



TRAXON

Date: _____ Quantity: _____
Company: _____
Project: _____



Allegro Dot M RGB/RGBW Allegro Dot L RGB/RGBW

Allegro Dot is the next generation of intelligent media dot family. The dots are constructed on a flexible cable with customizable pitch. The dots can provide advanced features and flexibility for lighting design and project execution. Customizable pitch containing up to 65 dots max RGB/RGBW. This product is intended for use in high-quality colored light applications.

Product Specifications



Model	Allegro Dot M Direct View	Allegro Dot M Diffused View	Allegro Dot L Direct View	Allegro Dot L Diffused View
Number of Pixel	50	50	40	40
Light Source	RGB: 6 RGB LEDs RGBW: 6 RGB LEDs + 3 White		RGB: 9 RGB LEDs RGBW: 9 RGB LEDs + 3 White	
Color Range	16.7 Million additive RGB colors, white CCT 6500K			
Color Resolution	RGB: 3 x 12-bit (Gamma correction) RGBW: 4 x 12-bit (Gamma correction)			
WhiteOne	Algorithms enable auto control of white LED by 3-channel RGB values			
Beam Angle	110°	150°	110°	150°
Luminous Flux ¹	RGB: 53 lm RGBW: 103 lm	RGB: 46 lm RGBW: 94 lm	RGB: 79 lm RGBW: 147 lm	RGB: 72 lm RGBW: 135 lm
Efficacy ¹	RGB: 26.5 lm/W RGBW: 51.8 lm/W	RGB: 23 lm/W RGBW: 47.2 lm/W	RGB: 31.6 lm/W RGBW: 49 lm/W	RGB: 28.8 lm/W RGBW: 45 lm/W
Cover Lens	Clear (PC)	Diffuser dome (PC)	Clear (PC)	Diffuser dome (PC)
LED Pitch	150mm to 4000mm; Standard: 150mm			
Housing	Die cast aluminum with PC cover			
Adjustment Options	Flexible cable			
Dimensions (Ø x L x H)	Ø68 x 60 x 17mm Ø2.7" x 2.4" x 0.7"	Ø68 x 60 x 39mm Ø2.7" x 2.4" x 1.5"	Ø68 x 60 x 17mm Ø2.7" x 2.4" x 0.7"	Ø68 x 60 x 39mm Ø2.7" x 2.4" x 1.5"
Weight	80g	90g	80g	90g
Regulatory Listing & Safety Approval	CE, 3G ANSI C136.31			
Operating Temperature	-30°C to + 60°C/-22°F to +140°F			
Storage Temperature	-40°C to + 70°C/-40°F to +158°F			
Environment	Outdoor (IP66, IP67), suitable for coastal environments			
Humidity	0 to 90% non-condensing			

Electrical Specifications

Operating Voltage	30V DC		
Power Consumption ¹	RGB: 2W RGBW: 2W	RGB: 2.5W RGBW: 3W	

System Specifications

Control	DMX512/e:pix/RDM/e:net
Power Supply	LED ENG 240W 30V IP67 AL DO/LED ENG 185W 30V IP67 AL DO/ LED ENG 100W 30V IP67 AL DO
Addressing Options	Auto-Addressing

1. Measurement per dot.

LED CHARACTERISTICS Because LEDs are semiconductor devices, their performances are subject to inherent variability commonly found in semiconductor industry. To improve consistency in performance across the same product, LED manufacturers "sort" LEDs into bins according to different preset parameters, such as forward driving voltage, illumination, etc. Whereas binning is a sorting function, it is not a correction process. Inherent variability in the manufacturing process results always in different binning distributions according to different production lots. Traxon uses automatically binned LEDs on its products, thereby minimizing output variations within the model range.

As with all electronic devices, LED output degrades over time – a term called lumen depreciation. This also explains why it is nearly impossible to expect photometric performances of two LED products with different service life spans to be the same. The rate of LED degrade is a complicate function of many factors such as operating efficiency, duration of continuous operation, and more significantly, environmental conditions (ambient temperature for example). If allowed working under optimal operating temperature range and with good ventilation, LED devices enjoy long service lives over conventional light sources. When using/installing LED devices, care should be taken to ensure that the devices will operate within the operating conditions specified in respective product literature.

This product contains a light source of energy efficiency class G to Regulation (EU) No 2019/2015.
Lumen measurement complies with LM-79-08 standard.
Lumen maintenance is calculated based on LM-80 compliant measurement.



