FloppyFlex® **F22** s

RGB AND RGBW - VERTICAL & HORIZONTAL BENDING
MULTI-PIXEL LED NEON

FIREFLY LIGHTING
Phone : +61 7 3254 4333
Email : sales@fireflylighting.com.au
Address : 9/29 Links Ave North, Eagle Farm.
Brisbane QLD 4009 Australia
www.fireflylighting.com.au

24V EXTRA LOW VOLTAGE	INDOOR OUTDOOR	UV STABILISED	OUTDOOR IP RATED	COMMERCIAL GRADE	VANDAL RESISTANT	GREEN FRIENDLY	PVC — 3 — 3 YEAR WARRANTY	SILICONE — 5 — 5 YEAR WARRANTY
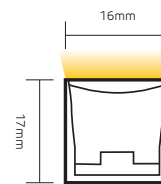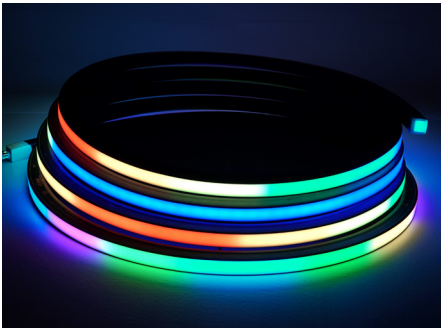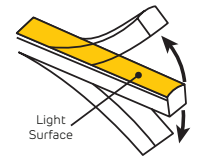
16mm / 17mm
Vertical Profile
Cross Section

Light Surface
Vertical Bending
300 mm Minimum Bend

16 mm / 17mm
Horizontal Profile
Cross Section
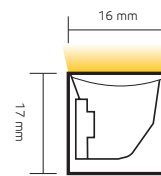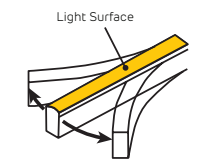
Light Surface
Horizontal Bending
300 mm Minimum Bend

FloppyFlex Digital F22 is flexible 24V LED neon with multi-pixel control for advanced chasing, programmable scenes, and animated visual effects via an SPI DMX Decoder. It features a rich, vibrant colour palette with RGB or RGBW LEDs and a pixel size of 83.34 mm. Available with PVC housing with an average (50%) beam angle of 116.2° or longer lasting Silicone housing with an average (50%) beam angle of 113.5°. The minimum Vertical or Horizontal Bending diameter is 300 mm. Black base is standard with a homogenous LED package without "skittles" effect.

FEATURES

Digital multi-pixel control in 83.34 mm "pixel" sections

Super bright, pixel package with homogenous lighting surface

116.2° beam angle (PVC), 113.5° beam angle (Silicone)

Seamless colour mixing, beautiful dimming via FloppyDrive Digital or SPI Decoder

Auto-addressing allows for quick setup and patching

Wide range of accessories for joining, terminating, mounting, powering

Easy to use and install

300 mm minimum vertical & horizontal bending bend diameter

Unlimited and unprecedented possibilities

APPLICATIONS

Installation, architectural, digital signage, gameshows, arcades, signs, film and television sets, theme parks, bars and clubs, cruise ships, creating words, indirect applications, and scenic elements

AVAILABLE CONNECTORS

Injection Molded Power Feed and End cap connectors, fully customizable for no-hassle installations. PVC IP67, Silicone IP68.

Double Molded IP68 Power Feed and End cap connectors, suitable for submersible applications. PVC only - not available for silicone versions.

RESISTANCE AND PROTECTIONS

Flame Resistant
UV Resistant
Solvents Resistant
Saltwater Resistant
IP67 Protection
IK08 Protection

CERTIFICATIONS

With factory-installed connectors. cULus Listed, CE, TUV and RoHS compliant and passes rigorous environmental, optical, mechanical, and electrical testing.

