

Motor cables



chainflex [®] cable	Jacket	Shield	Bend radius e-chain [®] [factor x d]	Temperature e-chain [®] from/to [°C]	Approvals and standards	Oil-resistant	Torsion-resistant v max. [m/s] unsupported	v max. [m/s] gliding a max.	Page
---------------------------------	--------	--------	--	---	----------------------------	---------------	--	--------------------------------	------

Motor cables

CF885	PVC	15	+5/+70	                  
-------	-----	----	--------	---

chainflex® cable		Temperature, from/to [°C]	v max. [m/s]		a max. [m/s²]	Travel distance [m]	Minimum bend radius [factor x d]		Minimum bend radius [factor x d]		Minimum bend radius [factor x d]		Page
			unsupported	gliding									
Motor cables							5 million (1 million) double strokes *		7.5 million (3 million) double strokes *		10 million (5 million) double strokes *		
	CF885	+5 / +15 +15 / +60 +60 / +70	3	-	20	≤ 10		17.5 15 17.5		18.5 16 18.5		19.5 17 19.5	310
	CF886	+5 / +15 +15 / +60 +60 / +70	3	-	20	≤ 10		17.5 15 17.5		18.5 16 18.5		19.5 17 19.5	312
	CF210.UL New!	+5 / +15 +15 / +60 +60 / +70	10	2	50	≤ 10		12.5 10 12.5		13.5 11 13.5		14.5 12 14.5	314
	CF30	+5 / +15 +15 / +60 +60 / +70	10	5	80	≤ 100		10 7.5 10		11 8.5 11		12 9.5 12	316
	CF31	+5 / +15 +15 / +60 +60 / +70	10	5	80	≤ 100		10 7.5 10		11 8.5 11		12 9.5 12	320
	CF895	-20 / -10 -10 / +70 +70 / +80	3	-	20	≤ 10		17.5 15 17.5		18.5 16 18.5		19.5 17 19.5	324
	CF896 New!	-20 / -10 -10 / +70 +70 / +80	3	-	20	≤ 10		17.5 15 17.5		18.5 16 18.5		19.5 17 19.5	326
	CF270.UL.D New!	-25 / -15 -15 / +70 +70 / +80	10	2	50	≤ 10		12.5 10 12.5		13.5 11 13.5		14.5 12 14.5	328
	CF27.D	-25 / -15 -15 / +70 +70 / +80	10	5	80	≤ 100		10 7.5 10		11 8.5 11		12 8.5 12	332
	CF34.UL.D	-35 / -25 -25 / +80 +80 / +90	10	6	80	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	336
	CF35.UL	-35 / -25 -25 / +80 +80 / +90	10	6	80	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	340
							5 million		7.5 million		12.5 million		
	CF37.D New!	-35 / -25 -25 / +80 +80 / +90	10	6	80	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	344
	CF38 New!	-35 / -25 -25 / +80 +80 / +90	10	6	80	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	346

⁽¹⁾ Guaranteed service life for these series (details ► see page 28-29)

* Higher number of double strokes? Calculate service life online: ► www.igus.eu/chainflexlife
Values in brackets apply to the CF885/CF886 and CF895/CF896 series

chainflex® guarantee

▶▶

Guaranteed service life ⁽¹⁾

chainflex® cable		Temperature, from/to [°C]	v max. [m/s]		a max. [m/s²]	Travel distance [m]	Minimum bend radius [factor x d]		Minimum bend radius [factor x d]		Minimum bend radius [factor x d]		Page
			unsupported	gliding									
Spindle cables/Single cores							5 million (1 million) double strokes *		7.5 million (3 million) double strokes *		10 million (5 million) double strokes *		
	CF885	+5 / +15 +15 / +60 +60 / +70	3	-	20	≤ 10		17.5 15 17.5		18.5 16 18.5		19.5 17 19.5	348
	CF885.PE	+5 / +15 +15 / +60 +60 / +70	3	-	20	≤ 10		17.5 15 17.5		18.5 16 18.5		19.5 17 19.5	350
	CF886	+5 / +15 +15 / +60 +60 / +70	3	-	20	≤ 10		17.5 15 17.5		18.5 16 18.5		19.5 17 19.5	352
	CF270.UL.D	-25 / -15 -15 / +70 +70 / +80	10	2	50	≤ 10		12.5 10 12.5		13.5 11 13.5		14.5 12 14.5	354
	CF300.UL.D	-35 / -25 -25 / +80 +80 / +90	10	6	100	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	356
	CFPE	-35 / -25 -25 / +80 +80 / +90	10	6	100	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	358
	CF310.UL	-35 / -25 -25 / +80 +80 / +90	10	6	100	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	360
							5 million		7.5 million		12.5 million		
	CF330.D	New! -35 / -25 -25 / +80 +80 / +90	10	6	100	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	362
	CF340	New! -35 / -25 -25 / +80 +80 / +90	10	6	100	≤ 400		10 7.5 10		11 8.5 11		12 9.5 12	364
Medium voltage cables													
	CFCRANE.PUR	-20 / -10 -10 / +70 +70 / +80	10	6	50	≤ 400		12.5 10 12.5		13.5 11 13.5		14.5 12 14.5	366
	CFCRANE	-20 / -10 -10 / +70 +70 / +80	10	6	50	≤ 400		12.5 10 12.5		13.5 11 13.5		14.5 12 14.5	368

⁽¹⁾ Guaranteed service life for these series (details ▶ see page 28-29)

* Higher number of double strokes? Calculate service life online: ▶ www.igus.eu/chainflexlife
Figures in brackets refer to series CF885 and CF886

Guarantee
igus chainflex
36
Up to 36 months guarantee

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

Motor cable | PVC | chainflex® CF885

36 5 million
Double strokes guaranteed

15 x d
Bend radius, e-chain®

10m
Travel distance, e-chain®

- For flexing applications
- PVC outer jacket
- Flame-retardant

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	3m/s
 a max.		20m/s²
 Travel distance		Unsupported travels up to 10m, Class 1

Cable structure

 Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
 Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
 Core structure	Cores wound with an optimised pitch length.
 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-
 Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

Electrical information

 Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
 Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

 Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
 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 ► www.igus.eu/CF885

EPLAN download, configurators ► www.igus.eu/CF885

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

Class 3.1.1.1

 **NFPA**

Following NFPA 79-2018, chapter 12.9

 **EAC**

Certificate No. RU C-DE.ME77.B.00302/19

 **REACH**

In accordance with regulation (EC) No. 1907/2006 (REACH)

 **Lead-free**

Following 2011/65/EC (RoHS-II/RoHS-III)

 **CE**

Following 2014/35/EU

 **UKCA**

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

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, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF885.15.04	4G1.5	8.0	67	105
CF885.25.04	4G2.5	10.0	110	163
CF885.40.04	4G4.0	11.5	175	244
CF885.60.04	4G6.0	13.5	237	360
CF885.100.04	4G10	17.0	412	514
CF885.160.04	4G16	20.0	690	857

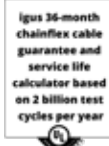
Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



Example image

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

Motor cable | PVC | chainflex® CF886

36 5 million
Double strokes guaranteed

15 x d
Bend radius, e-chain®

10m
Travel distance, e-chain®

- For flexing applications
- PVC outer jacket
- Shielded
- Flame-retardant

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	3m/s
	a max.		20m/s²
	Travel distance		Unsupported travels up to 10m, Class 1

Cable structure

	Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
	Core structure	Cores wound with an optimised pitch length.
	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-
	Overall shield	Braiding made of tinned copper wires. Coverage approx. 60% optical
	Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

EPLAN download, configurators ► www.igus.eu/CF886

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 3.1.1.1



Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
See data sheet for details ► www.igus.eu/CF886

