

Customer:	Date:	
Project:		



Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel





#### **PROFILE CAPABILITIES**







#### **CERTIFICATIONS & FEATURES**











**TEMPERATURES** 

AMBIENT OPERATING TEMPERATURE:

-40°F to 131°F (-40°C to 55°C)

AMBIENT INSTALLATION TEMPERATURE:

-40°F to 131°F (-40°C to 55°C)

FIXTURE STORAGE TEMPERATURE: -40°F to 140°F (-40°C to 60°C)

## MAX MOUNTING SURFACE TEMPERATURE:

185°F (85°C)

**HUMIDITY (NON-CONDENSING):** 

THERMAL MANAGEMENT:

Free Air Convection

#### **FIXTURE ORDER CODE**

E	A						В	
INPUT CONNECTORS	SERIES	MATERIAL	PROFILE	BENDING	JACKET/BASE + LENS COLOR	LED FUNCTION	LED COLOR	CHIP + CRI
See Page 5 to select input connector	V = Vivid	1 = Silicone	H = Wave 320	2 = Top	W = White + Diffused	5 = SPI-Pixel All Colors 6 = SPI- Pixel-RGBW 2700K 3000K 4000K	J = 2700K L = 3000K M = 3500K N = 4000K Q = 5700K U = 2200K- 5700K S = RGB	1 = Epistar SMD LED Chip RGB 2 = Epistar SMD LED Chip + CRI80 Whites Tunable White RGBW
	С	D		E		F	G	

POWER	VOLTAGE +	ORDER UNIT	OUTPUT	MOUNTING	MOUNTING	SU
	CIRCUIT TYPE	LENGTH*	CONNECTOR	PROFILE	ACCESSORIES	CO
$F = 3.05 \text{W/ft} \\ (10 \text{W/m}) \\ \text{Tunable White} \\ G = 3.66 \text{W/ft} \\ (12 \text{W/m}) \\ \text{Whites} \\ J = 5.03 \text{W/ft} \\ (16.5 \text{W/m}) \\ \text{RGB} \\ L = 6.71 \text{W/ft} \\ (22 \text{W/m}) \\ \text{RGBW}$	2C = 24V DC CC	F = 3.28in (83.3mm) Whites RGB RGBW G = 3.94in (100mm) Tunable White	See Page 5 to select output connector	See Page 10 to select mounting profile	See Page 12 to select accessory	By By

Note: Maximum IP and IK ratings achievable with appropriate accessories, and cable diameter: silicone SPI pixel = 0.26in (6.5mm). The Constant Current (CC) Integrated Circuit extends max run length. Do not use a CC power supply, as it may cause damage.



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#### A

#### **MECHANICAL**

#### **ASSEMBLY**

Fixtures are carefully assembled using high-quality components to ensure durability and performance. Each unit is built to meet strict specifications, with attention to electrical safety, thermal management, and optical alignment.

#### **OVERALL & CUTTING LENGTHS**

Fixtures feature defined overall lengths and specific cutting increments for easy customization. Cutting must be done at marked points to maintain proper function and consistent light output.

#### JACKET COLOR

The white jackets with diffused white lens covers provide a clean, uniform appearance while softening light output for reduced glare. It enhances visual comfort and delivers smooth, even illumination ideal for architectural and display applications.

#### **BENDING RADIUS**

Do not bend smaller than allowed minimum bend diameter, or may cause damage to the light & void warranty.

#### **OPERATION**

#### LIGHT ENGINE

SPI pixel light engines use high-speed Serial Peripheral Interface (SPI) to control each LED independently. This allows smooth, real-time effects like chasing, fading, and color changes—ideal for dynamic displays, media façades, and interactive lighting.

#### **ELECTRICAL**

Designed to meet UL, CE, and RoHS standards, they feature overload, overvoltage, and short-circuit protection, along with low EMI and efficient thermal management for safe, reliable operation.

#### DIMMING

24V DC SPI systems use digital dimming via SPIcompatible controllers, such as Artnet-to-SPI or DMX-to-SPI. These allow precise, flicker-free control of each pixel's brightness and color, ideal for dynamic and custom lighting effects.

#### **GENERAL**

#### WARRANTY

Limited 10-Year Warranty against defects in materials and manufacturing. Coverage applies to properly installed and maintained products. Damage from misuse or improper installation is not covered. GLLS may repair, replace, or issue credit for eligible claims.

