



TRAXON

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



Allegro Dot S 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 80 dots max RGBW and 65 dots RGB. This product is intended for use in high-quality colored light applications.



Product Specifications

Model	Allegro Dot S Direct View	Allegro Dot S Diffused View
Number of Pixel	65	
Light Source	RGB: 4 RGB LEDs per dot RGBW: 4 RGB LEDs + 2 White per dot	
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	100°	135°
Luminous Flux ¹	RGB: 36 lm RGBW: 48 lm	RGB: 32 lm RGBW: 40 lm
Efficacy ¹	RGB: 24 lm/W RGBW: 48 lm/W	RGB: 21.3 lm/W RGBW: 40 lm/W
Cover Lens	Clear (PC)	Diffuser dome (PC)
LED Pitch	100mm to 4000mm; Standard: 100mm	
Housing	Die cast aluminum with PC cover	
Adjustment Options	Flexible cable	
Dimensions (Ø x L x H)	Ø53 x 42 x 18mm Ø2.1" x 1.7" x 0.7"	Ø53 x 42 x 27mm Ø2.1" x 1.7" x 1.1"
Weight	48g	55g
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: 1.5W RGBW: 1W

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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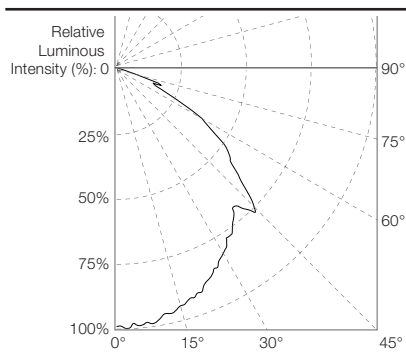
Allegro Dot S RGB/RGBW

Photometrics

Source Specifications

	Dot S RGB
Source	4 LEDs packaged in RGB (One AL Dot S)
Optics	100° (Clear cover)

Candela Distribution



Light Output

	Color	Luminous Flux (lm)	Candela Distribution @100%	Efficacy (lm/W)
Dot S RGB	White	36.38	14.56	24.75
	Red	10.63	4.25	17.15
	Green	26.59	10.64	45.84
	Blue	3.62	1.45	7.39

Illuminance at a Distance

	Center beam Lux/klm	Beam width (m) H
1m	400	2.87m
2m	100	5.73m
3m	44	8.60m
4m	25	11.74m
5m	16	14.33m

For fc divide by 10.7

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

■ Horiz.Spread: 110.2°

For feet multiply by 3.28



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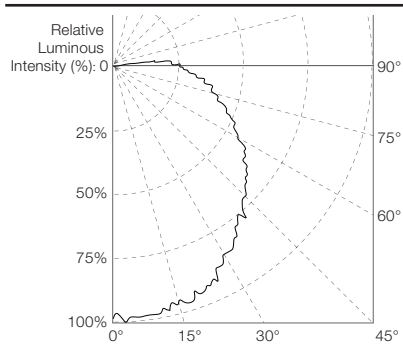
Allegro Dot S RGB/RGBW

Photometrics

Source Specifications

	Dot S RGB
Source	4 LEDs packaged in RGB (One AL Dot S)
Optics	135° (Diffuser Dome cover)

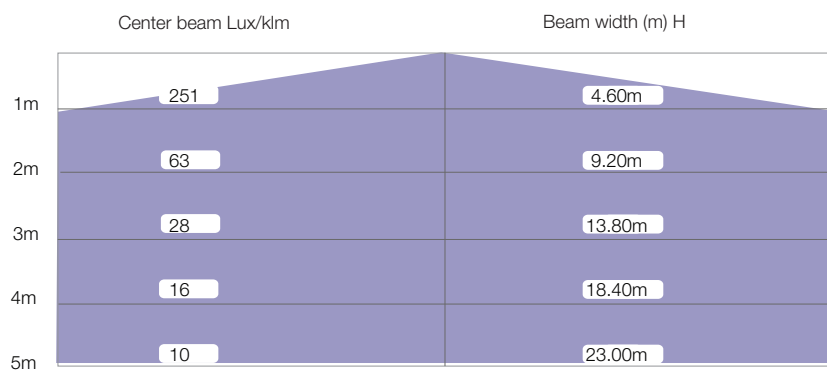
Candela Distribution



Light Output

	Color	Luminous Flux (lm)	Candela Distribution @100%	Efficacy (lm/W)
Dot S RGB	White	32.02	8.05	21.78
	Red	8.97	2.26	14.47
	Green	19.46	4.89	33.55
	Blue	3.08	0.77	6.29

