



Technical Submittal 68

North Stand Wire & Sky Lighting Technical Submission

DOCUMENT STATUS

Document Status				
Revision	P01			
Date	28/10/2025			
Author	B Dickinson			
Checked	B Green			
Verified	D Hudson			

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Executive Summary

The purpose of this technical submittal is to provide the reader with an overview of the **North Stand Wire & Sky lighting** and materials to be provided within the MCFC North Stand Development.

Appendix A - Basis of Design

- Document No: NSE-MEE-NS-XX-TS-E-008001 RIBA Stage 4a Interim
Revision: P01
- Document No: NSE-MEE-NS-XX-TS-E-008002 RIBA Stage 4a
Revision: P01
- Document No: NSE-MEE-NS-XX-LS-E-008001 RIBA Stage 4a Interim
Revision: P02

Appendix B - Manufacturers Details

Company Name: Traxon (AC Special Projects)

Email: info@acspecialprojects.com

Tel: +44 1494838392

Web: <https://acspecialprojects.com/>

Appendix C - Technical Literature

As per technical data attached - see appendix H.

Appendix D - Compliance

In line with the electrical specification and equipment schedule:

- Document No: NSE-MEE-NS-XX-TS-E-008001 RIBA Stage 4a Interim
Revision: P01
- Document No: NSE-MEE-NS-XX-TS-E-008002 RIBA Stage 4a
Revision: P01
- Document No: NSE-MEE-NS-XX-LS-E-008001 RIBA Stage 4a Interim
Revision: P02

Appendix E - Non -Compliance

N/A

Appendix F - Programme

The Purpose of this technical submission is to inform the Etihad client team and professional team of SES intent regards to procurement of systems and equipment to enable input into the MEP design and therefore complete the systems MEP design.

The Technical submission is by no means intended to show full systems design by the way of MEP design drawings and schematics.

Drawings and Schematics will follow once technical submissions have reached A or B status and the technical information from within the approved submission has been inputted into the MEP design.

Appendix G - Drawing Reference

N/A

Appendix H - Attachments



TRAXON Go[→]

Pixel Ribbon Go Top Bend



Project: _____
Type: _____



DMX 512



IP67



IK08

The Traxon Pixel Ribbon Go is an IP67 flexible neon strip alternate which can be controlled directly using DMX512. The Pixel Ribbon Go family consists of Top Bend (TB), Side Bending (SB) and Flat models, providing flexibility to fit on any curved surface to accommodate architectural structures. Featuring a 100mm [4"] / 125mm [5"] pixel pitch, the Pixel Ribbon Go is available in an assortment of colors and CCT options, has multiple mounting options to meet project needs, and can be ordered in specified lengths and cable feed positions.

This product is intended for use in high-quality colored light applications.

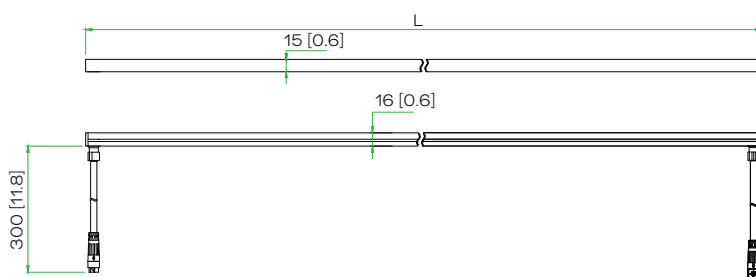
Features

- IP67 Rating: Suitable for outdoor use, protected against dust and water.
- DMX512 Control.
- Diffused material ensures seamless illumination.
- Pixel Pitch: 100mm [4"] / 125mm [5"] pixel pitch, allowing for precise pixel control.