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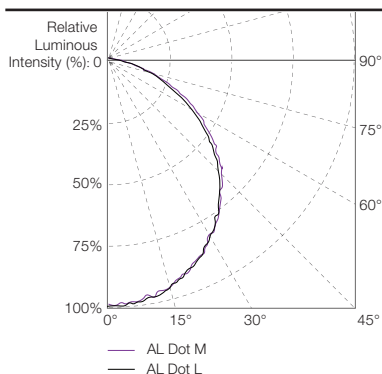
Allegro Dot M RGB / RGBW Allegro Dot L RGB / RGBW

Photometrics

Source Specifications

Source	6 LEDs packaged in RGB (One AL Dot M)	9 LEDs packaged in RGB (One AL Dot L)
Optics	110° (Clear cover)	

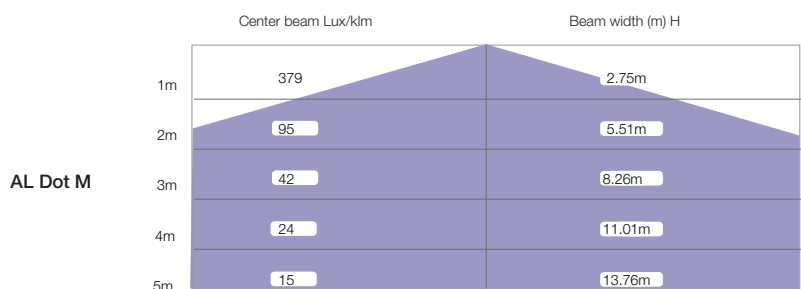
Candela Distribution



Light Output

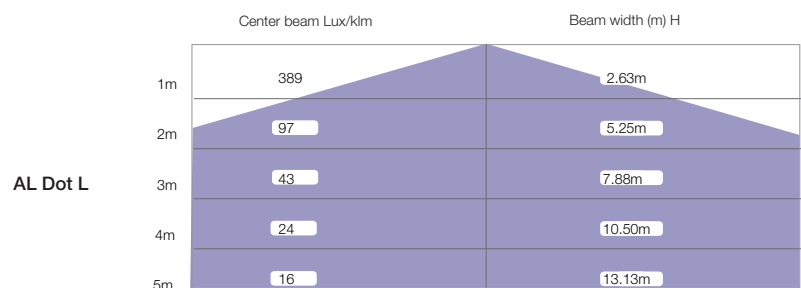
	Color	Luminous Flux (lm)	Candela Distribution at 100%	Efficacy (lm/W)
AL Dot M	White	52.49	19.9	29.32
	Red	16.2	6.14	25.31
	Green	31.63	11.99	50.21
	Blue	5.77	2.19	10.49
AL Dot L	White	79.26	30.83	31.58
	Red	24.89	9.68	25.4
	Green	48.74	18.96	57.34
	Blue	8.57	3.33	10.71

Illuminance at a Distance



■ Horiz.Spread: 108.0°
For feet multiply by 3.28

For fc divide by 10.7
IES and LDT files are available for download from the Traxon website.



■ Horiz.Spread: 105.4°
For feet multiply by 3.28

For fc divide by 10.7
IES and LDT files are available for download from the Traxon website.



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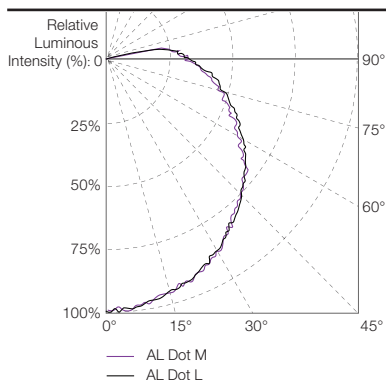
Allegro Dot M RGB / RGBW Allegro Dot L RGB / RGBW

Photometrics

Source Specifications

Source	6 LEDs packaged in RGB (One AL Dot M)	9 LEDs packaged in RGB (One AL Dot L)
Optics	150° (Diffuser Dome cover)	