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00302/19

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

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, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF886.15.04	(4G1.5)C	9.0	82	119
CF886.25.04	(4G2.5)C	10.5	132	181
CF886.40.04	(4G4.0)C	12.0	204	263
CF886.60.04	(4G6.0)C	14.5	269	377
CF886.100.04	(4G10)C	18.5	458	577
CF886.160.04	(4G16)C	21.0	760	829

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



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

313

Example image

Motor cable | PVC | chainflex® CF210.UL

36

10 million

Double strokes guaranteed

10 x d

Bend radius, e-chain®

10m

Travel distance, e-chain®

- For medium duty applications
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame-retardant

Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 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	10m/s
	a max.	gliding	2m/s
	Travel distance	Unsupported travels and up to 10m for gliding applications, Class 2	

Cable structure

	Conductor	Stranded conductor in bending-resistant version consisting of bare copper wires (following DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance XLPE mixture.
	Core structure	Cores wound with high tensile strength centre elements.
	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-
	Intermediate layer	Foil taping over the outer layer.
	Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55%, optical approx. 80%
	Outer jacket	Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1). Colour: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-4-1), Class 2

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 4.2.2.1

 Flame-retardant

 Silicone-free

 UL verified

 UL/CSA AWM

 NFPA

 EAC

 REACH

 Lead-free

 Cleanroom

 CE

 UKCA

According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

See data sheet for details ► www.igus.eu/CF210.UL

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
+5/+15	12.5	13.5	14.5
+15/+60	10	11	12
+60/+70	12.5	13.5	14.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- Light oil influence, Class 2
- No torsion, Class 1
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New CF210.UL.05.04	(4G0.5)C	7.0	34	63
CF210.UL.15.04	(4G1.5)C	10.0	86	140
CF210.UL.25.04	(4G2.5)C	11.5	146	209
CF210.UL.40.04	(4G4.0)C	13.0	195	288

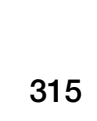
Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth core

Guarantee

igus chainflex

36

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



36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

315

Motor cable | PVC | chainflex® CF30

36 10 million

Double strokes guaranteed

7.5 x d

Bend radius, e-chain®

100m

Travel distance, e-chain®

- For heavy duty applications
- PVC outer jacket
- Oil-resistant
- Flame-retardant

Dynamic information

	Bend radius	e-chain® linear	minimum 7.5 x d
		flexible	minimum 6 x d
		fixed	minimum 4 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	10m/s
	a max.	gliding	5m/s
	Travel distance	Unsupported travels and up to 100m for gliding applications, Class 5	
	Torsion	Torsion ±90°, with 1m cable length, Class 2	

Cable structure

	Conductor	Cores <10mm²: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228). Cores ≥ 10mm²: 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, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1). Colour: jet black (similar to RAL 9005)	
	CFRIP®	Strip cables faster: a tear strip is moulded into the outer jacket Video ► www.igus.eu/CFRIP	

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

EPLAN download, configurators ► www.igus.eu/CF30

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

igus

EU2022

EU2022

igus

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 5.5.2.2

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-4-1), Class 2
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	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 ► www.igus.eu/CF30
	NFPA	Following NFPA 79-2018, chapter 12.9
	EAC	Certificate No. RU C-DE.ME77.B.00863/20
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU
	CE	
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
+5/+15	10	11	12
+15/+60	7.5	8.5	9.5
+60/+70	10	11	12

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 100m for gliding applications, Class 5
- Light oil influence, Class 2
- Torsion ±90°, with 1m cable length, Class 2
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Storage and retrieval units, machining units/packaging machines, quick handling, indoor cranes

Guarantee
igus chainflex
36
up to 36 months guarantee

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

UL

317

Guarantee
igus chainflex
36

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

CFRIP

UL

UL

nec

NFPA

CUPA

DNV

EAC

REACH

RoHS

clean-room

UL

CE

UK

CA

Example image

Motor cable | PVC | chainflex® CF30

Strip cables 50% faster with CFRIP® tear strip



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]
CF30.15.04	4G1.5	8.0	61	104
CF30.25.04	4G2.5	10.0	100	166
CF30.25.05	5G2.5	11.0	124	203
CF30.40.04	4G4.0	11.5	163	249
CF30.40.05	5G4.0	12.5	204	302
CF30.60.04	4G6.0	13.5	237	343
CF30.60.05	5G6.0	15.0	297	410
CF30.100.04	4G10	16.5	407	548
CF30.100.05	5G10	19.5	515	684
CF30.160.04	4G16	20.0	646	826
CF30.160.05	5G16	23.5	815	1067
CF30.250.04	4G25	25.0	1014	1320
CF30.350.04	4G35	28.5	1439	1795
CF30.500.04	4G50	34.0	2061	2528

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

Class 5.5.2.2

Basic requirements
Travel distance
Oil resistance
Torsion

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

 Order example: **CF30.15.04** – to your desired length (0.5m steps)
CF30 chainflex® series .15 Code nominal cross section .04 Number of cores

 Order online ► www.igus.eu/CF30

 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 ...
www.igus.eu/cf-price-check

... for example: reduce cost with CF885 ...



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



EPLAN download, configurators ► www.igus.eu/CF30

318 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

319



Motor cable | PVC | chainflex® CF31

10 million
Double strokes guaranteed7.5 x d
Bend radius, e-chain®100m
Travel distance, e-chain®

- For heavy duty applications
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame-retardant

Dynamic information

	Bend radius	e-chain® linear	minimum 7.5 x d
		flexible	minimum 6 x d
		fixed	minimum 4 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	10m/s
		gliding	5m/s
	a max.		80m/s ²
	Travel distance	Unsupported travels and up to 100m for gliding applications, Class 5	

Cable structure

	Conductor	Cores <10mm²: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228). Cores ≥ 10mm²: 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
	Inner jacket	PVC mixture adapted to suit the requirements in e-chains®.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	Outer jacket	Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1). Colour: jet black (similar to RAL 9005)
	CFRIP®	Strip cables faster: a tear strip is moulded into the inner jacket Video ► www.igus.eu/CFRIP

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

EPLAN download, configurators ► www.igus.eu/CF31

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



Class 5.5.2.1

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-4-1), Class 2
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	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 ► www.igus.eu/CF31
	NFPA	Following NFPA 79-2018, chapter 12.9
	EAC	Certificate No. RU C-DE.ME77.B.00863/20
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU
	CE	
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
+5/+15	10	11	12
+15/+60	7.5	8.5	9.5
+60/+70	10	11	12

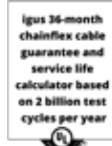
* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 100m for gliding applications, Class 5
- Light oil influence, Class 2
- No torsion, Class 1
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Storage and retrieval units, machining units/packaging machines, quick handling, indoor cranes

Basic requirements
Travel distance
Oil resistance
Torsion

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



321

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

Motor cable | PVC | chainflex® CF31

Strip cables 50% faster with CFRIP® tear strip

Class 5.5.2.1

Basic requirements
Travel distance
Oil resistance
Torsion

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



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]
CF31.15.04	(4G1.5)C	10.0	89	157
CF31.25.04	(4G2.5)C	11.5	133	221
CF31.25.05	(5G2.5)C	13.0	163	271
CF31.40.04	(4G4.0)C	13.0	203	300
CF31.40.05	(5G4.0)C	14.5	258	354
CF31.60.04	(4G6.0)C	16.0	288	455
CF31.60.05	(5G6.0)C	17.0	356	532
CF31.100.04	(4G10)C	18.5	468	670
CF31.100.05	(5G10)C	21.5	609	857
CF31.160.04	(4G16)C	23.0	738	1035
CF31.250.04	(4G25)C	27.5	1153	1586
CF31.350.04	(4G35)C	31.0	1592	2104
CF31.500.04	(4G50)C	36.5	2224	2902
CF31.700.04	(4G70)C	43.0	3203	4173