CONTENTS

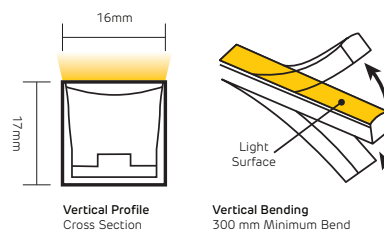c(UL)us LISTED   CE   TÜV SÜD   RoHS COMPLIANT

FloppyFlex® F22 s

RGB - VERTICAL BENDING
MULTI-PIXEL LED NEON

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	PVC Specifications				**Silicone** Specifications			
Part Number	**LN-F22S-RGB-VB**				**SLN-F22S-RGB-VB**			
Type	Digital Multi-Pixel Control							
Colour	RGB							
Colour/CCT	**Red**	**Green**	**Blue**	**R+G+B**	**Red**	**Green**	**Blue**	**R+G+B**
Wavelength	618-624nm	522-528nm	468-474nm	-	618-624nm	522-528nm	468-474nm	-
Lumen/m	80	190	30	300	90	240	40	370
Lumen/ft	24	58	9	91	27	73	12	113
Beam Angle, Average (50%)	116.2°				113.5°			
Number of Pixels Per Meter	12							
LED Quantity Per Pixel	7							
LED Quantity Per Meter	84							
DMX Channels	3 per pixel / 36 per meter							
Base Colour	Black base standard, other colours available on request							
Housing	PVC				Silicone			
Cut & Connect Joints	Located Every 83.34 mm							
Minimum Bend Diameter	300 mm							
Bending Direction	Vertical Bending							
Connectors & Hardware	Factory molded connectors, Aluminium mounting channels, Plastic mounting channels							
Operating Voltage	24V DC							
Wiring	3-Wire							
Power Consumption	16.5 W/m							
Max Fixture Runs	Single end feed	8 m Dynamic Operation			Single end feed	15 m Dynamic Operation		
		5 m Full Static Load				10 m Full Static Load		
	Double end feed	16 m Dynamic Operation			Double end feed	30 m Dynamic Operation		
		10 m Full Static Load				20 m Full Static Load		
Control	DMX-512/Ethernet via ProPlex BuckBoost System DMX-512 via FloppyDrive Digital							
Installation Temperature	0 to 45 °C				-40 to 50 °C			
Operating Temperature	-20 to 35 °C				-40 to 45 °C			
Mounting Surface Temperature	60 °C Max.				85 °C Max.			
Storage Temperature	-20 to 60 °C				-40 to 60 °C			
Dimensions (WxHxD)	16 mm x 17 mm x variable							
Ingress Protection	IP67 with Molded connectors IP68 with Double Molded connectors				IP68 with Molded connectors			
Listing	UL2108 Class 2, UL676 (rating requires the use of Thickened Plastic Profile for mounting), CE-EMC				UL2108 Class 2, CE-EMC			
Warranty	3 Years				5 Years			
Wire Legend								

Black Negative
Yellow Signal
Red Positive (+)

16mm

17mm

Vertical Profile
Cross Section

Light Surface

Vertical Bending
300 mm Minimum Bend

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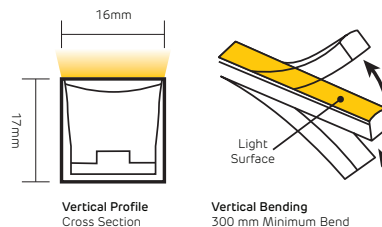
2

FloppyFlex® **F22** s

RGBW - VERTICAL BENDING
MULTI-PIXEL LED NEON

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	PVC Specifications				**Silicone** Specifications			
Part Number	**LN-F22S-RGBW-VB**				**SLN-F22S-RGBW-VB**			
Type	Digital Multi-Pixel Control							
Colour	RGB							
Colour/CCT	**Red**	**Green**	**Blue**	**White**	**Red**	**Green**	**Blue**	**White**
Wavelength	618-624nm	522-528nm	468-474nm	2725±145K	618-624nm	522-528nm	468-474nm	2725 ± 85K
Lumen/m	80	190	30	190	90	240	40	200
Lumen/ft	24	58	9	58	27	73	12	61
Beam Angle, Average (50%)	116.2°				113.5°			
Number of Pixels Per Meter	12							
LED Quantity Per Pixel	7							
LED Quantity Per Meter	84							
DMX Channels	4 per pixel / 48 per meter							
Base Colour	Black base standard, other colours available on request							
Housing	PVC				Silicone			
Cut & Connect Joints	Located Every 83.34 mm							
Minimum Bend Diameter	300 mm							
Bending Direction	Vertical Bending							
Connectors & Hardware	Factory molded connectors, Aluminium mounting channels, Plastic mounting channels							
Operating Voltage	24V DC							
Wiring	3-Wire							
Power Consumption	22 W/m							

