



ESSENTIALS LALO- ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed



5 YEAR
WARRANTY

Declare.



- Shallow, low-profile fixture for surface or recessed installations
- Features high quality LED strips encapsulated in polyurethane in a rigid extrusion providing a robust fixture
- Encapsulation available in clear or translucent
- Suitable for indoor and outdoor locations (IK10)
- Three mounting options
- Features painted end caps to match extrusion finish or clear end caps to achieve seamless appearance of long runs
- Suitable for installation in the storage area of a clothes closet when specified with LEDs at 4.0 watts or less per foot per NEC regulations
- Optional plastic louver accessory available in white or black for added glare control

INFORMATION REQUIRED FOR LIGHTING SCHEDULE

1 PRODUCT	2 WATTS/ FT	3 CCT	4 RATED	5 EFFICIENCY	6 LENS
LL3SW			ENC	STD	

ADDITIONAL INFORMATION REQUIRED TO ORDER

7 WIRE INPUT/OUTPUT	8 CONNECTOR / WIRE IN	9 CONNECTOR / WIRE OUT	10 INPUT END CAP	11 OUTPUT END CAP	12 WIRE COLOR	13 WIRE TYPE	14 MOUNTING	15 FINISH	16 LENGTH (IN)	17 EXACT/ OPTIMAL

Sample Part Number: LL3SW-5.0-30-ENC-STD-TL-P1-BW-BW-STD-STD-BK-CL2-SST-ST-48"-E

1 PRODUCT LL3SW See following pages for compatible power supplies.	2 WATTS/FT 1.5 1.5W/ft 3.0 3.0W/ft 4.0 4.0W/ft 5.0 5.0W/ft 1.5HE 1.5W/ft HE 3.0HE 3.0W/ft HE 6.0HE 6.0W/ft HE	3 CCT 24 2400K 27 2700K 30 3000K 35 3500K 40 4000K	4 RATED ENC IP67	5 EFFICIENCY STD Standard	6 LENS CL Clear TL Translucent For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance section on following pages. For optional snap-on louver ordering, see External Louver Accessory section on following pages
7 WIRE INPUT/OUTPUT SINGLE (Input only) S1 End Feed S2 Bottom Feed For continuous mounting, consider bottom feed	8 CONNECTOR/WIRE IN BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24" BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48)	9 CONNECTOR/WIRE OUT CLS Closed End (No feed)			
10 INPUT END CAP STD Standard CL Clear STD - End cap matches fixture finish chosen Select CL for continuous runs	11 OUTPUT END CAP STD Standard CL Clear STD - End cap matches fixture finish chosen Select CL for continuous runs	12 WIRE COLOR WH White BK Black N/A For Barrel	13 WIRE TYPE CL2 Class 2 CL2P Plenum Rated N/A For Barrel CL2P only available with bare wire leads (BW)		
14 MOUNTING SST Stainless Steel M4 Low Profile Magnet MG Magnet	15 FINISH ST Satin BK Black CU Custom	16 LENGTH (IN) Minimum length is 12", maximum length is 98" not including end caps. Contact us for lengths under 12".	17 EXACT/OPTIMAL O Optimal Illumination E Exact Specified Length Exact fixtures match the exact length you specify, but they may have dim spots at the ends. Optimal fixtures are slightly shorter than the length specified, but provide full illumination from end to end. See Exact/Optimal Fixture Length charts.		

