

Coax cable | TPE | chainflex® CFKoax

36

10 million

Double strokes guaranteed

10 x d

Bend radius, e-chain®

400m

Travel distance, e-chain®

- For extremely heavy duty applications
- TPE outer jacket
- Oil and bio-oil-resistant
- UV-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	-35°C up to +100°C (CFKoax1/3)
			-35°C up to +70°C (CFKoax2)
		flexible	-50°C up to +100°C (CFKoax1/3)
			-50°C up to +70°C (CFKoax2)
		fixed	-55°C up to +100°C (CFKoax1/3)
			-55°C up to +70°C (CFKoax2)
	v max.	unsupported	10m/s
	a max.	gliding	5m/s
			100m/s²
	Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	

Cable structure

	Conductor	Multi-wire; adapted to single-wire diameter with pitch length to suit the requirements in e-chains®.
	Core insulation	Special FEP mixture (CFKoax1/3) Special PE mixture (CFKoax2)
	Core structure	Cores wound in a layer with especially short pitch length.
	Core identification	Coaxial elements ► <b>Product range table</b>
	Element shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	Element shield	TPE mixture adapted to suit the requirements in e-chains®.
	Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. Colour: ► <b>Product range table</b>

Electrical information

	Nominal voltage	500/500V (following DIN VDE 0298-3)
	Testing voltage	1,500V (following DIN EN 50395)

EPLAN download, configurators ► [www.igus.eu/CFKOAX](http://www.igus.eu/CFKOAX)

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



EU2023

Class 6.6.4.1

Properties and approvals

	UV resistance	Medium
	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)
	UL verified	Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
	EAC	Certificate No. RU C-DE.ME77.B.00300/19
	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 CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1
	CE	Following 2014/35/EU
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)
	Info	The coaxial elements used in cables of the CFKoax1 series are comparable with a HF75-0.3/1.6 according to MIL-C-17/94-RG179 and thus fit into an RG179 plug! The coaxial elements used in cables of the CFKoax2 series are comparable with a HF50-0.9/2.95 according to MIL-C-17/28-RG58 and thus fit into an RG58 plug! The coaxial elements used in cables of the CFKoax3 series are comparable with a HF50-0.3/0.84 according to MIL-C-17/93-RG178 and thus fit into an RG178 plug!

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	12.5	13.5	14.5
-25/+60 (CFKoax2)	10	11	12
-25/+90 (CFKoax1/CFKoax3)	10	11	12
+60/+70 (CFKoax2)	12.5	13.5	14.5
+90/+100 (CFKoax1/CFKoax3)	12.5	13.5	14.5

\* Higher number of double strokes? Service life calculation online ► [www.igus.eu/chainflexlife](http://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 with average sun radiation
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, indoor cranes, low temperature applications

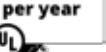
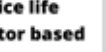
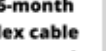


EU2023

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°			



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



Example image

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

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFK coax1.01	1xHF75-0.3/1.6	4.5	8	23
CFK coax1.05	5xHF75-0.3/1.6	10.0	34	110
CFK coax2.01	1xHF50-0.9/2.95	5.5	19	36
CFK coax3.01	1xHF50-0.3/0.84	3.5	6	12

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

Part No.	Characteristic wave impedance approx. [Ω]	Core identification	Colour outer jacket
CFK coax1.01	75	red	Steel-blue (similar to RAL 5011)
CFK coax1.05	75	red, green, blue, white, black	Steel-blue (similar to RAL 5011)
CFK coax2.01	50		Jet black (similar to RAL 9005)
CFK coax3.01	50		Window-grey (similar to RAL 7040)



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/cf-case](http://www.igus.eu/cf-case)



Order example: CFK coax1.01 - to your desired length (0.5m steps)  
CFK coax chainflex® series .01 Number of coaxial elements



Order online ► [www.igus.eu/CFKcoax](http://www.igus.eu/CFKcoax)



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



Coax cable and other chainflex® cables in a stage technology application. e-chain®: E4/4 system



EPLAN download, configurators ► [www.igus.eu/CFKCOAX](http://www.igus.eu/CFKCOAX)

178 36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2023

EU2023



UL-verified chainflex® guarantee ... [www.igus.eu/ul-verified](http://www.igus.eu/ul-verified)

179



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