Max Fixture Runs	Single end feed	8 m Dynamic Operation	Single end feed	12 m Dynamic Operation
		5 m Full Static Load		8 m Full Static Load
	Double end feed	16 m Dynamic Operation	Double end feed	24 m Dynamic Operation
		10 m Full Static Load		16 m Full Static Load

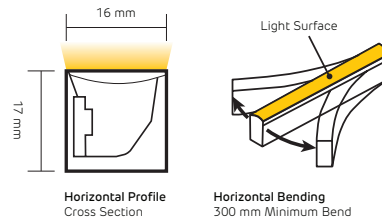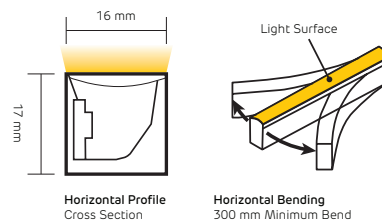|		
Control	DMX-512/Ethernet via ProPlex BuckBoost System DMX-512 via FloppyDrive Digital	
Installation Temperature	0 to 45 °C	-40 to 50 °C
Operating Temperature	-20 to 35 °C	-40 to 45 °C
Mounting Surface Temperature	60 °C Max.	85 °C Max.
Storage Temperature	-20 to 60 °C	-40 to 60 °C
Dimensions (WxHxD)	16 mm x 17 mm x variable	
Ingress Protection	IP67 with Molded connectors IP68 with Double Molded connectors	IP68 with Molded connectors
Listing	UL2108 Class 2, UL676 (rating requires the use of Thickened Plastic Profile for mounting), CE-EMC	UL2108 Class 2, CE-EMC
Warranty	3 Years	5 Years
Wire Legend		

Black Negative
Yellow Signal
Red Positive (+)

16mm

17mm

Vertical Profile
Cross Section

Light
Surface

Vertical Bending
300 mm Minimum Bend

c **UL** us LISTED   CE   TÜV SÜD   RoHS COMPLIANT

FloppyFlex® **F22** s

## RGB - HORIZONTAL BENDING
MULTI-PIXEL LED NEON

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	PVC Specifications				**Silicone** Specifications			
Part Number	**LN-F22S-RGB-HB**				**SLN-F22S-RGB-HB**			
Type	Digital Multi-Pixel Control							
Colour	RGB							
Colour/CCT	**Red**	**Green**	**Blue**	**R+G+B**	**Red**	**Green**	**Blue**	**R+G+B**
Wavelength	618-624nm	522-528nm	468-474nm	-	618-624nm	522-528nm	468-474nm	-
Lumen/m	80	190	30	300	90	240	40	370
Lumen/ft	24	58	9	91	27	73	12	113
Beam Angle, Average (50%)	116.2°				113.5°			
Number of Pixels Per Meter	12							
LED Quantity Per Pixel	7							
LED Quantity Per Meter	84							
DMX Channels	3 per pixel / 36 per meter							
Base Colour	Black base standard, other colours available on request							
Housing	PVC				Silicone			
Cut & Connect Joints	Located Every 83.34 mm							
Minimum Bend Diameter	300 mm							
Bending Direction	Horizontal Bending							
Connectors & Hardware	Factory molded connectors, Aluminium mounting channels, Plastic mounting channels							
Operating Voltage	24V DC							
Wiring	3-Wire							
Power Consumption	16.5 W/m							

Max Fixture Runs	Single end feed	8 m Dynamic Operation	Single end feed	15 m Dynamic Operation
		5 m Full Static Load		10 m Full Static Load
	Double end feed	16 m Dynamic Operation	Double end feed	30 m Dynamic Operation
		10 m Full Static Load		20 m Full Static Load