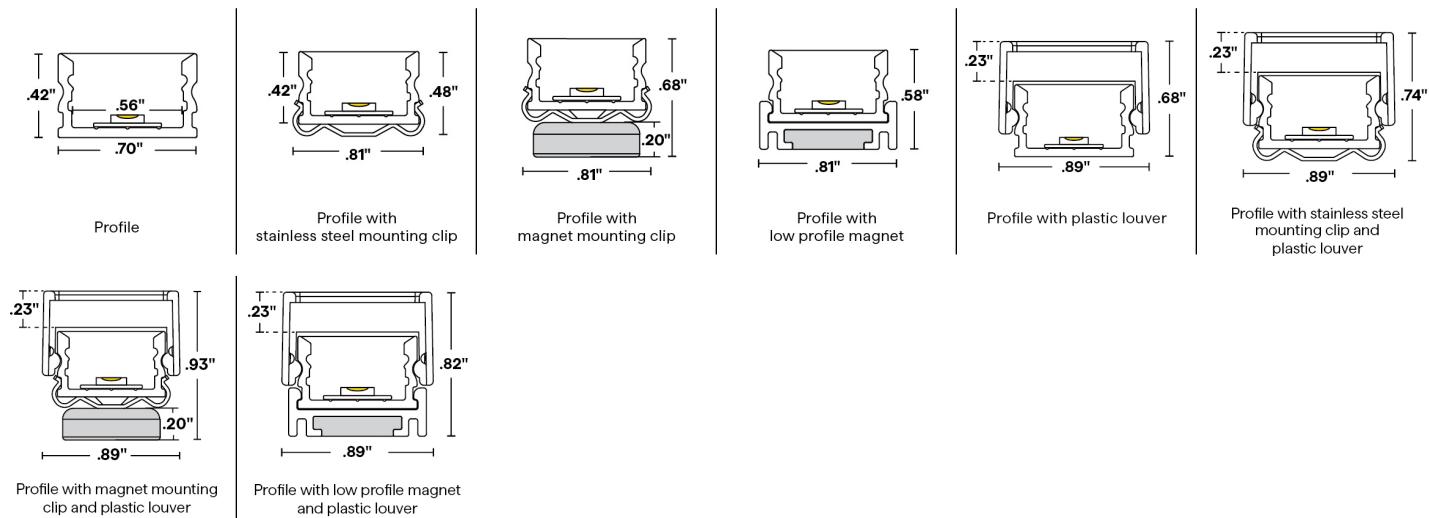
5 year warranty | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance | Compatible for use with QTL power supplies | Florida Fish and Wildlife Conservation Commission (FWC) rated Strips: Red and Amber | IK10 rated



ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

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1 PRODUCT - DIMENSIONS



2 DELIVERED LUMENS

[Calculated L70 = 40000 hrs]
Tested with LL3SW-**-30-ENC-STD

	1.5 W/FT	1.5HE W/FT	3.0 W/FT	3.0HE W/FT	4.0 W/FT	5.0 W/FT	6.0HE W/FT					
	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI
CL	101	98	140	98	177	98	257	98	220	98	268	98
TL	58	98	97	98	101	98	178	98	125	98	152	98

TEMPERATURE RATINGS

	1.5 W/FT		1.5 HE W/FT		3.0 W/FT		3.0 HE W/FT		4.0 W/FT		5.0 W/FT		6.0 HE W/FT	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Ambient Operating Temp - Surface	-4°F	130°F	-4°F	135°F	-4°F	120°F	-4°F	125°F	-4°F	115°F	-4°F	105°F	-4°F	105°F

6 DIODE VISIBILITY



ENC/CL - Clear encapsulation

ENC/TL - Translucent encapsulation

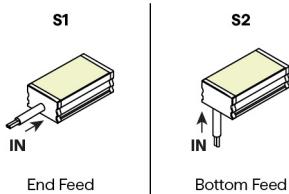


ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

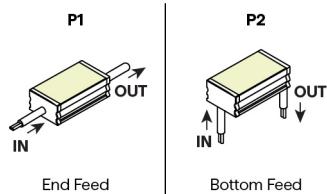
24VDC Linear Fixtures - Surface & Recessed

7 WIRE INPUT/OUTPUT

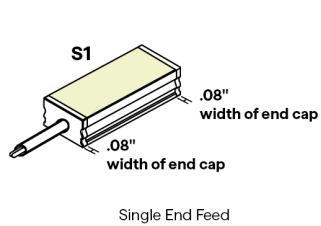
SINGLE (Input only)



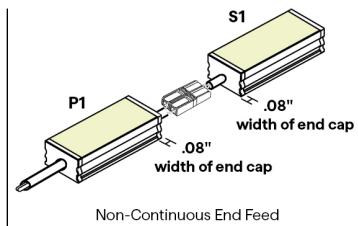
PASS THROUGH (Input/Output)



