JKL® COMPONENTS CORPORATION

APPLICATION SHEET

LED FLEX RIBBON

ZFS-SERIES

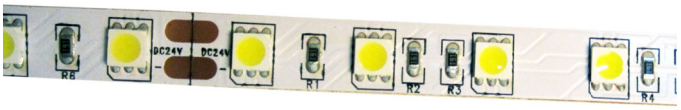


JKL's ZFS Series LED Flex ribbon is offered in 12 and 24V DC. The varieties available include different colors and brightnes levels. LED ribbon is suitable for numerous applications due to the low profile, flexibility and ease of use. Each ribbon comes in a roll and inculdes cut lines that permit the user to acheve the desired length. The peel and stick tape is strong and offers good built-in adhesion for most uses.

Whether your application requires a short 2 inch section or a stretch of 16 feet, the ribbon is powered from the same (12 or 24V) power supply. Accessories including connectors and dimmers offer additional customization.



HIGH DENSITY (Tight Pitch)



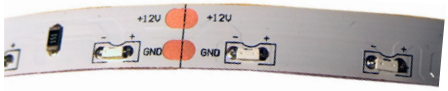
HIGH INTENSITY



ADJUSTABLE RGB COLOR

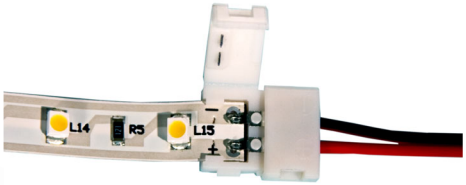


STANDARD INTENSITY (Economy)

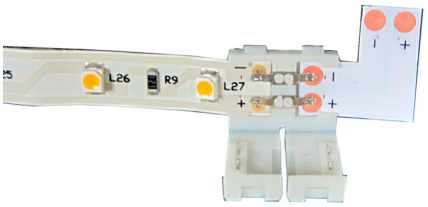


SIDEVIEW

SAMPLE CONNECTORS



ZFS-CH140-I connector with LED flex



ZFS-CH0-8J & ZFS-CNL-8J connectors with LED flex



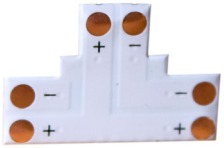
ZCH-170-RGB-J



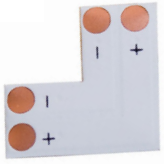
ZDM-01 - LED MANUAL DIMMER



ZFS-CNX-8J



ZFS-CNT-8J



ZFS-CNL-8J

SELECT PRODUCTS

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ISO9001 Certified

Quality Lighting Solutions

JKL® COMPONENTS CORPORATION

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Since 1972

LED FLEX RIBBON - 12VDC

ZFS- SERIES

12VDC Part Series	Feature	Wattage Per Reel	Reel Width	Reel Length	Max Length in Series	Color Options	Connector Options
ZFS-8500	Standard Intensity Economy Flex	21.6 W	.314" (8mm)	16.4 ft. (5 Meter)	32.8 ft. (10 Meter)	CW, NW, WW, Yellow	ZFS-CH140-8I - *Input, 5" lead* ZFS-CH0-8J - *Joiner, no lead* ZFS-CH138-8K - *Joiner, 5" lead* ZFS-CNL-8J - *"L" connection* ZFS-CNT-8J - *"T" connection* ZFS-CNX-8J - *"X" connection*
ZFS-85000HD	Max Intesity High Density	52.8 W	.314" (8mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW, NW, WW, Red, Blue	ZCH-143HD-8I - *Input, 5" lead* ZFS-CHXB-8I - *Input, no lead* ZCH-137HD-8J - *Joiner, 5" lead* ZFS-CHBB-8J - *Joiner, no lead*
ZFS-105000-12	High Intensity	30 W	.393" (10mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW, NW, WW	
ZFS-105000HD-12	High Density (Max Intensity)	60 W	.393" (10mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW, NW, WW	
ZFS-155000-CW	Double LED	57 W	.314" (8mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW	
ZFS-85000SV	Sideview	24 W	.314" (8mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW, NW	
ZFS-55000-CW	Narrow Width	65 W	.196" (5mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW	
ZFS-10504-RGB	Adjustable Color RGB	36 W	.393" (10mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	Adjustable RGB	ZCH-170-RGB-J - *Joiner, 6" lead* ZFS-CHBB-10RGBJ - *Joiner, no lead*