#### **LUMEN MAINTENANCE**

GLLS static lighting fixtures are tested to IES LM-84 and projected with IES TM-28 to ensure consistent lumen maintenance. Fixtures are designed to retain at least 70% of their initial brightness (L70) over a 10-year lifespan when properly installed and operated.

#### CERTIFICATION

Tested to UL1598/2388 Class 2 by Underwriters Laboratory for use in the USA and Canada. Exceeds ANSI C78.377A, CE, and RoHS standards. Must be used under Class 2 ratings to maintain certification.

UL Certificate #: E347880

Report Referance #: E347880-20130503

#### **TESTING**

#### **OPTICAL TESTING**

TEST	RESULTS
Spectrum Analysis	IES LM 79 (Lumen, CCT, CRI, XY, SDCM, Wavelength)
Photometric Distribution	IES LM 79
Lumen Maintenance & Lifetime	IES LM 84 & IES TM28

#### **ENVIRONMENTAL TESTING**

TEST	RESULTS
Salt Water Immersion	IEC60598-1, Sailinity 4%
Salt Spray Test	IEC60068-2-11
Outdoor Exposure	Manufacturer-defined
Flame Resistance	UL94
UV Exposure	ASTMG 154, ISO 4892-3, UVA @ 340nm & 55
IPX8	EN 60598-1: 2015+A1:2018 Clause 9.2.2 & 9.2.8
Temperature Shock(Silicone)	Manufacturer-defined, -40°C - 60°C (typical temperature range)
Constant Temperature	Manufacturer-defined
12mm Needle Flame Test (Silicone)	IEC60695-11-5
650 Glow-wire Test (Silicone)	IEC60695-2-10

#### TEMPERATURE TESTING

TEST	RESULTS
Normal Temperature Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
Abnormal Operation Test	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21

#### **DURABILITY TESTING**

TEST	RESULTS
Bending Test	Manufacturer-defined, 500 cycles
Tensile Test	Manufacturer-defined, > The weight of light in max.
Twist Test	Manufacturer-defined, >200 cycles
Ball Impact	UL1598 & UL2388 & IEC60598-1 & IEC60598-2-21
IK	IEC62262



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### В

#### **LED COLORS**



















K RGBW-4

#### **FIXTURE SPECIFICATIONS & OPTICAL PARAMETERS**

COLOR	LED CHIP + CRI	COUNT	1 CONNECTOR FULL/DYNAMIC	2 CONNECTORS FULL/DYNAMIC	FIXTURE COLOR TOLERANCE	WAVELENGTH/ CCT	LED CRI	LED COLOR TOLERANCE	LUMEN COUNT	LEGACY ORDER CODE
2700K	Epistar SMD LED Chip + CRI80	25 LEDs/ft (84 LEDs/m)	49.2ft (15m) / Not Recommended	98.4ft (30m) / Not Recommended	3 SDCM	2725 ± 145K	82-87	2.3SDCM	274lm/ft (900lm/m)	SF16E0033WE27K24DC
3000K	Epistar SMD LED Chip + CRI80	25 LEDs/ft (84 LEDs/m)	49.2ft (15m) / Not Recommended	98.4ft (30m) / Not Recommended	3 SDCM	3045 ± 175K	82-87	2.3SDCM	274lm/ft (900lm/m)	SF16E0033WE30K24DC
4000K	Epistar SMD LED Chip + CRI80	25 LEDs/ft (84 LEDs/m)	49.2ft (15m) / Not Recommended	98.4ft (30m) / Not Recommended	3 SDCM	3985 ± 275K	82-87	2.3SDCM	274lm/ft (900lm/m)	SF16E0033WE40K24DC
5700K	Epistar SMD LED Chip + CRI80	25 LEDs/ft (84 LEDs/m)	49.2ft (15m) / Not Recommended	98.4ft (30m) / Not Recommended	3 SDCM	5669 ± 355K	82-87	2.3SDCM	274lm/ft (900lm/m)	SF16E0033WE57K24DC
2200K; 5700K; 2200-5700K	Epistar SMD LED Chip + CRI80	36 LEDs/ ft (120 LEDs/m)	49.2ft (15m) / Not Recommended	8.4ft (30m) / Not Recommended	3 SDCM	2238 ± 102K; 5669 ± 355K	82-87; 82-87;	2.3SDCM 2.3SDCM	67 lm/ft (220lm/m); 73lm/ft (240lm/m)	SF16E0033WEPDW24DC
R; G; B; R+G+B	Epistar SMD LED Chip	25 LEDs/ft (84 LEDs/m)	49.2ft (15m) / Not Recommended	98.4ft (30m) / Not Recommended	N/A	618-624nm; 522-530nm; 468-474nm; N/A	N/A	3nm	39lm/ft (130lm/m); 106lm/ft (350lm/m); 21lm/ft (70lm/m); 168lm/ft (550lm/m)	SF16E0033WERGB24DC
R; G; B; 2700K	Epistar SMD LED Chip + CRI80	25 LEDs/ft (84 LEDs/m)	26.2ft (8m) / 39.4ft (12m)	52.5ft (16m) / 78.7ft (24m)	3 SDCM	618-624nm; 522-530nm; 468-474nm; 2725 ± 145K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	39lm/ft (130lm/m); 106lm/ft (350lm/m); 21lm/ft (70lm/m); 91lm/ft (300lm/m)	SF16E0033WER2724DC
R; G; B; 3000K	Epistar SMD LED Chip + CRI80	25 LEDs/ft (84 LEDs/m)	26.2ft (8m) / 39.4ft (12m)	52.5ft (16m) / 78.7ft (24m)	3 SDCM	618-624nm; 522-530nm; 468-474nm; 3045 ± 175K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	39lm/ft (130lm/m); 106lm/ft (350lm/m); 21lm/ft (70lm/m); 91lm/ft (300lm/m)	SF16E0033WER3024DC
R; G; B; 4000K	Epistar SMD LED Chip + CRI80	25 LEDs/ft (84 LEDs/m)	26.2ft (8m) / 39.4ft (12m)	52.5ft (16m) / 78.7ft (24m)	3 SDCM	618-624nm; 522-530nm; 468-474nm; 3985 ± 275K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	39lm/ft (130lm/m); 106lm/ft (350lm/m); 21lm/ft (70lm/m); 91lm/ft (300lm/m)	SF16E0033WER4024DC