Control	DMX-512/Ethernet via ProPlex BuckBoost System DMX-512 via FloppyDrive Digital	
Installation Temperature	0 to 45 °C	-40 to 50 °C
Operating Temperature	-20 to 35 °C	-40 to 45 °C
Mounting Surface Temperature	60 °C Max.	85 °C Max.
Storage Temperature	-20 to 60 °C	-40 to 60 °C
Dimensions (WxHxD)	16 mm x 17 mm x variable	
Ingress Protection	IP67 with Molded connectors IP68 with Double Molded connectors	IP68 with Molded connectors
Listing	UL2108 Class 2, UL676 (rating requires the use of Thickened Plastic Profile for mounting), CE-EMC	UL2108 Class 2, CE-EMC
Warranty	3 Years	5 Years
Wire Legend		

Black Negative
Yellow Signal
Red Positive (+)

16 mm

17 mm

Light Surface

Horizontal Profile
Cross Section

Horizontal Bending
300 mm Minimum Bend

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4

FloppyFlex® **F22** s

RGBW - HORIZONTAL BENDING
MULTI-PIXEL LED NEON

	PVC Specifications				**Silicone** Specifications			
Part Number	**LN-F22S-RGBW-HB**				**SLN-F22S-RGBW-HB**			
Type	Digital Multi-Pixel Control							
Colour	RGB							
Colour/CCT	**Red**	**Green**	**Blue**	**White**	**Red**	**Green**	**Blue**	**White**
Wavelength	618-624nm	522-528nm	468-474nm	2725±145K	618-624nm	522-528nm	468-474nm	2725 ± 85K
Lumen/m	80	190	30	190	90	240	40	200
Lumen/ft	24	58	9	58	27	73	12	61
Beam Angle, Average (50%)	116.2°				113.5°			
Number of Pixels Per Meter	12							
LED Quantity Per Pixel	7							
LED Quantity Per Meter	84							
DMX Channels	4 per pixel / 48 per meter							
Base Colour	Black base standard, other colours available on request							
Housing	PVC				Silicone			
Cut & Connect Joints	Located Every 83.34 mm							
Minimum Bend Diameter	300 mm							
Bending Direction	Horizontal Bending							
Connectors & Hardware	Factory molded connectors, Aluminium mounting channels, Plastic mounting channels							
Operating Voltage	24V DC							
Wiring	3-Wire							
Power Consumption	22 W/m							
Max Fixture Runs	Single end feed	8 m Dynamic Operation			Single end feed	12 m Dynamic Operation		
		5 m Full Static Load				8 m Full Static Load		
	Double end feed	16 m Dynamic Operation			Double end feed	24 m Dynamic Operation		
		10 m Full Static Load				16 m Full Static Load		
Control	DMX-512/Ethernet via ProPlex BuckBoost System DMX-512 via FloppyDrive Digital							
Installation Temperature	0 to 45 °C				-40 to 50 °C			
Operating Temperature	-20 to 35 °C				-40 to 45 °C			
Mounting Surface Temperature	60 °C Max.				85 °C Max.			
Storage Temperature	-20 to 60 °C				-40 to 60 °C			
Dimensions (WxHxD)	16 mm x 17 mm x variable							
Ingress Protection	IP67 with Molded connectors IP68 with Double Molded connectors				IP68 with Molded connectors			
Listing	UL2108 Class 2, UL676 (rating requires the use of Thickened Plastic Profile for mounting), CE-EMC				UL2108 Class 2, CE-EMC			
Warranty	3 Years				5 Years			
Wire Legend								

Black Negative
Yellow Signal
Red Positive (+)

16 mm

17 mm

Light Surface

Horizontal Profile
Cross Section

Horizontal Bending
300 mm Minimum Bend

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5

FloppyFlex® F22 s

FACTORY MOLDED F22 CONNECTORS

IP67 PVC OR IP68 SILICONE

Molded Bottom Entry Connection

Connects FloppyFlex F22 to power supply with pre-installed end feed cable, IP67.

