

Type	Dia (mm)	Glass Length	Lamp current	Lamp Voltage rms norm.	Brightness cd/M <sup>2</sup>	Life (hours)	Mftrs. List No.	Order Code
Straight	2.6	205	5.0mA	500V	38000	25000	HMBSM26205	113-9179
Inverter	2.6	21 x 90 x 120	480mA	560mA	35kHz	43kHz	HIU742AK	113-9181

Style	Diameter	Order Code	Price Each			
			1+	5+	10+	25+
Straight	2.6	113-9179	862.00	720.00	670.00	544.00
Inverter	—	113-9181	2,084.00	—	—	—

**EL (Electro-Luminescent) Sheet Kits**

**Electro Luminescent Sheet kits**

50 x 60, 130 x 120, A5 (210 x 148.5), A4 (210 x 297), A3 (434 x 311)

**PACEL**



N.B. The colours shown are before the ac voltage is applied therefore the colours will vary from those illustrated.

The Pacel EL Sheet Kit has a sheet of Electro Luminescent sheet together with copper contacts, conductive adhesive tape, insulating tape and instructions. When an ac voltage is applied, using an inverter, available separately, the electro luminescent material emits light. The sheets are ultra-thin, very flexible, lightweight and vibration/impact resistant. They may be cut into any desired shape providing each shape has a terminal strip on one of the sides. The number of contact sets supplied with each size sheet are:

Sheet size:	50 x 60	130 x 120	A5	A4	A3
No. of Contact Sets:	1	4	6	10	20

Additional contact sets are also available.

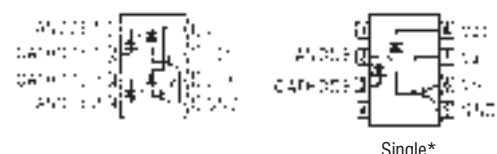
Brightness: Typically 70-100Cd/m<sup>2</sup> when driven at 115V, 400-600Hz

Colour	Order Code	1+	5+	10+	25+	+
<b>50 x 60</b>						
High Brightness						
Blue-Green	141-896	703.00	648.00	610.00	589.00	—
White	141-902	703.00	648.00	610.00	591.00	—
Blue	141-914	703.00	648.00	610.00	584.00	—
Yellow-Green	141-926	703.00	648.00	610.00	588.00	—
Orange	141-938	703.00	648.00	610.00	591.00	—
Red	141-940	703.00	648.00	610.00	591.00	—
<b>130 x 120</b>						
High Brightness						
Blue-Green	141-951	1,791.00	1,778.00	—	—	—
White	141-963	1,791.00	1,777.00	—	—	—
Blue	141-975	1,791.00	1,778.00	—	—	—
Yellow-Green	141-987	1,686.00	1,654.00	—	—	—
Orange	141-999	1,686.00	1,634.00	1,561.00	1,544.00	—
Red	142-001	1,686.00	1,674.00	—	—	—
<b>A5 (210 x 148.5)</b>						
High Brightness						
Blue-Green	142-037	2,158.00	2,167.00	2,127.00	—	—
White	142-049	2,158.00	2,167.00	2,127.00	—	—
Blue	142-050	2,158.00	2,167.00	2,093.00	—	—
Yellow-Green	142-062	2,158.00	2,167.00	2,114.00	—	—
Orange	142-074	2,158.00	2,039.00	1,922.00	1,771.00	—
Red	142-086	2,293.00	2,167.00	2,127.00	—	—
<b>A4 (210 x 297)</b>						
High Brightness						
Blue-Green	142-098	3,651.00	—	—	—	—
White	142-104	3,651.00	—	—	—	—
Blue	142-116	3,650.00	—	—	—	—
Orange	142-130	3,262.00	3,009.00	2,924.00	—	—
Red	142-141	3,432.00	—	—	—	—
<b>A3 (311 x 434)</b>						
White	393-4640	6,149.00	5,905.00	—	—	—
Green	393-4652	5,787.00	5,558.00	—	—	—
Blue	393-4664	6,149.00	5,905.00	—	—	—
<b>Contact Sets for EL Sheets</b>						
Spare Con Sets(10)	142-153	531.00	—	—	—	—

**Agilent Technologies Optocouplers**

**Transistor Output**

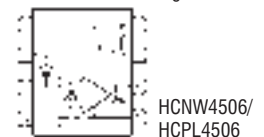
Single and Dual, High Speed 1MBd Data-Rate



Single\*

All types are UL recognised.

The HCNW135 is for use in TTL/CMOS, TTL/LSTTL or wide bandwidth analogue applications. The HCNW136 and SFH6136 are designed for high speed TTL/TTL applications.



HCNW4506/ HCPL4506

6N Series  
HCPL Series  
Standard width body, 0.3" row spacing

Dual  
HCNW135/6,  
HCPL4506 and  
HCNW4502/3/6  
Wide body,  
0.4" row spacing

**Note:**  
\*HCNW4502/3, HCPL4502/3, and HCPL4504 are similar to 6N136, but have pin 7 unconnected, giving improved ESD protection.