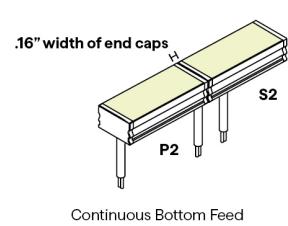
CONFIGURATION OPTIONS



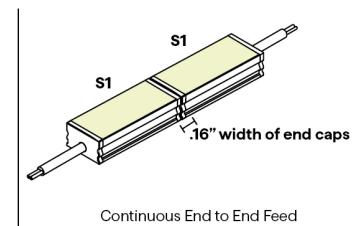
Single End Feed



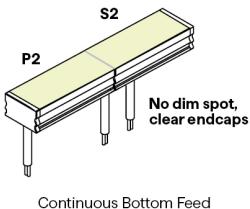
Non-Continuous End Feed



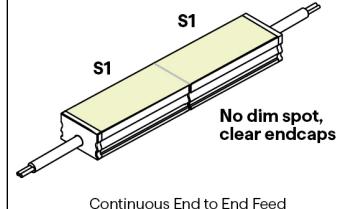
Continuous Bottom Feed



Continuous End to End Feed



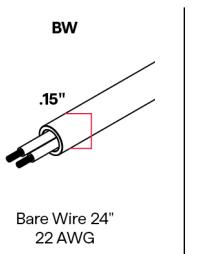
Continuous Bottom Feed



Continuous End to End Feed

8 / 9 CONNECTOR/WIRE – IN/OUT

Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out



Bare Wire 24"
22 AWG



Barrel 6"- WET | 22 AWG



6" or 24" Overall
Wire Connector | 22 AWG
IP67 Rated, UL Listed

10 / 11 END CAP – IN/OUT

STD



End cap matches fixture
finish chosen

CL



Clear end cap

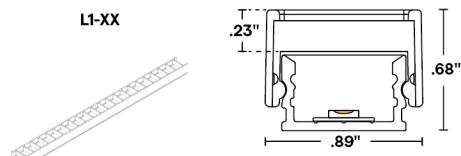
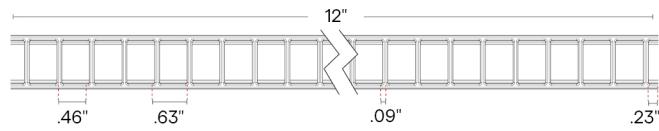


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EXTERNAL LOUVER ACCESSORY

PLASTIC



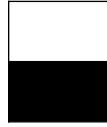
Lumen Multiplier
WH BK



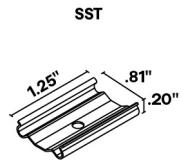
0.71 0.48

Profile with plastic louver
To order separately use
LALO-L1-FLAT-KIT-WH or
LALO-L1-FLAT-KIT-BK

12 WIRE COLOR



White
Black



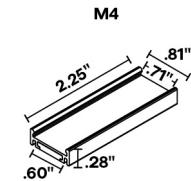
Stainless Steel Clip

2 clips provided for 4' or less; 4
clips provided for greater than
4'

To order separately use SST-01

Each clip comes with a #4 x
5/8" Flat Head screw

14 MOUNTING

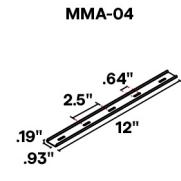


M4

Low Profile Magnet

One M4 provided per foot.

