	6	50°	1.7	20	0.45	20	880	.74
SEP8706-003	6	50°	1.7	20	0.65	20	880	.78
SEP8736-002	8	10°	1.7	20	1.20	20	880	.85
SE5470-001	5	20°	1.9	100	7.00*	100	880	2.05
SE5470-002	5	20°	1.9	100	1.50	100	880	2.32
SE5470-003	5	20°	1.9	100	2.60	100	880	2.15
SE5470-004	5	20°	1.9	100	3.50	100	880	2.19
SE1450-002	1	24°	1.6	50	0.35*	500	935	2.39
SE1450-003	1	24°	1.6	50	0.70*	500	935	2.39
SE1450-001L	2	24°	1.6	50	0.20*	500	935	2.56
SE1450-003L	2	24°	1.6	50	0.70*	500	935	2.43
SE2460-002	3	18°	1.6	50	0.40*	500	935	1.33
SE2460-003	3	18°	1.6	50	1.00	500	935	1.29
SE2470-001	3	18°	1.8	50	1.70	500	880	1.37
SE2470-002	3	18°	1.8	50	6.00	50	880	1.47
SE3455-002	4	90°	1.7	100	3.50*	100	935	2.19
SE3455-003	4	90°	1.7	100	4.80*	100	935	2.19
SE3470-002	4	90°	1.9	100	9.00*	100	880	2.32
SE3470-003	4	90°	1.9	100	10.50*	100	880	2.26
SE5455-002	5	20°	1.7	100	3.50*	100	935	2.19
SE5455-003	5	20°	1.7	100	4.80*	100	935	2.01

\*Output is measured in mW.

## PHOTODIODE DETECTORS

Cat. No.	Fig.	Acceptance Angle	I <sub>(on)</sub> Min. @ V <sub>R</sub> =20V (μA)	H (mW/cm <sup>2</sup> )	Net Price
SD1420-002	1	24°	5.0	5	\$2.05
SD1420-002L	2	24°	5.0	5	2.32
SD2420-002	3	48°	7.0	20	1.68
SD3421-002	4	90°	10.0	5	4.07
SD5421-002	5	18°	40.0	5	3.73
SDP8276-001	6	50°	4.0	1	.83

## PHOTOTRANSISTOR DETECTORS

Cat. No.	Fig.	Acceptance Angle	I <sub>(on)</sub> Min. @ V <sub>cc</sub> =5V (μA)	Rated @H (mW/cm <sup>2</sup> )	Net Price
SD1440-002	1	24°	1.5	5.0	\$2.02
SD1440-003	1	24°	3.0	5.0	2.02
SD1440-002L	2	24°	1.5	5.0	2.26
SD1440-003L	2	24°	3.0	5.0	2.19
SD2440-002	3	48°	2.0	20.0	1.33
SD2440-003	3	48°	4.0	20.0	1.23
SD3443-002	4	90°	1.0	5.0	2.19
SD3443-003	4	90°	2.0	5.0	2.05
SD5443-002	5	18°	4.0	5.0	2.02
SD5443-003	5	18°	8.0	5.0	2.02
SDP8405-002	7	20°	7.0	5.0	.78
SDP8405-003	7	20°	12.0	5.0	.83
SDP8425-001	7	20°	1.0	5.0	.78
SDP8406-002	6	50°	1.8	1.0	.61
SDP8406-003	6	50°	3.4	1.0	.61
SDP8436-002	8	18°	4.0	1.0	.78

## PHOTODARLINGTON DETECTORS

Cat. No.	Fig.	Acceptance Angle	I <sub>(on)</sub> Min. @ V <sub>cc</sub> =5V (μA)	Rated @H (mW/cm <sup>2</sup> )	Net Price
SD1410-002	1	24°	2.0	0.2	\$2.05
SD1410-003	1	24°	4.0	0.2	1.95
SD1410-002L	2	24°	2.0	0.2	2.43
SD1410-003L	2	24°	4.0	0.2	2.32
SD2410-002	3	48°	3.0	1.0	1.71
SD2410-003	3	48°	6.0	1.0	1.74
SD3410-002	4	90°	2.0	2.0	2.29
SD3410-003	4	90°	4.0	2.0	2.12
SD5410-002	5	12°	4.0	0.2	2.29
SD5410-003	5	12°	8.0	0.2	2.32
SDP8106-001	6	50°	1.0	1.0	.78