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

Order example: **CF31.15.04** – to your desired length (0.5m steps)
CF31 chainflex® series **.15** Code nominal cross section **.04** Number of cores

Order online ► www.igus.eu/CF31

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



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



chainflex® CF31 motor cable in a fast picker

EPLAN download, configurators ► www.igus.eu/CF31

322 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified



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



323

Guarantee
igus chainflex
36

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



Motor cable | iguPUR | chainflex® CF895

**36 5 million**
Double strokes guaranteed

**15 x d**
Bend radius, e-chain®

**10m**
Travel distance, e-chain®

- For flexing applications
- iguPUR outer jacket
- Oil-resistant
- Flame-retardant

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	-20°C up to +80°C
		flexible	-40°C up to +80°C (following DIN EN 60811-504)
		fixed	-50°C up to +80°C (following DIN EN 50305)
	v max.	unsupported	3m/s
	a max.		20m/s²
	Travel distance		Unsupported travels up to 10m, Class 1

Cable structure

	Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
	Core structure	Cores wound with an optimised pitch length.
	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-
	Outer jacket	Low-adhesion iguPUR mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3

EPLAN download, configurators ► www.igus.eu/CF895

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

325

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 3.1.3.1

**Flame-retardant**

**Silicone-free**

**UL verified**

**UL/CSA AWM**

**NFPA**

**EAC**

**REACH**

**Lead-free**

**CE**

**UKCA**

According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

See data sheet for details ► www.igus.eu/CF895

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00302/19

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-20/-10	17.5	18.5	19.5
-10/+70	15	16	17
+70/+80	17.5	18.5	19.5

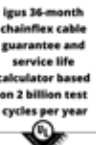
* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- With influence of oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF895.15.04	4G1.5	8.0	67	101
CF895.25.04	4G2.5	10.0	110	153
CF895.40.04	4G4.0	11.5	175	239
CF895.60.04	4G6.0	13.5	262	353
CF895.100.04	4G10	17.0	436	543
CF895.160.04	4G16	20.0	653	824

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



Example image

Motor cable | iguPUR | chainflex® CF896

36

5 million

Double strokes guaranteed

15 x d

Bend radius, e-chain®

10m

Travel distance, e-chain®

- For flexing applications
- iguPUR outer jacket
- Oil-resistant
- Shielded
- Flame-retardant

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	-20°C up to +80°C
		flexible	-40°C up to +80°C (following DIN EN 60811-504)
		fixed	-50°C up to +80°C (following DIN EN 50305)
	v max.	unsupported	3m/s
	a max.		20m/s²
	Travel distance		Unsupported travels up to 10m, Class 1

Cable structure

	Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
	Core structure	Cores wound with an optimised pitch length.
	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-
	Overall shield	Braiding made of tinned copper wires. Coverage approx. 60% optical
	Outer jacket	Low-adhesion iguPUR mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3

EPLAN download, configurators ► www.igus.eu/CF896

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

327

Class 3.1.3.1

Flame-retardant

Silicone-free

UL verified

UL/CSA AWM

NFPA

EAC

REACH

Lead-free

CE

UKCA

According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

See data sheet for details ► www.igus.eu/CF896

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00302/19

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-20/-10	17.5	18.5	19.5
-10/+70	15	16	17
+70/+80	17.5	18.5	19.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

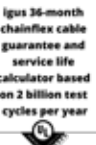
Typical application areas

- For flexing applications, Class 3
- Especially for unsupported travels, Class 1
- With influence of oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF896.07.04	(4G0.75)C	7.5	52	79
CF896.15.04	(4G1.5)C	9.0	82	122
CF896.25.04	(4G2.5)C	10.5	132	173
CF896.40.04	(4G4.0)C	12.0	204	257
CF896.60.04	(4G6.0)C	14.5	306	378
CF896.100.04	(4G10)C	18.5	458	653
CF896.160.04	(4G16)C	21.0	709	835

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

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	≥ 400m	
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	4	±360°			



Example image

Motor cable | PUR | chainflex® CF270.UL.D

36

10 million

Double strokes guaranteed

10 x d

Bend radius, e-chain®

10m

Travel distance, e-chain®

- For medium duty applications
 - PUR outer jacket
 - Shielded
 - Oil-resistant and coolant-resistant
- Notch-resistant
 - Flame-retardant
 - Hydrolysis and microbe-resistant
 - PVC and halogen-free

Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 x d
	Temperature	e-chain® linear	-25°C up to +80°C
		flexible	-40°C up to +80°C (following DIN EN 60811-504)
		fixed	-50°C up to +80°C (following DIN EN 50305)
	v max.	unsupported	10m/s
		gliding	2m/s
	a max.		50m/s²
	Travel distance		Unsupported travels and up to 10m for gliding applications, Class 2

Cable structure

	Conductor	Stranded conductor in bending-resistant version consisting of bare copper wires (following DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance XLPE mixture.
	Core structure	Cores wound with high tensile strength centre elements.
	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-
	Intermediate layer	Foil taping over the outer layer.
	Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55%, optical approx. 80%
	Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) Colour: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

EPLAN download, configurators ► www.igus.eu/CF270.UL.D

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

Class 4.2.3.1

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
	Offshore	MUD-resistant following NEK 606 - status 2009
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754
	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 ► www.igus.eu/CF270.UL.D
	NFPA	Following NFPA 79-2018, chapter 12.9
	EAC	Certificate No. RU C-DE.ME77.B.00863/20
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
	DESINA	According to VDW, DESINA standardisation
	CE	Following 2014/35/EU
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
-25/-15	12.5	13.5	14.5
-15/+70	10	11	12
+70/+80	12.5	13.5	14.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications



EU2022

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified



Basic requirements
Travel distance
Oil resistance
Torsion

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

Example image



Example image

New

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF270.UL.07.04.D	(4G0.75)C	8.0	46	95
CF270.UL.10.06.D	(6G1.0)C	9.5	87	133
CF270.UL.15.04.D	(4G1.5)C	10.0	86	140
CF270.UL.25.04.D	(4G2.5)C	11.5	146	210
CF270.UL.40.04.D	(4G4.0)C	13.0	195	296
CF270.UL.60.04.D	(4G6.0)C	15.0	289	416
CF270.UL.100.04.D	(4G10)C	18.0	449	644
CF270.UL.160.04.D	(4G16)C	22.0	698	997
CF270.UL.250.04.D	(4G25)C	25.5	1045	1384
CF270.UL.350.04.D	(4G35)C	33.0	1520	2111

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

Order example: **CF270.UL.07.04.D** – to your desired length (0.5m steps)
CF270.UL.D chainflex® series **.07** Code nominal cross section **.04** Number of cores

Order online ► www.igus.eu/CF270.UL.D

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



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



cost down...



...life up

Reduce cost, improve technology, now!