Note: Run length is based on a static full load with voltage drop calculated using a 0.3 m (0.98 ft) cable with silicone seamless connectors, excluding connector length—refer to specifications for details. Silicone products maintain ≤3 SDCM within a single production run and <5 SDCM between production runs. For runs over 65.62ft (20m), recommended to limit each to 65.62ft (20m) for easier handling.



# VIVID WAVE 320: SILICONE - 24V Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel



С

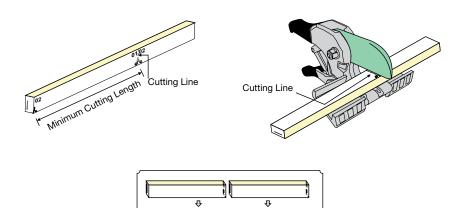
### **POWER & VOLTAGE**

COLOR	VOLTAGE + CIRCUIT TYPE	POWER CONSUMPTION		
2700K				
3000K				
4000K	24V DC CC	3.66W/ft (12W/m)		
5700K				
2200K-5700K		3.05W/ft (10W/m)		
RGB		5.03W/ft (16.5W/m)		
RGBW-27K				
RGBW-30K		6.71W/ft (22W/m)		
RGBW-40K				

The Constant Current (CC) Integrated Circuit extends max run length. Do not use a CC power supply, as it may cause damage.

D

#### **CUTTING INSTRUCTIONS**



COLOR	ORDER UNIT (CUTTING UNIT)			
2700K				
3000K	0.00% (00.0%) (7.150%)			
4000K	3.28in (83.3mm) (7 LEDs)			
5700K				
2200K-5700K	3.94in (100mm) (12 LEDs)			
RGB				
RGBW-27K				
RGBW-30K	3.28in (83.3mm) (7 LEDs)			
RGBW-40K				



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#### **COMPATIBLE CONNECTORS**

INPUT - 01

INPUT CONNECTOR TYPE INPUT ORIENTATION + TYPE INPUT CABLE LENGTH (LEAD WIRE)