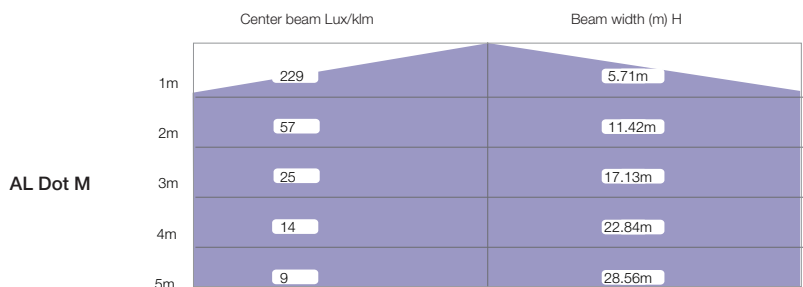
Candela Distribution



Light Output

	Color	Luminous Flux (lm)	Candela Distribution at 100%	Efficacy (lm/W)
AL Dot M	White	45.99	10.54	25.69
	Red	14.48	3.32	22.63
	Green	26.8	6.14	42.54
	Blue	5.03	1.15	9.15
AL Dot L	White	72.3	16.36	28.8
	Red	23.36	5.28	23.84
	Green	44.09	9.97	51.87
	Blue	7.33	1.65	9.16

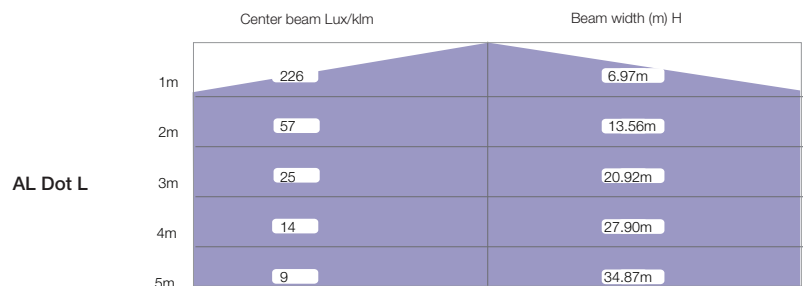
Illuminance at a Distance



● Horiz.Spread: 141.4°
For feet multiply by 3.28

For fc divide by 10.7

IES and LDT files are available for download from the Traxon website.



● Horiz.Spread: 148.0°
For feet multiply by 3.28

For fc divide by 10.7

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Allegro Dot M RGB / RGBW Allegro Dot L RGB / RGBW

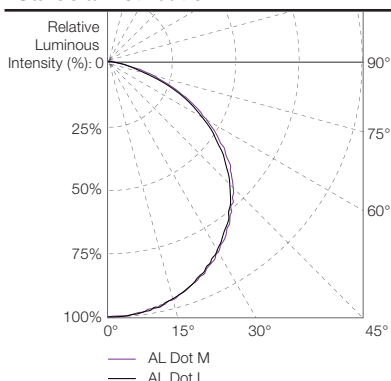
Photometrics

Source Specifications

Source	(One AL Dot M) 6 LEDs packaged in RGB 3 LEDs packaged in White	(One AL Dot L) 9 LEDs packaged in RGB 3 LEDs packaged in White
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Optics 110° (Clear cover)

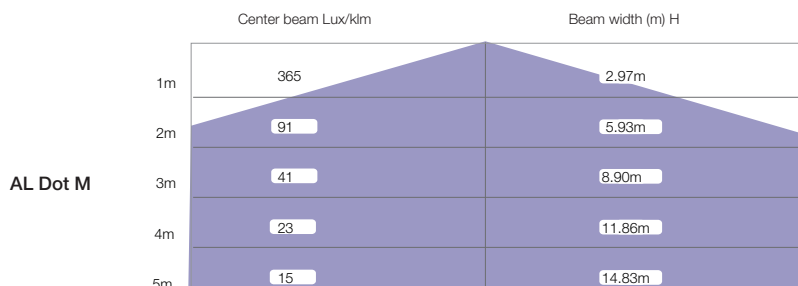
Candela Distribution



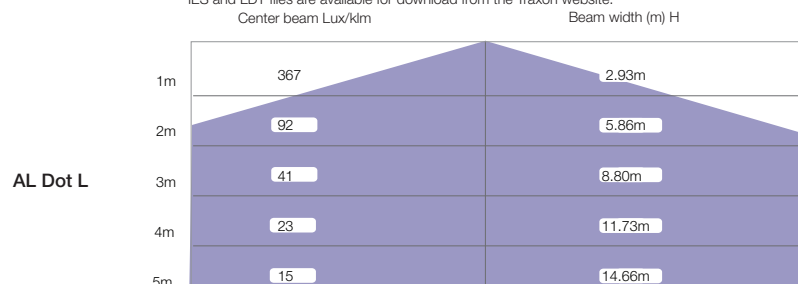
Light Output

	Color	Luminous Flux (lm)	Candela Distribution at 100%	Efficacy (lm/W)
AL Dot M	White (full on)	103.23	37.64	51.87
	White (RGB off)	51.12	18.64	75.18
	RGB	53.44	19.49	38.72
	Red	16.99	6.19	23.93
	Green	33.74	12.3	58.17
	Blue	3.76	1.37	8.36
AL Dot L	White (full on)	146.63	53.88	52.56
	White (RGB off)	77.55	28.5	82.5
	RGB	69.92	25.69	37.39
	Red	22.71	8.34	23.17
	Green	43.33	15.92	57.77
	Blue	5.89	2.16	11.11

