

Control cable | TPE | chainflex® CF99

36 40,000,000
Cycles guaranteed

4 x d
Bend radius E-Chain®

328.1 ft
Travel distance E-Chain®

- For maximum mechanical load requirements and especially small bend radii to 4 x d
- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant
- PVC and halogen-free
- Low-temperature-flexibility
- Hydrolysis and microbe-resistant

Dynamic Information

Bend radius	E-Chain® linear flexible	min. 4 x d
	fixed	min. 3 x d
Temperature	E-Chain® linear flexible	-31 °F to +194 °F (-35 °C to +90 °C)
	fixed	-58 °F to +194 °F (-50 °C to +90 °C)
v max.	unsupported	32.81 ft/s (10 m/s)
	gliding	19.69 ft/s (6 m/s)
a max.		328.1 ft/s² (100 m/s²)
Travel distance		Short, very fast applications with small radii and restricted installation space, Class 5

Cable structure

Conductor	Conductor consisting of a highly flexible stranded special alloy.
Conductor insulation	Mechanically high-quality TPE mixture.
Conductor construction	Conductors cabled in one layer with especially short pitch length.
Color code	Color code in accordance with DIN 47100.
Inner jacket	TPE mixture adapted to suit the requirements in E-Chains®.
Overall shield	Highly flexible, alloyed special shield. 90 % optical coverage
Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in E-Chains®. Color: Dark blue (similar to RAL 5011)

Electrical Information

Nominal voltage	300 V
Test voltage	1500 V

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

Configurators ► www.igus.com/CF99

36 month guarantee ... 1,354 types from stock ... no cutting charges



Basic requirements
Travel distance
Oil resistance
Torsion

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 1312 ft	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			

Class 7.5.4.1

- 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
- EAC** Certificate No. RU C-DE.ME77.B.00300/19 (TR ZU)
- 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

Guaranteed service life (details see page 26-27)

Cycles*	20 million	30 million	40 million
Temperature, from/to [°F]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-31/-13	5	6	7
-13/+176	4	5	6
+176/+194	5	6	7

* Higher number of cycles? Online lifetime calculation ► www.chainflex.com/chainflexlife

Typical application areas

- For maximum mechanical load requirements and especially small bend radii to 4 x d, Class 7
- Especially for short, very fast applications with small radii and restricted installation space, Class 5
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Indoor and outdoor applications, UV-resistant
- Pick and place machines, Automatic doors, Cleanroom, very quick handling

Part No.	AWG	Number of Conductors and rated cross section	Outer diameter max.		Copper index		Weight	
			[mm²]	[in.] [mm]	[lbs/mft] [kg/km]	[lbs/mft] [kg/km]		
CF99-01-02	26	2 x 0.14	0.24	6.0	8.1	12	24.9	37
CF99-01-04	26	4 x 0.14	0.26	6.5	11.4	17	31.6	47
CF99-01-08	26	8 x 0.14	0.31	8.0	19.5	29	51.1	76
CF99-02-04	24	4 x 0.25	0.28	7.0	16.1	24	40.3	60
CF99-03-08	22	8 x 0.34	0.37	9.5	30.2	45	72.6	108

Note: The given outer diameters are maximum values.
G = with green-yellow earth core x = without earth core

cost down...



...life up

Reduce cost, improve technology, now!

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www.igus.com/info/cable-price-check

... just one idea for you: Reduce cost with CF299



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

