

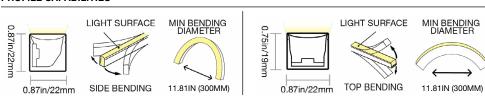
Customer:	Date:	
Project:		



Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel



# PROFILE CAPABILITIES



# **CERTIFICATIONS & FEATURES**



# **TEMPERATURES**

**AMBIENT OPERATING TEMPERATURE:** 10W/m: -40°F to 140°F (-40°C to 60°C) ≥12W/m: -40°F to 131°F (-40°C to 55°C)

AMBIENT INSTALLATION TEMPERATURE:

-40°F to ~140°F (-40°C to ~60°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):** 

0–95%

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	G = Wave XL	1 = Side 2 = Top	W = White + Diffused	5 = SPI-Pixel RGB 6 = SPI- Pixel-RGBW 2700K 3000K 4000K	J = 2700K L = 3000K N = 4000K S = RGB	1 = Epistar SMD LED Chip RGB 2 = Epistar SMD LED Chip + CRI80 RGBW

	C	D	E F		F	G	
POWER	VOLTAGE + CIRCUIT TYPE	ORDER UNIT LENGTH*	OUTPUT CONNECTOR		MOUNTING PROFILE	MOUNTING ACCESSORIES	POWER SUPPLIES & CONTROLS:
J = 5.03W/ft (16.5W/m) RGB L = 6.71W/ft (22W/m) RGBW	2C = 24V DC CC	F = 3.28in (83.3mm)	See Page 5 to select output connector		See Page 8 to select mounting profile	See Page 10 to select accessory	By Others By GLLS

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.



Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel



### Α

## **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 jacket with diffused white lens cover 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**









-27K RGBW-30K RGBW-40

# FIXTURE SPECIFICATIONS & OPTICAL PARAMETERS - SIDE BEND

COLOR	LED CHIP + CRI	LED COUNT	1 CONNECTOR FULL/DYNAMIC	2 CONNECTORS FULL/DYNAMIC	FIXTURE COLOR TOLERANCE	WAVELENGTH/ CCT	LED CRI	LED COLOR TOLERANCE	LUMEN COUNT	LEGACY ORDER CODE
R; G; B; R+G+B	Epistar SMD LED Chip	25 LEDs/ft (84 LEDs/m)	32.8ft (10m) / Not Recommended	65.6ft (20m) / Not Recommended	N/A	618624nm; 522530nm; 468474nm; N/A	N/A	3nm; 3nm; 3nm; N/A	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 163lm/ft (535lm/m)	SF22H1003WERGB24DC
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	618624nm; 522530nm; 468474nm; 2725K ± 115K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 104lm/ft (340lm/m)	SF22H1013WER2724DC
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	618624nm; 522530nm; 468474nm; 3045K ± 140K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 104lm/ft (340lm/m)	SF22H1013WER3024DC
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	618624nm; 522530nm; 468474nm; 3985K ± 225K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 104lm/ft (340lm/m)	SF22H1013WER4024DC

# FIXTURE SPECIFICATIONS & OPTICAL PARAMETERS - TOP BEND

COLOR	LED CHIP + CRI	LED COUNT	1 CONNECTOR FULL/DYNAMIC	2 CONNECTORS FULL/DYNAMIC	FIXTURE COLOR TOLERANCE	WAVELENGTH/ CCT	LED CRI	LED COLOR TOLERANCE	LUMEN COUNT	LEGACY ORDER CODE
R; G; B; R+G+B	Epistar SMD LED Chip	25 LEDs/ft (84 LEDs/m)	32.8ft (10m) / Not Recommended	65.6ft (20m) / Not Recommended	N/A	618624nm; 522530nm; 468474nm; N/A	N/A	3nm; 3nm; 3nm; N/A	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 163lm/ft (535lm/m)	SF22H0003WERGB24DC
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	618624nm; 522530nm; 468474nm; 2725K ± 115K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 104lm/ft (340lm/m)	SF22H0013WER2724DV
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	618624nm; 522530nm; 468474nm; 3045K ± 140K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 104lm/ft (340lm/m)	SF22H0013WER3024DV
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	618624nm; 522530nm; 468474nm; 3985K ± 225K	N/A; N/A; N/A; 82-87	3nm; 3nm; 3nm; 2.3SDCM	40lm/ft (130lm/m); 104lm/ft (340lm/m); 20lm/ft (65lm/m); 104lm/ft (340lm/m)	SF22H0013WER4024DV

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  $\leq$ 3 SDCM within a single production run and  $\leq$ 5 SDCM between production runs. For runs over 65.62ft (20m), recommended to limit each to 65.62ft (20m) for easier handling.