Illuminance at a Distance



For fc divide by 10.7
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Allegro Dot M RGB / RGBW Allegro Dot L RGB / RGBW

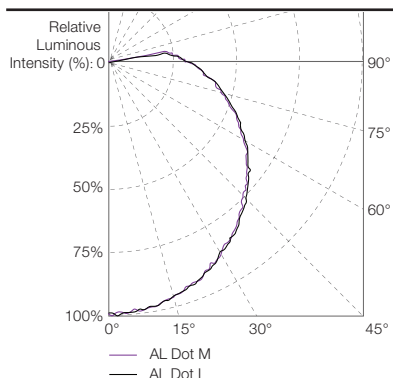
Photometrics

Source Specifications

Source	(One AL Dot M) 6 LEDs packaged in RGB 3 LEDs packaged in White	(One AL Dot L) 9 LEDs packaged in RGB 3 LEDs packaged in White
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Optics 150° (Diffuser Dome cover)

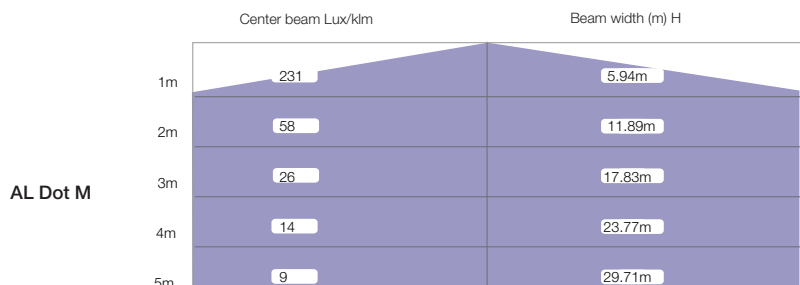
Candela Distribution



Light Output

	Color	Luminous Flux (lm)	Candela Distribution at 100%	Efficacy (lm/W)
AL Dot M	White (full on)	93.85	21.67	47.16
	White (RGB off)	47.13	10.88	69.31
	RGB	48.5	11.2	35.14
	Red	15.09	3.48	21.25
	Green	30.26	6.99	52.17
	Blue	3.4	0.79	7.56
AL Dot L	White (full on)	134.81	30.5	48.32
	White (RGB off)	72.89	16.49	77.54
	RGB	63.27	14.31	33.83
	Red	20.42	4.62	20.84
	Green	39.23	8.88	52.31
	Blue	5.4	1.22	10.19

Illuminance at a Distance

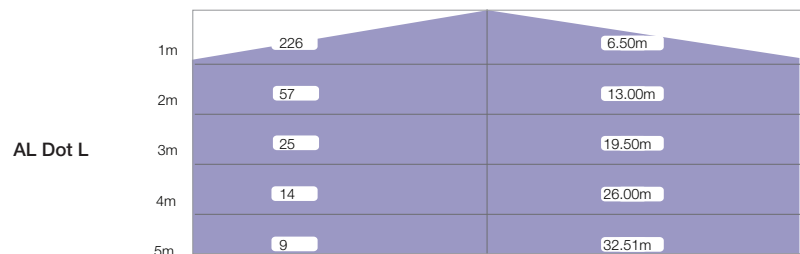


● Horiz.Spread: 142.8°
For feet multiply by 3.28

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Center beam Lux/klm Beam width (m) H



● Horiz.Spread: 145.8°
For feet multiply by 3.28

For fc divide by 10.7

IES and LDT files are available for download from the Traxon website.