Do the chainflex® price check ...

www.igus.eu/cf-price-check

... for example: **reduce cost with CF31** ...



chainflex® CF270.UL.D motor cable in a system for sharpening knives

EPLAN download, configurators ► www.igus.eu/CF270.UL.D

330 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

igus

EU2022

EU2022

igus

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

331

Guarantee
igus chainflex
36
months

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



Guarantee
igus chainflex
36
months

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



Motor cable | PUR | chainflex® CF27.D

36 10 million
Double strokes guaranteed **7.5 x d**
Bend radius, e-chain® **100m**
Travel distance, e-chain®

- For extremely heavy duty applications
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Notch-resistant
- Flame-retardant
- Hydrolysis and microbe-resistant
- PVC and halogen-free

Dynamic information

 Bend radius	e-chain® linear flexible	minimum 7.5 x d minimum 6 x d minimum 4 x d
 Temperature	e-chain® linear flexible	-25°C up to +80°C -40°C up to +80°C (following DIN EN 60811-504) -50°C up to +80°C (following DIN EN 50305)
 v max.	unsupported	10m/s
 a max.	gliding	5m/s
 Travel distance	Unsupported travels and up to 100m for gliding applications, Class 5	

Cable structure

 Conductor	Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228).
 Core insulation	Mechanically high-quality, especially low-capacitance XLPE mixture.
 Core structure	Cores wound 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-
 Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
 Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
 Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) Colour: Pastel orange (similar to RAL 2003)
 CFRIP®	Strip cables faster: a tear strip is moulded into the inner jacket Video ► www.igus.eu/CFRIP

Electrical information

 Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
 Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

 UV resistance	Medium
 Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

igus

EU2022

Class 6.5.3.1

Basic requirements
Travel distance
Oil resistance
Torsion

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

MUD-resistant following NEK 606 - status 2009

According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Following DIN EN 60754

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

See data sheet for details ► www.igus.eu/CF27.D

Following NFPA 79-2018, chapter 12.9

Type Approval Certificate TAE00003XA

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
According to VDW, DESINA standardisation

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
-25/-15	10	11	12
-15/+70	7.5	8.5	9.5
+70/+80	10	11	12

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 100m for gliding applications, Class 5
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- 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
up to 36 months guaranteeigus 36-month
chainflex cable
guarantee and
service life
calculator based
on 2 billion test
cycles per yearUL-verified chainflex® guarantee ... www.igus.eu/ul-verified

333

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

UL

UL

nec

NFPA

CUPA

DNV

EAC

REACH

RoHS

clean-room

DESINA

CE

UKCA

Motor cable | PUR | chainflex® CF27.D

Strip cables 50% faster with CFRIP® tear strip

Class 6.5.3.1

Basic requirements
Travel distance
Oil resistance
Torsion

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

igus® chainflex® CF27.D

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]
CF27.07.04.D	(4G0.75)C	9.5	55	115
CF27.15.04.D	(4G1.5)C	11.0	90	165
CF27.25.04.D	(4G2.5)C	12.5	135	231
CF27.500.04.D	(4G50)C	37.0	2244	2817

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



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



Order example: **CF27.07.04.D** – to your desired length (0.5m steps)
CF27.D chainflex® series .07 Code nominal cross section .04 Number of cores



Order online ► www.igus.eu/CF27.D



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

cost down...



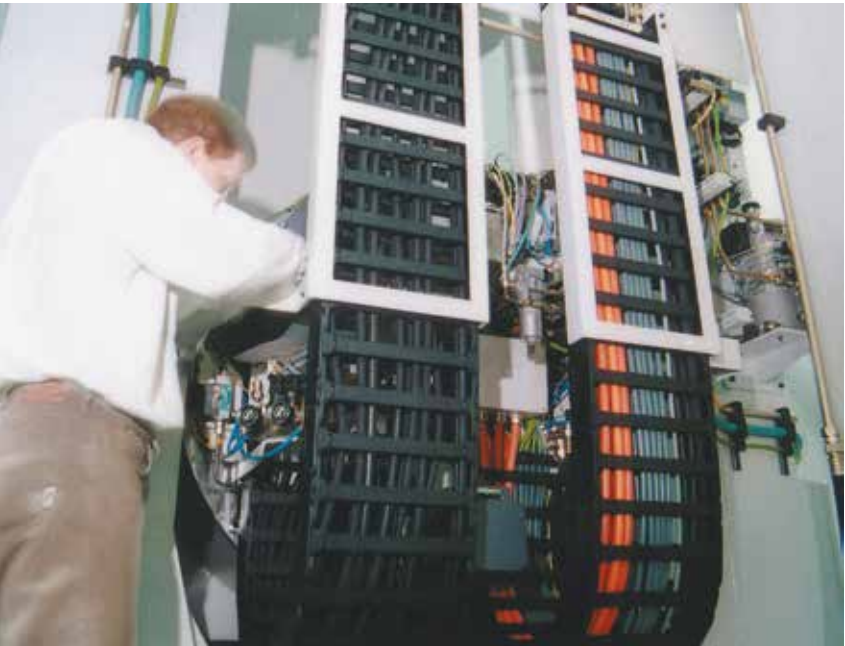
...life up

Reduce cost, improve technology, now!

Do the chainflex® price check ...

www.igus.eu/cf-price-check

... here's an idea for you: highest abrasion resistance with CF38 ...



Modular design, easy to retrofit: igus® E4 e-chain® and chainflex® cables.

EPLAN download, configurators ► www.igus.eu/CF27.D

334 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified



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



335



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



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



10 million
Double strokes guaranteed



7.5 x d
Bend radius, e-chain®



400m
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

Dynamic information

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

Cable structure

	Conductor	Cores <10mm²: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228). Cores ≥ 10mm²: 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 ► www.igus.eu/CFRIP	

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

EPLAN download, configurators ► www.igus.eu/CF34.UL.D

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

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, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	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 ► www.igus.eu/CF34.UL.D
	NFPA	Following NFPA 79-2018, chapter 12.9
	DNV	Type Approval Certificate TAE00003X9
	EAC	Certificate No. RU C-DE.ME77.B.00863/20
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	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
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m 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



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

337

Example image

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

Strip cables 50% faster with CFRIP® tear strip



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 ¹¹⁾	4x10	16.5	407	537
CF34.UL.160.04.O.PE.D ¹¹⁾	4x16	20.0	646	819

¹¹⁾ Phase-out model

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



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



Class 6.6.4.2

Basic requirements
Travel distance
Oil resistance
Torsion

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



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



Order online ► www.igus.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 ...
www.igus.eu/cf-price-check

... for example: **reduce cost with CF300.UL.D ...**



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



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



EPLAN download, configurators ► www.igus.eu/CF34.UL.D

338 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

339

Motor cable | TPE | chainflex® CF35.UL

36

Double strokes guaranteed

7.5 x d

Bend radius, e-chain®

400m

Travel distance, e-chain®

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

Dynamic information

	Bend radius	e-chain® linear flexible	minimum 7.5 x d minimum 6 x d
	Temperature	e-chain® linear flexible	-35°C up to +90°C -45°C up to +90°C (following DIN EN 60811-504)
	v max.	fixed	-50°C up to +90°C (following DIN EN 50305)
	a max.	unsupported	10m/s
	Travel distance	gliding	6m/s
			80m/s²
			Unsupported travels and up to 400m and more for gliding applications, Class 6

Cable structure

	Conductor	Cores <10mm²: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228). Cores ≥ 10mm²: 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
	Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	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 inner jacket Video ► www.igus.eu/CFRIP

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

EPLAN download, configurators ► www.igus.eu/CF35.UL

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

Class 6.6.4.1

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, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	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 ► www.igus.eu/CF35.UL
	NFPA	Following NFPA 79-2018, chapter 12.9
	DNV	Type Approval Certificate TAE00003X9
	EAC	Certificate No. RU C-DE.ME77.B.00863/20
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF34.UL.25.04.D - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU
	CE UK CA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- 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 applica

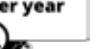
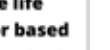
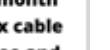
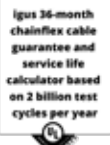


UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

341

Basic requirements
Travel distance
Oil resistance
Torsion

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



Example image

Motor cable | TPE | chainflex® CF35.UL

Strip cables 50% faster with CFRIP® tear strip

igus® chainflex® CF35.UL

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]
CF35.UL.05.04	(4G0.5)C	7.5	42	79
CF35.UL.07.04	(4G0.75)C	8.0	58	90
CF35.UL.15.04	(4G1.5)C	10.0	89	146
CF35.UL.25.04	(4G2.5)C	11.5	133	207
CF35.UL.40.04	(4G4.0)C	13.0	203	290
CF35.UL.60.04	(4G6.0)C	16.0	288	423
CF35.UL.100.04	(4G10)C	18.5	468	632
CF35.UL.160.04	(4G16)C	23.0	738	974
CF35.UL.250.04	(4G25)C	27.5	1153	1481
CF35.UL.60.03.O.PE	(3x6.0)C	14.5	229	344
CF35.UL.250.03.O.PE	(3x25)C	24.5	880	1163

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

Class 6.6.4.1

Basic requirements
Travel distance
Oil resistance
Torsion

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

Order example: **CF35.UL.05.04** - to your desired length (0.5m steps)
CF35.UL chainflex® series .05 Code nominal cross section .04 Number of cores

Order online ► www.igus.eu/CF35.UL

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 ...
www.igus.eu/cf-price-check

... for example: reduce cost with CF310.UL ...



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



EPLAN download, configurators ► www.igus.eu/CF35.UL

342 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

343



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



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



Motor cable | TPE | chainflex® CF37.D

**36 12.5 million**
Double strokes guaranteed**7.5 x d**
Bend radius, e-chain®**400m**
Travel distance, e-chain®

- For heaviest duty applications
- TPE outer jacket
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

Dynamic information



Bend radius	e-chain® linear	minimum 7.5 x d
	flexible	minimum 6 x d
	fixed	minimum 4 x d
Temperature	e-chain® linear	-35°C up to +90°C
	flexible	-50°C up to +90°C (following DIN EN 60811-504)
	fixed	-55°C up to +90°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	6m/s
a max.		80m/s²



Travel distance Unsupported travels and up to 400m and more for gliding applications, Class 6



Torsion ±90°, with 1m cable length, Class 2

Cable structure



Conductor Cores <10mm²: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228).
Cores ≥ 10mm²: Conductor cable consisting of pre-leads (following DIN EN 60228). Mechanically high-quality, especially low-capacitance XLPE mixture.

**Core insulation****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: jet black (similar to RAL 9005)**CFRIP®** Strip cables faster: a tear strip is moulded into the outer jacket
Video ► www.igus.eu/CFRIP

Electrical information

**Nominal voltage** 600/1,000V (following DIN VDE 0298-3)
1,000V (following UL)**Testing voltage** 4,000V (following DIN EN 50395)

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**Silicone-free** Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Example image

Class 7.6.4.2

**Halogen-free****UL verified****UL AWM****EAC****REACH****Lead-free****Cleanroom****DESINA****CE****UKCA**Basic requirements
Travel distance
Oil resistance
Torsion

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

Following DIN EN 60754

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

See data sheet for details ► www.igus.eu/CF37.D

(from production date 01/2022)

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1
According to VDW, DESINA standardisation

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	12.5 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

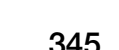
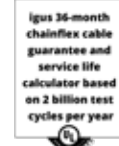
* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m 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

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New CF37.15.04.D	4G1.5	8.0	61	95
New CF37.25.04.D	4G2.5	10.0	100	149
New CF37.40.04.D	4G4.0	11.5	163	221
New CF37.60.04.D	4G6.0	13.5	237	317
New CF37.60.05.D	5G6.0	15.0	297	387
New CF37.100.04.D	4G10	16.5	407	503
New CF37.100.05.D	5G10	19.0	515	634
New CF37.160.04.D	4G16	20.0	646	773
New CF37.160.05.D	5G16	22.5	815	963
New CF37.250.04.D	4G25	24.0	1014	1203
New CF37.500.03.O.PE.D	3x50	30.0	1530	1826

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



Motor cable | TPE | chainflex® CF38

**12.5 million**
Double strokes guaranteed**7.5 x d**
Bend radius, e-chain®**400m**
Travel distance, e-chain®

- For heaviest duty applications
- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

Dynamic information



Bend radius	e-chain® linear	minimum 7.5 x d
	flexible	minimum 6 x d
	fixed	minimum 4 x d
Temperature	e-chain® linear	-35°C up to +90°C
	flexible	-50°C up to +90°C (following DIN EN 60811-504)
	fixed	-55°C up to +90°C (following DIN EN 50305)
v max.	unsupported	10m/s
	gliding	6m/s
a max.		80m/s²



Travel distance Unsupported travels and up to 400m and more for gliding applications, Class 6

Cable structure



Conductor Cores <10mm²: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228).

Core insulation Cores ≥ 10mm²: Conductor cable consisting of pre-leads (following DIN EN 60228). 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



Inner jacket TPE mixture adapted to suit the requirements in e-chains®.



Overall shield Extremely bending-resistant braiding made of tinned copper wires.
Coverage linear approx. 70%, optical approx. 90%



Outer jacket Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®.
Colour: jet black (similar to RAL 9005)



CFRIP® Strip cables faster: a tear strip is moulded into the inner jacket
Video ► www.igus.eu/CFRIP

Electrical information



Nominal voltage 600/1,000V (following DIN VDE 0298-3)
1,000V (following UL)



Testing voltage 4,000V (following DIN EN 50395)

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

Class 7.6.4.1

**Silicone-free**Basic requirements
Travel distance
Oil resistance
Torsionlow 1 2 3 4 5 6 7 highest
unsupported 1 2 3 4 5 6 ≥ 400m
none 1 2 3 4 highest
none 1 2 3 4 ±360°**Halogen-free****UL verified****UL AWM****EAC****REACH****Lead-free****Cleanroom****CE****UKCA**

Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Following DIN EN 60754

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

See data sheet for details ► www.igus.eu/CF38

(from production date 01/2022)

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	12.5 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

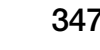
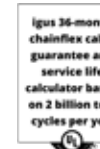
* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- 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

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New CF38.15.04	(4G1.5)C	10.0	89	140
New CF38.25.04	(4G2.5)C	11.5	133	198
New CF38.40.04	(4G4.0)C	13.0	203	280
New CF38.60.04	(4G6.0)C	16.0	288	409
New CF38.100.04	(4G10)C	18.5	468	613
New CF38.160.04	(4G16)C	23.0	738	943
New CF38.250.04	(4G25)C	27.0	1153	1432
New CF38.100.03.O.PE	(3x10)C	17.0	358	494
New CF38.160.03.O.PE	(3x16)C	20.5	565	762
New CF38.500.03.O.PE	(3x50)C	33.0	1714	2129

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



Spindle cable/Single core | PVC | chainflex® CF885

36 5 million
Double strokes guaranteed

15 x d
Bend radius, e-chain®

10m
Travel distance, e-chain®

- For flexing applications
- PVC outer jacket
- Flame-retardant

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	3m/s
	a max.		20m/s²
	Travel distance		Unsupported travels up to 10m, Class 1

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)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 600V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	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 ► www.igus.eu/CF885
	NFPA	Following NFPA 79-2018, chapter 12.9
	EAC	Certificate No. RU C-DE.ME77.B.00302/19
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)

EPLAN download, configurators ► www.igus.eu/CF885

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

igus

EU2022

EU2022

igus

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 3.1.1.1

 **Lead-free**

Following 2011/65/EC (RoHS-II/RoHS-III)