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# **POWER & VOLTAGE**

COLOR	VOLTAGE + CIRCUIT TYPE	POWER CONSUMPTION	
RGB		5.03W/ft (16.5W/m)	
RGBW-27K	24V DC CC		
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.

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# **CUTTING INSTRUCTIONS**

COLOR	ORDER UNIT (CUTTING UNIT)
RGB	
RGBW-27K	2 200in (02 2nnn) (7 L FDn)
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)
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	22H	Х	01	XX	SE	Х	XX	XXX	Х
PRODUCT TYPE	PROFILE	BENDING	LIGHT EMITTING	FUNCTIONALITY	CONNECTOR TYPE	FIXTURE END	EXIT TYPE	LENGTH	
FA = Factory Accessories	22H = WaveXL	1 = Side 2 = Top	01 = 22H	2W = Static/DTW 3W = Tunable White/SPI-Pixel 4W = RGB 5W = RGBW 5D = DMX-Pixel 0W = For End Cap	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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### SILICONE SEAMLESS CONNECTOR





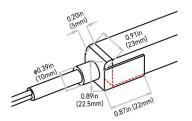
#### NOTES:

- 1. Connector Tolerance ±0.02in (0.5mm)
- 2. Cable diameter: Static, Tunable, RGB, RGBW & SPI Silicone = 0.26in (6.5mm) & DMX Silicone = 0.27 (6.8mm)
  3. Do not apply force to the feed cable
  4. Ensure Max. Cable Lengths are followed according to wire
- gage to avoid voltage drop

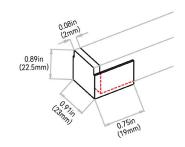
IP68; seamless; precise low profile dimension; high grade quality silicone & anti-wicking ferrule. Recommended for; wet environments; custom predetermined lengths; high/low temperatures; increased humidity; direct UV exposure; harsh working conditions & increased handling forces during installation. 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





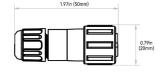




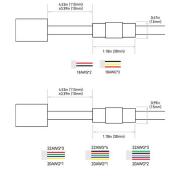
### SCREW LOCK CONNECTOR ACCESSORY - IP67











## NOTE: The tolerance is ±0.08in (2mm).

- 1. The anti-wicking ferrule is located at 4.53in (115mm) ( $\pm 0.39$ in [ $\pm 10$ mm] 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.

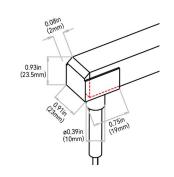


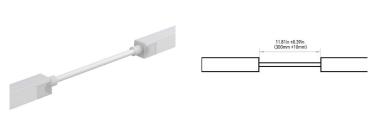


BOTTOM EXIT: 2-B-#





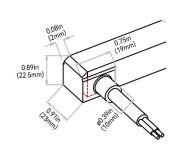




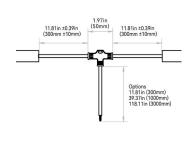
SIDE LEFT EXIT: 2-C-#

POWER T-FEED: 2-H-#



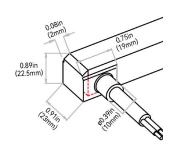






SIDE RIGHT EXIT: 2-D-#







# **MOUNTING PROFILES**

MOUNTING PROFILE TYPE	STANDARD LENGTH	PROFILE	COLOR	BEND	
A3 = Aluminum Recessed Silicone Grip	1 = 0.79in (20mm) 3 = 19.68in (500mm) 5 = 39.37in (1000mm) 6 = 78.74in (2000mm)				
A4 = Aluminum Silicone Grip	1 = 0.79in (20mm) 3 = 19.68in (500mm) 5 = 39.37in (1000mm) 6 = 78.74in (2000mm)	G = Wave XL	1 = Standard	1 = Side 2 = Top	
A5 = Aluminum Flexible	3 = 19.68in (500mm) 5 = 39.37in (1000mm)				
C1 = Silicone Flexible	B = 4.33in (110mm) C = 7.87in (200mm) 3 = 19.68in (500mm) 5 = 39.37in (1000mm)		2 = Black 3 = White 0 = Custom		



Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel

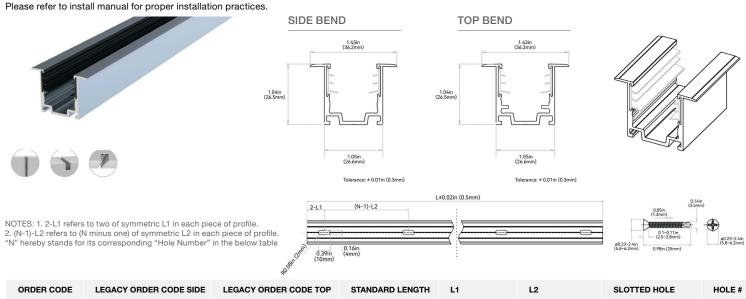


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# ALUMINUM PROFILE - RECESSED - SILICONE GRIP

High-quality 6063 aluminum with thin-wall, light-weight design to fit the fixture tightly. Includes a serrated silicone grip insert designed to hold fixture with additional force.

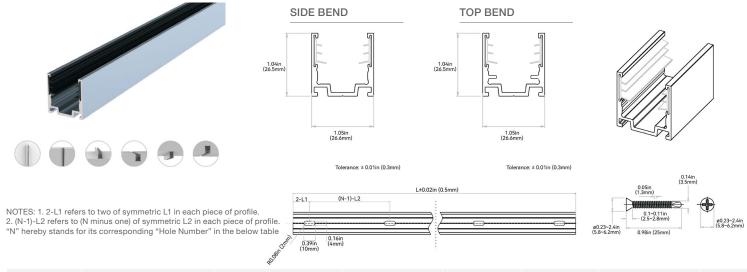
Recommended on projects mounted upside down with lighting mounted recessed in a cavity so only the lens is shown. It is deformation and rust resistant, and cost-effective.



ORDER CODE	LEGACY ORDER CODE SIDE	LEGACY ORDER CODE TOP	STANDARD LENGTH	L1	L2	SLOTTED HOLE	HOLE #
A3-1-G-1-#	CH22RRA12CSE	CL22RRA02CSE	0.79in (20mm)	0.39in (10mm)	N/A	0.16*0.39in (4*10mm)	1
A3-3-G-1-#	CH22RRA10M5SE	CH22RRA0M5SE	19.68in (500mm)	1.97in (50mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	3
A3-5-G-1-#	CH22RRA11MSE	CH22RRA01MSE	39.37in (1000mm)	3.93in (100mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	5
A3-6-G-1-#	CH22RRA12MSE	CH22RRA02MSE	78.74in (2000mm)	3.93in (100mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	10

# **ALUMINUM PROFILE - SILICONE GRIP**

High-quality 6063 aluminum with thin-wall, light-weight design. Includes a serated silicone grip insert designed to hold fixture with additional force. Recommended on projects mounted upside down. It is deformation and rust resistant, and cost-effective. Please refer to install manual for proper installation practices.



ORDER CODE	LEGACY ORDER CODE SIDE	LEGACY ORDER CODE TOP	STANDARD LENGTH	L1	L2	SLOTTED HOLE	HOLE #
A4-1-G-1-#	CL221AL02CSE	CL220AL02CSE	0.79in (20mm)	0.39in (10mm)	N/A	0.16*0.39in (4*10mm)	1
A4-3-G-1-#	CH221AL0M5SE	CH220AL0M5SE	19.68in (500mm)	1.97in (50mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	3
A4-5-G-1-#	CH221AL01MSE	CH220AL01MSE	39.37in (1000mm)	3.93in (100mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	5
A4-6-G-1-#	CH221AL02MSE	CH220AL02MSE	78.74in (2000mm)	3.93in (100mm)	7.87in (200mm)	0.16*0.39in (4*10mm)	10

