

Motor cable | TPE | Chainflex® CF37-D







36 10,000,000
Cycles guaranteed

7.5 x d
Bend radius E-Chain®







1312 ft
Travel distance E-Chain®

- For maximum mechanical load requirements
- 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	min. 7.5 x d
		flexible	min. 6 x d
		fixed	min. 4 x d
	Temperature	E-Chain® linear	-31 °F to +194 °F (-35 °C to +90 °C)
		flexible	-58 °F to +194 °F (-50 °C to +90 °C)
		fixed	-67 °F to +194 °F (-55 °C to +90 °C)
	v max.	unsupported	32.81 ft/s (10 m/s)
		gliding	19.69 ft/s (6 m/s)
	a max.		262.5 ft/s ² (80 m/s ²)
	Travel distance		Unsupported travel distances and for gliding applications up to 1312 ft (400 m) and more, Class 6
	Torsion		± 90°, with 3.281ft (1m) cable length, Class 2

Cable structure

	Conductors	16-10 AWG: Conductor consisting of bare copper wires (according to DIN EN 60228). 8-1 AWG: Conductor cable consisting of pre-leads (following DIN EN 60228).
	Conductor insulation	Mechanically high-quality, especially low-capacitance TPE mixture.
	Conductor construction	Conductors cabled with short pitch length around a high-tensile strength core.
	Color code	Black with white numbers, one conductor green-yellow. 1. U / L1 / C / L+ 2. V / L2 3. W / L3 / D / L- 4. 4 / N 5. green/yellow
	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: Jet black (similar to RAL 9005)
	CFRIP®	Strip 50% faster: a tear strip is molded into the outer jacket Video ► www.igus.com/CFRIP

Electrical Information

	Nominal voltage	600 V
	Test voltage	4000 V (following DIN EN 50395)

Properties and approvals

	UV resistance	High
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Configurators ► www.igus.com/CF37-D



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	±180°				

Class 7.6.4.2

 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
 EAC	Certificate No. RU C-DE.ME77.B.02324 (TR ZU)
 Lead-free	Following 2011/65/EC (RoHS-II)
 Clean room	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
 DESINA	According to VDW, DESINA standardization.
 CE	Following 2014/35/EU

Guaranteed service life (details see page 22-23)

Cycles*	5 million	7.5 million	10 million
Temperature, from/to [°F]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-31/-13	10	11	12
-13/+176	7.5	8.5	9.5
+176/+194	10	11	12

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

Typical application areas

- For very high mechanical load requirements, Class 7
- Unsupported travel distances and for gliding applications up to 1312 ft (400 m) and more, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ± 90°, with 3.281ft (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, Clean room, semiconductor insertion, outdoor cranes, low temperature applications

Part No.	AWG	Number of Conductors and rated cross section	Outer diameter max.		Copper index		Weight	
			[in.]	[mm]	[lbs/mft]	[kg/km]	[lbs/mft]	[kg/km]
CF37-15-04-D	16	4 G 1.5	0.33	8.5	41.0	61	64.5	96
CF37-25-04-D	14	4 G 2.5	0.39	10.0	67.9	101	113.6	169
CF37-40-04-D	12	4 G 4.0	0.47	12.0	109.5	163	153.9	229
CF37-60-04-D	10	4 G 6.0	0.55	14.0	163.3	243	237.9	354
CF37-60-05-D	10	5 G 6.0	0.61	15.5	199.6	297	251.3	374
CF37-100-04-D	8	4 G 10.0	0.69	17.5	274.8	409	372.9	555
CF37-100-05-D	8	5 G 10.0	0.77	19.5	353.5	526	470.4	700
CF37-160-04-D	6	4 G 16.0	0.81	20.5	434.1	646	525.5	782
CF37-160-05-D	6	5 G 16.0	0.93	23.5	547.0	814	728.4	1084
CF37-250-04-D	4	4 G 25.0	1.00	25.5	681.4	1014	813.1	1210
CF37-500-03-O-PE-D	1	3 x 50.0	1.22	31.0	1028.1	1530	1262.6	1879

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

