The Optoelectronic Manufacturing Corporation

Front Firing Flexistrip™

www.omc-uk.com
The Optoelectronic Manufacturing Corporation

Technical Datasheet

High performance, extreme-versatility 12V DC flexible strips of next generation LEDs designed for industrial, architectural, signage and many other illumination and lighting applications.

Key Features:

- Highly energy efficient 12V DC design
- Industry highest LED density (~11mm spacing)
- Compact, low profile and highly flexible
- Very high brightness
- Output characterised for lighting applications
- Side firing version also available
- Up to 2.4 metres can be powered from one end
- Built-in antistatic protection
- Built-in reverse polarity protection
- Cut and link points regularly spaced along strip length
- Can be cut or joined end-to-end to form different lengths
- Low cost LED lighting solution
- RoHS Compliant

Typical Applications:

- Replacement of fluorescent light sources
- Built-up and flat-cut letter illumination
- Light box illumination
- Accent lighting
- Backlighting
- Lighting for machinery
- Strip lights
- Furniture illumination
- Long-life alternative to neon
- Low energy lighting
- Lighting for point-of-sale applications
- Edge-illumination of acrylic lightguides
- Simple and cost-effective LED lighting for almost any application

All specifications correct at time of publishing. In the interests of continual improvement, OMC reserve the right to alter specifications without notice.
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Typical electro-optical characteristics at applied voltage = 12V DC and Ta=25°C

<table>
<thead>
<tr>
<th>Part no.</th>
<th>LEDs per 400mm strip</th>
<th>Light output per 400mm strip</th>
<th>Beam angle 2θ/2</th>
<th>LEDs per meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFSW1</td>
<td>36 x Ultrabright White</td>
<td>120 lumens</td>
<td>120°</td>
<td>90</td>
</tr>
<tr>
<td>FFSR1</td>
<td>36 x Ultrabright Red</td>
<td>57 lumens</td>
<td>120°</td>
<td>90</td>
</tr>
<tr>
<td>FFSG1</td>
<td>36 x Ultrabright Green</td>
<td>60 lumens</td>
<td>120°</td>
<td>90</td>
</tr>
<tr>
<td>FFSB1</td>
<td>36 x Ultrabright Blue</td>
<td>32 lumens</td>
<td>120°</td>
<td>90</td>
</tr>
<tr>
<td>FFSY1</td>
<td>36 x Ultrabright Amber</td>
<td>54 lumens</td>
<td>120°</td>
<td>90</td>
</tr>
</tbody>
</table>

Colours are for ease of reference only and do not indicate exact shade of LED output.

Mechanical information
- Strip length 400mm
- Strip width 10.5mm
- Strip height 2.1mm
- 36 LEDs per 400mm strip
- Cut points every 3 LEDs
- Solder points every 9 LEDs (100mm)

Absolute maximum ratings (Ta=25°C where applicable)

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strip Applied Voltage</td>
<td>12V DC</td>
</tr>
<tr>
<td>LED Reverse Voltage</td>
<td>5V</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-35°C to +65°C</td>
</tr>
<tr>
<td>LED Forward Current</td>
<td>20mA</td>
</tr>
<tr>
<td>Temperature Range in Storage</td>
<td>-35°C to +100°C</td>
</tr>
<tr>
<td>Strip Forward DC Current</td>
<td>240mA</td>
</tr>
</tbody>
</table>

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**Application notes**

- Do not apply voltages greater than 12V DC to this product or damage may occur.
- Although electrostatic protection is built into this product, as with any semiconductor device it is recommended to avoid unnecessary electrostatic discharge.
- Connect supply anode to + solder pad, cathode to - solder pad.
- For series lengths greater than 2.4m, wiring in a "ring main" style configuration (i.e. a power feed at each end) is strongly recommended to reduce voltage drop. For very long lengths it is recommended to connect a power feed back to the supply after every 12 full strips.
- Cut only at designated cut points. Do not cut between cut points as this will damage the product.
- Use of a regulated 12V DC supply is recommended.
- Do not expose to moisture unless product has been damp protected.
- Product may be fixed in place using double sided adhesive foam, hot glue or silicone.
- For soldering, use of a small 25W general purpose mains soldering iron is recommended, recommended soldering temperature is 260°C for maximum 5 seconds.

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