Dimensions

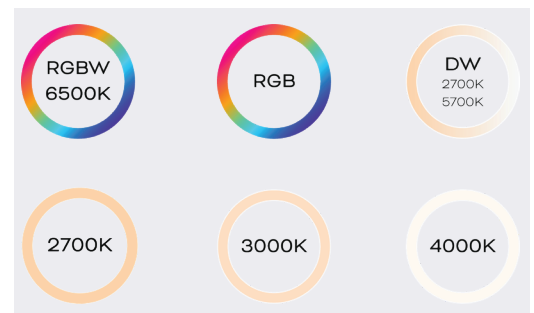
Bottom cable feed (BF)

Unit: mm [inches]

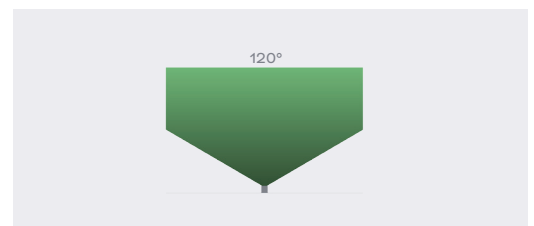


NOTE: please see Dimensional page for all options.

Color Options



Beam Angle





Pixel Ribbon Go Top Bend

Specifications

Product Specifications - 10 Pixels per meter

LED Color	RGBW (W: 6500K)	RGB	DW (W: 2700K+5700K)	W 4000K	W 3000K	W2700K
Light Source	High intensity SMT RGBW 4 in 1 LEDs			White LEDs		
Color Range	16.7 Million additive RGB colors			N / A		
Pixels	10 pixels/m					
LED pitch	RGBW, RGB, DW: 16.7mm [0.66"] W4000K, W3000K, W2700K: 8.3mm [0.33"]					
Pixel Pitch	100 mm [3.93"]					
Cutting Pitch	100 mm [3.93"]					
CRI for White LED	> 80					
SDCM for White LED	White Color uniformity: 3 SDCM on the entire LED Ribbon and between Ribbons					
Luminous Flux	353 lm/m	196 lm/m	517 lm/m	550 lm/m	513 lm/m	497 lm/m
Efficacy	24 lm/W	17 lm/W	54 lm/W	57 lm/W	53 lm/W	52 lm/W
Beam Angles	120°					
Housing	Diffused silicone, UV resistant					
Mounting	Various mounting channels, brackets or strips					
Dimensions (W x H)	15mm [0.59"] x 16mm [0.63"]					
Max. Length	8m [26.25'] / roll	8m [26.25'] / roll	10m [32.81'] / roll	10m [32.81'] / roll	10m [32.81'] / roll	10m [32.81'] / roll
Weight (per roll)	2.6kg [5.73lbs]	2.1kg [4.63lbs]	2.6kg [5.73lbs]	2.1kg [4.63lbs]	2.1kg [4.63lbs]	2.1kg [4.63lbs]
Minimum Bend Radius	150mm [5.91"]					
Regulatory Listing & Safety Approval	CE, UKCA					
Operating Temperature	-20°C to +50°C / -4°F to 122°F					
Storage Temperature	-40°C to +70°C / -40°F to 158°F					
Environment	Outdoor, IP67, suitable for coastal environment, IK08					
Humidity	0 to 90% non-condensing					

Electrical Specifications

Input Voltage	24V DC					
Power Consumption (Typ)	14.4 W / m	11 W / m	9.6 W / m	9.6 W / m	9.6 W / m	9.6 W / m

System Specifications

Control	DMX512
Power Supply	24V DC Outdoor
Addressing Options	Manual Addressing with TX Smart Addresser

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.