 **CE**

Following 2014/35/EU

 **UKCA**

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

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, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF885.40.01	1x4.0	7.5	41	78
CF885.60.01	1x6.0	8.0	61	100
CF885.100.01	1x10	9.5	100	157
CF885.160.01	1x16	11.5	159	237
CF885.250.01	1x25	12.5	248	325
CF885.350.01	1x35	15.0	347	474
CF885.500.01	1x50	16.5	495	644
CF885.700.01	1x70	18.5	686	844
CF885.950.01	1x95	20.5	931	1024

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



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



Guarantee
igus chainflex
36
up to 36 months guarantee

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

Guarantee
igus chainflex
36

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

CFRIP

UL US

UL US

CE

nec

NFPA

CUPA

DNV

EAC

REACH

RoHS

clean-room

F

UL

CE

UK

CA

UL

UL

UL

UL

UL

UL

UL

UL

Spindle cable/Single core | **PVC** | chainflex® CF885.PE

**36 5 million**
Double strokes guaranteed

**15 x d**
Bend radius, e-chain®

**10m**
Travel distance, e-chain®

- For flexing applications
- PVC outer jacket
- Flame-retardant

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	3m/s
	a max.		20m/s²
	Travel distance		Unsupported travels up to 10m, Class 1

Cable structure

	Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Core insulation	Mechanically high-quality PVC mixture.
	Core identification	Green-yellow
	Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 600V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	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 ► www.igus.eu/CF885.PE
	NFPA	Following NFPA 79-2018, chapter 12.9

EPLAN download, configurators ► www.igus.eu/CF885.PE

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 3.1.1.1



Certificate No. RU C-DE.ME77.B.00302/19

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

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, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF885.PE.25.01	1G2.5	6.5	25	59
CF885.PE.40.01	1G4.0	7.5	61	83
CF885.PE.60.01	1G6.0	8.0	61	100
CF885.PE.100.01	1G10	9.5	100	155
CF885.PE.160.01	1G16	11.0	159	226
CF885.PE.250.01	1G25	12.5	248	342

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



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



Example image

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

351

Spindle cable/Single core | PVC | chainflex® CF886

36 5 million
Double strokes guaranteed

15 x d
Bend radius, e-chain®

10m
Travel distance, e-chain®

- For flexing applications
- PVC outer jacket
- Shielded
- Flame-retardant

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	3m/s
 a max.		20m/s²
 Travel distance		Unsupported travels up to 10m, Class 1

Cable structure

 Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
 Core insulation	Mechanically high-quality PVC mixture.
 Overall shield	Braiding made of tinned copper wires. Coverage approx. 60% optical
 Outer jacket	Low-adhesion PVC mixture, adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

Electrical information

 Nominal voltage	600/1,000V (following DIN VDE 0298-3) 600V (following UL)
 Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

 Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
 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 ► www.igus.eu/CF886

EPLAN download, configurators ► www.igus.eu/CF886

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

igus

EU2022

Class 3.1.1.1

 **NFPA**

Following NFPA 79-2018, chapter 12.9

 **EAC**

Certificate No. RU C-DE.ME77.B.00302/19

 **REACH**

In accordance with regulation (EC) No. 1907/2006 (REACH)

 **Lead-free**

Following 2011/65/EC (RoHS-II/RoHS-III)

 **CE**

Following 2014/35/EU

 **UKCA**

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+5/+15	17.5	18.5	19.5
+15/+60	15	16	17
+60/+70	17.5	18.5	19.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

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, feeding, handling, adjusting devices

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF886.160.01	(1x16)C	11.5	186	262
CF886.250.01	(1x25)C	13.0	280	363
CF886.350.01	(1x35)C	15.5	394	535

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



Cables available in the chainflex® CASE

Simple savings on delivery, storage space and re-ordering with the chainflex® CASE - ship'n store by igus®.

More on this on page 24/25 and online: www.igus.eu/cfcase



Guarantee
igus chainflex
36

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

CE

UL

UL

nec

NFPA

CUPA

DNV

EAC

REACH

RoHS

clean-room

igus

CE

UKCA

353

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

Spindle cable/Single core | PUR | chainflex® CF270.UL.D

36

10 million

Double strokes guaranteed

10 x d

Bend radius, e-chain®

10m

Travel distance, e-chain®

- For medium duty applications
 - PUR outer jacket
 - Shielded
 - Oil-resistant and coolant-resistant
- Notch-resistant
 - Flame-retardant
 - Hydrolysis and microbe-resistant
 - PVC and halogen-free

Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 x d
	Temperature	e-chain® linear	-25°C up to +80°C
		flexible	-40°C up to +80°C (following DIN EN 60811-504)
		fixed	-50°C up to +80°C (following DIN EN 50305)
	v max.	unsupported	10m/s
		gliding	2m/s
	a max.		50m/s²
	Travel distance		Unsupported travels and up to 10m for gliding applications, Class 2

Cable structure

	Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).
	Core insulation	Mechanically high-quality TPE mixture.
	Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55%, optical approx. 80%
	Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) Colour: Pastel orange (similar to RAL 2003)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
	Offshore	MUD-resistant following NEK 606 - status 2009
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754

EPLAN download, configurators ► www.igus.eu/CF270.UL.D

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 4.2.3.1

UL verified

UL/CSA AWM

NFPA

EAC

REACH

Lead-free

Cleanroom

DESINA

CE

UKCA

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
See data sheet for details ► www.igus.eu/CF270.UL.D

Following NFPA 79-2018, chapter 12.9

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
According to VDW, DESINA standardisation

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
-25/-15	12.5	13.5	14.5
-15/+70	10	11	12
+70/+80	12.5	13.5	14.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Machining units/machine tools, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF270.UL.60.01.D	(1x6.0)C	7.5	72	95
CF270.UL.100.01.D	(1x10)C	8.5	114	145
CF270.UL.160.01.D	(1x16)C	9.5	178	209
CF270.UL.250.01.D	(1x25)C	11.0	269	304
CF270.UL.350.01.D	(1x35)C	13.0	374	419
CF270.UL.500.01.D	(1x50)C	15.0	525	579
CF270.UL.700.01.D	(1x70)C	17.0	751	804

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



Example image

Spindle cable/Single core | TPE | chainflex® CF300.UL.D

36

10 million

Double strokes guaranteed

7.5 x d

Bend radius, e-chain®

400m

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

Dynamic information

 Bend radius	e-chain® linear	minimum 7.5 x d
	flexible	minimum 6 x d
	fixed	minimum 4 x d
 Temperature	e-chain® linear	-35°C up to +90°C
	flexible	-45°C up to +90°C (following DIN EN 60811-504)
	fixed	-50°C up to +90°C (following DIN EN 50305)
 v max.	unsupported	10m/s
 a max.	gliding	6m/s
		100m/s²
 Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	
 Torsion	Torsion ±90°, with 1m cable length, Class 2	

Cable structure

 Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).
 Core insulation	Mechanically high-quality TPE mixture.
 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)

Electrical information

 Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
 Testing voltage	4,000V (following DIN EN 50395)

Properties and approvals

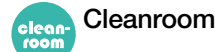
 UV resistance	High
 Oil resistance	Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
 Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
 Silicone-free	Free from silicone which can 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 ► www.igus.eu/CF300.UL.D

EPLAN download, configurators ► www.igus.eu/CF300.UL.D

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



Class 6.6.4.2



Basic requirements
Travel distance
Oil resistance
Torsion

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

Following NFPA 79-2018, chapter 12.9

Type Approval Certificate TAE00003XC

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF34.UL.25.04.D - tested by IPA according to standard DIN EN ISO 14644-1
According to VDW, DESINA standardisation

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m 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

