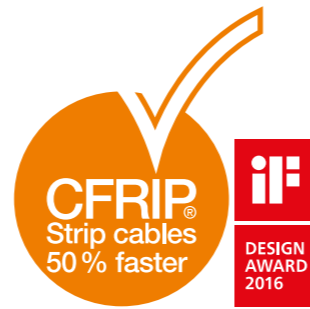


# PVC Control cable | CF5

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



### Dynamic Information

	<b>Bend radius</b>	<b>E-Chain®</b>	min. 6.8 x d
		<b>flexible</b>	min. 5 x d
		<b>fixed</b>	min. 4 x d
	<b>Temperature</b>	<b>E-Chain®</b>	+41 °F to +158 °F (+5 °C to +70 °C)
		<b>flexible</b>	+23 °F to +158 °F (-5 °C to +70 °C)
		<b>fixed</b>	+5 °F to +158 °F (-15 °C to +70 °C)
	<b>v max.</b>	<b>unsupported</b>	32.81 ft/s (10 m/s)
		<b>gliding</b>	16.41 ft/s (5 m/s)
	<b>a max.</b>	262.5 ft/s² (80 m/s²)	
	<b>Travel distance</b>	Unsupported travel distances and for gliding applications up to 328 ft (100 m), Class 5	
	<b>Torsion</b>	± 90°, with 3.281 ft (1 m) cable length	

### Cable structure

	<b>Conductor</b>	Conductor consisting of bare copper wires (according to EN 60228).
	<b>Conductor insulation</b>	<b>24-20 AWG:</b> Mechanically high-quality TPE mixture. <b>18-14 AWG:</b> Mechanically high-quality PVC mixture (following DIN VDE 0207 Part 4).
	<b>Conductor construction</b>	<b>Number of conductors &lt; 12:</b> Conductors cabled in a layer with short pitch length. <b>Number of conductors ≥ 12:</b> Conductors combined in bundles and stranded together around a high-tensile strength core, using short pitch directions for a low-torsion cable structure.
	<b>Color code</b>	<b>24-22 AWG:</b> Color code in accordance with DIN 47100. <b>20-14 AWG:</b> Black with white numbers, one conductor green-yellow.
	<b>Outer jacket</b>	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)
	<b>CFRIP®</b>	Strip cables 50% faster: The tear strip is in the outer jacket Video ▶ <a href="http://www.igus.com/CFRIP">www.igus.com/CFRIP</a>

**Configurators** ▶ [www.igus.com/CF5](http://www.igus.com/CF5)

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°				

# Class 5.5.2.2

### Electrical Information

	<b>Nominal voltage</b>	600 V
	<b>Testing voltage</b>	2000 V (following DIN EN 50396)
<b>Properties and approvals</b>		
	<b>UV resistance</b>	Medium
	<b>Oil resistance</b>	Oil-resistant (following DIN EN 50363-4-1), Class 2
	<b>Flame resistance</b>	According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
	<b>Silicon-free</b>	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
	<b>UL/CSA</b>	<b>24-20 AWG:</b> Style 10492 and 2570, 600 V, 80 °C <b>18-14 AWG:</b> Style 11113 and 2570, 600 V, 80 °C
	<b>NFPA 79</b>	Complies to NFPA 79-2015 chapter 12.9
	<b>EAC</b>	Certified according to no. TC RU C-DE.ME77.B.01254
	<b>CTP</b>	Certified according to no. C-DE.PB49.B.00416
	<b>CEI</b>	Following CEI 20-35
	<b>Lead-free</b>	Following 2011/65/EC (RoHS-II)
	<b>Cleanroom</b>	According to ISO Class 2, material/cable tested by IPA according to ISO standard 14644-1
	<b>CE</b>	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 | CF5