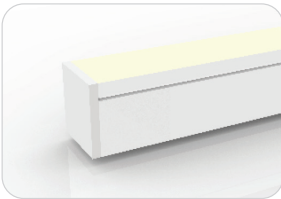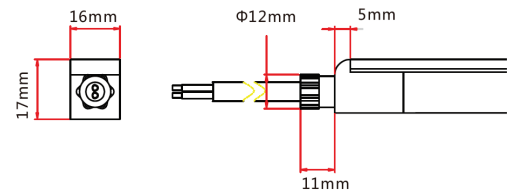Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.
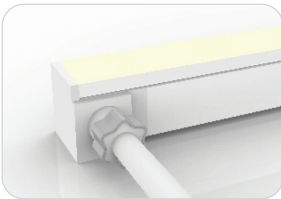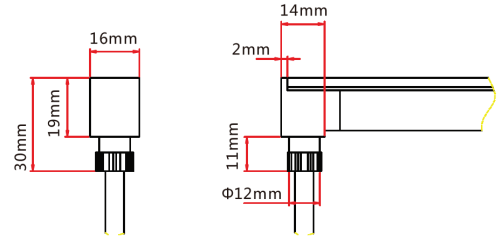
Molded Side Entry Connection

Connects FloppyFlex F22 to power supply with pre-installed side feed cable, IP67.

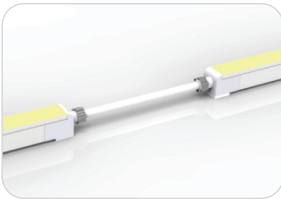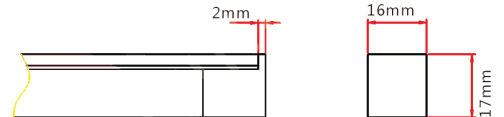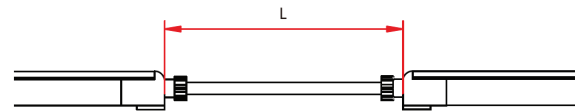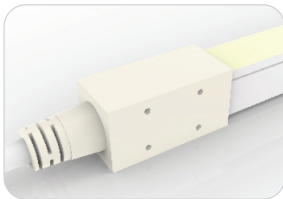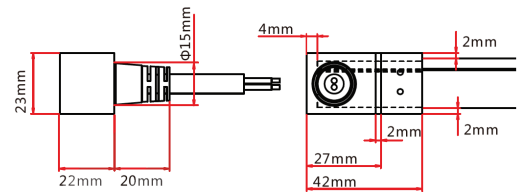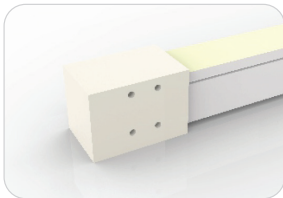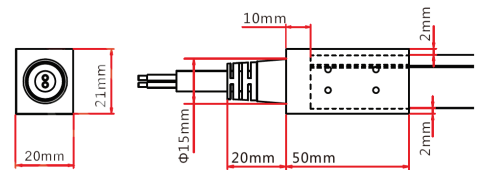Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.
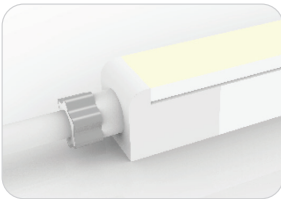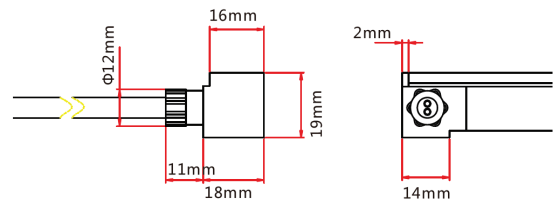
Molded End Entry Connection

Connects FloppyFlex F22 to power supply with pre-installed end feed cable, IP67.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.
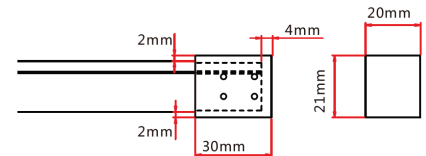
Molded End Cap

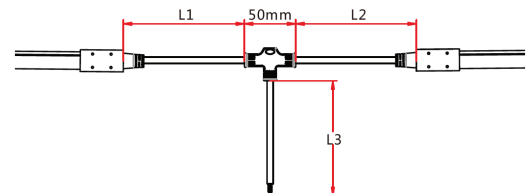Pre-installed termination protection of FloppyFlex F22, IP67.

Molded End Entry Connection

Connects two pieces of FloppyFlex F22 together with a flexible cable, IP67.

Cable length available in 0.3 - 1 m.

Maximum 8 jumpers per 20 m
Maximum 4 jumpers per 10 m

Molded T-Feed Connection

Connects two pieces of FloppyFlex F22 together with powered T-joint, IP67.