Pixel Ribbon Go Top Bend

Specifications

Product Specifications - 8 Pixels per meter

LED Color	RGBW (W: 6500K)	RGB	DW (W: 2700K+5700K)	W 4000K	W 3000K	W2700K
Light Source	High intensity SMT RGBW 4 in 1 LEDs			White LEDs		
Color Range	16.7 Million additive RGB colors			N / A		
Pixels	8 pixels/m					
LED pitch	RGBW, RGB, DW: 10.4mm [0.41"] W4000K, W3000K, W2700K: 8.9mm [0.35"]					
Pixel Pitch	125 mm [4.92"]					
Cutting Pitch	125 mm [4.92"]					
CRI for White LED	> 80					
SDCM for White LED	White Color uniformity: 3 SDCM on the entire LED Ribbon and between Ribbons					
Luminous Flux	398 lm/m	228 lm/m	552 lm/m	670 lm/m	629 lm/m	609 lm/m
Efficacy	28 lm/W	21 lm/W	57 lm/W	70 lm/W	66 lm/W	64 lm/W
Beam Angles	120°					
Housing	Diffused silicone, UV resistant					
Mounting	Various mounting channels, brackets or strips					
Dimensions (W x H)	15mm [0.59"] x 16mm [0.63"]					
Max. Length	8m [26.25'] / roll	8m [26.25'] / roll	10m [32.81'] / roll	10m [32.81'] / roll	10m [32.81'] / roll	10m [32.81'] / roll
Weight (per roll)	2.5kg [5.51lbs]	2.5kg [5.51lbs]	3.1kg [6.83lbs]	3.1kg [6.83lbs]	3.1kg [6.83lbs]	3.1kg [6.83lbs]
Minimum Bend Radius	150mm [5.91"]					
Regulatory Listing & Safety Approval	CE, UKCA					
Operating Temperature	-20°C to +50°C / -4°F to 122°F					
Storage Temperature	-40°C to +70°C / -40°F to 158°F					
Environment	Outdoor, IP67, suitable for coastal environment, IK08					
Humidity	0 to 90% non-condensing					

Electrical Specifications

Input Voltage	24V DC					
Power Consumption (Typ)	14.4 W / m	11 W / m	9.6 W / m	9.6 W / m	9.6 W / m	9.6 W / m

System Specifications

Control	DMX512
Power Supply	24V DC Outdoor
Addressing Options	Manual Addressing with TX Smart Addresser

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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.

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Lumen maintenance is calculated based on LM-80 compliant measurement.



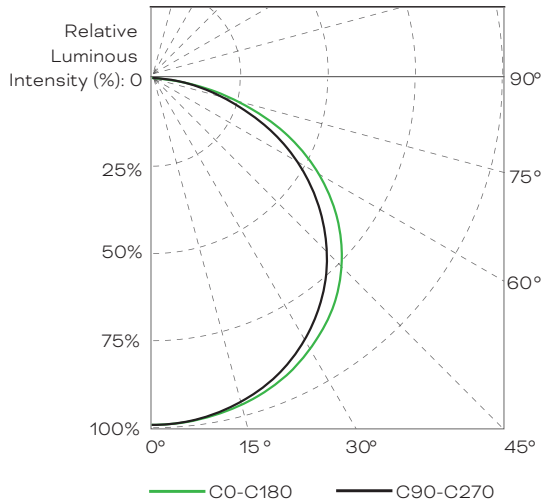
Pixel Ribbon Go Top Bend

Photometrics

Source Specifications

Light Source	High intensity SMT RGBW & White LEDs
Beam Angle	120°

Candela Distribution



Light Output

10 Pixels per meter		8 Pixels per meter	
Color	Luminous Flux (lm)	Color	Luminous Flux (lm)
RGBW		RGBW	
RGBW (full-on)	353.3	RGBW (full-on)	397.9
RGB	196.7	RGB	227.8
Red	42.06	Red	45.57
Green	119.7	Green	146.3
Blue	32.84	Blue	37.73
White (RGB off)	157.5	White (RGB off)	168
RGB		RGB	
RGB (full-on)	196.7	RGB (full-on)	227.8
Red	42.06	Red	45.57
Green	119.7	Green	146.3
Blue	32.84	Blue	37.73
DW		DW	
DW (full-on)	517.4	DW (full-on)	552
WW (2700K)	268.8	WW (2700K)	283.4
CW (5700K)	250	CW (5700K)	264.68
White		White	
2700K	497	2700K	609.7
3000K	513	3000K	629.76
4000K	550	4000K	670.9

Illuminance at a Distance

	Center Beam LUX/klm	Beam Width		
		H	V	
0.5m	1323	1.49m	1.80m	1.6'
1.0m	331	2.99m	3.59m	3.3'
1.5m	147	4.48m	5.39m	4.9'
2.0m	83	5.98m	7.19m	6.6'
2.5m	53	7.47m	8.98m	8.2'
3.0m	37	8.96m	10.78m	9.8'

