

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

- 36** 10 million Guaranteed double strokes
- 10 x d** Bend radius e-chain®
- 10 m** 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	min. 10 x d
	flexible	min. 8 x d
	fixed	min. 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	10 m/s
a max.	gliding	2 m/s
Travel distance	Unsupported travels and up to 10 m 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 TPE mixture.
Core structure	Power cores and control pair elements wound with a short pitch length around a high tensile strength centre element.
Core identification	Power cores: 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- 1 Control pair: Black cores with white numbers. 1. Control core: 4 2. Control core: 5 2 Control pairs: Black cores with white numbers. 1. Control core: 5 2. Control core: 6 3. Control core: 7 4. Control core: 8
Element shield	Bending-resistant braiding made of tinned copper wires.
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)

Example image

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 4.2.3.1

Electrical information

Nominal voltage	600/1000 V (following DIN VDE 0298-3)
Testing voltage	4000 V (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, CEI 20-35, FT1, VW-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/CSA	Style 10989 and 21223, 1000 V, 80 °C
NFPA	Following NFPA 79-2018, chapter 12.9
EAC	Certificate No. RU C-DE.ME77.B.02324 (TR ZU)
CTP	Certificate No. C-DE.PB49.B.00420 (Fire protection)
CEI	Following CEI 20-35
Lead-free	Following 2011/65/EC (RoHS-II)
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

Guaranteed service life (details see page 22-23)

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 mechanical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10 m 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





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]
1 Control pair shielded				
CF270.UL.15.15.02.01.D	(4G1.5+(2x1.5)C)C	12.0	154	253
CF270.UL.25.15.02.01.D	(4G2.5+(2x1.5)C)C	14.0	210	292
CF270.UL.40.15.02.01.D	(4G4.0+(2x1.5)C)C	15.0	281	429
CF270.UL.60.15.02.01.D	(4G6.0+(2x1.5)C)C	16.5	375	531
CF270.UL.100.15.02.01.D	(4G10+(2x1.5)C)C	20.5	593	858
CF270.UL.160.15.02.01.D	(4G16+(2x1.5)C)C	24.0	873	1251
CF270.UL.250.15.02.01.D ¹¹⁾	(4G25+(2x1.5)C)C	28.5	1340	1599
2 Control pairs shielded				
CF270.UL.07.03.02.02.D	(4G0.75+2x(2x0.34)C)C	11.5	110	201
CF270.UL.10.07.02.02.D	(4G1.0+2x(2x0.75)C)C	13.0	147	256
CF270.UL.15.07.02.02.D	(4G1.5+2x(2x0.75)C)C	13.5	174	298
CF270.UL.25.15.02.02.D	(4G2.5+2x(2x1.5)C)C	16.0	268	421
CF270.UL.40.15.02.02.D	(4G4.0+2x(2x1.5)C)C	17.0	340	520
CF270.UL.60.15.02.02.D	(4G6.0+2x(2x1.5)C)C	18.5	438	644
CF270.UL.100.15.02.02.D	(4G10+2x(2x1.5)C)C	22.5	645	960
CF270.UL.160.15.02.02.D	(4G16+2x(2x1.5)C)C	26.0	920	1333
CF270.UL.250.15.02.02.D ¹¹⁾	(4G25+2x(2x1.5)C)C	28.5	1393	1874
without control pair				
CF270.UL.07.04.D	(4G0.75)C	8.0	49	94
CF270.UL.15.04.D	(4G1.5)C	9.5	85	151
CF270.UL.25.04.D	(4G2.5)C	11.5	145	231
CF270.UL.40.04.D	(4G4.0)C	12.5	217	323
CF270.UL.60.04.D	(4G6.0)C	14.5	316	444
CF270.UL.100.04.D	(4G10)C	18.0	510	712
CF270.UL.160.04.D	(4G16)C	22.0	798	1067
CF270.UL.250.04.D	(4G25)C	25.5	1220	1595
CF270.UL.350.04.D	(4G35)C	33.0	1728	2347
Spindle cable/Single core				
CF270.UL.60.01.D	(1x6.0)C	7.0	70	93
CF270.UL.100.01.D	(1x10)C	8.5	110	141
CF270.UL.160.01.D	(1x16)C	9.5	170	201
CF270.UL.250.01.D	(1x25)C	11.0	261	296
CF270.UL.350.01.D	(1x35)C	13.0	363	405
CF270.UL.500.01.D	(1x50)C	15.0	514	567
CF270.UL.700.01.D	(1x70)C	17.5	736	788

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



Order example: **CF270.UL.40.15.02.01.D** – to your desired length (0.5 m steps)
CF270.UL.D chainflex® series .40 Code nominal cross section .15 Code nominal cross section signal pairs
.02 Identification pairs .01 Number of pairs



Online order ► www.chainflex.eu/CF270.UL.D



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