Illuminance at a Distance (Diffuser Dome Cover)



● Horiz.Spread: 133.0°
For feet multiply by 3.28

For fc divide by 10.7

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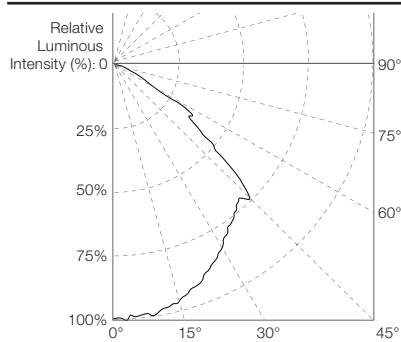
Allegro Dot S RGB/RGBW

Photometrics

Source Specifications

Dot S RGBW	
Source	(One AL Dot S) 4 LEDs packaged in RGB 2 LEDs packaged in White
Optics	100° (Clear Cover)

Candela Distribution



Light Output

Color	Luminous Flux (lm)	Candela Distribution @100%	Efficacy (lm/W)
White (full on)	47.61	20.13	40.01
White (RGB off)	26.74	11.31	50.45
RGB	21.15	8.94	24.31
Red	6.25	2.64	12.76
Green	12.99	5.49	33.31
Blue	1.79	0.76	5.42

Illuminance at a Distance (Clear Cover)

	Center beam Lux/klm	Beam width (m) H
1m	423	2.47m
2m	106	4.94m
3m	47	7.41m
4m	26	9.88m
5m	17	12.35m

For fc divide by 10.7

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■ Horiz.Spread: 102.0°

For feet multiply by 3.28



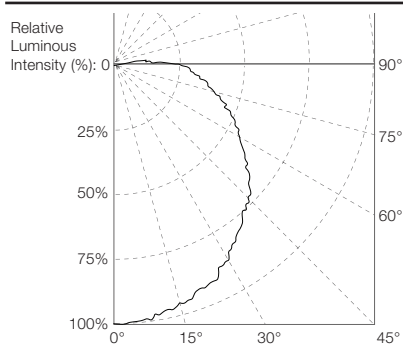
Allegro Dot S RGB/RGBW

Photometrics

Source Specifications

Dot S RGBW	
Source	(One AL Dot S) 4 LEDs packaged in RGB 2 LEDs packaged in White
Optics	135° (Diffuser Dome cover)

Candela Distribution



Light Output

	Color	Luminous Flux (lm)	Candela Distribution @100%	Efficacy (lm/W)
Dot S RGBW	White (full on)	40.48	10.13	34.02
	White (RGB off)	22.62	5.66	42.68
	RGB	18.76	4.69	21.56
	Red	4.57	1.14	9.33
	Green	11.61	2.91	29.77
	Blue	1.55	0.39	4.7

Illuminance at a Distance (Diffuser Dome Cover)

	Center beam Lux/klm	Beam width (m) H
1m	250	4.88m
2m	63	9.75m
3m	28	14.63m
4m	16	19.51m
5m	10	24.38m

■ Horiz.Spread: 135.4°
For feet multiply by 3.28

For fc divide by 10.7

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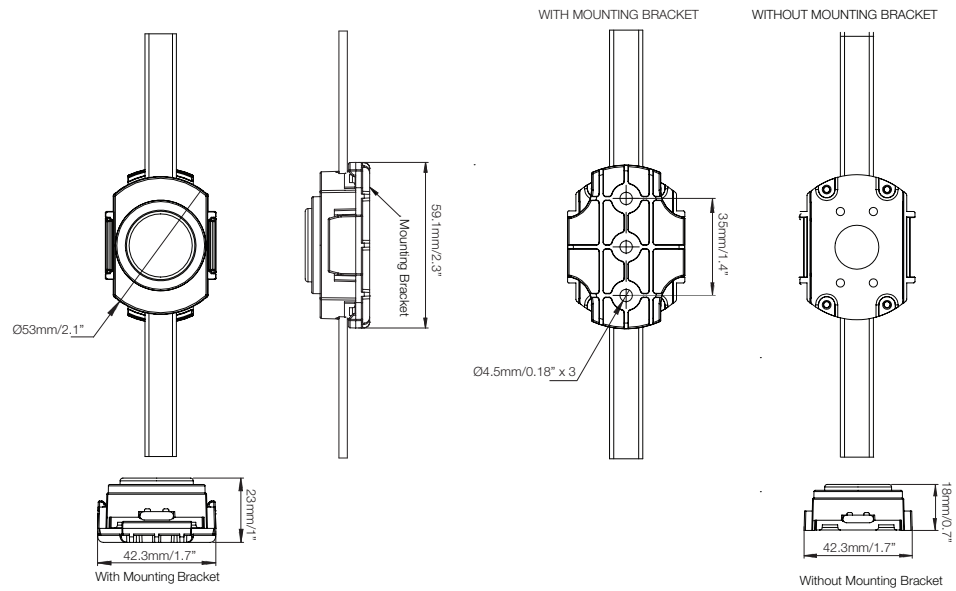