For fc divide by 10.7

- Horiz. Spread: 112.4°
- Vertic. Spread: 121.8°

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



Pixel Ribbon Go Top Bend

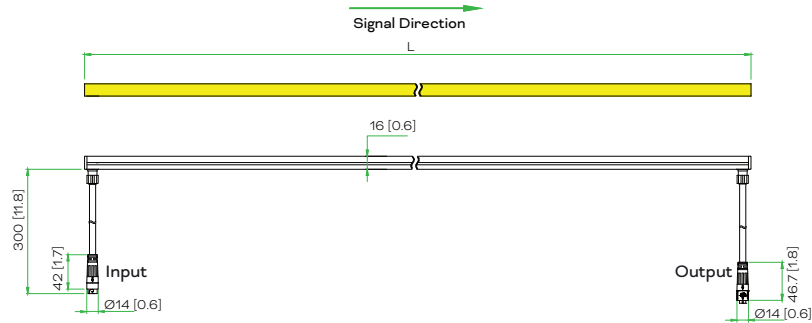
Dimensions

Fixture

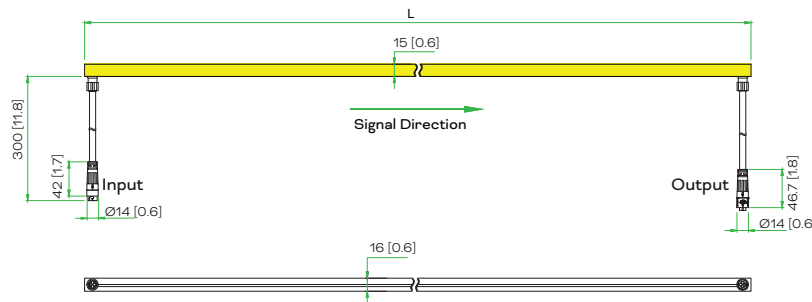
Model	Max. Ribbon length with single power feed	Actual product length with end cap at 2-ends, L
RGBW (14.4W/m) & RGB (11W/m)	8000mm [315"]	8006mm [315.2"] ± 10mm [0.39"]
DW & W (9.6W/m)	10000mm [393.7"]	10006mm [393.94"] ± 10mm [0.39"]

Unit: mm [inch]

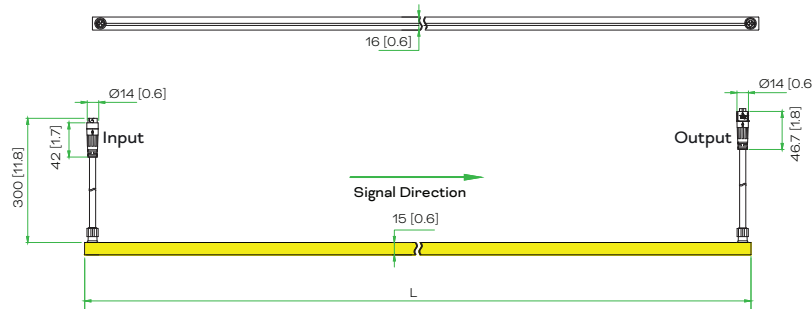
Bottom cable feed (BF)



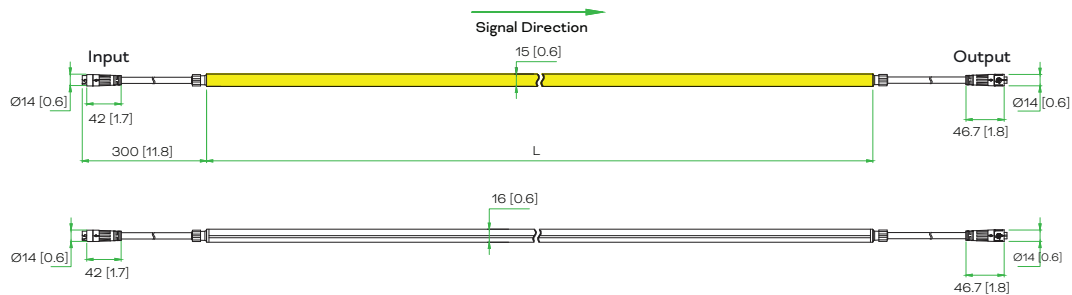
Left cable feed (LF)



Right cable feed (RF)



End cable feed (EF)



Remark: For other customize lengths (in multiply of 100mm / 4" or 125mm / 5"), the actual product length would be customize length ± 10mm [0.39"].

