F18 Mono Color Series Neon flex Specification
F18 Mono color series led neon flex

**Dimension**
- Gross weight: 0.43kg/m
- Dimmable: DALI, 0-10V, DMX, Triac
- Installation Temp.: 0°C to +55°C
- Ambient Temp.: -25°C to +55°C
- Min. Bending: 120mm
- Beam Angle: 260 degree

**Features**
- Uniform and even light output, three side emitting
- Flat surface with 260 degree beam angle
- Constant Current IC built in optional
- Dimmable with Dali, 0/1-10, DMX, PWM, Triac
- High Lumen output, up to 600lm/m for 10W version
- Full encapsulated with IP68 Level
- High Reliability
- 3 or 5 Years warranty

**Applications**
- Building facade, outline
- Cove lighting
- Sign and advertising lighting
- Linear lighting
- Additional lighting
- Decorative lighting

**Model Encoding**
- Shape Model
- Working Volts
- LED Type
- LED Quantity
- Power Consumption
- Color or CCT

**Example Encoding**
- MJ-18-A-S01SM
- MJ-18-A-S01SM 01------ right
- MJ-18-A-S01SM 02------left
- MJ-18-A-S01SM 03------double
- MJ-18-A-S01SM SM------ male connector cable
- MJ-18-A-S01SM SF------female connector cable
- MJ-18-A-S01SM SMF------male & female connector cable
- MJ-18-A-S01SM Blank------bare wire

For more information
Email: info@olympiedled.com
Or visit www.olympiedled.com
## Technical Specification

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage</td>
<td>24V</td>
<td>24V</td>
<td>24V</td>
<td>24V</td>
</tr>
<tr>
<td>Power consumption</td>
<td>9W/M</td>
<td>10W/M</td>
<td>10W/M</td>
<td>8W/M</td>
</tr>
<tr>
<td>Working Mode</td>
<td>CV</td>
<td>CV</td>
<td>CC</td>
<td>CV</td>
</tr>
<tr>
<td>LED type</td>
<td>SMD3528</td>
<td>SMD3528</td>
<td>SMD2835</td>
<td>SMD2835</td>
</tr>
<tr>
<td>LED Quantity</td>
<td>120 pcs/m</td>
<td>144 pcs/m</td>
<td>120 pcs/m</td>
<td>128 pcs/m</td>
</tr>
<tr>
<td>Available CCT</td>
<td>2200-6500K</td>
<td>2200-6500K</td>
<td>2200-6500K</td>
<td>2200-6500K</td>
</tr>
<tr>
<td>Available Color</td>
<td>G/B/R/P/A/O</td>
<td>G/B/R/P/A/O</td>
<td>G/B/P/LY</td>
<td>G/B/P/LY</td>
</tr>
<tr>
<td>Min. cutting Unit</td>
<td>12 LEDs</td>
<td>12 LEDs</td>
<td>6 LEDs</td>
<td>16 LEDs</td>
</tr>
<tr>
<td>Min. cutting length</td>
<td>10cm</td>
<td>8.33cm</td>
<td>5.0cm</td>
<td>12.5cm</td>
</tr>
<tr>
<td>Max. length single feed</td>
<td>10m</td>
<td>10m</td>
<td>15m</td>
<td>10m</td>
</tr>
<tr>
<td>Max. length double feed</td>
<td>20m</td>
<td>20m</td>
<td>30m</td>
<td>20m</td>
</tr>
<tr>
<td>Lumen maintenance</td>
<td>70,000 Hours L70 25°C, 50,000 Hours L70 50°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Eco PVC or Silicone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation temperature</td>
<td>0°C to -55°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-25°C to +55°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingress protection</td>
<td>IP68 wet location submersible* to 2m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warranty</td>
<td>3 years as standard, 5 years warranty maximum</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Wave length

- **Red (R)**: 620-630nm
- **Green (G)**: 520-530nm
- **Blue (B)**: 465-475nm
- **Amber (A)**: 585-595nm
- **Orange (O)**: 600-610nm
- **Pink (P)**: 630-645nm
- **2200K**: 2238±2K
- **2500K**: 2460±120K
- **2700K**: 2725±145K
- **3000K**: 3045±175K
- **3500K**: 3465±245K
- **4000K**: 3985±275K
- **4500K**: 4503±243K
- **5000K**: 5029±283K
- **5700K**: 5669±355K
- **6500K**: 6532±510K