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF300.UL.40.01.D	1x4.0	6.0	41	59
CF300.UL.60.01.D	1x6.0	7.0	61	83
CF300.UL.100.01.D	1x10	7.5	100	124
CF300.UL.160.01.D	1x16	9.5	159	195
CF300.UL.250.01.D	1x25	11.5	248	294
CF300.UL.350.01.D	1x35	12.5	347	395
CF300.UL.500.01.D	1x50	14.5	495	551
CF300.UL.700.01.D	1x70	16.5	710	769
CF300.UL.950.01.D	1x95	20.0	936	1042
CF300.UL.1200.01.D	1x120	21.5	1184	1295
CF300.UL.1500.01.D	1x150	23.5	1469	1579
CF300.UL.1850.01.D	1x185	26.5	1928	2052

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



Spindle cable/Single core | TPE | chainflex® CFPE

36 10 million
Double strokes guaranteed **7.5 x d**
Bend radius, e-chain® **400m**
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

Dynamic information

 Bend radius	e-chain® linear	minimum 7.5 x d
	flexible	minimum 6 x d
	fixed	minimum 4 x d
 Temperature	e-chain® linear	-35°C up to +90°C
	flexible	-45°C up to +90°C (following DIN EN 60811-504)
	fixed	-50°C up to +90°C (following DIN EN 50305)
 v max.	unsupported	10m/s
 a max.	gliding	6m/s
		100m/s²
 Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	
 Torsion	Torsion ±90°, with 1m cable length, Class 2	

Cable structure

 Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).
 Core insulation	Mechanically high-quality TPE mixture.
 Core identification	Green-yellow
 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)

Electrical information

 Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
 Testing voltage	4,000V (following DIN EN 50395)

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, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
 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"

EPLAN download, configurators ► www.igus.eu/CFPE

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

igus

EU2022

Class 6.6.4.2

 UL/CSA AWMSee data sheet for details ► www.igus.eu/CFPEE NFPA

Following NFPA 79-2018, chapter 12.9

 DNV

Type Approval Certificate TAE00003XC

 EAC

Certificate No. RU C-DE.ME77.B.00863/20

 REACH

In accordance with regulation (EC) No. 1907/2006 (REACH)

 Lead-free

Following 2011/65/EC (RoHS-II/RoHS-III)

 CleanroomAccording to ISO Class 1. The outer jacket material of this series complies with CF34.UL.25.04.D - tested by IPA according to standard DIN EN ISO 14644-1
Following 2014/35/EU CE UKCA

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m 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

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFPE.15.01	1G1.5	4.5	16	31
CFPE.25.01	1G2.5	5.5	25	42
CFPE.40.01	1G4.0	6.0	41	59
CFPE.60.01	1G6.0	7.0	61	83
CFPE.100.01	1G10	7.5	100	124
CFPE.160.01	1G16	9.5	159	195
CFPE.250.01	1G25	11.5	248	294
CFPE.350.01	1G35	12.5	347	395
CFPE.500.01	1G50	14.5	495	551
CFPE.700.01	1G70	16.5	725	813
CFPE.950.01	1G95	20.0	936	1080

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.
G = with green-yellow earth core x = without earth coreBasic requirements
Travel distance
Oil resistance
Torsionlow 1 2 3 4 5 6 7 highest
unsupported 1 2 3 4 5 6 ≥ 400m
none 1 2 3 4 highest
none 1 2 3 4 ±360°Guarantee
igus chainflex
36igus 36-month
chainflex cable
guarantee and
service life
calculator based
on 2 billion test
cycles per year

CFPE

UL US

UL US

nec

NFPA

CIPA

DNV

EAC

REACH

RoHS

Cleanroom

F

F

CE

UKCA

Spindle cable/Single core | TPE | chainflex® CF310.UL

36

10 million

Double strokes guaranteed

7.5 x d

Bend radius, e-chain®

400m

Travel distance, e-chain®

- For extremely heavy duty applications

● TPE outer jacket

● Shielded

● Oil and bio-oil-resistant
- Flame-retardant

● UV-resistant

● Hydrolysis and microbe-resistant

Dynamic information

	Bend radius	e-chain® linear	minimum 7.5 x d
		flexible	minimum 6 x d
		fixed	minimum 4 x d
	Temperature	e-chain® linear	-35°C up to +90°C
		flexible	-45°C up to +90°C (following DIN EN 60811-504)
		fixed	-50°C up to +90°C (following DIN EN 50305)
	v max.	unsupported	10m/s
	a max.	gliding	6m/s
			100m/s²
	Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	

Cable structure

	Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).
	Core insulation	Mechanically high-quality TPE mixture.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	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)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

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, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	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 ► www.igus.eu/CF310.UL

EPLAN download, configurators ► www.igus.eu/CF310.UL

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



Class 6.6.4.1

NFPA

DNV

EAC

REACH

Lead-free

Cleanroom

CE

UKCA

Following NFPA 79-2018, chapter 12.9

Type Approval Certificate TAE00003XC

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF34.UL.25.04.D - tested by IPA according to standard DIN EN ISO 14644-1
Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- 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

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF310.UL.25.01	(1x2.5)C	6.0	41	58
CF310.UL.40.01	(1x4.0)C	6.5	57	77
CF310.UL.60.01	(1x6.0)C	7.0	80	101
CF310.UL.100.01	(1x10)C	8.5	121	146
CF310.UL.160.01	(1x16)C	10.0	184	223
CF310.UL.250.01	(1x25)C	12.0	280	329
CF310.UL.350.01	(1x35)C	13.0	395	444
CF310.UL.500.01	(1x50)C	15.0	536	587
CF310.UL.700.01	(1x70)C	18.0	779	851
CF310.UL.950.01	(1x95)C	21.0	1015	1125
CF310.UL.1200.01	(1x120)C	22.0	1270	1378
CF310.UL.1500.01	(1x150)C	24.5	1592	1700
CF310.UL.1850.01	(1x185)C	27.5	2066	2189

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

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	≥ 400m	
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	4	±360°			



Example image

EU2022

EU2022

Spindle cable/Single core | TPE | chainflex® CF330.D

New

36

Double strokes guaranteed

7.5 x d

Bend radius, e-chain®

400m

Travel distance, e-chain®

- For heaviest duty applications
- TPE outer jacket
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

Now available
with UL approval
& 25% longer ser-
vice life

Dynamic information

	Bend radius	e-chain® linear	minimum 7.5 x d
		flexible	minimum 6 x d
		fixed	minimum 4 x d
	Temperature	e-chain® linear	-35°C up to +90°C
		flexible	-50°C up to +90°C (following DIN EN 60811-504)
		fixed	-55°C up to +90°C (following DIN EN 50305)
	v max.	unsupported	10m/s
	a max.	gliding	6m/s
			100m/s²
	Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	
	Torsion	Torsion ±90°, with 1m cable length, Class 2	

Cable structure

	Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).
	Core insulation	Mechanically high-quality TPE mixture.
	Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. Colour: jet black (similar to RAL 9005)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

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
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754
	UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



Class 7.6.4.2

UL AWM

EAC

REACH

Lead-free

Cleanroom

DESINA

CE

UKCA

Basic requirements
Travel distance
Oil resistance
Torsion

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

See data sheet for details ► www.igus.eu/CF330.D
(from production date 01/2022)
Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1
According to VDW, DESINA standardisation

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	12.5 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

Typical application areas

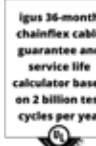
- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New CF330.60.01.D	1x6.0	7.0	61	77
New CF330.100.01.D	1x10	7.5	100	119
New CF330.160.01.D	1x16	9.5	159	181
New CF330.250.01.D	1x25	11.5	248	284
New CF330.350.01.D	1x35	12.5	347	385
New CF330.500.01.D	1x50	14.5	495	534
New CF330.700.01.D	1x70	16.5	710	754
New CF330.950.01.D	1x95	20.0	936	1015
New CF330.1200.01.D	1x120	21.5	1184	1265
New CF330.1500.01.D	1x150	23.5	1469	1548
New CF330.1850.01.D	1x185	26.5	1928	2016