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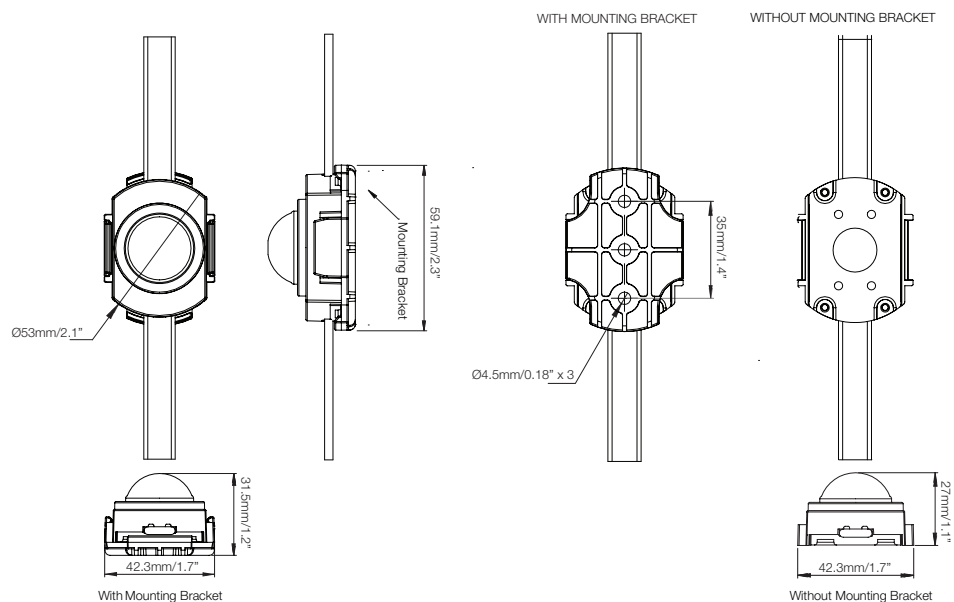
Allegro Dot S RGB/RGBW

Dimensions

Dot S Direct View



Dot S Diffused View



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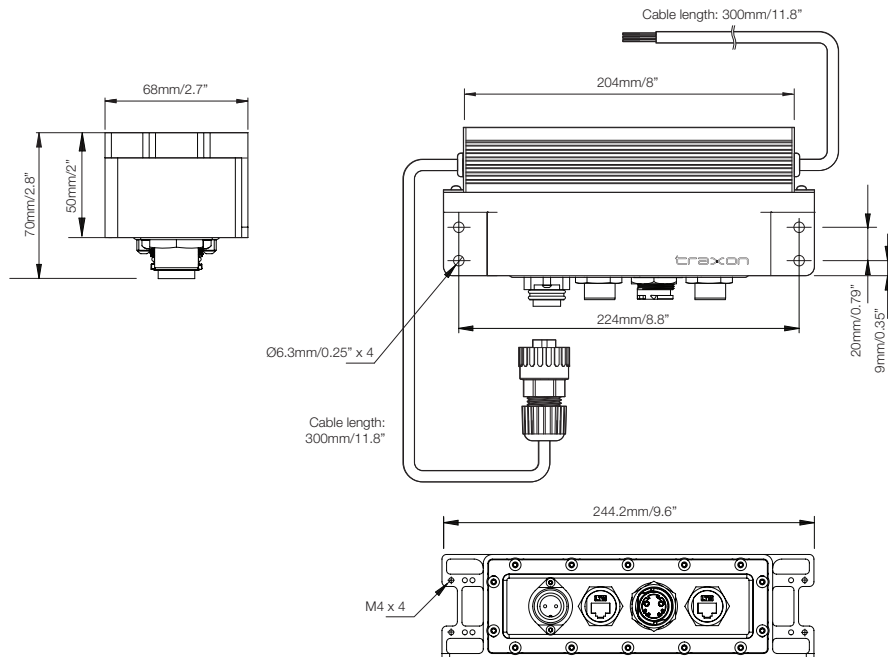