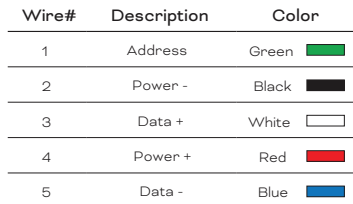


Dimensions

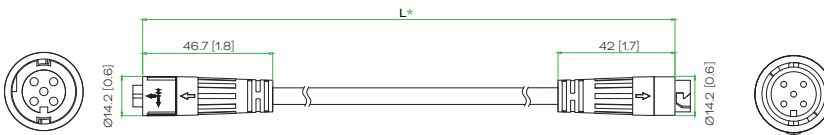
Unit: mm [inch]

Technical drawing of the cable assembly showing dimensions in mm and inches:

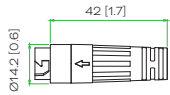
- Overall length: 1000 [39.4] / 3000 [118.1] / 5000 [196.9] / 12000 [472.4] / 20000 [787.4]
- Length of the braided shield section: 46.7 [1.8]
- Length of the outer jacket section: 10 [0.4]
- Outer diameter of the cable: Ø14.2 [0.6]
- Outer diameter of the braided shield: Ø6 [0.2]



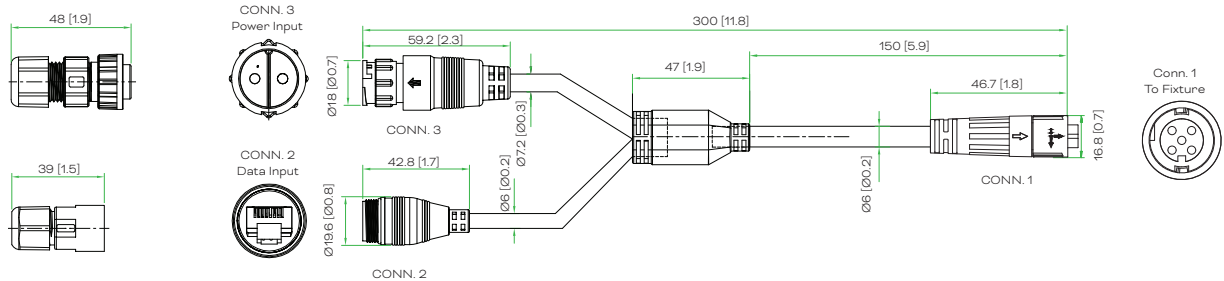
INTERCONNECTION CABLE



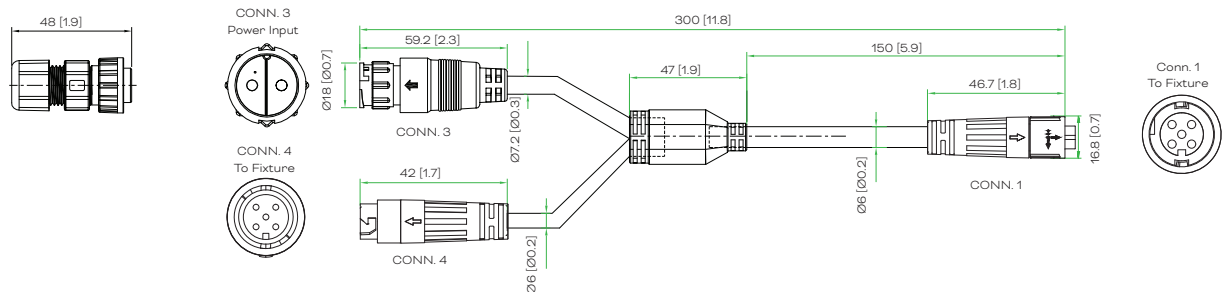
PIXEL RIBBON GO 5PIN END CAP 120 OHM IP67 (DA24102371155)



