

# Motor cable | TPE | chainflex® CF34.UL.D

**36** 10 million  
Guaranteed double strokes

**7.5 x d**  
Bend radius, e-chain®

**400 m**  
Travel distance, e-chain®

- For extremely heavy duty applications
- TPE outer jacket
- Oil and bio-oil-resistant
- Flame-retardant
- UV-resistant
- Hydrolysis and microbe-resistant

New core insulation with UL 90 °C

## Dynamic information

Bend radius	<b>e-chain® linear flexible</b>	minimum 7.5 x d minimum 6 x d
	<b>fixed</b>	minimum 4 x d
Temperature	<b>e-chain® linear flexible</b>	-35 °C up to +90 °C -45 °C up to +90 °C (following DIN EN 60811-504)
	<b>fixed</b>	-50 °C up to +90 °C (following DIN EN 50305)
v max.	<b>unsupported</b>	10 m/s
	<b>gliding</b>	6 m/s
a max.		80 m/s <sup>2</sup>
Travel distance		Unsupported travels and up to 400 m and more for gliding applications, Class 6
Torsion		Torsion ±90°, with 1m cable length, Class 2

## Cable structure

Conductor	<b>Cores &lt; 10 mm<sup>2</sup></b> : Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228). <b>Cores ≥ 10 mm<sup>2</sup></b> : Conductor cable consisting of pre-leads (following DIN EN 60228).
Core insulation	Mechanically high-quality, especially low-capacitance XLPE mixture.
Core structure	Cores wound with a short pitch length around a high tensile strength centre element.
Core identification	Black cores with white numbers, one green-yellow core. 1. Core: U / L1 / C / L+ 2. Core: V / L2 3. Core: W / L3 / D / L- 4. Core: 4 / N
Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. Colour: Signal black (similar to RAL 9004)
CFRIP®	Strip cables faster: a tear strip is moulded into the outer jacket Video ► <a href="http://www.igus.eu/CFRIP">www.igus.eu/CFRIP</a>

## Electrical information

Nominal voltage	600/1000 V (following DIN VDE 0298-3) 1000 V (following UL)
Testing voltage	4000 V (following DIN EN 50395)

Basic requirements  
Travel distance  
Oil resistance  
Torsion

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 400 m	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			

## Class 6.6.4.2

### Properties and approvals

UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
Flame retardant	According to IEC 60332-1-2, FT1, VW-1
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
UL verified	Certificate No. B129699: „igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year“
UL/CSA AWM	See data sheet for details ► <a href="http://www.igus.eu/CF34.UL.D">www.igus.eu/CF34.UL.D</a>
NFPA	Following NFPA 79-2018, chapter 12.9
DNV-GL	Type approval certificate No. TAE00003X9
EAC	Certificate No. RU C-DE.ME77.B.02324 (TR ZU)
CTP	Certificate No. C-DE.PB49.B.00420 (Fire protection)
REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
RoHS	Following 2011/65/EC (RoHS-II/RoHS-III)
Cleanroom	According to ISO Class 1, material/cable tested by IPA according to DIN EN ISO standard 14644-1
DESINA	According to VDW, DESINA standardisation
CE	Following 2014/35/EU

### Guaranteed service life (details see page 26-27)

Double strokes*	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	10	11	12
-25/+80	7.5	8.5	9.5
+80/+90	10	11	12

\* Higher number of double strokes? Service life calculation online ► [www.igus.eu/chainflexlife](http://www.igus.eu/chainflexlife)

### Typical mechanical application areas

- For extremely heavy duty applications, Class 6
- Unsupported travels and up to 400 m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling, Cleanroom, semiconductor insertion, outdoor cranes, low temperature applications

Guarantee  
igus chainflex  
**36**  
month guarantee

igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

CFRIP

UL LISTED

UL

NFPA

CE

DNV-GL

EAC

CTP

REACH

RoHS

Clean-Room

DESINA

CE

# Motor cable | TPE | chainflex® CF34.UL.D

Strip cables 50 % faster



Example image

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF34.UL.15.04.D	4G1.5	8.0	61	102
CF34.UL.25.04.D	4G2.5	10.0	100	159
CF34.UL.40.04.D	4G4.0	11.5	163	236
CF34.UL.60.04.D	4G6.0	13.5	237	332
CF34.UL.60.05.D	5G6.0	15.0	297	406
CF34.UL.100.04.D	4G10	16.5	407	537
CF34.UL.100.05.D	5G10	19.5	515	670
CF34.UL.160.04.D	4G16	20.0	646	819
CF34.UL.160.05.D	5G16	22.5	815	1009
CF34.UL.250.04.D	4G25	24.5	1014	1271
CF34.UL.100.04.O.PE.D	4x10	16.5	407	537
CF34.UL.160.04.O.PE.D	4x16	20.0	646	819

**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

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**Order example: CF34.UL.15.04.D – to your desired length (0.5 m steps)**  
CF34.UL.D chainflex® series .15 Code nominal cross section .04 Number of cores

Online order ► [www.chainflex.eu/CF34.UL.D](http://www.chainflex.eu/CF34.UL.D)

Delivery time 24hrs or today.  
Delivery time means time until goods are shipped.

cost down...



...life up

**Reduce cost, improve technology, now!**

Do the chainflex® price check now ...  
[www.igus.eu/cf-price-check](http://www.igus.eu/cf-price-check)

... for example: Reduce cost with CF300.UL.D

Guarantee  
igus chainflex  
**36**  
month guarantee

igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



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