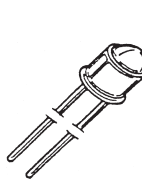


FIG. 1

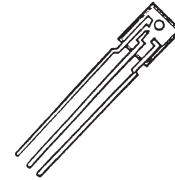


FIG. 2

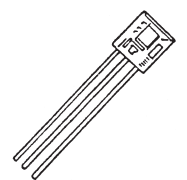


FIG. 3

## SCHMITT TRIGGER DETECTORS

Cat. No.	Fig.	Output Circuit	Max Radiant Threshold (mW/cm <sup>2</sup> )	Operating Range V <sub>cc</sub> (V)	Net Price
SD5600-001	1	Buffer—10kΩ PU	2.5	4.5-16	\$2.53
SD5610-001	1	Inverter—10kΩ PU	2.5	4.5-16	2.77
SDP8304-301	2	Buffer—OC	0.37	4.5-12	1.70
SDP8371-001	3	Buffer—OC	0.065*	4.0-15	2.31
SDP8600-001	2	Buffer—10kΩ PU	2.5	4.5-12	1.35
SDP8610-001	2	Inverter—10kΩ PUPU	2.5	4.5-12	1.35

\*Release point maximum.

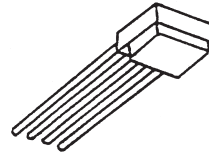


FIG. 1

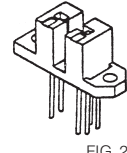


FIG. 2

## ENCODER SENSORS

Cat. No.	Fig.	Output Type	Max Radiant Threshold (mW/cm <sup>2</sup> )	Operating Range V <sub>cc</sub> (V)	Net Price
HLC2701-001	1	2 Channel Speed/Dir	2.0	4.5-5.5	\$2.14
HLC2705-001	1	2 Channel Speed/Dir	2.0	4.5-5.5	3.88

Cat. No.	Fig.	Output Type	I <sub>f</sub> (On) Max (mA)	Operating Range V <sub>cc</sub> (V)	Net Price
HOA0901-012	2	2 Channel Speed/Dir	15	4.5-5.5	\$5.60
HOA0902-012	2	2 Channel Speed/Dir	15	4.5-5.5	5.73

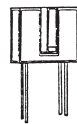


FIG. 1

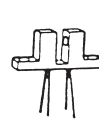


FIG. 2

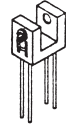


FIG. 3

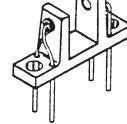


FIG. 4

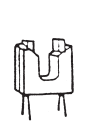


FIG. 5

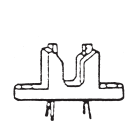
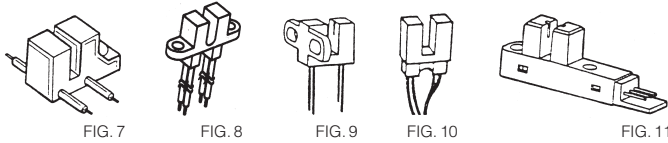


FIG. 6

Continued on next page...



## INFRARED SWITCHES & SENSORS SLOTTED OPTICAL SWITCHES

Cat. No.	Fig.	Light Current I <sub>L@If</sub>		Sensor Aperture L x W	Gap		Net Price
		(mA)	(mA)		Depth	Width	
<b>HERMETIC TRANSISTOR OUTPUT</b>							
HOA2862-002	1	1.8	20	.040" x .025"	.250"	.100"	<b>\$9.65</b>
HOA1875-002	3	0.6	30	.050" dia.	.250"	.200"	<b>6.74</b>
HOA1877-002	4	0.5	30	.050" dia.	.500"	.375"	<b>6.74</b>

<b>HERMETIC DARLINGTON OUTPUT</b>							
HOA2862-003	1	4.0	20	.040" x .025"	.250"	.100"	<b>9.83</b>
HOA1875-003	3	1.8	30	.050" dia.	.250"	.200"	<b>7.45</b>
HOA1877-003	4	1.5	30	.050" dia.	.500"	.375"	<b>7.45</b>