PIXEL RIBBON GO POWER RJ45 STARTER Y CABLE IP67 (DA24102371255)



PIXEL RIBBON GO POWER INJECTOR Y CABLE IP67 (DA24102371355)





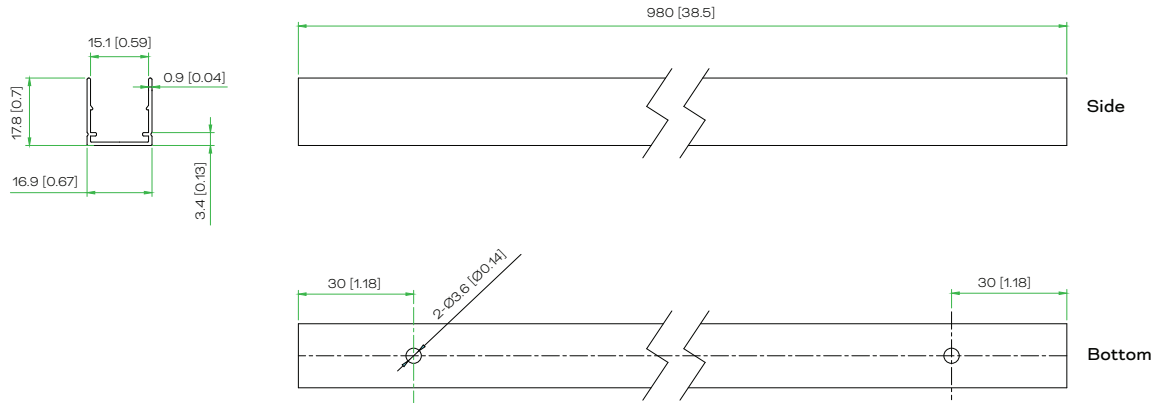
Pixel Ribbon Go Top Bend

Dimensions

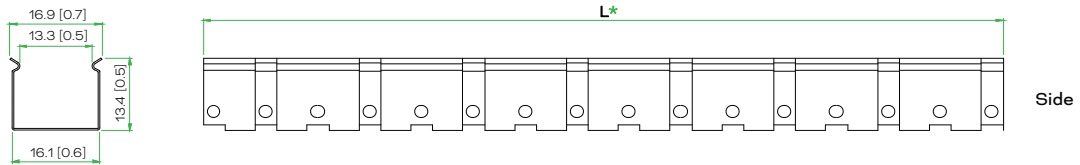
Mounting Accessories

Unit: mm [inch]

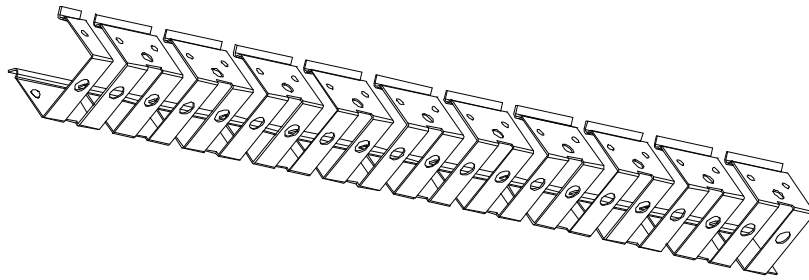
PIXEL RIBBON GO TB1516 U-CHANNEL 980 (DA24102366055)



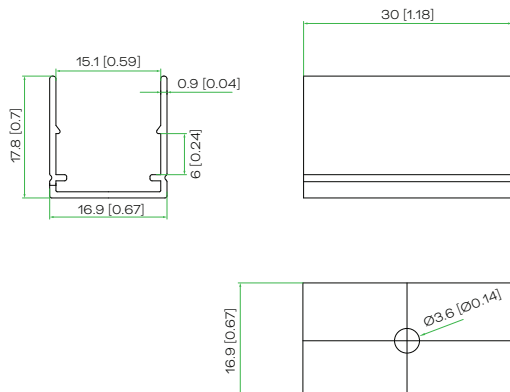
FLEXIBLE MOUNT STRIP VB 5M (AM400930055)



* The cable length can be customized based on specific requirements.