### Lumen output

**Model: F18-24V-3528-144-10W**

<table>
<thead>
<tr>
<th>Color or CCT</th>
<th>Per foot</th>
<th>Per meter</th>
<th>Power consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>&gt;76.21lm</td>
<td>&gt;250lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>Green</td>
<td>&gt;146.34lm</td>
<td>&gt;480lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>Blue</td>
<td>&gt;64.02lm</td>
<td>&gt;210lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>Amber</td>
<td>&gt;79.26lm</td>
<td>&gt;260lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>Orange</td>
<td>&gt;73.17lm</td>
<td>&gt;240lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>Pink</td>
<td>&gt;109.75lm</td>
<td>&gt;360lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>2200K</td>
<td>&gt;161.58lm</td>
<td>&gt;530lm</td>
<td>3.04W/ft (12W/M)</td>
</tr>
<tr>
<td>2500K</td>
<td>&gt;161.58lm</td>
<td>&gt;530lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>2700K</td>
<td>&gt;167.68lm</td>
<td>&gt;550lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>3000K</td>
<td>&gt;167.68lm</td>
<td>&gt;550lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>3500K</td>
<td>&gt;173.78lm</td>
<td>&gt;570lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>4000K</td>
<td>&gt;173.78lm</td>
<td>&gt;570lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>4500K</td>
<td>&gt;173.78lm</td>
<td>&gt;570lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>5000K</td>
<td>&gt;182.92lm</td>
<td>&gt;600lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>5700K</td>
<td>&gt;182.92lm</td>
<td>&gt;600lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
<tr>
<td>6500K</td>
<td>&gt;182.92lm</td>
<td>&gt;600lm</td>
<td>3.04W/ft (10W/M)</td>
</tr>
</tbody>
</table>

For more information

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F18 Mono color series led neon flex

Construction

Semi-transparent layer
Light guide layer
LED strip
Block layer

Physical Specification

Light profile

Bending direction

Min. bending diameter

For more information
Email: info@olympialed.com
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Mold injection connector

Direct entry Connector

1. MJ-18-A-D01
2. MJ-18-A-D01SM
3. MJ-18-A-D02
4. MJ-18-A-D02SF
5. MJ-18-A-D03
6. MJ-18-A-D03SFM

Side entry Connector

1. MJ-18-A-S01
2. MJ-18-A-S01SM
3. MJ-18-A-S02
4. MJ-18-A-S02SF
5. MJ-18-A-S03
6. MJ-18-A-S03SFM

Bottom entry Connector

1. MJ-18-A-B01
2. MJ-18-A-B01SM
3. MJ-18-A-B02
4. MJ-18-A-B02SF
5. MJ-18-A-B03
6. MJ-18-A-B03SFM

For more information
Email: info@olympialed.com
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Mold injection Connector (IP68 Factory Assembly only)

① MJ-18-A-L01
② MJ-18-A-L01SM
③ MJ-18-A-L02
④ MJ-18-A-L02SF
⑤ MJ-18-A-L03
⑥ MJ-18-A-L03SMF

Mold injection Jumper (IP68 Factory Assembly only)

DIY snap splice connector (IP67 Only)

0.3m cable length

Model: DIY-SN-SP-16-A

DIY Screw & Snap Connector Kit (IP67 Only)