OUTPUT - 02

OUTPUT CONNECTOR TYPE	OUTPUT ORIENTATION + TYPE	OUTPUT CABLE LENGTH (LEAD WIRE)
7 = Snap	A = End Exit B = Bottom Exit C = Side Left Exit D = Side Right Exit E = End Jumper H = Power T-Feed I = End Cap	1 = 0.98ft (0.3m) 2 = 3.28ft (1m) 3 = 9.84ft (3m) 4 = 16ft (5m) 5 = 32.81ft (10m) 6 = 49.21ft (15m) 7 = 65.62ft (20m) 8 = N/A
2 = Silicone Seamless	A = End Exit B = Bottom Exit C = Side Left Exit D = Side Right Exit E = End Jumper H = Power T-Feed I = End Cap	1 = 0.98ft (0.3m) 2 = 3.28ft (1m) 3 = 9.84ft (3m) 4 = 16ft (5m) 5 = 32.81ft (10m) 6 = 49.21ft (15m) 7 = 65.62ft (20m) 8 = N/A

#### LEGACY CONNECTOR ORDER CODE

XX	16E	Х	00	XX	XX	Х	XX	XXX	Х
PRODUCT TYPE	PROFILE	BENDING	LIGHT EMITTING	FUNCTIONALITY	CONNECTOR TYPE	FIXTURE END	EXIT TYPE	LENGTH	
NA = DIY Accessories FA = Factory Accessories	16E = Wave	1 = Side 2 = Top	00 = 16E	2W = Static/DTW 3W = Tunable White/SPI-Pixel 4W = RGB 5W = RGBW 0W = For End Cap	SV = Swivel CL = Click SC = Snap SE = Seamless	1 = Input Side 2 = Output Side 0 = Jumpers/T-feeds/ Seamless Bottom/ Seamless End 3 = Input/Output	EN = End BO = Bottom SL = Side Left SR = Side Right EJ = End Jumper BJ = Bottom Jumper TF = Power Feed EC = End Cap	0M3 = 0.98ft (30cm) 01M = 3.28ft (1m) 03M = 9.84ft (3m) 05M = 16ft (5m) 10M = 32.81ft (10m) 000 = For End Cap	P = Power or For End Cap S = Signal & Power



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#### **SNAP CONNECTOR**



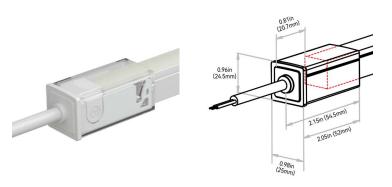


- 1. Connector Tolerance ±0.02in (0.5mm)

- Cable diameter: Static Silicone = 0.26in (6.5mm)
   Do not apply force to the feed cable
   Ensure Max. Cable Lengths are followed according to wire gage to avoid voltage drop

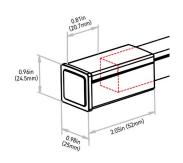
IP67, tool-less; good solution for protection from water ingression; larger connector & anti-wicking ferrule. Recommended for wet environments and on-site length adjustments. To seal the end of light and ensure the waterproof in case of any cutting or extension on site, Insulfit technology prevents the water or vapor ingress from the end of the light. DryWire technology applied on the cable eliminates the capillary phenomenon through wires, which secured the long-term reliability in any wading environments. DIY or custom factory assembly.

END EXIT: 7-A-#



#### END CAP: 7-I-8

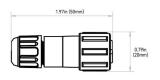




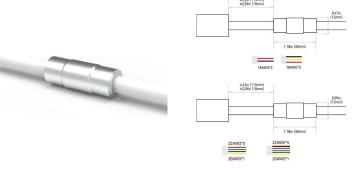
### SCREW LOCK CONNECTOR ACCESSORY - IP67



NOTE: The tolerance is ±0.08in (2mm).



#### ANTI-WICKING FERRULE:



- 1. The anti-wicking ferrule is located at 4.53in (115mm) (±0.39in [±10mm] tolerance) from the
- connector on the cable. For protection against water ingress.

  2. The removal of anti-wicking ferrule will void the warranty if any water ingression caused by it.



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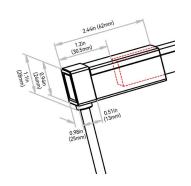


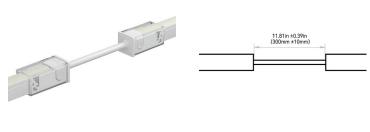
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**BOTTOM EXIT: 7-B-#** 





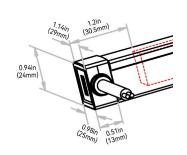




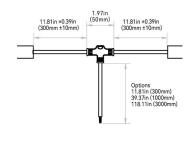
SIDE LEFT EXIT: 7-C-#

POWER T-FEED: 7-H-#



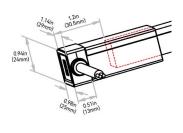






SIDE RIGHT EXIT: 7-D-#





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#### SILICONE SEAMLESS CONNECTOR