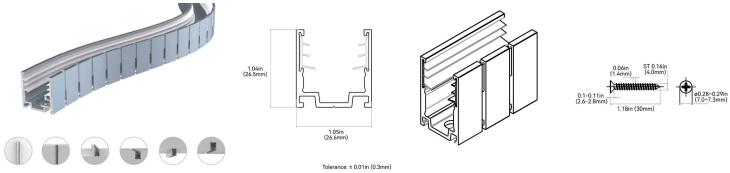


Indoor & Outdoor Rated Linear Flex Profile - Tunable White

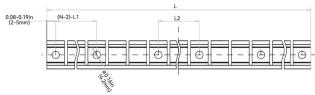


# **ALUMINUM PROFILE - FLEXIBLE**

It is an expanded design of the flexible aluminum profile, and caters for the continuously streamlined aesthetics of curve shape. The secondary precision cutting process, not only maintains the advantage of clamping force, but also enables the two-way side bending directions with super shape memory. Available for side bending only. Please refer to install manual for proper installation practices



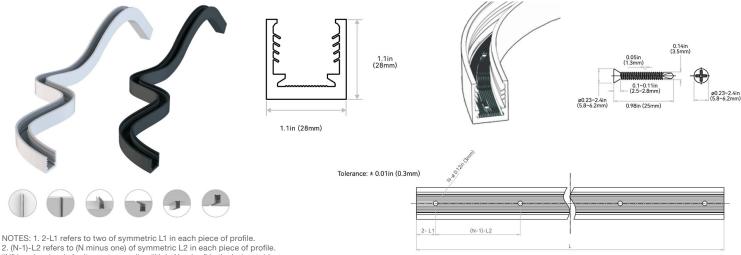
NOTES: 1. 2-L1 refers to two of symmetric L1 in each piece of profile. 2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile. "N" hereby stands for its corresponding "Hole Number" in the below table



ORDER CODE	LEGACY ORDER CODE	STANDARD LENGTH	L1	L2	SLOTTED HOLE	HOLE #
A5-3-G-1	CH22FAL0M5SE	19.68in (500mm)	39.37in (1000mm)	3.89in (98.8mm)	ø 0.17in (4.2mm)	6
A3-5-G-1	CH22FAL1MSE	39.37in (1000mm)	19.68in (500mm)	1.93in (48.9mm)	ø 0.17in (4.2mm)	10

# SILICONE PROFILE - FLEXIBLE

An all-in-one mounting profile designed to unleash your creativity. This profile not only provides flexibility in installation methods, but also overcomes bending limitations by offering both top and side bending in a single profile. Fully encapsulated in UL-certified silicone, it excels in UV, weather, and corrosion resistance, making it suitable for underwater, high and low temperature environments. Elegant and square in appearance, it is available in black or white standard colors, or bespoke colors to blend in with the background. Supported by innovative serrated silicone fins, its clamping strength is strong enough to secure any installation method. Side and top bending. NOTE: Side bending will sit higher then the mounting profile, will not be a flush edge. Please refer to install manual for proper installation practices.



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: WHITE	LEGACY ORDER CODE: BLACK	STANDARD LENGTH	L1	L2	SLOTTED HOLE	HOLE #
C1-B-G-X-#	CH22FAN1C1SEW	CH22FAN1C1SEB	4.33in (110mm)	0.46in (11.6mm)	3.48in (88.4mm)	Ø 0.12in (3mm)	2
C1-C-G-X-#	CH22FAN0M2SEW	CH22FAN0M2SEB	7.87in (200mm)	0.46in (11.6mm)	3.48in (88.4mm)	Ø 0.12in (3mm)	3
C1-3-G-X-#	CH22FAN0M5SEW	CH22FAN0M5SEB	19.68in (500mm)	1.14in (29mm)	3.48in (88.4mm)	Ø 0.12in (3mm)	6
C1-5-G-X-#	CH22FAN01MSEW	CH22FAN01MSEB	39.37in (1000mm)	0.54in (13.8mm)	3.48in (88.4mm)	Ø 0.12in (3mm)	12