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



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified



Spindle cable/Single core | TPE | chainflex® CF340

**12.5 million**
Double strokes guaranteed**7.5 x d**
Bend radius, e-chain®**400m**
Travel distance, e-chain®

- For heaviest duty applications
- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

**Now available
with UL approval
& 25% longer ser-
vice life**

Dynamic information

	Bend radius	e-chain® linear	minimum 7.5 x d
		flexible	minimum 6 x d
		fixed	minimum 4 x d
	Temperature	e-chain® linear	-35°C up to +90°C
		flexible	-50°C up to +90°C (following DIN EN 60811-504)
		fixed	-55°C up to +90°C (following DIN EN 50305)
	v max.	unsupported	10m/s
		gliding	6m/s
	a max.		100m/s²
	Travel distance		Unsupported travels and up to 400m and more for gliding applications, Class 6

Cable structure

	Conductor	Conductor cable consisting of pre-leads (following DIN EN 60228).
	Core insulation	Mechanically high-quality TPE mixture.
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. Colour: jet black (similar to RAL 9005)

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL)
	Testing voltage	4,000V (following DIN EN 50395)

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
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754
	UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"

Example image

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

igus

EU2022

Class 7.6.4.1



UL AWM



EAC



REACH



Lead-free



Cleanroom



CE



UKCA

Basic requirements
Travel distance
Oil resistance
Torsion

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

See data sheet for details ► www.igus.eu/CF340

(from production date 01/2022)

Certificate No. RU C-DE.ME77.B.00863/20

In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

According to ISO Class 1. The outer jacket material of this series complies with CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million	7.5 million	12.5 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

Typical application areas

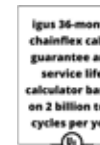
- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
New CF340.40.01	(1x4.0)C	6.5	57	73
New CF340.160.01	(1x16)C	10.0	184	215
New CF340.250.01	(1x25)C	12.0	280	319
New CF340.350.01	(1x35)C	13.0	395	433
New CF340.500.01	(1x50)C	15.0	536	574
New CF340.700.01	(1x70)C	17.5	779	832
New CF340.950.01	(1x95)C	21.0	1015	1093
New CF340.1200.01	(1x120)C	22.0	1270	1341
New CF340.1500.01	(1x150)C	24.5	1592	1642
New CF340.1850.01	(1x185)C	27.5	2066	2157
New CF340.2400.01	(1x240)C	30.5	2566	2731

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

igus

EU2022

UL-verified chainflex® guarantee ... www.igus.eu/ul-verified

Medium voltage cable | PUR | chainflex® CFCRANE.PUR



10 million
Double strokes guaranteed



10 x d
Bend radius, e-chain®



400m
Travel distance, e-chain®

- For maximum voltages and outputs
 - PUR outer jacket
 - Shielded
 - Oil-resistant and coolant-resistant
 - Flame-retardant
- PVC and halogen-free
 - Notch-resistant
 - Hydrolysis and microbe-resistant

Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 x d
	Temperature	e-chain® linear	-20°C up to +80°C
		flexible	-25°C up to +80°C (following DIN EN 60811-504)
		fixed	-30°C up to +80°C (following DIN EN 50305)
	v max.	unsupported	10m/s
	a max.	gliding	6m/s
	Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	

Cable structure

	Conductor	Highly-flexible cable consisting of bare copper wires (according to DIN EN 60228).
	Core insulation	Inner and outer semiconducting layer made of conductive rubber. Insulating sheath made of highly-quality, heat-resistant and ozone-proof ethylene propylene rubber (EPR).
	Overall shield	Extremely bending-resistant wrapping made of tinned copper wires Coverage approx. 85% optical
	Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) Colour: Red

Electrical information

	Nominal voltage	6/10kV or 8.7/15kV (following DIN VDE 0250), further voltages upon request.
	Testing voltage	24kV (following DIN VDE 0250, Part 813)

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
	Flame-retardant	According to IEC 60332-1-2

EPLAN download, configurators ► www.igus.eu/CFCRANE.PUR

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



Class 6.6.3.1

-  Silicone-free
-  Halogen-free
-  UL verified
-  REACH
-  Lead-free



Basic requirements
Travel distance
Oil resistance
Torsion

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

Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
Following DIN EN 60754

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
In accordance with regulation (EC) No. 1907/2006 (REACH)

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
-20/-10	12.5	13.5	14.5
-10/+70	10	11	12
+70/+80	12.5	13.5	14.5

* Higher number of double strokes? Service life calculation online ► www.igus.eu/chainflexlife

Typical application areas

- For maximum voltages and outputs, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Ship to shore, crane applications, conveyor technology

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFCRANE.PUR.350.01.6/10kV	(1x35/16)C	26.0	568	852
CFCRANE.PUR.500.01.6/10kV	(1x50/16)C	27.0	722	1025
CFCRANE.PUR.700.01.6/10kV	(1x70/16)C	29.0	941	1249
CFCRANE.PUR.950.01.6/10kV	(1x95/16)C	31.0	1166	1523

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



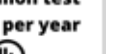
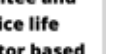
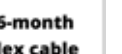
igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year



367



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



Example image

Medium voltage cable | igupren | chainflex® CFCRANE

36

10 million

Double strokes guaranteed

10 x d

Bend radius, e-chain®

400m

Travel distance, e-chain®

- For maximum voltages and outputs
 - igupren outer jacket
 - Shielded
 - Oil-resistant
- Flame-retardant

Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 x d
	Temperature	e-chain® linear	-20°C up to +80°C
		flexible	-25°C up to +80°C (following DIN EN 60811-504)
		fixed	-30°C up to +80°C (following DIN EN 50305)
	v max.	unsupported	10m/s
	a max.	gliding	6m/s
	Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	

Cable structure

	Conductor	Highly-flexible cable consisting of tinned copper wires (following DIN EN 60228).
	Core insulation	Inner and outer semiconducting layer made of conductive rubber. Insulating sheath made of highly-quality, heat-resistant and ozone-proof ethylene propylene rubber (EPR).
	Overall shield	Extremely bending-resistant, tinned copper shield. Coverage approx. 95% optical
	Outer jacket	Low-adhesion iguprene mixture, especially abrasion resistant, adapted to suit the requirements in e-chains® (following VDE 0207, Part 21). Colour: Red

Electrical information

	Nominal voltage	6/10kV (following DIN VDE 0250), other voltages upon request.
	Testing voltage	17kV (following DIN VDE 0250, Part 813)

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 6.6.3.1

Properties and approvals

	UV resistance	High
	Oil resistance	Oil-resistant (following DIN EN 60811-404)
	Flame-retardant	According to IEC 60332-1-2
	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"
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	CE	Following 2014/35/EU
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

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]
-20/-10	12.5	13.5	14.5
-10/+70	10	11	12
+70/+80	12.5	13.5	14.5

* Higher number of double strokes? Service life calculation online ►www.igus.eu/chainflexlife

Typical application areas

- For maximum voltages and outputs, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant
- Ship to shore, crane applications, conveyor technology

i This cable series will be individually manufactured for your special project. Due to this we do not have this cable on stock, but can offer it exactly for your special demands.

Medium voltage cables available from stock (CFCRANE.PUR) ► **Page 366**



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



EPLAN download, configurators ► www.igus.eu/CFCRANE

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2022

EU2022



UL-verified chainflex® guarantee ... www.igus.eu/ul-verified



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



369

Example image