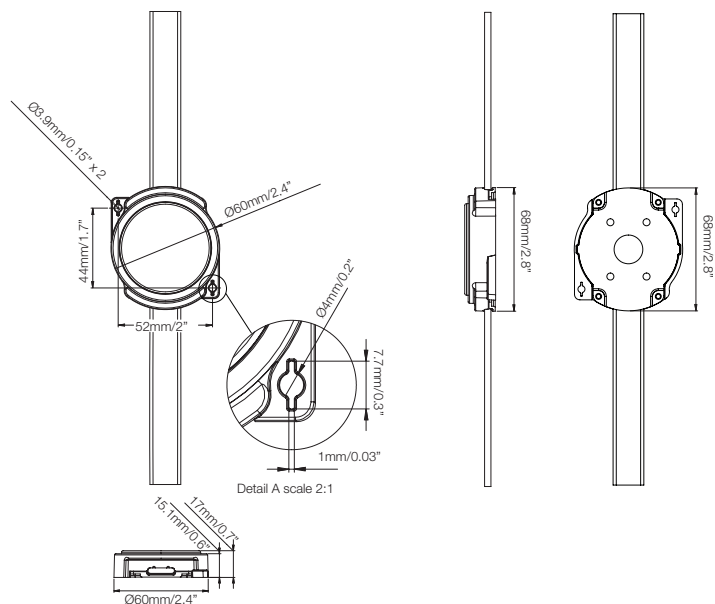


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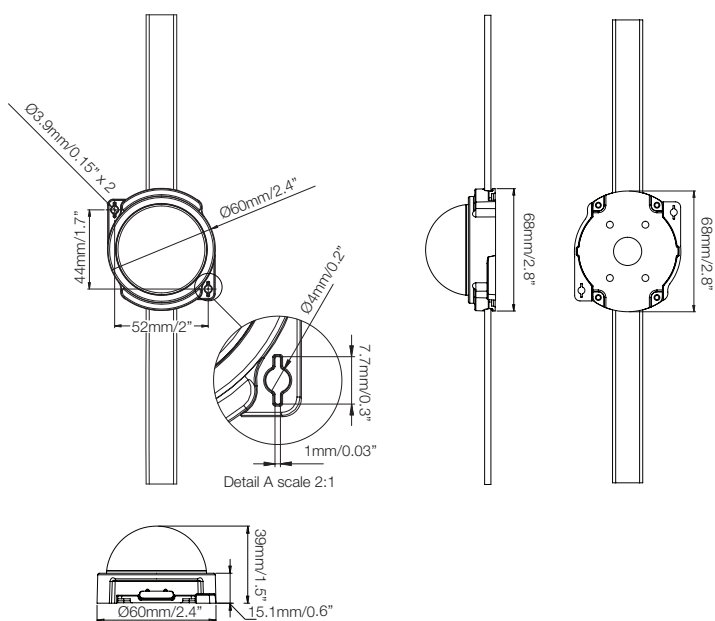
Allegro Dot M RGB / RGBW
Allegro Dot L RGB / RGBW

Dimensions

Dot M/ L Direct View



Dot M/ L Diffused View



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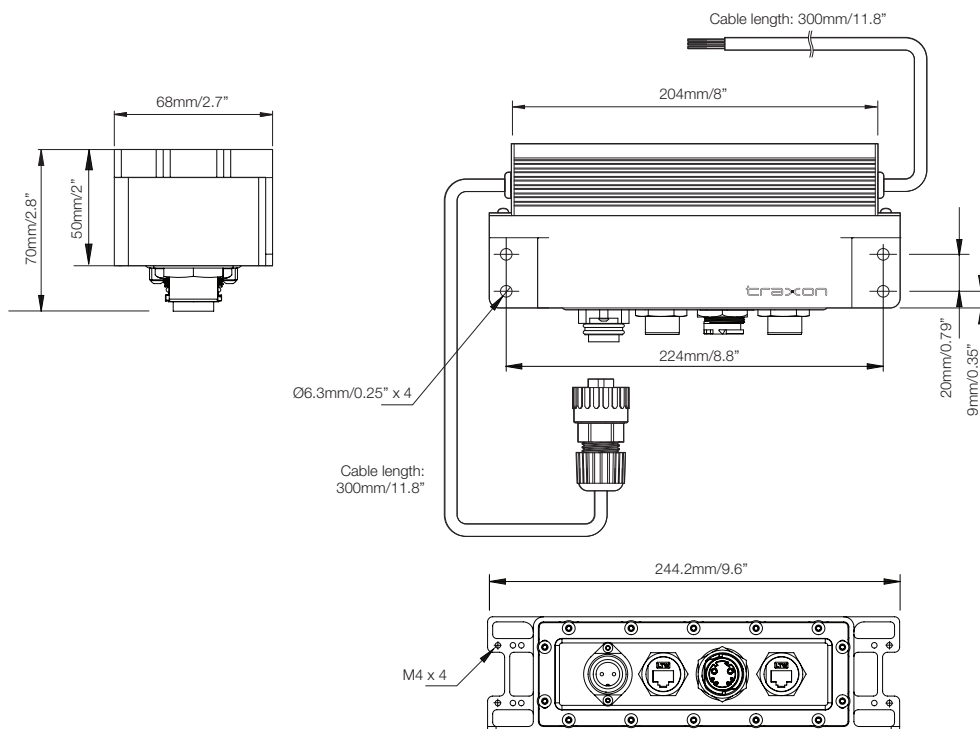


