PUR Control cable | CF2

Image exemplary.

- For very high mechanical load requirements
- PUR outer jacket
- Shielded
- Oil-resistant and coolant-resistant
- Flame-retardant
- Notch-resistant
- Hydrolysis/microbe-resistant

Dynamic Information

Bend radius		E-Chain®	min. 5 x d
		flexible	min. 4 x d
		fixed	min. 3 x d
Temperature		E-Chain®	-4 °F to +176 °F (-20 °C to +80 °C)
		flexible	-40 °F to +176 °F (-40 °C to +80 °C)
		fixed	-58 °F to +176 °F (-50 °C to +80 °C)
v max.		unsupported	32.81 ft/s (10 m/s)
		gliding	16.41 ft/s (5 m/s)
a max.			262.5 ft/s² (80 m/s²)
Travel distance			Unsupported travel distances and for gliding applications up to 328 ft (100 m), Class 5

Cable structure

Conductor	Conductor consisting of bare copper wires (according to EN 60228).
Conductor insulation	**< 20 AWG:** Mechanically high-quality TPE mixture. **≥ 20 AWG:** Mechanically high-quality PVC mixture (following DIN VDE 0207 Part 4).
Conductor construction	**No. of conductors < 12:** Conductors cabled in a layer with short pitch length. **No. of conductors ≥ 12:** Conductors combined in bundles and cabled together around a high-tensile strength core, using short pitch lengths and specific pitch directions for a low-torsion cable structure.
Color code	Color code in accordance with DIN 47100.
Inner jacket	PVC mixture adapted to suit the requirements in E-Chains®.
Overall shield	Extremely bending-resistant tinned copper braid. 90% optical coverage
Outer jacket	Low-adhesion, highly abrasion-resistant mixture on the basis of PUR, adapted to suit the requirements in E-Chains® (following DIN VDE 0282 Part 10). Color: Dark Gray (RAL 7016)

Electrical Information

Nominal voltage	300 V
Testing voltage	2000 V (following DIN EN 50396)

Configurators ▶ www.igus.com/CF2

Class 6.5.3.1

Requirements	low 1 2 3 4 5 **6** 7 highest
Travel distance	unsupported 1 2 3 4 **5** 6 1,312 ft +
Oil-resistance	none 1 2 **3** 4 highest
Torsion	none **1** 2 3 ±180°

Properties and approvals

UV resistance	High
Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
Offshore	MUD-resistant following NEK 606 - status 2009
Flame resistance	According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
Silicon-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
UL/CSA	Style 10493 and 20317, 300 V, 80 °C
NFPA 79	Complies to NFPA 79-2015 chapter 12.9
EAC	Certified according to no. TC RU C-DE.ME77.B.01254
CTP	Certified according to no. C-DE.PB49.B.00416
CEI	Following CEI 20-35
Lead-free	Following 2011/65/EC (RoHS-II)
Cleanroom	According to ISO Class 1. Outer jacket material complies with CF27-07-05-02-01-D, tested by IPA according to standard 14644-1.
CE	Following 2014/35/EG

Guaranteed lifetime according to guarantee conditions (Page 22-25)

Cycles*					5 million	7.5 million	10 million
Temperature, from/to [°F]	v max. [ft/s] unsupported	v max. [ft/s] gliding	a max. [ft/s²]	Travel distance [ft]	*R* min. [factor x d]	*R* min. [factor x d]	*R* min. [factor x d]
-4 / +14	32.81	16.41	262.5	≤ 328	6.8	7.5	8.5
+14 / +158					5	6.8	7.5
+158 / +176					6.8	7.5	8.5

* Higher number of cycles possible - please ask for your individual calculation.

Typical application areas

- For very high mechanical load requirements
- Indoor and outdoor applications
- Unsupported travel distances and for gliding applications up to 328 ft (100 m)
- Storage and retrieval units for high-bay warehouses, machining units/packaging machines, quick handling, indoor cranes, refrigerating sector

PUR Control cable | CF2

Class 6.5.3.1

Requirements	low	1	2	3	4	5	**6**	7	highest
Travel distance	unsupported	1	2	3	4	**5**	6		1,312 ft +
Oil-resistance	none	1	2	**3**	4				highest
Torsion	none	**1**	2	3					±180°

CF2
PUR
5 x d

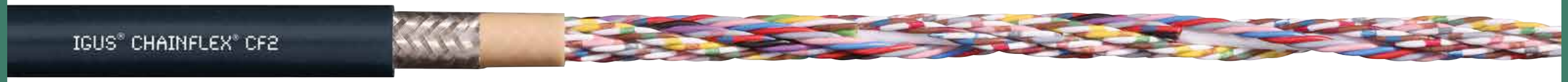


Image exemplary.