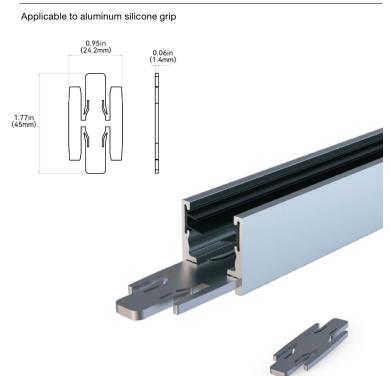


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# **MOUNTING ACCESSORIES**

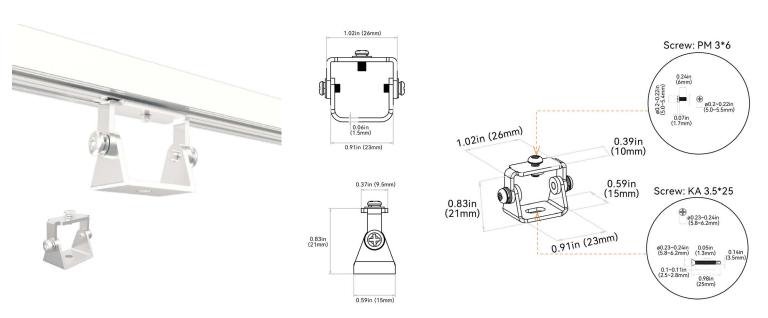
MOUNTING ACCESSORY TYPE	PROFILE
MA1 = Pivot Bracket	
MA2 = Rotary Bracket	
MA3 = Side Bracket	0 W W
MA4 = Ceiling Clip	G = Wave XL
MA6 = Suspended Wire Kit	
MA8 = Alignment Bracket - Aluminum Silicone Grip	

# ALIGNMENT BRACKET - ALUMINUM SILICONE GRIP



# PIVOT BRACKET

Applicable to all mounting profiles.





Indoor & Outdoor Rated Linear Flex Profile - SPI-Pixel



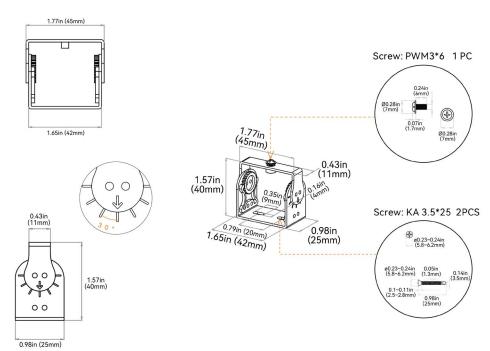
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# **ROTARY BRACKET**

Applicable to all mounting profiles.



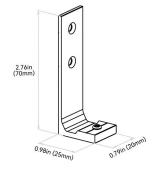


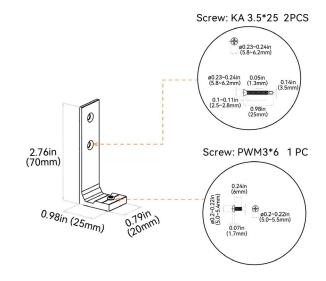


# SIDE MOUNTING BRACKET

Applicable to all mounting profiles.







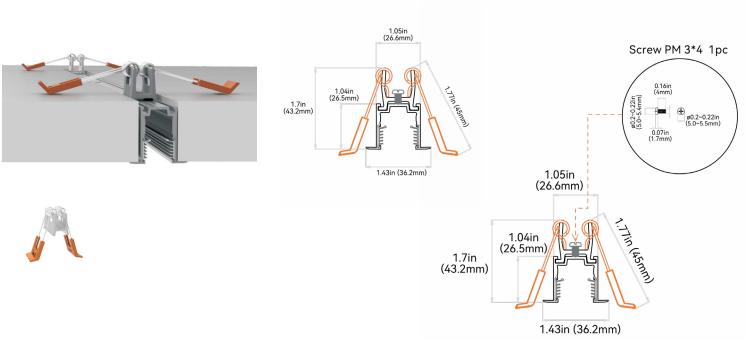




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# **CEILING CLIP BRACKET**

Applicable to aluminum profile - recessed - silicone grip



# SUSPENDED WIRE

Applicable to Aluminum Profile - Silicone Grip. 2 kits of stainless steel wires for 39.37in (1000mm) of profile & 3 kits of stainless steel wires for 78.74in (2000mm) of profile.