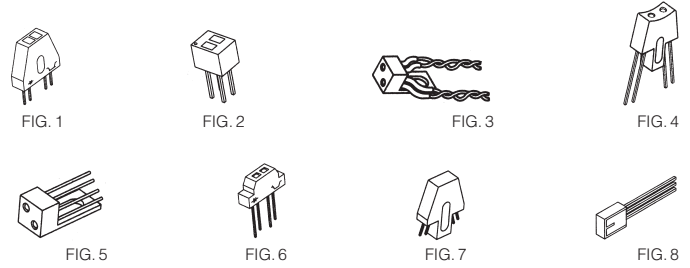
<b>PLASTIC TRANSISTOR OUTPUT</b>							
HOA0825-001	5	0.5	20	.060" dia.	.330"	.165"	<b>2.60</b>
HOA0825-003	6	0.5	20	.060" dia.	.330"	.165"	<b>2.73</b>
HOA0875-N51	1	0.5	20	.060" x .010"	.345"	.125"	<b>2.73</b>
HOA0875-N55	1	0.5	20	.060" x .050"	.345"	.125"	<b>2.73</b>
HOA0875-T51	2	0.5	20	.060" x .010"	.345"	.125"	<b>2.73</b>
HOA0875-T55	2	0.5	20	.060" x .050"	.345"	.125"	<b>2.29</b>
HOA1870-031	7	0.3	20	.040" x .006"	.250"	.070"	<b>5.38</b>
HOA1873-012	2	1.8	20	.060" dia.	.250"	.100"	<b>2.82</b>
HOA1879-012	2	1.8	20	.060" dia.	.345"	.125"	<b>3.75</b>
HOA1881-012	8	1.8	20	.060" dia.	.295"	.125"	<b>4.36</b>
HOA1884-012	9	1.8	20	.060" x .020"	.315"	.125"	<b>3.66</b>
HOA1872-012	1	1.8	20	.060" dia.	.250"	.100"	<b>3.66</b>
HOA1885-011	1	0.3	20	.060" x .050"	.269"	.200"	<b>2.73</b>
HOA1885-012	1	1.8	20	.060" x .050"	.269"	.200"	<b>2.78</b>
HOA1886-011	1	0.3	20	.060" x .050"	.269"	.200"	<b>2.73</b>
HOA1886-012	1	1.8	20	.060" x .050"	.269"	.200"	<b>3.30</b>

<b>PLASTIC DARLINGTON OUTPUT</b>							
HOA1870-033	7	2.0	20	.040" x .006"	.250"	.070"	<b>5.42</b>
HOA1872-013	1	4.0	20	.060" dia.	.250"	.100"	<b>3.75</b>
HOA1873-013	2	4.0	20	.060" dia.	.250"	.100"	<b>2.86</b>
HOA1885-013	1	4.0	20	.060" x .050"	.269"	.200"	<b>2.82</b>

## PLASTIC OPTOSCHMITT OUTPUT

Cat. No.	Fig.	I <sub>FT(on)</sub> Max (mA)	Gap		Sensor Aperture L x W	Net Price
			Depth	Width		
HOA2001-001	2	10	.305"	.120"	.060" dia.	<b>\$3.13</b>
HOA2003-001	2	20	.325"	.125"	.040" x .010"	<b>5.07</b>
HOA2004-001	9	20	.315"	.125"	.040" x .020"	<b>3.75</b>
HOA6970-N51	1	15	.345"	.125"	.060" x .010"	<b>3.52</b>
HOA6970-N55	1	15	.345"	.125"	.060" x .050"	<b>3.22</b>
HOA6971-N51	1	15	.345"	.125"	.060" x .010"	<b>3.87</b>
HOA6971-N55	1	15	.345"	.125"	.060" x .050"	<b>3.83</b>
HOA6972-N51	1	15	.345"	.125"	.060" x .010"	<b>3.87</b>
HOA6972-N55	1	15	.345"	.125"	.060" x .050"	<b>3.22</b>
HOA6973-N51	1	15	.345"	.125"	.060" x .010"	<b>3.87</b>
HOA6973-N55	1	15	.345"	.125"	.060" x .050"	<b>3.22</b>
HOA6970-T51	2	15	.345"	.125"	.060" x .010"	<b>3.87</b>
HOA6970-T55	2	15	.345"	.125"	.060" x .050"	<b>3.83</b>
HOA6971-T51	2	15	.345"	.125"	.060" x .010"	<b>3.22</b>
HOA6971-T55	2	15	.345"	.125"	.060" x .050"	<b>3.26</b>
HOA6972-T51	2	15	.345"	.125"	.060" x .010"	<b>3.26</b>
HOA6972-T55	2	15	.345"	.125"	.060" x .050"	<b>3.22</b>
HOA6973-T51	2	15	.345"	.125"	.060" x .010"	<b>3.26</b>
HOA6973-T55	2	15	.345"	.125"	.060" x .050"	<b>3.22</b>
HOA6990-N51	10	15	.345"	.125"	.060" x .010"	<b>5.16</b>
HOA6990-N55	10	15	.345"	.125"	.060" x .050"	<b>5.11</b>
HOA6991-N51	10	15	.345"	.125"	.060" x .010"	<b>5.16</b>
HOA6991-N55	10	15	.345"	.125"	.060" x .050"	<b>5.11</b>
HOA6992-N51	10	15	.345"	.125"	.060" x .010"	<b>5.16</b>
HOA6992-N55	10	15	.345"	.125"	.060" x .050"	<b>6.08</b>
HOA6993-N51	10	15	.345"	.125"	.060" x .010"	<b>5.16</b>
HOA6993-N55	10	15	.345"	.125"	.060" x .050"	<b>5.11</b>
HOA6990-T51	8	15	.345"	.125"	.060" x .010"	<b>5.16</b>
HOA6990-T55	8	15	.345"	.125"	.060" x .050"	<b>5.11</b>
HOA6991-T51	8	15	.345"	.125"	.060" x .010"	<b>6.12</b>
HOA6991-T55	8	15	.345"	.125"	.060" x .050"	<b>5.11</b>
HOA6992-T51	8	15	.345"	.125"	.060" x .010"	<b>6.12</b>
HOA6992-T55	8	15	.345"	.125"	.060" x .050"	<b>5.11</b>
HOA6993-T51	8	15	.345"	.125"	.060" x .010"	<b>5.16</b>
HOA6993-T55	8	15	.345"	.125"	.060" x .050"	<b>5.11</b>

