

D-LED Linear LED Arrays in Slimline IP54 Housing.

Product Range Overview

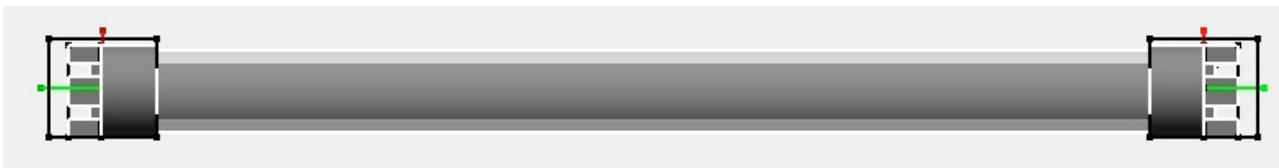
A range of Linear Light fittings with an efficiency of 74 lumens per watt (typical) – three standard lengths (500,1000 and 1500mm) and 4 types of LED array

Each fitting has ON BOARD CURRENT CONTROL – this allows the use of larger, more efficient constant voltage power supplies to drive a number of lights.

As well as advanced electronic management – they incorporate excellent thermal management – each board is printed onto a patented aluminium/dielectric substrate and is pre-mounted onto a custom made heat sink. The fittings are finished with either clear or frosted high impact diffuser and moulded end caps, gasket and cable gland offering IP54 protection.

Suggested applications: backlit signage, cold stores, car parks, engine rooms, HGV trailers, caravans and campers, marine, vending machines.