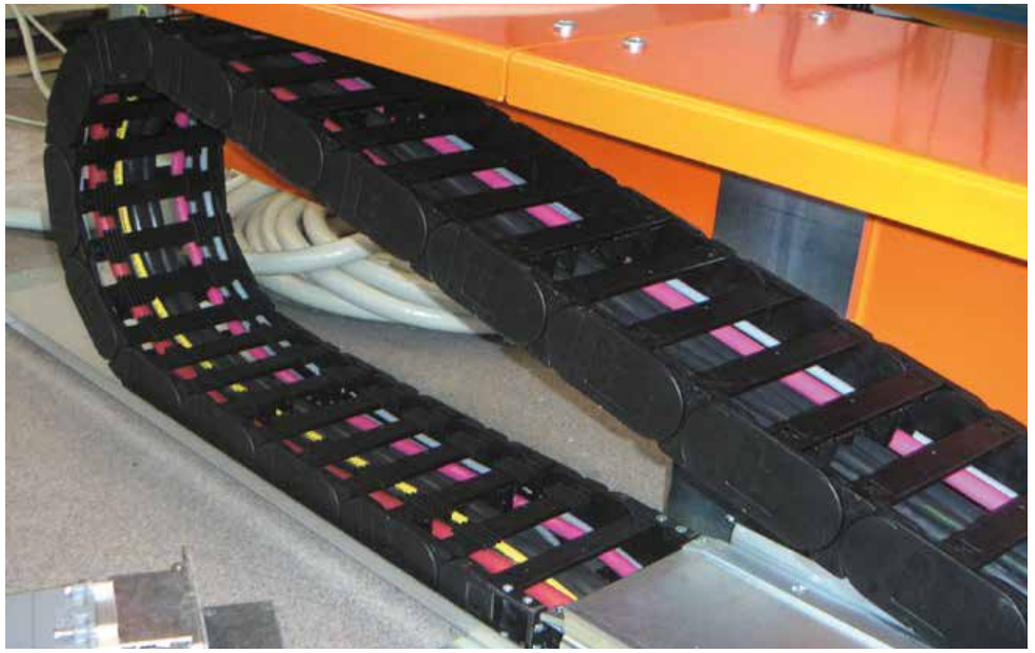
Part No.	AWG	Number of conductors and rated cross section [mm²]	Outer diameter max.		Copper index		Weight	
			in.	mm	lbs/mft	kg/km	lbs/mft	kg/km
CF2-01-04	26	4 x 0.14	0.26	6.5	11.4	17	26.9	40
CF2-01-08	26	8 x 0.14	0.30	7.5	19.5	29	43.7	65
CF2-01-12	26	12 x 0.14	0.37	9.5	32.9	49	67.9	101
CF2-01-18	26	18 x 0.14	0.41	10.5	35.6	53	84.0	125
CF2-01-24 [3]	26	24 x 0.14	0.45	11.5	43.7	65	90.7	135
CF2-01-36	26	36 x 0.14	0.57	14.5	59.1	88	134.4	200
CF2-01-48	26	48 x 0.14	0.65	16.5	90.7	135	208.3	310
CF2-02-04	24	4 x 0.25	0.28	7.0	16.1	24	35.6	53
CF2-02-08	24	8 x 0.25	0.33	8.5	27.6	41	55.8	83
CF2-02-18	24	18 x 0.25	0.49	12.5	64.5	96	127.7	190
CF2-02-24	24	24 x 0.25	0.53	13.5	80.6	120	147.8	220
CF2-02-48	24	48 x 0.25	0.71	18.0	154.6	230	302.4	450

The chainflex® types marked with a [3] refer to cables that are based on a bundling of 4 cores each. Due to their excellent electrical properties (star-quad with especially minimum crosstalk), these cables can virtually be used in all cases in which otherwise twisted-pair cables are required.
Note: The mentioned outer diameters are maximum values.
G = with green-yellow earth core **x =** without earth core

Order example: CF2-01-04 – In your desired length
CF2 Chainflex® series -01 Code nominal cross section -04 Number of conductors

Online order: www.chainflex.com/CF2

Delivery time 24hr or today.
Delivery time means time until shipping of goods.



Chainflex® CF2 cables are resistant to oil and coolants. E-chain®: System E4/00

Configurators ▶ www.igus.com/CF78