L1 and L2 length available in 0.15-0.5 m.
L3 length available in 0.3 - 1 m

Maximum 8 T-Feeds per 20 m
Maximum 4 T-Feeds per 10 m
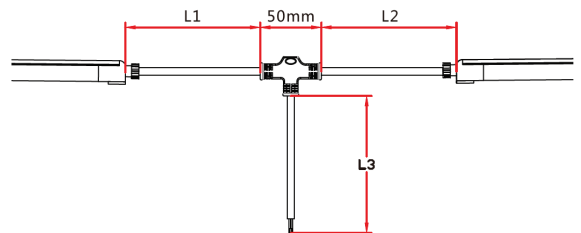
FloppyFlex® **F22** s

FACTORY DOUBLE MOLDED F22 CONNECTORS
IP68 PVC ONLY
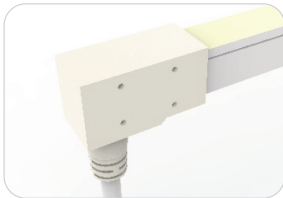
Double-Molded Bottom Entry Connection

Connects FloppyFlex F22 to power supply with pre-installed end feed cable, IP68.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.
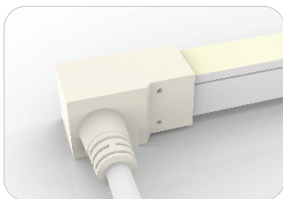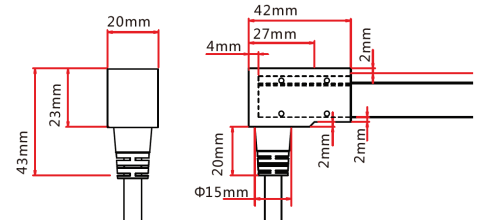
Double-Molded Side Entry Connection

Connects FloppyFlex F22 to power supply with pre-installed side feed cable, IP68.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.

Double-Molded End Entry Connection

Connects FloppyFlex F22 to power supply with pre-installed end feed cable, IP68.

Cable length available in 0.3 m, 1 m, 3 m, 5 m, 10 m.

Double-Molded End Cap

Pre-installed termination protection of FloppyFlex F22, IP68.

Double-Molded End Entry Connection

Connects two pieces of FloppyFlex F22 together with a flexible cable, IP68.

Cable length available in 0.3 - 1 m.

Maximum 8 jumpers per 20 m
Maximum 4 jumpers per 10 m
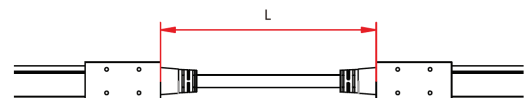
Double-Molded T-Feed Connection

Connects two pieces of FloppyFlex F22 together with powered T-joint, IP68.

L1 and L2 length available in 0.15-0.5 m.
L3 length available in 0.3 - 1 m

Maximum 8 T-Feeds per 20 m
Maximum 4 T-Feeds per 10 m

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7

FloppyFlex® **F22** s

MINI TOOL KIT
ASSEMBLY TOOLS

Mini Tool Kit

The FloppyFlex Mini Tool Kit includes the tools needed to properly cut and terminate FloppyFlex LED Neon with EZ-Connect field-installable connectors. Correct installation ensures proper electrical contact, IP rating integrity, and warranty compliance.

Includes cutter, insertion spreader and grippers.

We recommend using these tools for optimum installation results and reduced risk of damage to the product.

Lockable Aluminium Case

Grippers

Cutter

Insertion Spreaders

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8

FloppyFlex® **F22** s

DRIVERS

Floppy Drive Digital DIN Rail Mount

- DMX multi-pixel dimming for FloppyFlex Digital RGB or RGBW
- Addressing, monitoring and reporting of all functions, via RDM
- 1200Hz flicker-free refresh rate
- Pluggable Terminal Block (PTB) screw terminals for bare-wire, installation flexibility
- Requires external 24 VDC Power Supply
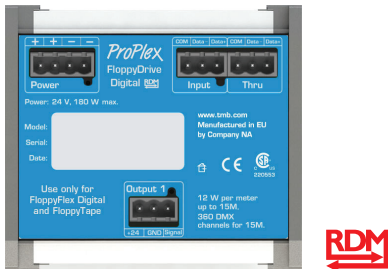
L-TECH DMX-SPI Signal Decoder

