Data sheet
chainflex® CF885

Spindle cable/Single core (Class 3.1.1.1) • For flexing applications • PVC outer jacket • Flame retardant

1. Outer jacket: Pressure extruded PVC mixture
2. Core insulation: Mechanically high-quality PVC mixture
3. Conductor: Conductor consisting of bare copper wires

Example image
For detailed overview please see design table

Cable structure
Conductor
Conductor consisting of bare copper wires (according to DIN EN 60228).

Core insulation
Mechanically high-quality PVC mixture.

Outer jacket
Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003) Printing: black

„00000 m”™ igus chainflex M CF885.--.--.---@ 600/1000V E310776
cRUus AWM Style 10107 VW-1 AWM I/II A/B 80°C 600V FT1 EAC/CTP

CE RoHS-II conform www.igus.de +++ chainflex cable works +++

* Length printing: Not calibrated. Only intended as an orientation aid.
@ / @@ Cable identification according to Part No. (see technical table).
Example: ... chainflex ... CF885.40.01 ... 1x4.0 ... 600/1000V ...
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Dynamic information

- **Bend radius**
  - e-chain® linear: minimum 15 x d
  - flexible: minimum 12 x d
  - fixed: minimum 8 x d

- **Temperature**
  - e-chain® linear: +5 °C up to +70 °C
  - flexible: -5 °C up to +70 °C (following DIN EN 60811-504)
  - fixed: -15 °C up to +70 °C (following DIN EN 50305)

- **v max.**
  - unsupported: 3 m/s

- **a max.**
  - 20 m/s²

- **Travel distance**
  - Unsupported travel distances up to 10 m, Class 1

These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Guaranteed service life according to guarantee conditions

<table>
<thead>
<tr>
<th>Double strokes</th>
<th>1 million</th>
<th>3 million</th>
<th>5 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature, from/to [°C]</td>
<td>R min. [factor x d]</td>
<td>R min. [factor x d]</td>
<td>R min. [factor x d]</td>
</tr>
<tr>
<td>+5/+15</td>
<td>17.5</td>
<td>18.5</td>
<td>19.5</td>
</tr>
<tr>
<td>+15/+60</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>+60/+70</td>
<td>17.5</td>
<td>18.5</td>
<td>19.5</td>
</tr>
</tbody>
</table>

Minimum guaranteed service life of the cable under the specified conditions. The installation of the cable is recommended within the middle temperature range.

Electrical information

- **Nominal voltage**
  - 600/1000 V (following DIN VDE 0298-3)

- **Testing voltage**
  - 4000 V (following DIN EN 50395)
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Properties and approvals
- Flame retardant: According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
- Silicone-free: Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
- UL/CSA: Style 10107, 600 V, 80 °C
- NFPA: Following NFPA 79-2012, chapter 12.9
- EAC: Certificate No. RU C-DE.ME77.B.01561 (TR ZU)
- CTP: Certificate No. C-DE.PB49.B.00450 (Fire protection)
- Lead-free: Following 2011/65/EC (RoHS-II)
- CE: Following 2014/35/EU

Typical lab test setup for this cable series
- Test bend radius $R$: approx. 75 - 225 mm
- Test travel $S$: approx. 1 - 15 m
- Test duration: minimum 2 - 4 million double strokes
- Test speed: approx. 0.5 - 2 m/s
- Test acceleration: approx. 0.5 - 1.5 m/s²

Example image

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Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- No torsion, Class 1
- Preferably indoor applications
- Wood/stone processing, Packaging industry, supply systems, Handling, adjusting equipment
## Technical tables:

### Mechanical information

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Number of cores and conductor nominal cross section [mm²]</th>
<th>Outer diameter (d) max. [mm]</th>
<th>Copper index</th>
<th>Weight [kg/km]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF885.40.01</td>
<td>1x4.0</td>
<td>7.0</td>
<td>39</td>
<td>75</td>
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<tr>
<td>CF885.60.01</td>
<td>1x6.0</td>
<td>8.0</td>
<td>58</td>
<td>97</td>
</tr>
<tr>
<td>CF885.100.01</td>
<td>1x10</td>
<td>9.5</td>
<td>96</td>
<td>147</td>
</tr>
<tr>
<td>CF885.160.01</td>
<td>1x16</td>
<td>10.5</td>
<td>154</td>
<td>228</td>
</tr>
<tr>
<td>CF885.250.01</td>
<td>1x25</td>
<td>12.0</td>
<td>240</td>
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<tr>
<td>CF885.350.01</td>
<td>1x35</td>
<td>14.5</td>
<td>336</td>
<td>431</td>
</tr>
<tr>
<td>CF885.500.01</td>
<td>1x50</td>
<td>16.5</td>
<td>480</td>
<td>642</td>
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<tr>
<td>CF885.700.01</td>
<td>1x70</td>
<td>18.5</td>
<td>672</td>
<td>859</td>
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<tr>
<td>CF885.950.01</td>
<td>1x95</td>
<td>20.0</td>
<td>912</td>
<td>1101</td>
</tr>
</tbody>
</table>

**Note:** The given outer diameters are maximum values and may tend toward lower tolerance limits.

G = with green-yellow earth core  
X = without earth core

### Electrical information

<table>
<thead>
<tr>
<th>Conductor nominal cross section [mm²]</th>
<th>Maximum conductor resistance at 20 °C (following DIN EN 50289-1-2) [Ω/km]</th>
<th>Maximum current rating at 30 °C (following DIN VDE 0298-4) [A]</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4.95</td>
<td>34</td>
</tr>
<tr>
<td>6</td>
<td>3.3</td>
<td>44</td>
</tr>
<tr>
<td>10</td>
<td>1.91</td>
<td>61</td>
</tr>
<tr>
<td>16</td>
<td>1.21</td>
<td>82</td>
</tr>
<tr>
<td>25</td>
<td>0.78</td>
<td>108</td>
</tr>
<tr>
<td>35</td>
<td>0.56</td>
<td>135</td>
</tr>
<tr>
<td>50</td>
<td>0.39</td>
<td>168</td>
</tr>
<tr>
<td>70</td>
<td>0.28</td>
<td>207</td>
</tr>
<tr>
<td>95</td>
<td>0.21</td>
<td>250</td>
</tr>
</tbody>
</table>

The final maximum current rating depends among other things on the ambient conditions, the type of the installation and the number of loaded cores.

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