Output voltage V <sub>O</sub>	15V max HCPL-4503-000E/6HCPL-4503-000E/6	15000V/μs
Supply voltage V <sub>CC</sub>	15V max HCPL-4534-000Eand Other types	30000V/μs@ V <sub>CM</sub> = 1500V 10001000V/μs

Channels	Isolation Test Voltage ac rms	Curr. Trsfr. Ratio @ I <sub>F</sub> = 16mA	Switching Time (μ) typ.	Mftrs. List No.	Order Code
Single	5000	19%	t <sub>PHL</sub> 0.2	HCNW-136-000E**	999-4742
Single	2500	19%	t <sub>PLH</sub> 0.35	HCPL-4504-300E**	108-4998
Single	5000	44%*	0.2	HCNW4506-300E**	108-4993
Single	3750	44%*	0.4	HCPL-4506-300E**	108-5002
Single	2500	7%	0.4	6N135-000E	999-4750
Single	2500	7%	0.5	6N135-300E	108-4985
Single	2500	19%	0.2	6N136-000E	999-4769
Single	2500	7%	0.2	6N136-300E	108-4986
Single	2500	19%	0.2	HCNW136-000E	108-4988
Single	2500	15%	0.2	HCNW136-300E	108-4989
Single	2500	19%	0.2	HCPL-4502-000E	999-4777
Single	2500	15%	0.2	HCNW4502-300E	108-4990
Single	2500	19%	0.2	HCPL-4502-300E	108-4996
Single	2500	15%	0.2	HCPL-4503-000E	999-4785
Single	2500	15%	0.2	HCNW4503-000E	108-4991
Single	2500	25%	0.2	HCNW4503-300E	108-4992
Single	5000	19%	0.2	HCNW-4503-000E**	999-5218
Single	2500	19%	0.2	HCPL-4503-300E**	108-4997
Dual	2500	15%	0.2	HCPL-4534-000E	912-9979
Dual	2500	7%	0.2	HCPL-2530-000E	999-4793
Dual	2500	7%	0.2	HCPL-2530-300E	108-4994
Dual	2500	19%	0.2	HCPL-2531-300E	108-4995
Dual	2500	19%	0.2	HCPL-2531-000E	999-4807

\* I<sub>F</sub> = 10mA, \*\* = Wide body packages, VDE 0884, BS415 approved

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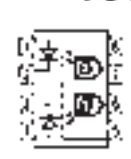
Mftrs. List No.	Order Code	1+	10+	100+	500+	+
HCNW-136-000E	999-4742	134.00	102.00	83.00	69.00	—
HCPL-4504-300E	108-4998	144.00	100.00	92.00	82.00	—
HCNW4506-300E	108-4993	206.00	144.00	131.00	116.00	—
HCPL-4506-300E	108-5002	144.00	100.00	92.00	82.00	—
6N135-000E	999-4750	94.00	75.00	59.00	41.00	—
6N135-300E	108-4985	79.00	55.00	50.00	44.00	—
6N136-000E	999-4769	94.00	75.00	59.00	41.00	—
6N136-300E	108-4986	79.00	55.00	50.00	44.00	—
HCNW136-000E	108-4988	143.00	99.00	90.00	81.00	—
HCNW136-300E	108-4989	145.00	102.00	93.00	82.00	—
HCPL-4502-000E	999-4777	98.00	78.00	62.00	43.00	—
HCNW4502-300E	108-4990	145.00	102.00	93.00	82.00	—
HCPL-4502-300E	108-4996	81.00	56.00	51.00	45.00	—
HCPL-4503-000E	999-4785	109.00	84.00	68.00	57.00	—
HCNW4503-000E	108-4991	182.00	128.00	116.00	103.00	—
HCNW4503-300E	108-4992	186.00	130.00	118.00	105.00	—
HCNW-4503-000E	999-5218	140.00	110.00	89.00	70.00	—
HCPL-4503-300E	108-4997	110.00	77.00	69.00	62.00	—
HCPL-4534-000E	912-9979	201.00	158.00	126.00	105.00	—
HCPL-2530-000E	999-4793	169.00	129.00	104.00	82.00	—
HCPL-2530-300E	108-4994	166.00	116.00	106.00	94.00	—
HCPL-2531-300E	108-4995	173.00	121.00	111.00	98.00	—
HCPL-2531-000E	999-4807	177.00	136.00	110.00	86.00	—

**Schmitt Trigger Output – Low Current,**

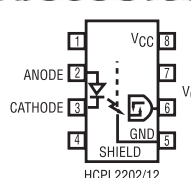
High Speed 5MBd Data-Rate



HCP2200/01/11/19  
HCNW2201/11 (Wide)  
(Body versions)



HCPL2231  
HCPL2232



Supply voltage 4.5-20V

**Note:** HCPL2201/11 and HCNW2201/11 have pin 6 unconnected (no voltage enable). The HCNW201/11 are housed in wide body packages approved to VDE 0884 and BS415.