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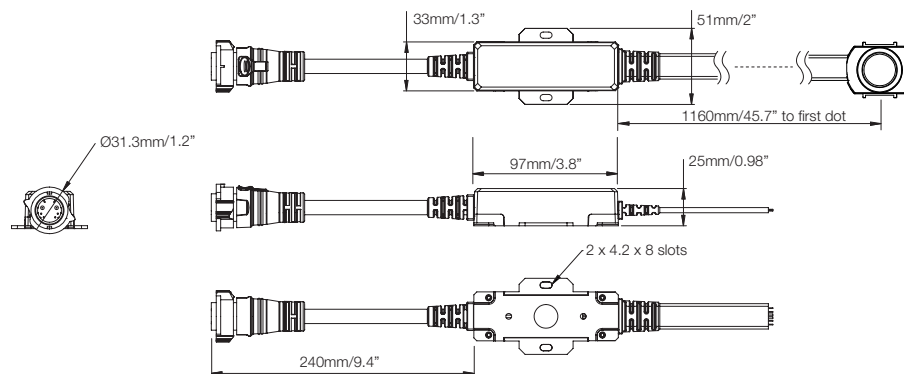
Allegro Dot S RGB/RGBW

Dimensions

Pixel Distributor with Power Supply (Outdoor)



Dot S Smart Junction



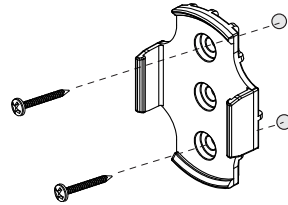
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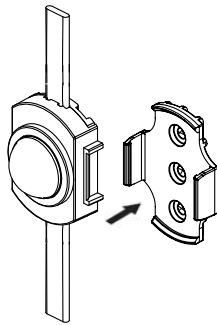
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Dot S

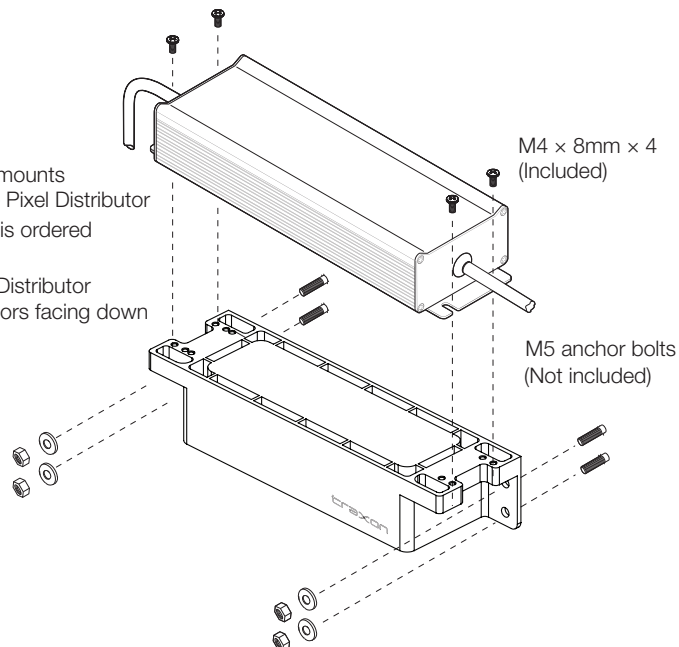


(M4 Screws not included)



Pixel Distributor

LED Engine mounts
on top of the Pixel Distributor
(LED Engine is ordered
separately)
Mount Pixel Distributor
with connectors facing down



