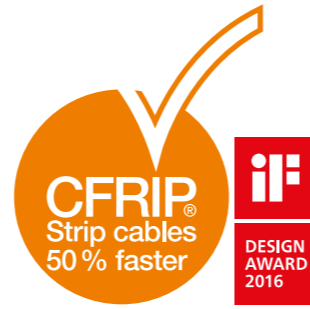


PVC Control cable | CF6

- For high mechanical load requirements
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame-retardant



Dynamic Information

	Bend radius	E-Chain®	min. 6.8 x d
		flexible	min. 5 x d
		fixed	min. 4 x d
	Temperature	E-Chain®	+41 °F to +158 °F (+5 °C to +70 °C)
		flexible	+23 °F to +158 °F (-5 °C to +70 °C)
		fixed	+5 °F to +158 °F (-15 °C to +70 °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	24-20 AWG: Mechanically high-quality TPE mixture. 18-14 AWG: Mechanically high-quality PVC mixture (following DIN VDE 0207 Part 4).
	Conductor construction	Number of conductors < 12: Conductors cabled in a layer with short pitch length. Number of conductors ≥ 12: Conductors combined in bundles and stranded together around a high-tensile strength core, using short pitch directions for a low-torsion cable structure.
	Color code	24-22 AWG: Color code in accordance with DIN 47100. 20-14 AWG: Black with white numbers, one conductor green-yellow.
	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, oil-resistant mixture on the basis of PVC, adapted to suit the requirements in E-Chains® (following DIN VDE 0281 Part 13). Color: Green (RAL 6005)
	CFRIP®	Strip cables 50% faster: The tear strip is in the inner jacket Video ► www.igus.com/CFRIP

Configurators ► www.igus.com/CF6

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

Class 5.5.2.1

Electrical Information

	Nominal voltage	600 V
	Testing voltage	2000 V (following DIN EN 50396)
Properties and approvals		
	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-4-1), Class 2
	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	24-20 AWG: Style 10492 and 2570, 600 V, 80 °C 18-14 AWG: Style 11113 and 2570, 600 V, 80 °C
	NFFPA 79	Complies to NFFPA 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 2, material/cable tested by IPA according to ISO standard 14644-1
	CE	Following 2014/35/EG

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

Cycles*	Temperature, from/to [°F]	Travel distance [ft]	5 million		7.5 million		10 million	
			R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
	+41 / +59		< 32.81 ft	≥ 32.81 ft	< 32.81 ft	≥ 32.81 ft	< 32.81 ft	≥ 32.81 ft
	+59 / +140	≤ 164	7.5	10	8.5	11	9.5	12
	+140 / +158		6.8	7.5	7.8	8.5	8.8	9.5
			7.5	10	8.5	11	9.5	12

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

Typical application areas

- For high mechanical load requirements
- Light oil influence
- Preferably indoor applications, can be used in outdoor applications with temperatures > 23 °F
- Unsupported travel distances and for gliding applications up to 328 ft (100 m)
- Storage and retrieval units for high-bay warehouses, machining units/packages machines, quick handling, indoor cranes



PVC Control cable | CF6

Strip cables 50 % faster



Image exemplary.

Part No.	AWG	Number of conductors and rated cross section [mm ²]	Outer diameter max.		Copper index		Weight	
			in.	mm	lbs/mft	kg/km	lbs/mft	kg/km
CF6-02-04	24	4 x 0.25	0.28	7.0	20.2	30	41.7	62
CF6-02-25	24	25 x 0.25	0.57	14.5	79.3	118	179.4	267
CF6-03-05	22	5 x 0.34	0.30	7.5	26.2	39	61.8	92
CF6-05-02	20	2 x 0.5	0.28	7.0	20.8	31	52.4	78
CF6-05-05	20	5 G 0.5	0.33	8.5	34.9	52	73.2	109
CF6-05-07	20	7 G 0.5	0.39	10.0	45.0	67	88.0	131
CF6-05-09	20	9 G 0.5	0.47	12.0	49.7	74	105.5	157
CF6-05-12	20	12 G 0.5	0.51	13.0	69.9	104	159.9	238
CF6-05-18	20	18 G 0.5	0.59	15.0	103.5	154	198.2	295
CF6-05-25	20	25 G 0.5	0.69	17.5	137.8	205	276.9	412
CF6-07-03	18	3 G 0.75	0.31	8.0	32.9	49	67.9	101
CF6-07-04	18	4 G 0.75	0.33	8.5	39.6	59	77.9	116
CF6-07-05	18	5 G 0.75	0.35	9.0	47.7	71	88.7	132
CF6-07-07	18	7 G 0.75	0.41	10.5	61.1	91	105.5	157
CF6-07-12	18	12 G 0.75	0.55	14.0	92.1	137	184.8	275
CF6-07-18	18	18 G 0.75	0.69	17.5	140.4	209	277.5	413
CF6-07-25	18	25 G 0.75	0.77	19.5	190.2	283	372.3	554
CF6-10-03	17	3 G 1.0	0.31	8.0	38.3	57	73.9	110
CF6-10-04	17	4 G 1.0	0.35	9.0	45.7	68	80.6	120
CF6-10-05	17	5 G 1.0	0.37	9.5	54.4	81	94.7	141
CF6-10-07	17	7 G 1.0	0.47	12.0	73.2	109	141.8	211
CF6-10-12	17	12 G 1.0	0.59	15.0	115.6	172	221.7	330
CF6-10-18	17	18 G 1.0	0.75	19.0	175.4	261	334.6	498
CF6-10-25	17	25 G 1.0	0.83	21.0	231.2	344	414.6	617

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

Configurators ► www.igus.com/CF6

Class 5.5.2.1

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

Part No.	AWG	Number of conductors and rated cross section [mm ²]	Outer diameter max.		Copper index		Weight	
			in.	mm	lbs/mft	kg/km	lbs/mft	kg/km
CF6-15-03	16	3 G 1.5	0.35	9.0	51.1	76	84.7	126
CF6-15-04	16	4 G 1.5	0.37	9.5	61.8	92	107.5	160
CF6-15-05	16	5 G 1.5	0.41	10.5	75.3	112	123.6	184
CF6-15-07 ¹⁷⁾	16	7 G 1.5	0.51	13.0	104.8	156	180.1	268
CF6-15-12	16	12 G 1.5	0.67	17.0	161.3	240	262.1	390
CF6-15-18	16	18 G 1.5	0.83	21.0	247.3	368	405.9	604
CF6-15-25	16	25 G 1.5	0.94	24.0	331.3	493	602.1	896
CF6-15-36	16	36 G 1.5	1.18	30.0	489.2	728	904.5	1346
CF6-25-04	14	4 G 2.5	0.45	11.5	94.1	140	155.2	231

¹⁷⁾ Using the cables with "7 G 1.5 mm²" and "7 G 2.5 mm²" it is essential: bending radius 17 x d with travel distance ≥ 5 m. When the travel distance is not less than 5 m, a bending radius not less than 17 x d has to be used.
Note: The mentioned outer diameters are maximum values.
G = with green-yellow earth core x = without earth core

Order example: **CF6-15-12** – In your desired length
CF6 Chainflex® series -15 Code nominal cross section **-12** Number of conductors

Online order: www.chainflex.com/CF6

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



Chainflex® CF5 and CF6 control cables (green) as well as CF211 measuring system cables (gray) in a screwing station of a motor factory. E-Chain®: System E4/00 with chainfix clip strain relief devices