LED FLEX RIBBON - 24VDC

12VDC Part Series	Feature	Wattage Per Reel	Reel Width	Reel Length	Max Length in Series	Color Options	Connector Options
ZFS-84000	High Density	34.6 W	.314" (8mm)	13 ft. (4 Meter)	26 ft. (8 Meter)	CW, NW, WW	ZCH-143HD-8I - *Input, 5" lead* ZFS-CHXB-8I - *Input, no lead* ZCH-137HD-8J - *Joiner, 5" lead* ZFS-CHBB-8J - *Joiner, no lead*
ZFS-245000	High Intensity	67 W	.393" (10mm)	16.4 ft. (5 Meter)	26 ft. (8 Meter)	CW, NW, WW	ZFS-CH144-12I - *Input, 5" lead* ZFS-CH0-12J - *Joiner, no lead*
ZFS-105000-24	High Intensity	60 W	.393" (10mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW, NW, WW	
ZFS-105000HD-24	High Density (Max Intensity)	90 W	.393" (10mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW, NW, WW	
ZFS-155000-24CW	Double LED	82 W	.590" (15mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	CW	
ZFS-105000-24RGB	Adjustable Color RGB	72 W	.393" (10mm)	16.4 ft. (5 Meter)	16.4 ft. (5 Meter)	Adjustable RGB	ZCH-170-RGB-J - *Joiner, 6" lead* ZCH-CH0-RGB10J - *Joiner, no lead*

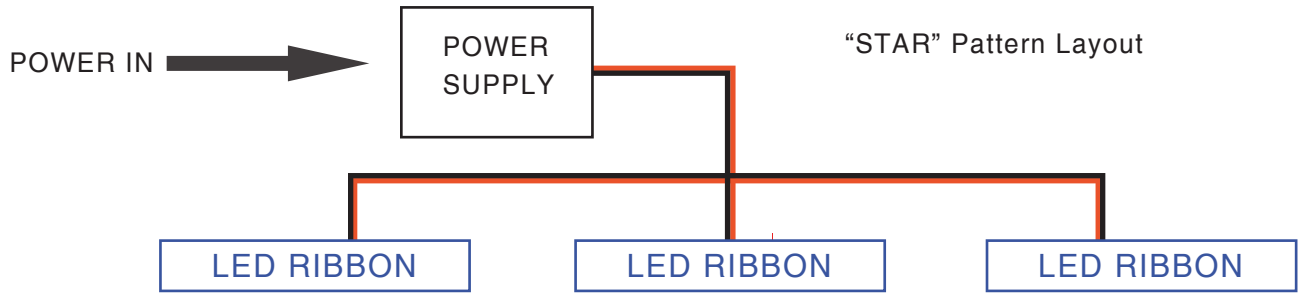
1 METER = 3.25 FEET CW = Cool White, NW = Warm White, WW = Warm White

INSTALLATION

The ZFS LED flex ribbon has adhesive backing and a paper cover strip that can be peeled away for mounting to hard surfaces. Insulated staples can also be used to mount the LED flex ribbon with care. If one LED is damaged, the segment may not light but the rest of the ribbon will light, unless the main trace is damaged. If this is the case, the damaged section can be cut out and the two pieces joined together using one of the joiner connectors.

All of the flex ribbons are made up of segments containing LEDs and a current controlling element. Marks at the beginning and end of each segment indicate where the ribbon can be cut. The flex ribbon can be cut with a pair of scissors or wire cutters at the marks. Input cables and joiner cables can then be used to apply power, turn corners, change directions or create gaps with a jumper where no light is desired. See chart for the appropriate segment lengths, cables and connectors.

The maximum recommended continuous length of flex ribbon i WW listed by part number iand considers the current carrying capacity of the specific LED flex. In addition to the heat generated by the LEDs (which must be dissipated via conduction through the flex ribbon), the flex ribbons with higher current levels will generate added heat, which can affect the lumen output. If one extends beyond the recommended length limit the voltage will be reduced, causing reduced brightness.



If a high wattage power supply is used, you can parallel connect LED lines, taking care not to exceed the maximum series length indicated in the flex ribbon chart on page 2.

POWER INPUT

Once the type of flex ribbon has been selected and the total amount determined then the power supply size can be established. This is determined by adding up all the number of reels of the flex ribbon and any partial reels used. The chart on page 2 gives information on the amount of power consumed by one reel of each style of LED Flex Ribbon. Multiply the number of reels & partial reels by the power for one reel together to establish the power required.Power supplies should have a rating of 15-20% more than the specifed wattage for safe, cool operation.

OUTPUT DIMMING

Optimum dimming is accomplished with a Pulse Width Modulating (PWM) dimmer, such as the ZDM-01, which will maintain operating voltage to the ZFS ribbon. The dimmer varies the duty-cycle to the LED which permits easy changes to the light output.