Strip cables 50 % faster

IGUS® CHAINFLEX® CF5

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
CF5-02-36	24	36 x 0.25	0.59	15.0	70.6	105	144.5	215
CF5-03-15	22	15 x 0.34	0.43	11.0	39.0	58	94.7	141
CF5-03-18	22	18 x 0.34	0.47	12.0	47.7	71	122.3	182
CF5-03-25	22	25 x 0.34	0.55	14.0	65.2	97	164.0	244
CF5-05-02	20	2 x 0.5	0.24	6.0	7.4	11	25.5	38
CF5-05-03	20	3 G 0.5	0.24	6.0	10.8	16	28.2	42
CF5-05-05	20	5 G 0.5	0.28	7.0	18.1	27	50.4	75
CF5-05-07	20	7 G 0.5	0.31	8.0	25.5	38	53.8	80
CF5-05-12	20	12 G 0.5	0.43	11.0	43.0	64	90.0	134
CF5-05-18	20	18 G 0.5	0.51	13.0	64.5	96	131.0	195
CF5-05-25	20	25 G 0.5	0.63	16.0	88.7	132	194.2	289
CF5-05-30	20	30 G 0.5	0.71	18.0	106.8	159	280.2	417
CF5-07-03	18	3 G 0.75	0.26	6.5	16.1	24	37.6	56
CF5-07-04	18	4 G 0.75	0.28	7.0	22.2	33	45.7	68
CF5-07-05	18	5 G 0.75	0.30	7.5	27.6	41	56.4	84
CF5-07-07	18	7 G 0.75	0.35	9.0	39.0	58	79.3	118
CF5-07-12	18	12 G 0.75	0.49	12.5	64.5	96	130.4	194
CF5-07-18	18	18 G 0.75	0.59	15.0	96.1	143	186.8	278
CF5-07-25	18	25 G 0.75	0.69	17.5	136.4	203	266.8	397
CF5-07-36	18	36 G 0.75	0.87	22.0	191.5	285	406.5	605
CF5-07-42	18	42 G 0.75	0.94	24.0	223.8	333	442.2	658
CF5-10-03	17	3 G 1.0	0.26	6.5	21.5	32	38.3	57
CF5-10-04	17	4 G 1.0	0.28	7.0	28.9	43	53.8	80
CF5-10-05	17	5 G 1.0	0.31	8.0	35.6	53	65.2	97
CF5-10-07	17	7 G 1.0	0.37	9.5	52.4	78	90.7	135
CF5-10-12	17	12 G 1.0	0.51	13.0	85.3	127	157.9	235
CF5-10-18	17	18 G 1.0	0.65	16.5	128.3	191	213.7	318
CF5-10-25	17	25 G 1.0	0.77	19.5	177.4	264	338.0	503

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

Configurators ► [www.igus.com/CF5](http://www.igus.com/CF5)


# Class 5.5.2.2


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 [mm²]	Outer diameter max.		Copper index		Weight	
			in.	mm	lbs/mft	kg/km	lbs/mft	kg/km
CF5-15-03	16	3 G 1.5	0.30	7.5	32.3	48	51.7	77
CF5-15-04	16	4 G 1.5	0.31	8.0	43.0	64	72.6	108
CF5-15-05	16	5 G 1.5	0.35	9.0	53.1	79	88.7	132
CF5-15-07 <sup>17)</sup>	16	7 G 1.5	0.41	10.5	75.3	112	125.7	187
CF5-15-12	16	12 G 1.5	0.59	15.0	128.3	191	185.5	276
CF5-15-18	16	18 G 1.5	0.77	19.5	191.5	285	333.3	496
CF5-15-25	16	25 G 1.5	0.85	21.5	266.1	396	450.2	670
CF5-15-36	16	36 G 1.5	1.04	26.5	383.0	570	672.6	1001
CF5-25-04	14	4 G 2.5	0.39	10.0	68.5	102	118.3	176
CF5-25-05	14	5 G 2.5	0.43	11.0	86.0	128	139.8	208
CF5-25-07 <sup>17)</sup>	14	7 G 2.5	0.51	13.0	121.6	181	195.5	291
CF5-25-12	14	12 G 2.5	0.73	18.5	203.6	303	335.3	499
CF5-25-18	14	18 G 2.5	0.93	23.5	306.4	456	533.5	794
CF5-25-25	14	25 G 2.5	1.08	27.5	428.0	637	739.2	1100

<sup>17)</sup> 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: **CF5-07-03** – In your desired length  
CF5 Chainflex® series -07 Code nominal cross section -03 Number of conductors

 Online order: [www.chainflex.com/CF5](http://www.chainflex.com/CF5)

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



Chainflex® CF5/CF6 for storage retrieval unit: Long travel in longitudinal axis.  
E-Chain®: Series E4/00 with igus® guide trough made of steel