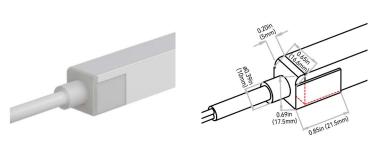


#### NOTES:

- 1. Connector Tolerance ±0.02in (0.5mm)
- 2. Cable diameter: Static Silicone = 0.26in (6.5mm)
- Do not apply force to the feed cable
   Ensure Max. Cable Lengths are followed according to wire gage to avoid voltage drop

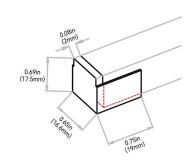
IP68; seamless; precise low profile dimension; high grade quality silicone & anti-wicking ferrule. Recommended for; wet environments; custom predetermined lengths; high/low temperatures; increased humidity; direct UV exposure; harsh working conditions & increased handling forces during installation. Precision milling and special glue Silicone liquid injection-moulded workmanship enables an almost consistent size between connectors and lightbody, and the transparent terminal of the connector allows the seamless effects spliced end by end. DryWire technology applied on the cable eliminates the capillary phenomenon through wires, which secured the long-term reliability in outdoor or any wet environments. Custom factory assembly.

END EXIT: 2-A-#



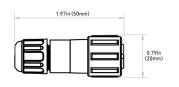
#### **END CAP: 2-I-8**



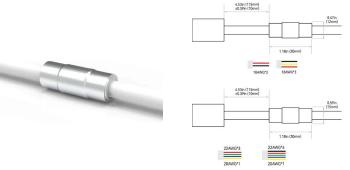


#### SCREW LOCK CONNECTOR ACCESSORY - IP67





ANTI-WICKING FERRULE:



#### NOTE: The tolerance is $\pm 0.08$ in (2mm).

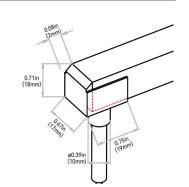
- 1. The anti-wicking ferrule is located at 4.53in (115mm) (±0.39in [±10mm] tolerance) from the connector on the cable. For protection against water ingress.
- 2. The removal of anti-wicking ferrule will void the warranty if any water ingression caused by it.



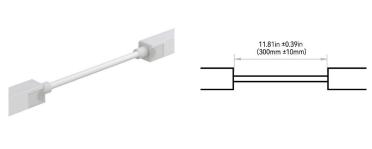
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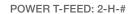
BOTTOM EXIT: 2-B-#



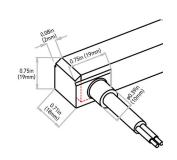
END JUMPER: 2-E-1



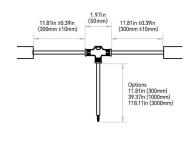
SIDE LEFT EXIT: 2-C-#





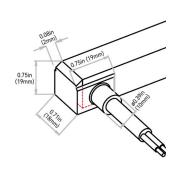






SIDE RIGHT EXIT: 2-D-#





# VIVID WAVE 320: SILICONE - 24V Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel



#### **MOUNTING PROFILES**

MOUNTING PROFILE TYPE	STANDARD LENGTH	PROFILE	COLOR	
A6 = Aluminum Self-Locking	1 = 0.79in (20mm) 3 = 19.68in (500mm) 5 = 39.37in (1000mm) 6 = 78.74in (2000mm)	H = Wave 320	1 = Standard	
A7 = Aluminum Self-Locking Flexible	3 = 19.68in (500mm) 5 = 39.37in (1000mm)			



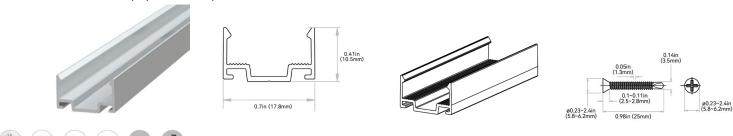
Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel



B

#### **ALUMINUM PROFILE - SELF-LOCKING**

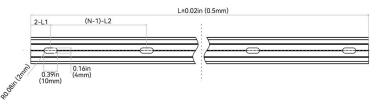
High-quality 6063 differing from the aluminum basic profile, it has a shallower shape and symmetric protruding tracks inside to discreetly fit the notched Wave 320. With it, the beauty of Wave 320 lights can be displayed from all sides to the fullest extent, while the reliable clamping force can be expected even for the upsidedown applications. Please refer to install manual for proper installation practices.