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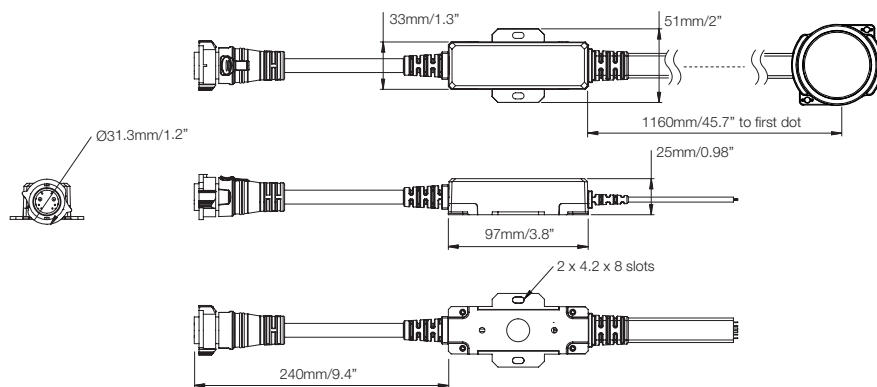
Allegro Dot M RGB / RGBW
Allegro Dot L RGB / RGBW

Dimensions

Pixel Distributor with Power Supply (Outdoor)



Dot M/ L Smart Junction



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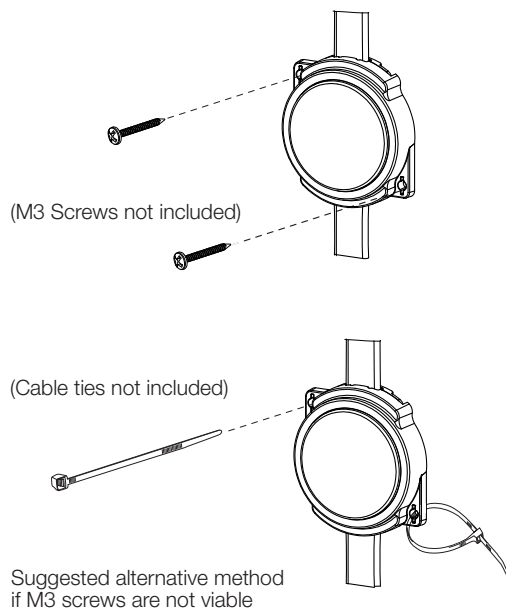


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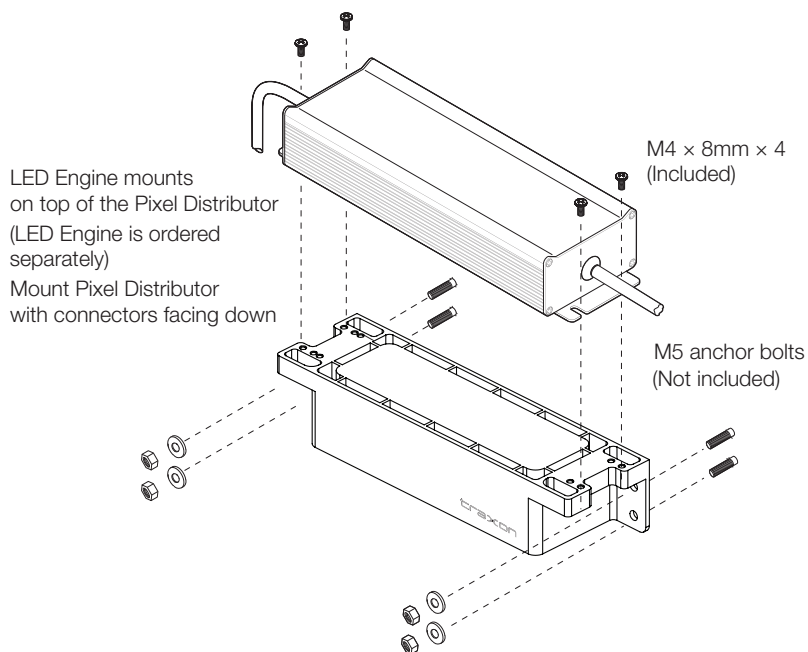
Allegro Dot M RGB / RGBW
Allegro Dot L RGB / RGBW

