

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°				

PVC Control cable | CF140US

- For flexing applications
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame-retardant
- UL Tray cable for exposed run (TC-ER)

Dynamic Information

	Bend radius	E-Chain®	min. 10 x d
		flexible	min. 8 x d
		fixed	min. 7.5 x d
	Temperature	E-Chain®	+41 °F to +176 °F (+5 °C to +80 °C)
		flexible	+23 °F to +176 °F (-5 °C to +80 °C)
		fixed	-4 °F to +194 °F (-20 °C to +90 °C)
	v max.	unsupported	9.84 ft/s (3 m/s)
		gliding	6.56 ft/s (2 m/s)
	a max.		65.6 ft/s² (20 m/s²)
	Travel distance	Unsupported travel distances and for gliding applications up to 30 ft (9 m), Class 1	

Cable structure

	Conductor	Finely stranded bundled bare copper wires. Designed in accordance with ASTM B174-95.
	Conductor insulation	Mechanically high-quality, PVC/Nylon.
	Conductor construction	Conductors concentrically layered with short pitch.
	Color code	Black with white numbers, one green-yellow. **
	Inner jacket	Low-adhesion PVC.
	Overall shield	Tinned copper braid. 85% optical coverage
	Outer jacket	Oil-resistant UV-resistant PVC, low-adhesion blend, adapted to the requirements of the Energy Chain®. Color: Gray (RAL 7001)

Electrical Information

	Nominal voltage	600 V
	Testing voltage	3300 V

** Custom color codes are available upon request.

Configurators ▶ www.igus.com/CF140US

Class 3.1.4.2

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil resistant (according to DIN EN 60811-2-1, DIN EN 50363-4-1, Class 4)
	Flame resistance	CSA AWM: FT4
	Silicon-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	UL/CSA	For installation in accordance with all applicable sections of the National Electric Code. 22-10 AWG: UL Type MTW (Machine Tool Wire), 18-10 AWG: UL Type TC (Tray Cable) UL AWM: 2587 90 °C 600V; CSA AWM: I/II A/B 90 °C 600V FT4 2002/95/EC; Please reference the Design Section for more information.
	Lead-free	In accordance with European Council Directive 73/23/EEC
	CE	
	Info	In general these cables will offer continuous-flex performance in specific “Tray Cable” and “Machine Tool Wire” NEC compliant installations. The CF140US line is designed for use in 600V control and power applications. The oil-resistant jacket also passes the stringent 70,000 BTU UL and CSA Vertical Flame Tests. Not recommended for long travel / gliding applications.

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

Cycles*				1 million	3 million	5 million
Temperature, from/to [°F]	v max. [ft/s] unsupported	a max. [ft/s²]	Travel distance [ft]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+23 / +59				12	13	15
+59 / +140	9.84	6.56	≤ 29.52	10	12	13
+140 / +176				12	13	15

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

Typical application areas

- For medium mechanical load requirements
- Suitable for indoor/outdoor applications
- Especially for unsupported travel distances and for low-duty gliding applications up to 30 ft (9m)
- UL Tray cable for exposed run (TC-ER)
- Wood/stone processing, packaging industry, supply system, handling, adjusting equipment, machine tools

PVC Control cable | CF140US

Requirements
Travel distance
Oil-resistance
Torsion

	low	1	2	3	4	5	6	7	highest
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Image exemplary.

Part No.	Number of Conductors	AWG	Strand/AWG	Outer diameter max.		Copper index		Weight	
				in.	mm	lbs/mft	kg/km	lbs/mft	kg/km
CF140US-05-02	2	20	26/34	0.35	8.8	14.8	22	55.1	82
CF140US-05-03	3	20	26/34	0.36	9.1	20.8	31	66.5	99
CF140US-05-04	4	20	26/34	0.39	9.9	24.9	37	74.6	111
CF140US-05-05	5	20	26/34	0.41	10.4	28.2	42	87.4	130
CF140US-05-07	7	20	26/34	0.46	11.7	37.6	56	108.2	161
CF140US-05-12	12	20	26/34	0.55	14	61.1	91	165.3	246
CF140US-05-18	18	20	26/34	0.63	16.1	84.0	125	219.1	326
CF140US-05-25	25	20	26/34	0.78	19.7	115.6	172	291.0	433
CF140US-07-04	4	18	41/34	0.40	10.2	32.3	48	88.7	132
CF140US-07-05	5	18	41/34	0.43	10.8	28.9	43	101.5	151
CF140US-07-07	7	18	41/34	0.48	12.2	51.1	76	127.0	189
CF140US-07-12	12	18	41/34	0.57	14.6	86.0	128	196.9	293
CF140US-07-18	18	18	41/34	0.66	16.8	123.0	183	267.4	398
CF140US-07-25	25	18	41/34	0.78	19.7	161.3	240	283.6	422
CF140US-15-03	3	16	65/34	0.41	10.3	37.0	55	92.7	138
CF140US-15-04	4	16	65/34	0.43	10.9	46.4	69	108.9	162
CF140US-15-05	5	16	65/34	0.46	11.7	63.2	94	125.0	186
CF140US-15-07	7	16	65/34	0.52	13.3	79.3	118	154.6	230
CF140US-15-12	12	16	65/34	0.64	16.3	118.9	177	250.0	372
CF140US-15-18	18	16	65/34	0.72	18.4	169.3	252	334.6	498
CF140US-15-22	22	16	65/34	0.76	19.2	203.6	303	385.7	574
CF140US-15-25	25	16	65/34	0.85	21.6	241.2	359	454.9	677
CF140US-15-33	33	16	65/34	0.93	23.5	307.1	457	578.6	861
CF140US-25-04	4	14	105/34	0.46	11.8	67.2	100	137.1	204
CF140US-25-07	7	14	105/34	0.59	14.9	110.9	165	217.7	324
CF140US-25-12	10	14	105/34	0.69	17.5	180.1	268	326.6	486
CF140US-25-18	12	14	105/34	0.79	20	200.2	298	350.4	521.5
CF140US-40-04	4	12	165/34	0.57	14.5	99.5	148	195.5	291
CF140US-60-04	4	10	259/34	0.64	16.3	155.2	231	270.1	402
CF140US-60-05	5	10	259/34	0.69	17.5	186.8	278	318.5	474

Note: The mentioned outer diameters are maximum values.

- Order example: **CF140US-15-07** – In your desired length
CF140US Chainflex® series **-15** Code nominal cross section **-07** Number of conductors
- Online order: www.chainflex.com/CF140US
- Delivery time 24hr or today.
Delivery time means time until shipping of goods.