Cat. No.	Fig.	Operating Voltage (V)	Gap		Sensor Aperture L x W	Net Price
			Depth	Width		
HOA7720-M22	11	4.5-5.5	.295"	.118"	.070" x .020"	<b>\$6.65</b>
HOA7730-M22	11	4.5-5.5	.295"	.118"	.070" x .020"	<b>7.22</b>



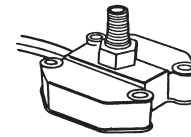
## REFLECTIVE SENSORS

Cat. No.	Fig.	Light Current I <sub>L@If</sub>		Target Distance	Net Price
		(mA)	(mA)		
<b>PLASTIC TRANSISTOR OUTPUT</b>					
HOA0149-001	6	1.0	40	0.150"	<b>\$2.78</b>
HOA0708-001	1	0.2	40	0.150"	<b>3.66</b>
HOA0708-011	1	0.2	40	0.150"	<b>3.30</b>
HOA1397-002	2	0.7	20	0.050"	<b>2.78</b>
HOA1405-002	7	0.8	30	0.200"	<b>3.17</b>
HLC1395-002	8	0.6	10	0.040"	<b>1.75</b>

<b>PLASTIC DARLINGTON OUTPUT</b>					
HOA0709-001	1	1.0	40	0.150"	<b>3.66</b>
HOA0709-011	1	1.0	40	0.150"	<b>3.66</b>
HOA1397-031	2	2.0	20	0.050"	<b>2.60</b>
HOA1397-032	2	7.0	20	0.050"	<b>2.82</b>

<b>HERMETIC TRANSISTOR OUTPUT</b>					
HOA1180-002	3	0.16	30	0.500"	<b>10.18</b>
HOA1404-002	4	0.8	30	0.200"	<b>8.50</b>
HOA2498-002	5	0.16	30	0.500"	<b>6.61</b>
HOA1406-001	7	0.025	40	0.200"	<b>18.68</b>

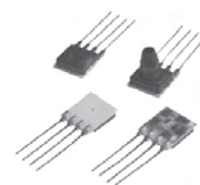
<b>HERMETIC DARLINGTON OUTPUT</b>					
HOA1180-003	3	2.0	30	0.500"	<b>11.28</b>
HOA1404-003	4	2.0	30	0.200"	<b>8.55</b>
HOA2498-003	5	2.0	30	0.500"	<b>7.62</b>



## 240PC SERIES PRESSURE SENSORS

240PC series pressure sensors feature rugged die-cast aluminum housing and internal O-ring seals for contamination resistance. Output proportional to pressure input. Screw-in or flat pack mounting. Recommended excitation: 242PC: 8VDC; 249PC: 24VDC with 25 ohm lead. 2.20L x 2.26" W.

Cat. No.	Pressure Range	Over-Pressure	Span	Sensitivity psi	Net Price
242PC100G	0-100	200 psi	5V	50mV	<b>\$200.60</b>
242PC250G	0-250	500 psi	5V	20mV	<b>200.60</b>
242PC250G	0-250	500 psi	4-20mA	.064mA	<b>200.60</b>



## CPC SERIES PRESSURE SENSORS VACUUM GAGE, SIGNAL CONDITIONING/UNAMPLIFIED

The CPC series sensors integrate silicon micromachined sensing technology, temperature compensation, and calibration in a complete family of low cost packages. This series offers the most cost-effective for design requirements. These piezoresistive pressure sensors use micromachined silicon chips mounted on a ceramic and protected with a plastic cap. Several tube arrangements with nylon housings are available for various pressure applications. On devices of 5 psi and above, the top side of the chip is protected against humidity

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