Mounting

Dot M/ L



Pixel Distributor



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Product Specification

V2.3 09/23

8 of 11

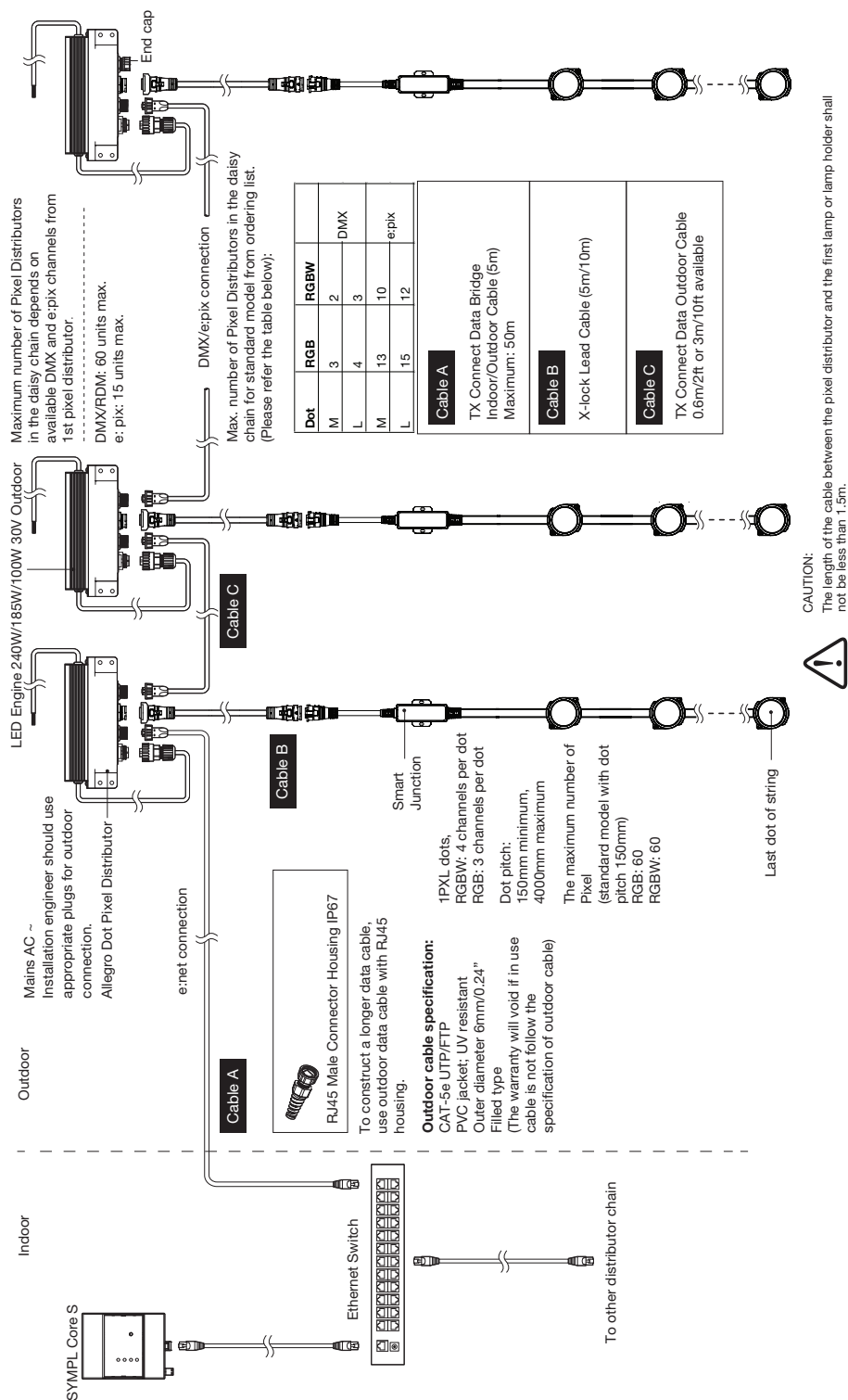


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Allegro Dot M RGB / RGBW
Allegro Dot L RGB / RGBW

System Diagram

System Diagram-e:net connection





System Diagram

Indoor

SYMPL Core S

SYMPL DMX Node

e:net connection

Ethernet Switch

To other DMX Nodes

Outdoor

Mains AC ~

Installation engineer should use appropriate plugs for outdoor connection.