DIY screw splice connector kit

DIY screw connector & end cap kit

Model: DIY-SC-FR-16-D-01/02-A

Model: DIY-SC-END-16

DIY snap splice connector kit

DIY snap connector & end cap kit

Model: DIY-SN-FR-16-D-01/02-A

DIY-SN-END-16

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Other Accessories

Female & Male Connector

Female connector wire
SYZ-M12-F-2C-075-W

Male connector wire
SYZ-M12-M-2C-075-W

Middle power connector
MID-CNR-A-1T2

Other Accessories

LED Neon Cutter
ACC-TOOL-C1

Wire stripper
ACC-TOOL-W501

Screwdriver
ACC-TOOL-C2

Mean Well Transformer
Non-waterproof Series

Mean Well Transformer
Waterproof Series

Female & male wire connector
KJ-M12-2P-F/ KJ-M12-2P-M

Silicone Rubber
K-5905

PVC End Cap
DIY-PVC-END-16

Assistant Tool
ACC-TOOL-C3

Mounting Channel

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALC18S01</td>
<td>Use for: F18</td>
<td>22.85mm</td>
</tr>
<tr>
<td></td>
<td>Length option: 1m, 2m, 35mm</td>
<td>22.2mm</td>
</tr>
<tr>
<td></td>
<td>Material: Aluminum alloy + Plastic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optional color: AS/AB/PW</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type: Standard</td>
<td></td>
</tr>
</tbody>
</table>

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F18 Mono color series led neon flex

Packing

Standard: Carton (Paper reel inside)

- Fixture Length: 787.4in (20m)
- Paper Reel: D12.99*H6.18in (33*15.7cm)
- Carton Dimension: 33*33*18cm
- Gross Weight: 17.63 lbs (10.4 kg)

Custom: Carton (White box+plastic plate inside)

- Fixture Length: 393.7in (10m)
- White box Dimension: 21.6*1.38*18.9in (55*3.5*48cm)
- Carton Dimension: 57*49*19cm
- White box Quantity: Max 5pcs
- Gross Weight: 57.32 lbs (26 kg)

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## Testing

### ANSI Standard

**Nominal CCT Categories (2200-6500K)**

<table>
<thead>
<tr>
<th>Nominal CCT</th>
<th>Target CCT &amp; tolerance(K)</th>
<th>Target $D_{uv}$</th>
<th>$D_{uv}$ Tolerance Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2200K</td>
<td>2238±102</td>
<td>0.0000</td>
<td>Tx: CCT of the source</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>for Tx&lt;2870K</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.000±0.0060</td>
</tr>
<tr>
<td>2500K</td>
<td>2460±120</td>
<td>0.0000</td>
<td>For Tx≥2870K</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$D_{uv}(Tx)$±0.0060</td>
</tr>
<tr>
<td>2700K</td>
<td>2725±145</td>
<td>0.0000</td>
<td>where</td>
</tr>
<tr>
<td>3000K</td>
<td>3045±175</td>
<td>0.0005</td>
<td>$D_{uv}(Tx)=57700x(1/Tx)^2$</td>
</tr>
<tr>
<td>3500K</td>
<td>3465±245</td>
<td>0.0005</td>
<td>-44.6x(1/Tx) +0.00854</td>
</tr>
<tr>
<td>4000K</td>
<td>3985±275</td>
<td>0.0010</td>
<td>remark</td>
</tr>
<tr>
<td>4500K</td>
<td>4503±243</td>
<td>0.0015</td>
<td>1) $T_F$ is choosen to be at 100K steps (2300,2400......6400K)</td>
</tr>
<tr>
<td>5000K</td>
<td>5029±283</td>
<td>0.0020</td>
<td>the ten nominal CCTs listed in table 1.</td>
</tr>
<tr>
<td>5700K</td>
<td>5667±355</td>
<td>0.0025</td>
<td>2) $ΔT=1.1900x10^3 x T^{-3}$</td>
</tr>
<tr>
<td>6500K</td>
<td>6532±510</td>
<td>0.0031</td>
<td>1.5434x10^7 x T +0.7168 x T-902.55</td>
</tr>
<tr>
<td>Flexible CCT</td>
<td>$T_F^{1)} ± ΔT^{2)}$</td>
<td>$D_{uv} T_F^{3)}$</td>
<td>3) Same as in the DUV tolerance range</td>
</tr>
</tbody>
</table>

### White Color Charts

![White Color Charts](chart.png)

**Photometric**

1. Please note it is under normal range if there is 20-30% yellowing of PVC housing material when the product is used under direct sunlight or long-term high temperature & wet environment in 3 years.

2. About the tolerance range of optical parameters (luminance, CCT, Watt, RA) for all product, the volume is plus and minus 10% fluctuation referring to IEC Standard.

3. It’s normal for the tolerance range in total length, it occurs from the different production technology, environmental temperature and installation. The volume would be 0.1-5M±7mm, 5.1-10M±15mm, 10.1-20M±30mm.