- DMX dimming for 24V LED Tapes, Neons, and other low voltage systems of all types. Perfect for FloppyFlex
- One 24V 2-wire output plus signal.
- Addressing via RDM or built in DIP switches
- Pluggable Terminal Block (PTB) screw terminals for bare-wire, installation flexibility
- Realises 0-100% dimming or different lighting effects.
- Works with IC compatible LEDs

Mean Well 24 VDC LED Drivers

- High efficiency 24VDC LED drivers in DIN Rail and stand-alone with multiple wattage configurations
- IP-rated units available
- Fixed or dimmable output. Dimming available via 1-10V DC, 10V PWM signal, resistance, or built-in potentiometer

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9

FloppyFlex® **F22** s
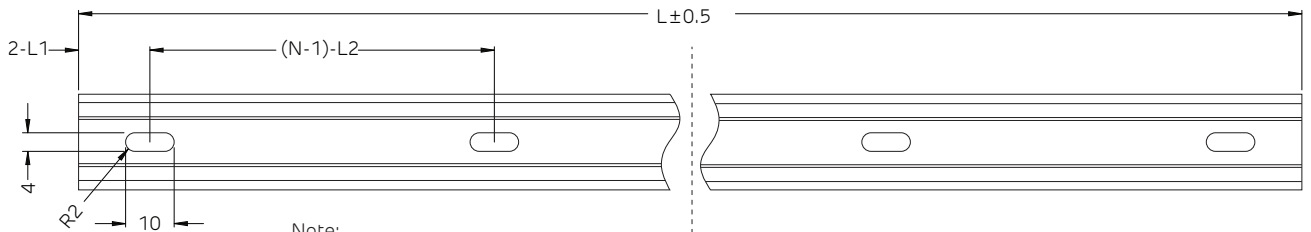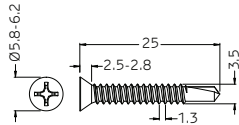
ALUMINIUM CHANNEL
SELF LOCKING

Versatile self-locking profile can be used to mount FloppyFlex F22 LED neon in any orientation including overhead at any angle. Extruded 6063 aluminum construction with elastic serrated grip tape hold the FloppyFlex neon firmly through varying temperatures of -20 to +70 °C.
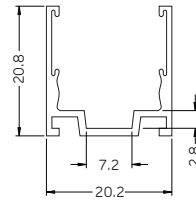
Tolerance: ±0.2 mm
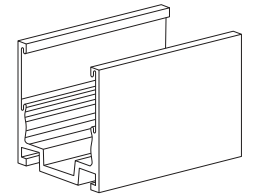
Dimensions in millimeters

Note:
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 table below.

Part Number	Length	L1	L2	Slotted Hole	Number of Holes
LNCH-F22-A1-02	20 mm	10 mm	N/A	4x10 mm	1
LNCH-F22-A1-05	500 mm	50 mm	200 mm	4x10 mm	3
LNCH-F22-A1-1	1000 mm	100 mm	200 mm	4x10 mm	5
LNCH-F22-A1-2	2000 mm	100 mm	200 mm	4x10 mm	10

FloppyFlex® **F22** s

FLANGE ALUMINIUM CHANNEL
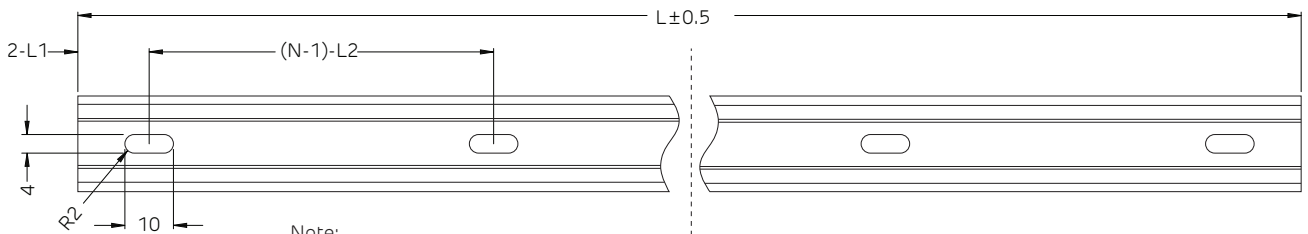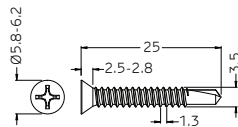RECESSED SELF LOCKING