Allegro Dot Pixel Distributor

LED Engine 240W/185W/100W 30V Outdoor

DMX/e:pix connection

End cap

Cable A

RJ45 Male Connector Housing IP67

To construct a longer data cable, use outdoor data cable with RJ45 housing.

Outdoor cable specification:

CAT-5e UTP/FTP

PVC jacket; UV resistant

Outer diameter 6mm/0.24"

Filled type

(The warranty will void if in use cable is not follow the specification of outdoor cable)

Cable B

Smart Junction

1PXL dots, RGBW: 4 channels per dot RGB: 3 channels per dot

Dot pitch: 150mm minimum, 4000mm maximum

The maximum number of Pixel (standard model with dot pitch 150mm) RGB: 60 RGBW: 60

Cable C

Dot	RGB	RGBW
M	3	2
L	4	3
M	13	10
L	15	12

Max. number of Pixel Distributors in the daisy chain for standard model from ordering list. (Please refer the table below):

Cable A
TX Connect Data Bridge Indoor/Outdoor Cable (5m) Maximum: 50m

Cable B
X-lock Lead Cable (5m/10m)

Cable C
TX Connect Data Outdoor Cable 0.6m/2ft or 3m/10ft available

Maximum number of Pixel Distributors in the daisy chain depends on available DMX and e:pix channels from DMX/e:pix node.

DMX/RDM: 60 units max. e: pix: 15 units max.

Max. number of Pixel Distributors in the daisy chain for standard model from ordering list. (Please refer the table below):

Pixel

The maximum number of Pixel (standard model with dot pitch 150mm) RGB: 60 RGBW: 60

Last dot of string

CAUTION:
The length of the cable between the pixel distributor and the first lamp or lamp holder shall not be less than 1.5m.





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Allegro Dot M RGB / RGBW Allegro Dot L RGB / RGBW

Ordering

Fixtures

Model No.	Description	Item Code
DO.A2.1110040	AL DO M DF RGB 50PPF 150P 1.5M WT	AM335560055
DO.A2.2110040	AL DO M DF RGBW65 50PPF 150P 1.5M WT	AM335550055
DO.A2.1210040	AL DO M CR RGB 50PPF 150P 1.5M WT	AM335540055
DO.A2.2210040	AL DO M CR RGBW65 50PPF 150P 1.5M WT	AM335530055
DO.A3.1110040	AL DO L DF RGB 40PPF 150P 1.5M WT	AM335600055
DO.A3.2110040	AL DO L DF RGBW65 40PPF 150P 1.5M WT	AM335590055
DO.A3.1210040	AL DO L CR RGB 40PPF 150P 1.5M WT	AM335580055
DO.A3.2210040	AL DO L CR RGBW65 40PPF 150P 1.5M WT	AM335570055

Standard Accessories

Model No.	Description	Item Code
DO.AD.0001020	ALLEGRO DOT PXL DISTRIBUTOR	AM278810055
DO.AC.0100300	X-LOCK LEAD CABLE 5M 14AWG VS15 TX	AM061830055
DO.AC.0100400	X-LOCK LEAD CABLE 10M 14AWG VS10 TX	AM061850055

Optional Accessories

Model No.	Description	Item Code
N/A	AL DOT M/L FIELD CUT END CAP	AM355000055

E:cue Control

Model No.	Description	Item Code
N/A	SYMPL Core S	AB447060035
N/A	SYMPL DMX Node	AB444180035
N/A	SYMPL e:pix Node	AB443930035
EN.BP.0000100	Butler Pro DMX/RDM	AA628600035
EN.BP.0000200	Butler Pro e:pix	AA628610035
EN.BU.0000001	Butler S2	AB436200031
AC.BG.0000001	Butler S2 Garage (Optional)	AA611800031

TX Connect

Model No.	Description	Item Code
DE.AC.0000100	TX CONNECT Data Indoor/Outdoor Bridge Cable, 5m/16.4ft	AA508850055
DE.IC.0060000	TX CONNECT Data Outdoor Cable, 0.6m/1.97ft	AA664580055
DE.IC.0300000	TX CONNECT Data Outdoor Cable, 3m/9.84ft	AA438810055
DE.AC.0100000	RJ45 Male Connector Housing IP67	AA556100155

TX Power

Model No.	Description	Item Code
N/A	LED ENG 240W 30V IP67 AL DO	AM290860055
N/A	LED ENG 185W 30V IP67 AL DO	AM019480055
N/A	LED ENG 100W 30V IP67 AL DO	AM019490055