

CF10-UL

PREMIUM



TPE Control Cables

Chainflex® CF10-UL

TPE Energy Chain® cable, shielded, oil-resistant, bio-oil-resistant, flame retardant, UV-resistant, low temperature flexibility



Price Index



Conductor
Highly flexible
special
conductor

Strain relief
Center core fo
high tensile
strength

Core
Braiding in bundles
around high tensile
strength core

Inner jacket
Gusset filled
pressure
extruded

Overall shield
Highly flexible
braided copper
shield

Outer jacket
Pressure extruded,
halogen-free TPE
blend

Construction

Conductors: Bare copper conductors with very fine stranding. According to EN 60228

Conductor insulation: TPE, thin-walled version

Conductor twisting: Number of conductors < 12 Conductors concentrically layered with short pitch. Number of conductors ≥ 12 Conductors layered in braids around a polymer, high-tensile-strength core; short pitches matched in the direction of the pitch for extremely low torsion.

Conductor colors: Black with white numbers, one conductor green/yellow with cross-sections 18-12 AWG; 20-24 AWG DIN 47100.

Intermediate jacket: TPE

Shield: Tinned copper shield, coverage approx. 90% optical.

Outer jacket: TPE: particularly abrasion-resistant, high-flex blend, oil-resistant, coolant-resistant. Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** dark blue (RAL 5011).

Technical Data

Minimum bending radius, moving: 5 x outer cable diameter

Minimum bending radius, fixed: 3 x outer cable diameter

Permissible temperature, moving: -31°F to +212°F (-35°C to +100°C)

Permissible temperature, fixed: -40°F to +212°F (-40°C to +100°C)

UV resistance: High

Oil resistance: High

Flame resistance: FT1

Voltage: 300V 20-24 AWG; 600V 18-12 AWG

Regulations: **cRUus:** UL AWM USA & Canada styles 21539 90°C 300V 20-24 AWG; 21530 90°C 18-12 AWG, **CE,**

RoHS: 2002/95/EC; Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications
- especially for freely suspended and gliding travel distances up to 1312 ft (400m) and more.
- storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, ship-to-shore, outdoor cranes, low temperature applications

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/qs/chainflex.asp>

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No Minimum Order • No Cut Charges on up to 10 cuts of the same part number

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Part No.	AWG	No. of Conductors and Rated Cross-Section in mm²	Outer Diameter (approx)		Copper Index		Weight	
			in.	(mm)	lbs/mft	(kg/km)	lbs/mft	(kg/km)
CF10-UL-02-04	24	4 x 0.25	.28	(7)	16.8	(25)	47.6	(71)
CF10-UL-02-08	24	8 x 0.25	.33	(8.5)	24.8	(37)	67.7	(101)
CF10-UL-02-12	24	12 x 0.25	.39	(10)	42.2	(63)	102.5	(153)
CF10-UL-05-04	20	4 x 0.5	.33	(8.5)	24.8	(37)	67.7	(101)
CF10-UL-05-05	20	5 x 0.5	.33	(8.5)	28.8	(43)	74.4	(111)
CF10-UL-05-12	20	12 x 0.5	.51	(13)	71.0	(106)	172.9	(258)
CF10-UL-05-18	20	18 x 0.5	.59	(15)	97.8	(146)	222.4	(332)
CF10-UL-05-25	20	25 x 0.5	.63	(16)	124.0	(185)	275.4	(411)
CF10-UL-07-04	18	4 x 0.75	.35	(9)	32.8	(49)	82.4	(123)
CF10-UL-07-05	18	5 x 0.75	.37	(9.5)	45.6	(68)	100.5	(150)
CF10-UL-07-07	18	7 x 0.75	.43	(11)	60.3	(90)	130.0	(194)
CF10-UL-07-12	18	12 x 0.75	.57	(14.5)	95.8	(143)	225.1	(336)
CF10-UL-07-20	18	20 x 0.5	.67	(17)	142.7	(213)	305.5	(456)
CF10-UL-07-24	18	24 x 0.75	.75	(19)	184.9	(276)	387.3	(578)
CF10-UL-10-02	17	2 x 1	.33	(8.5)	25.5	(38)	69.7	(104)
CF10-UL-10-03	17	3 x 1	.35	(9)	32.2	(48)	80.4	(120)
CF10-UL-10-04	17	4 x 1	.37	(9.5)	47.6	(71)	103.9	(155)
CF10-UL-10-05	17	5 x 1	.41	(10.5)	55.6	(83)	116.6	(174)
CF10-UL-10-07	17	7 x 1.0	.47	(12)	74.4	(111)	154.1	(230)
CF10-UL-10-12	17	12 x 1	.57	(14.5)	114.6	(171)	247.9	(370)
CF10-UL-10-18	17	18 x 1	.75	(19)	183.6	(274)	322.0	(473)
CF10-UL-10-24	17	24 x 1.0	.85	(21.5)	231.8	(346)	475.0	(709)
CF10-UL-15-04	16	4 x 1.5	.41	(10.5)	63.0	(94)	128.6	(192)
CF10-UL-15-05	16	5 x 1.5	.43	(11)	144.1	(215)	75.0	(112)
CF10-UL-15-07	16	7 x 1.5	.51	(13)	99.8	(149)	186.9	(279)
CF10-UL-15-12	16	12 x 1.5	.69	(17.5)	162.8	(243)	340.4	(508)
CF10-UL-15-18	16	18 x 1.5	.85	(21.5)	251.3	(375)	485.1	(724)
CF10-UL-25-04	14	4 x 2.5	.47	(12)	93.8	(140)	179.6	(268)
CF10-UL-25-07	14	7 x 2.5	.59	(15)	152.1	(227)	270.7	(404)
CF10-UL-25-12	14	12 x 2.5	.85	(21.5)	270.7	(404)	538.7	(804)
CF10-UL-40-04	12	4 x 4	.53	(13.5)	138.0	(206)	247.2	(369)

NOTE: The mentioned external diameters are maximum values.

igus® Energy Chain Systems®

Telephone 1-800-521-2747
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PDF: www.igus.com/pdf/chainflex.asp
Specs/CAD/RfQ: www.igus.com/chainflex.asp
RoHS info: www.igus.com/RoHS.asp

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