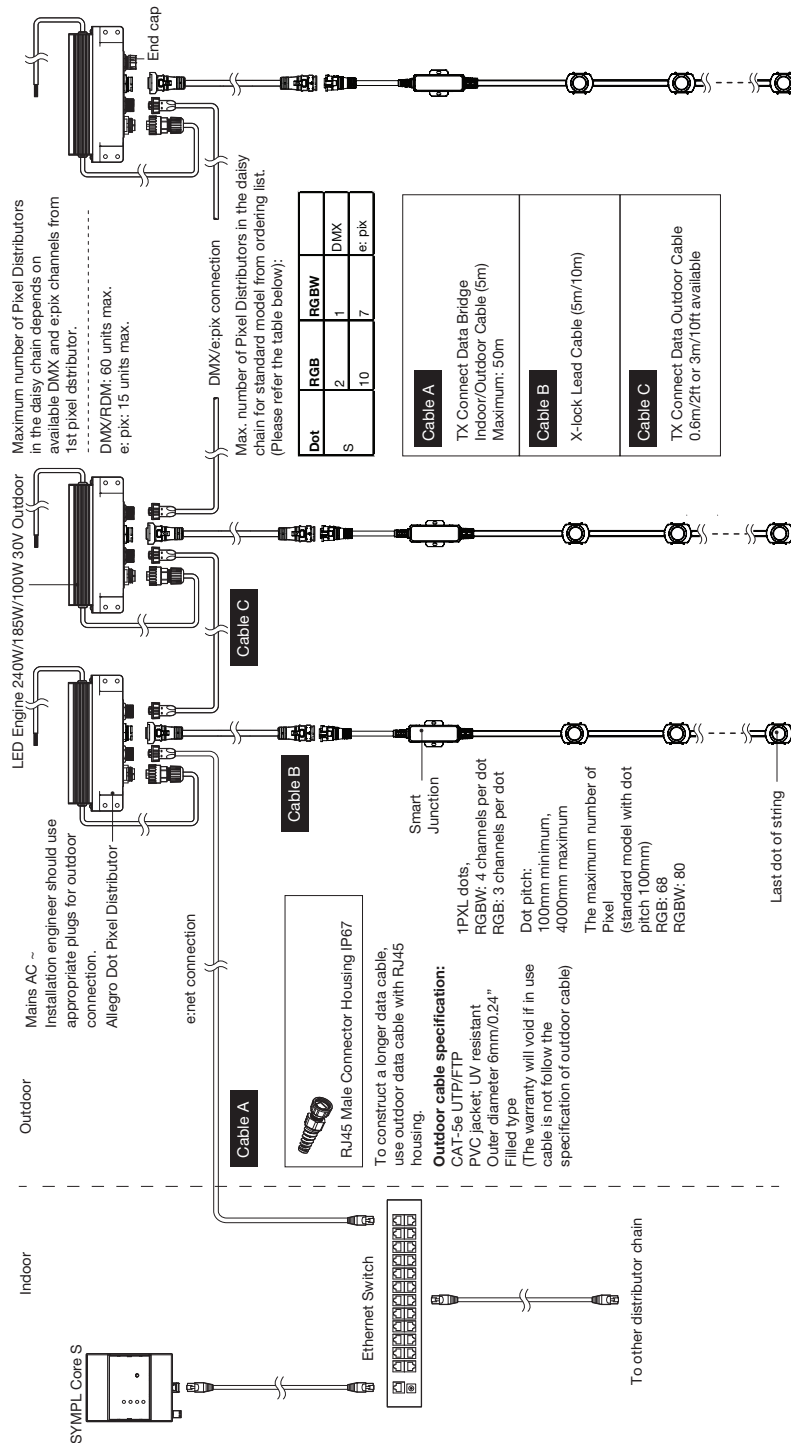


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Allegro Dot S RGB/RGBW

System Diagram

System Diagram-e:net connection





System Diagram

Indoor

SYMPL Core S

SYMPL DMX Node

Ethernet connection

Outdoor

Mains AC ~

Installation engineer should use appropriate plugs for outdoor connection.

Allegro Dot Pixel Distributor

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

End cap

DMX/ePIX connection

Cable A

RJ45 Plug

RJ45 Male Connector Housing IP67

Cable B

Cable C

DMX/ePIX connection

TX Connect Data Bridge

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

TX Connect Data Outdoor Cable

0.6m/2ft or 3m/10ft available

Dot	RGB	DMX	e: pix
S	2	1	7
	10		

Maximum number of Pixel Distributors in the daisy chain depends on available DMX and ePIX channels from DMX/ePIX 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):

1PXL dots
RGBW: 4 channels per dot
RGB: 3 channels per dot
Dot pitch:
100mm minimum,
4000mm maximum

The maximum number of Pixel (standard model with dot pitch 100mm)
RGB: 68
RGBW: 80

Smart Junction

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)

Ethernet Switch

To other DMX Nodes

Last dot of string





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Allegro Dot S RGB/RGBW

Ordering

Fixtures

Model No.	Description	Item Code
DO.A1.1110040	AL DO S DF RGB 65PPF 100P 1.5M WT	AM335520055
DO.A1.2110040	AL DO S DF RGBW65 65PPF 100P 1.5M WT	AM335510055
DO.A1.1210040	AL DO S CR RGB 65PPF 100P 1.5M WT	AM335490055
DO.A1.2210040	AL DO S CR RGBW65 65PPF 100P 1.5M WT	AM335480055

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
N/A	AL DOT S MOUNTING CLIP	AM286870055

Optional Accessories

Model No.	Description	Item Code
N/A	AL DOT S FIELD CUT END CAP	AM354990055

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



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