To order separately use
MG-04

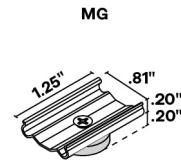


MMA-04

Magnet Mount
Accessory for M4
Sold separately, to order use
MMA-04

Each bracket comes with 2 #6
x 5/8" Flat Head SS

Required when mounting to a
non-magnetic surface



MG

Magnet Clip

One MG provided per foot

To order separately use MG-01

15 FINISH



Satin

Black

Custom color
available

MMA-01



Magnet Mount
Accessory of MG-01

Sold separately, to order use
MMA-01

Each bracket comes with 2 #6
x 5/8" Flat Head SS

Required when mounting to a
non-magnetic surface



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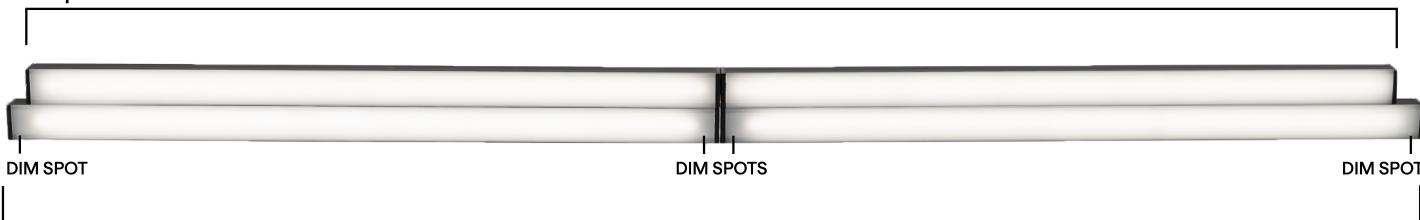
17 EXACT/OPTIMAL FIXTURE LENGTH

[E/O Length Calculator →](#)

[E/O Explained →](#)

Exact fixtures are the exact length specified. Optimal fixtures' length is rounded down based on LED cut points to allow the fixture to be illuminated end to end. For runs with multiple fixtures that need to fill a specific length, it's recommended to order all optimal fixtures with an exact fixture at the end of the run.

Optimal Fixtures



Exact Fixtures

SW ENC LENGTHS BY INCH

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures are the length specified. Optimal fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is +0 - 1/8". Consult factory for lengths under 12".

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	.5"
13"	.5"
14"	.5"
15"	.5"
16"	.5"
17"	.5"
18"	.5"
19"	.5"
20"	.5"
21"	.5"
22"	.5"
23"	.5"
24"	.5"
36"	.5"
48"	.5"
60"	.5"
72"	.5"
84"	.5"
96"	.5"

OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"	11.41"		11.66"	
13"	12.41"		12.66"	
14"	13.41"		13.66"	
15"	14.41"		14.66"	
16"	15.41"		15.66"	
17"	16.41"		16.66"	
18"	17.41"		17.66"	
19"	18.41"		18.66"	
20"	19.41"		19.66"	
21"	20.41"		20.66"	
22"	21.41"		21.66"	
23"	22.41"		22.66"	
24"	23.41"		23.66"	
36"	35.41"		35.66"	
48"	47.41"		47.66"	
60"	59.41"		59.66"	
72"	71.41"		71.66"	
84"	83.41"		83.66"	
96"	95.41"		95.66"	



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SW-HE ENC LENGTHS BY INCH

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is $\pm 0 - 1/8"$. Consult factory for lengths under 12".

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

OPTIMAL LENGTH: highlighted rows are closest to requested nominal length

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"	10.41"		10.66"	
13"	12.41"		12.66"	
14"	12.41"		12.66"	
15"	14.41"		14.66"	
16"	14.41"		14.66"	
17"	16.41"		16.66"	
18"	16.41"		16.66"	
19"	18.41"		18.66"	
20"	18.41"		18.66"	
21"	20.41"		20.66"	
22"	20.41"		20.66"	
23"	22.41"		22.66"	
24"	22.41"		22.66"	
36"	34.41"		34.66"	
48"	46.41"		46.66"	
60"	58.41"		58.66"	
72"	70.41"		70.66"	
84"	82.41"		82.66"	
96"	94.41"		94.66"	

COMPATIBLE POWER SUPPLIES

See power supplies cut sheets for more information. Data subject to change, all data has $\pm 5\%$ tolerance.