SINGLE MOUNT BRACKET VB 20PC (AM400950055)



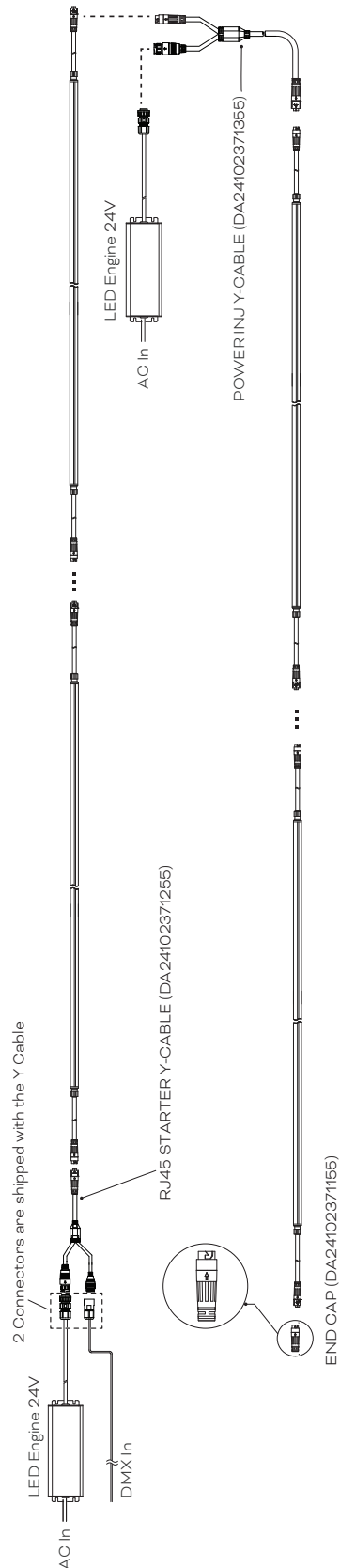


Pixel Ribbon Go Top Bend

System Diagram

Typical Power Injection with Wiring Y-Cable

NOTE: Mounting accessories not shown.



NOTE: Power injection is required when Pixel Ribbon Go connection length reaches the maximum length with single power feed.
This wiring diagram shows only typical connections. Actual wiring depends on Ribbon configuration and installation. Actual no. varies according to cable lengths and signal source.
Please consult your local Traxon office for aid.

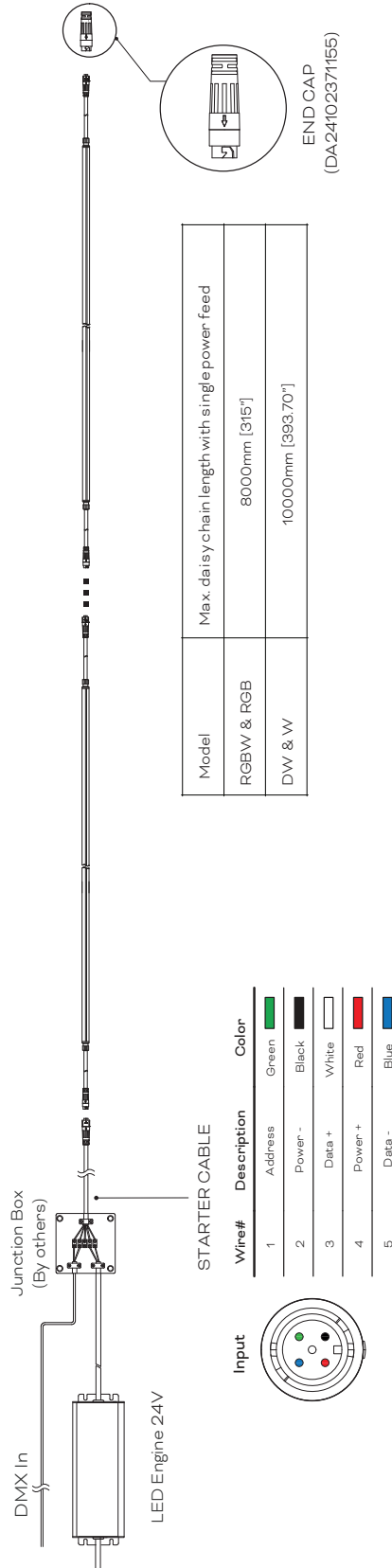


Pixel Ribbon Go Top Bend

System Diagram

Typical Wiring with Starter Cable

NOTE: Mounting accessories not shown.