Top View



Product images – unlit / lit



DATA

All D-LED fittings require a separate constant 24 VDC supply

Table 1

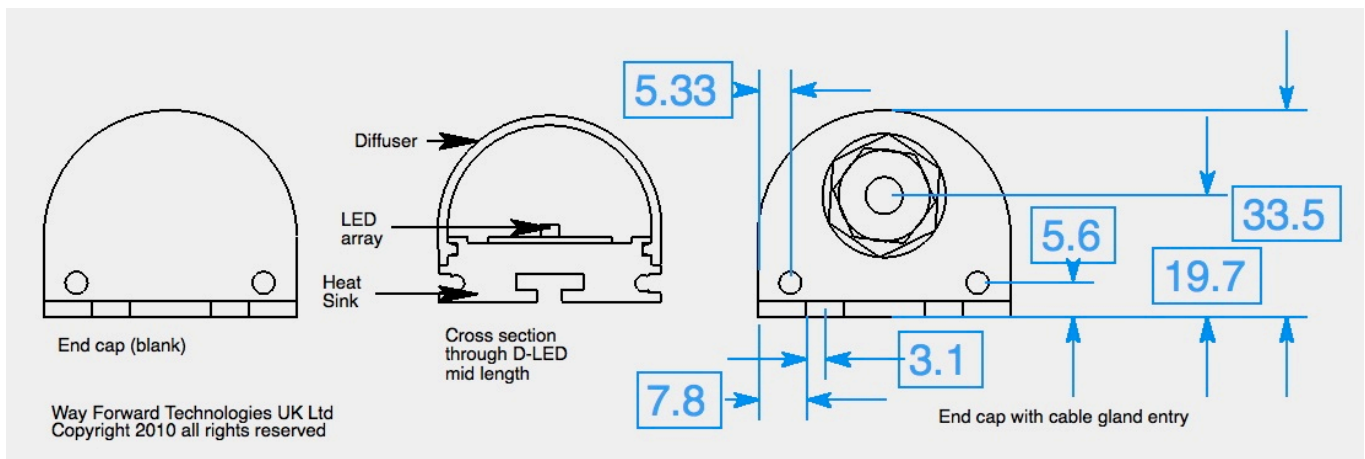
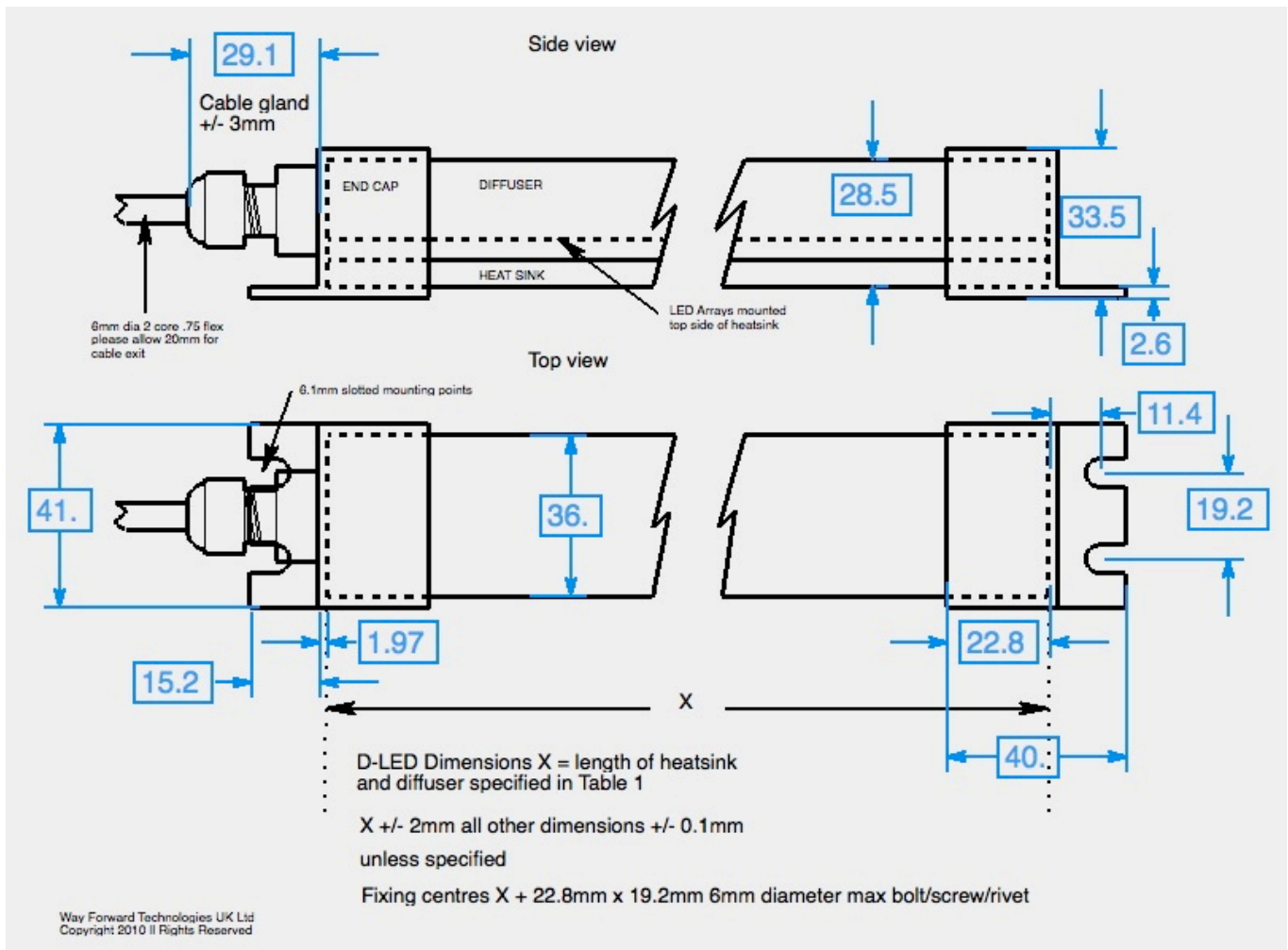
Manufacturers	Number of Diodes	Power	Voltage	Current draw	Light output	LED arrays inside – see table 2	Fixing Centres
part number	in fitting	Watts	VDC	mA	Lumen		mm
500mm							
DL02-050/14/1/WN	14	2.4	24	100	180	100L141002 4WC X 1	522.8
DL02-050/28/1/WN	28	4.8	24	200	360	100L282002 4WC X 1	522.8
DL02-050/42/1/WN	42	7.8	24	325	540	100L423302 4WC X 1	522.8
DL02-050/84/1/WN	84	14.4	24	600	1090	100L846602 4WC X 1	522.8
1000mm							
DL02-100/14/2/WN	28	4.8	24	200	360	100L141002 4WC X 2	1022.8
DL02-100/28/2/WN	56	9.6	24	400	720	100L282002 4WC X 2	1022.8
DL02-100/42/2/WN	84	15.6	24	650	1080	100L423302 4WC X 2	1022.8
DL02-100/84/2/WN	168	28.8	24	1200	2180	100L846602 4WC X 2	1022.8
1500mm							
DL02-150/14/3/WN	42	7.2	24	300	540	100L141002 4WC X 3	1522.8
DL02-150/28/3/WN	84	14.4	24	600	1080	100L282002 4WC X 3	1522.8
DL02-150/42/3/WN	126	23.4	24	975	1620	100L423302 4WC X 3	1522.8
DL02-150/84/3/WN	252	43.2	24	1800	3270	100L846602 4WC X 3	1522.8
DL02-KIT	0	n/a	n/a	n/a	n/a		*