Versatile self-locking profile can be used to mount recessed FloppyFlex F22 LED neon in any orientation including overhead at any angle. Extruded 6063 aluminum construction with elastic serrated grip tape hold the FloppyFlex neon firmly through varying temperatures of -20 to +70°C.
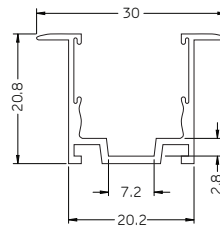
Tolerance: ±0.2 mm
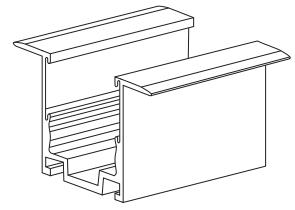
Dimensions in millimeters

Note:
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 table below.

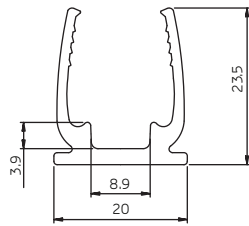| Part Number	Length	L1	L2	Slotted Hole	Number of Holes
LNCH-F22-A3-02	20 mm	10 mm	N/A	4x10 mm	1
LNCH-F22-A3-05	500 mm	50 mm	200 mm	4x10 mm	3
LNCH-F22-A3-1	1000 mm	100 mm	200 mm	4x10 mm	5
LNCH-F22-A3-2	2000 mm	100 mm	200 mm	4x10 mm	10

# FloppyFlex® F22 s

THICKENED PLASTIC CHANNEL

FIREFLY LIGHTING
Phone : +61 7 3254 4333
Email : sales@fireflylighting.com.au
Address : 9/29 Links Ave North, Eagle Farm.
Brisbane QLD 4009 Australia
www.fireflylighting.com.au

Non-metalic profile specially designed for FloppyFlex F22 LED neon in fully-submersed underwater applications up to 2 meters in depth. Thickened Polycarbonate construction to 3mm thickness. Excellent corrosion and fracture resistance properties. Can be mounted in any orientation including overhead at any angle.

Tolerance: ±0.3mm
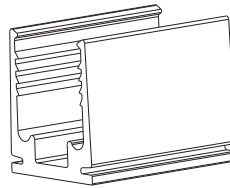
Dimensions in mm
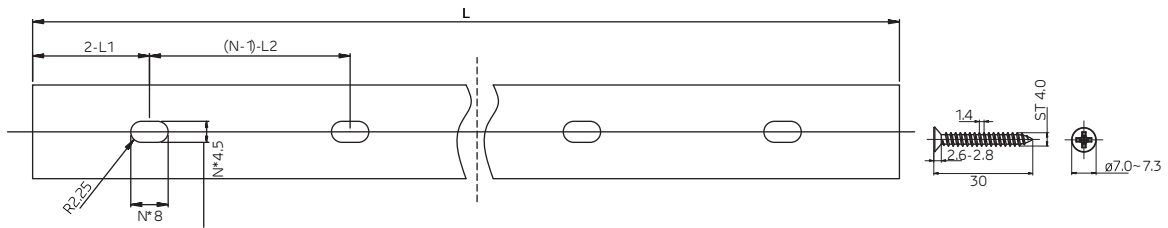
Note:
1. 2-L1 refers to two of symmetric L1 in each piece of profile.
2. (N-1)-L2 refers to (N minus one) of symmetric L2 in each piece of profile.
"N" hereby stands for its corresponding "Hole Number" in the table below.

Part Number	Length	L1	L2	Slotted Hole	Number of Holes
LNCH-F22-P1-35	35 mm	17.5 mm	N/A	4.5x8 mm	1
LNCH-F22-P1-05	500 mm	50 mm	200 mm	4.5x8 mm	3
LNCH-F22-P1-1	1000 mm	100 mm	200 mm	4.5x8 mm	5
LNCH-F22-P1-2	2000 mm	100 mm	200 mm	4.5x8 mm	10