Tolerance: ± 0.01in (0.3mm)

NOTES: 1. 2-L1 refers to two of symmetric L1 in each piece of profile.
2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.

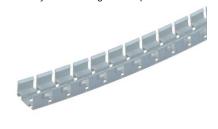
"N" hereby stands for its corresponding "Hole Number" in the below table

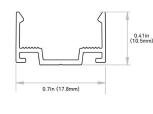


ORDER CODE	LEGACY CODE	STANDARD LENGTH	L1	L2	SLOTTED HOLE	HOLE #
A6-1-H-1	CL16RAL2C0LP	0.79in (20mm)	N/A	N/A	0.16*0.39in (4*10mm)	1
A6-3-H-1	CH16RAL0M5LP	19.68in (500mm)	1.97in (50mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	3
A6-5-H-1	CH16RAL01MLP	39.37in (1000mm)	3.93in (100mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	5
A6-6-H-1	CH16RAL02MLP	78.74in (2000mm)	3.93in (100mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	10

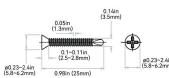
#### ALUMINUM PROFILE - SELF-LOCKING FLEXIBLE

High-quality 6063 differing from the aluminum basic profile, it has a shallower shape and symmetric protruding tracks inside to discreetly fit the notched Wave 320. With it, the beauty of Wave 320 lights can be displayed from all sides to the fullest extent, while the reliable clamping force can be expected even for the upsidedown applications. The flexibility allows the light to shape to curved lines bringing your creative ideas to life. Please refer to install manual for proper installation practices.







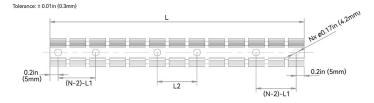








NOTES: 1. 2-L1 refers to two of symmetric L1 in each piece of profile. 2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile. "N" hereby stands for its corresponding "Hole Number" in the below table



ORDER CODE	LEGACY ORDER CODE	STANDARD LENGTH	и	L2	SLOTTED HOLE	HOLE #
A7-3-H-1	CH16RAL0M5LPTB	19.68in (500mm)	4.34in (110.3mm)	1.92in (48.9mm)	Ø 0.17in (4.2mm)	6
A7-5-H-1	CH16RAL01MLPTB	39.37in (1000mm)	4.59in (116.5mm)	3.89in (98.8mm)	Ø 0.17in (4.2mm)	10



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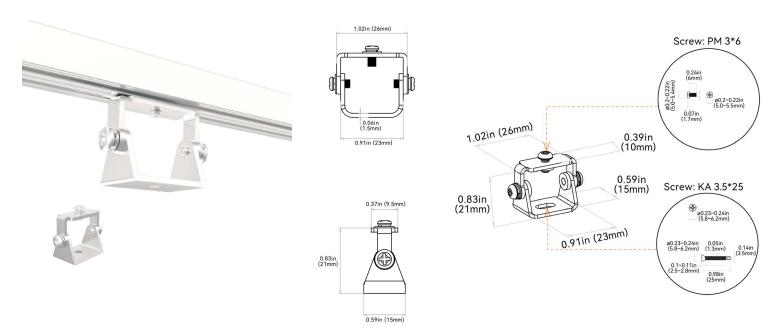
G

#### **MOUNTING ACCESSORIES**

MOUNTING ACCESSORY TYPE	PROFILE
MA1 = Pivot Bracket	
MA2 = Rotary Bracket	H = Wave 320
MA3 = Side Bracket	

#### **PIVOT BRACKET**

Applicable to all mounting profiles.





Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel



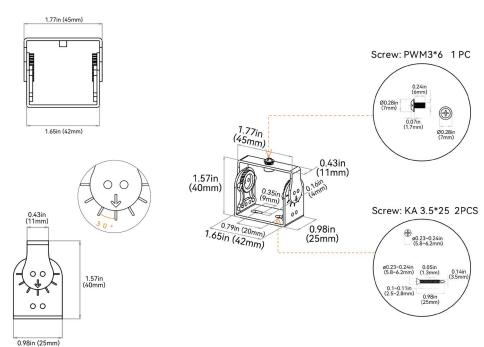
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#### **ROTARY BRACKET**

Applicable to all mounting profiles.







#### SIDE MOUNTING BRACKET

Applicable to all mounting profiles.