NOTE: Address wire should not be connected.

This wiring diagram shows only typical connections. Actual wiring depends on Ribbon configuration and installation. Actual no. varies according to cable lengths and signal source. Please consult your local Traxon office for aid.



Pixel Ribbon Go Top Bend

Ordering

Fixtures Model Number

PRG.	TB.	N	NN	N	N	00
	Shape	LED color	Length	Pixels	Cable Feed	
	TB: Top Bend	1: RGBW (W=6500K)	50: 5000mm	1: 1 Pixel/ meter	1: Bottom feed	
		2: RGB	80: 8000mm	8: 8 Pixels/ meter	2: Left Side feed	
		3: DW (2700K & 5700K)	00: 10000mm	A: 10 Pixels/ meter	3: Right Side feed	
		4: RGBW (W=3000K)			4: End feed	
		5: 2700K				
		6: 3000K				
		7: 4000K				

Desired Model Number:

PRG.	TB.					00
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Fixtures

Model No.	Description	Item Code
PRG.TB.1808100	PIXEL RIBBON GO TB RGBW 8PPM 8M BF DOTLESS	DL24102360555
PRG.TB.2808100	PIXEL RIBBON GO TB RGB 8PPM 8M BF DOTLESS	DL24102360655
PRG.TB.3008100	PIXEL RIBBON GO TB DW2757 8PPM 10M BF DOTLESS	DL24102360755
PRG.TB.6008100	PIXEL RIBBON GO TB 830 8PPM 10M BF DOTLESS	DL24102360855
PRG.TB.180A100	PIXEL RIBBON GO TB RGBW 10PPM 8M BF	DL24102360955
PRG.TB.280A100	PIXEL RIBBON GO TB RGB 10PPM 8M BF	DL24102361055
PRG.TB.300A100	PIXEL RIBBON GO TB DW2757 10PPM 10M BF	DL24102361155
PRG.TB.600A100	PIXEL RIBBON GO TB 830 10PPM 10M BF	DL24102361255

TX Connect

Description	Item Code
PIXEL RIBBON GO 5PIN STARTER CABLE 1M IP67	DA24202338055
PIXEL RIBBON GO 5PIN STARTER CABLE 3M IP67	DA24202349055
PIXEL RIBBON GO 5PIN STARTER CABLE 5M IP67	DA24202349155
PIXEL RIBBON GO 5PIN STARTER CABLE 12M IP67	DA24202349355
PIXEL RIBBON GO 5PIN STARTER CABLE 20M IP67	DA24202349655
PIXEL RIBBON GO 5PIN END CAP 120 OHM IP67	DA24102371155
PIXEL RIBBON GO POWER RJ45 STARTER Y CABLE IP67	DA24102371255
PIXEL RIBBON GO POWER INJECTOR Y CABLE IP67	DA24102371355

TX Mounting

Description	Item Code
FLEXIBLE MOUNT STRIP VB 5M	AM400930055
SINGLE MOUNT BRACKET VB 20PC	AM400950055
PIXEL RIBBON GO TB1516 U-CHANNEL 980	DA24102366055



TX Cutting

Description	Item Code
PX RIBBON CUTTING TOOL	AM412950055
PX RIBBON SEALING GLUE 100ML	AM412960055
RX RIBBON VB FIELD CUT ENDCAP 20PC	AM412970055

TX Power Supply & Control

Model No.	Description	Item Code
	LED ENGINE 100W 24V OUTDOOR	AM175860055
	LED ENGINE 185W 24V OUTDOOR	AM175880055
	LED ENGINE 320W 24V OUTDOOR	AM175900055
CD.SA.0000100	SMART ADDRESSER	AM438260055

