

chainflex® CF310.UL



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°



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 flexible	minimum 7.5 x d minimum 6 x d fixed minimum 4 x d
	Temperature	e-chain® linear flexible	-35°C up to +90°C -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		100m/s²
			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)

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)
	PTFE-free	The design of these products does not contain PTFE
	UL-verified	Certificate No. V293650: „igus 4-year 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.sk/CF310UL
	NFPA	Following NFPA 79-2018, chapter 12.9
	DNV	Type Approval Certificate TAE00003XC (Issue 04/2025) Current information in the data sheet ► www.igus.sk/CF310UL
	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	

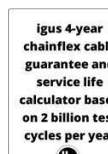
Guaranteed service life (details see page 14-15)

Double strokes*	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [x d]	R min. [x d]	R min. [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.sk/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

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

4-year guarantee ... more than 1,350 cable types from stock ... no cutting costs

igus® chainflex® CF310.UL

Image exemplary

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]	Shop and prices online
CF310.UL.25.01	(1x2.5)C	6.0	41	58	 www.igus.sk/CF310UL
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



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 online: www.igus.sk/cf-case



Order example: **CF310.UL.25.01** - to your required length (0.5m steps)

CF310.UL chainflex® series .25 Code nominal cross section .01 Number of cores

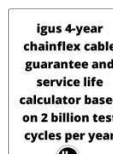


Order online ► www.igus.sk/CF310UL



Delivery time 24hrs or today.

Delivery time means time until goods are shipped.



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