DIM TO LEVEL	INDOOR		OUTDOOR	
	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+
Dim to Black	Q6M-DC+CAP QTM-DC+CAP iQ-PH iQ-PH+QD1	Q6M-DC+CAP QTM-DC+CAP iQ-PH iQ-PH+QD1	QOM-DC+CAP QOM-PH	QOM-DC+CAP QOM-PH
0.1%	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+0-10V-AWN QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V QTM-eLED+0-10V-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-BOWTIE+DIMMER QZ-DMX QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+0-10V-AWN QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V QTM-eLED+0-10V-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-BOWTIE+DIMMER QZ-DMX QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DMX Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QOM-eLED+DALI-DT6 QOM-eLED+PS-DALI-DT6 QZ-DMX QZ-PH/0-10V	Q-SET-QZ-DMX Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QOM-eLED+DALI-DT6 QOM-eLED+PS-DALI-DT6 QZ-DMX QZ-PH/0-10V
1%	QTM-eLED(E) QZ-DALI-DT6	QTM-eLED(E) QZ-DALI-DT6	Q-SET+QZ-DALI-DT6	Q-SET+QZ-DALI-DT6
10%	Non-Dim Power Supply with SW App Dongle	Non-Dim Power Supply with SW App Dongle	Q-HEX-mini-DC Q-SET-mLED	



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DIMMING PROTOCOL	INDOOR		OUTDOOR	
	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+
Non-Dim	QT-CAB-eLED-ND QTM-eLED-ND QZ-ND	QT-CAB-eLED-ND QTM-eLED-ND QZ-ND	Q-SET-QZ-ND Q-SET-eLED-ND QOM-eLED-ND QZ-ND iQ-ND-50-65	Q-SET-QZ-ND Q-SET-eLED-ND QOM-eLED-ND QZ-ND iQ-ND-50-65
Phase	Q6M-DC+CAP QT-CAB-QZ-PH/0-10V QTM-DC+CAP QTM-eLED(E) QZ-BOWTIE+DIMMER QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP iQ-PH iQ-PH+QD1	Q6M-DC+CAP QT-CAB-QZ-PH/0-10V QTM-DC+CAP QTM-eLED(E) QZ-BOWTIE+DIMMER QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP iQ-PH iQ-PH+QD1	Q-HEX-mini-DC Q-SET-QZ-PH/0-10V Q-SET-mLED QOM-DC+CAP QOM-PH QZ-PH/0-10V	Q-SET-QZ-PH/0-10V QOM-DC+CAP QOM-PH QZ-PH/0-10V
0-10V	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+0-10V-AWN QTM-eLED+0-10V QTM-eLED+0-10V-AWN QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+0-10V-AWN QTM-eLED+0-10V QTM-eLED+0-10V-AWN QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-PH/0-10V	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-PH/0-10V
Lutron Athena	QT-CAB-eLED+0-10V-AWN QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V-AWN QTM-eLED+DALI-DT6-AWN	QT-CAB-eLED+0-10V-AWN QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V-AWN QTM-eLED+DALI-DT6-AWN		
ECO System	QTM-eLED(E)	QTM-eLED(E)		
DMX	QZ-DMX	QZ-DMX	Q-SET-QZ-DMX QZ-DMX	Q-SET-QZ-DMX QZ-DMX
DALI-2: DT6	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-DALI-DT6	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-DALI-DT6	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6
SCENE App Dimmed	Non-Dim Power Supply with SW App Dongle	Non-Dim Power Supply with SW App Dongle		

COMPATIBLE MOUNTING ACCESSORIES

HINGE - HMB-M	HINGE - HMB-L	HINGE - HMB-XL	Q-PIVOT	Q-ANGLE	QUOVA-STANDARD	NJ-MEDIUM	QUOVA-STANDARD	SD-L-MEDIUM
1.41" .71"	1.46" 1.29"	1.46" 4"	.75" 1.03"	1.38" 2.23"	QUOVA Knife Edge	J Mounting Bracket	QUOVA Knife Edge	L Mounting Bracket

Adjustable mounting bracket - Medium

Adjustable mounting bracket - Large

Adjustable mounting bracket - XLarge

Small mounting accessory

Adjustable mounting accessory

UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)

UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)

COMPATIBLE WIRING ACCESSORIES

Q-mini-J5	Q-mini-J	BARREL-EXT	BARREL FOUR-FER	CON120-EXT
2.27" 2.80"	1.25" 2"			

UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)

UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)

8ft barrel cable extender DRY ONLY

Splits lead from one to four LED Barrel connector fixtures, DRY/DMP

10ft Con cable extender DRY/DMP/WET



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COMPATIBLE APPS

NFC APP



Read and write
DMX addresses and
adjust voltage