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## Loading Chart

<table>
<thead>
<tr>
<th>Rated power</th>
<th>Power supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>9W</td>
<td>2.5m  5m  6.5m  7m  8.5m  10m  13m  16m  20m  28m</td>
</tr>
<tr>
<td>10W</td>
<td>2.5m  4.5m  6m  6.5m  8m  9m  12m  14m  19m  25.5m</td>
</tr>
</tbody>
</table>

**Single Feed**

**Double Feed**

**Lead Type**

DC input -- DC input

---

**Note:** These are the max recommended run lengths based on power supply

For example: It is recommended to use one 80W power supply for a single-feed run of 7m at 9W/m.

### Recommendation of extension wire

**Maximum extension wire length according to Light power**

<table>
<thead>
<tr>
<th>Watts of light</th>
<th>22AWG 0.34mm²</th>
<th>20AWG 0.53mm²</th>
<th>18AWG 0.82mm²</th>
<th>17AWG 1.04mm²</th>
<th>16AWG 1.38mm²</th>
<th>14AWG 2.07mm²</th>
<th>12AWG 3.29mm²</th>
<th>10AWG 5.62mm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>10W</td>
<td>36m</td>
<td>60m</td>
<td>100m</td>
<td>120m</td>
<td>140m</td>
<td>240m</td>
<td>400m</td>
<td>600m</td>
</tr>
<tr>
<td>20W</td>
<td>18m</td>
<td>30m</td>
<td>50m</td>
<td>60m</td>
<td>70m</td>
<td>120m</td>
<td>200m</td>
<td>300m</td>
</tr>
<tr>
<td>30W</td>
<td>12m</td>
<td>20m</td>
<td>30m</td>
<td>38m</td>
<td>45m</td>
<td>80m</td>
<td>130m</td>
<td>200m</td>
</tr>
<tr>
<td>40W</td>
<td>8m</td>
<td>15m</td>
<td>22m</td>
<td>28m</td>
<td>35m</td>
<td>60m</td>
<td>95m</td>
<td>140m</td>
</tr>
<tr>
<td>50W</td>
<td>6m</td>
<td>12m</td>
<td>18m</td>
<td>22m</td>
<td>28m</td>
<td>48m</td>
<td>75m</td>
<td>105m</td>
</tr>
<tr>
<td>60W</td>
<td>5m</td>
<td>10m</td>
<td>15m</td>
<td>18m</td>
<td>22m</td>
<td>36m</td>
<td>60m</td>
<td>88m</td>
</tr>
<tr>
<td>70W</td>
<td>/</td>
<td>8m</td>
<td>12m</td>
<td>14m</td>
<td>18m</td>
<td>30m</td>
<td>50m</td>
<td>72m</td>
</tr>
<tr>
<td>80W</td>
<td>/</td>
<td>6m</td>
<td>10m</td>
<td>11m</td>
<td>14m</td>
<td>24m</td>
<td>40m</td>
<td>58m</td>
</tr>
<tr>
<td>90W</td>
<td>/</td>
<td>4m</td>
<td>7m</td>
<td>8m</td>
<td>10m</td>
<td>18m</td>
<td>30m</td>
<td>45m</td>
</tr>
<tr>
<td>100W</td>
<td>/</td>
<td>/</td>
<td>5m</td>
<td>6m</td>
<td>7m</td>
<td>12m</td>
<td>22m</td>
<td>32m</td>
</tr>
<tr>
<td>110W</td>
<td>/</td>
<td>/</td>
<td>3m</td>
<td>4m</td>
<td>5m</td>
<td>8m</td>
<td>15m</td>
<td>22m</td>
</tr>
<tr>
<td>120W</td>
<td>/</td>
<td>/</td>
<td>2m</td>
<td>2.5m</td>
<td>3m</td>
<td>0m</td>
<td>8m</td>
<td>12m</td>
</tr>
</tbody>
</table>

**Note:**

1. The values don’t include the 0.6m cable connected to the front connector.
2. To ensure the reliability of wire connection and avoid problem of voltage drop, the extension wire length should be smaller than the above recommended values.

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For more information

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Dimming system Connection

0-10V dimming system

DMX512 dimming system

DALI dimming system

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