- The DL02-KIT is a heat sink and clear diffuser measuring 1500mm in length, these can be cut to any required shorter length and populated with any of our linear LED arrays it comes with gaskets, end caps and a cable gland
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Note: the high output 84, 168 and 252 diode fittings cannot be used in ambient temperatures without an additional clip-on heat sink and have been designed for use in environments with temperatures of less than 4 degrees centigrade.

Standard diffuser fittings are clear – frosted available on request.

Technical and dimensional drawings



Below please find table 2 detailing data for the various LED arrays pre-assembled into the D-LED:

Physical properties

Part Number	Description	Color/CCT/CRI	Dimensions	Max Linked Units
100L8466024WC	84 Diode Linear Array	White/5700K/Ra66	483mm x 20mm x 6mm	3
100L4233024WC	42 Diode Linear Array	White/5700K/Ra66	483mm x 20mm x 6mm	6
100L2820024WC	28 Diode Linear Array	White/5700K/Ra66	483mm x 13mm x 6mm	8
100L1410024WC	14 Diode Linear Array	White/5700K/Ra66	483mm x 13mm x 6mm	12

Electrical properties

Part Number	Input Voltage (V)			Current Draw (A)			Power Consumption (W)	
	Min	Nominal	Max	Min	Nominal	Max	Nominal	Max
100L8466024WC	23.5	24.0	26.0	0.570	0.600	0.630	14.4	16.4
100L4233024WC	23.5	24.0	26.0	0.285	0.300	0.315	7.2	8.2
100L2820024WC	23.5	24.0	26.0	0.190	0.200	0.210	4.8	5.5
100L1410024WC	23.5	24.0	26.0	0.095	0.100	0.105	2.4	2.7

Optical and Thermal properties

Part Number	Luminous Output* (lm)		Efficacy (lm/W)		Heat Sink Dissipation
	Min	Typical	Min	Typical	Thermal resistance °C/W
100L8466024WC	840	1080	53	75	2.08
100L4233024WC	420	540	53	75	4.17
100L2820024WC	280	360	53	75	6.25
100L1410024WC	140	180	53	75	12.5

* Luminous output specified at 25degC, 1 minute after power applied on standard heatsink

Recommended power supplies – Phoenix Contact STEP or TRIOS – please calculate total current draw of all D-LEDs to be placed in a parallel circuit and chose from the following list:

RS Number	Phoenix Contact Number	Product Description	Current rating
540-735	2868635	STEP-PS-1AC/24DC/0.75	0.75
540-757	2868648	STEP-PS-1AC/24DC/1.75	1.75
540-731	2858651	STEP-PS-1AC/24DC/2.5	2.5
540-729	2868664	STEP-PS-1AC/24DC/4.2	4.2
607-7618	2866268	TRIO 1PHASE 2.5A	2.5
134-633	2866310	TRIO 1PHASE 5A	5
607-7674	2866323	TRIO 1PHASE 10A	10
607-7630	2866381	TRIO 1PHASE 20A	20

All D-LED completed fittings are IP54 rated.

Wiring instructions:

All D-LEDs come supplied with 2 core 0.75 mm² flex fly lead (see datasheet for RS product code 491-908 for further specifications) Black outer sheathing.

Cores are coloured BROWN and BLUE

Designation:

BROWN +24 VDC (26 max)

BLUE 0 VDC (GROUND)

If installing a multiple of D-LED – for instance in a cold store, it is recommended that fewer larger power supplies are used as this increases the overall efficiency of the system. A spine cable or looped feed of sufficient CSA conductor should be used to prevent overheating and voltage drops to ensure the LED Arrays stay within their voltage ranges as stated in Table 2 above.

IMPORTANT – DO NOT REVERSE POLARITY AS THIS MAY DAMAGE THE LED ARRAYS AND WILL INVALIDATE ANY WARRANTY

All D-LED's conform to the requirements as specified under the Low Voltage Directive (LVD), 2006/95/EC

We reserve the right to make changes without further notice to this product to improve reliability, function or design



D-LEDRev3 Data Sheet 14-01-2010