

CF9-UL



PREMIUM



Conductor
Highly flexible
special
conductor

Strain relief
Center core for
high tensile
strength

Core
Braiding in
bundles around
high tensile
strength core

Outer jacket
Gusset-filling,
pressure
extruded,
halogen-free TPE
blend

TPE Control Cable

Chainflex® CF9-UL

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



igus®

Price Index



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 up to 18-10 AWG; 20-24 AWG DIN 47100.

CF9-02-03-INI: brown, blue, black

CF9-03-04-INI: brown, blue, black, white

CF9-03-05-INI: brown, blue, black, white, green-yellow

CF9-03-16-07-03-INI: (18 AWG) blue, green-yellow, brown

(22 AWG) violet, red, gray, red-blue, green, gray-pink, white-green,
white-yellow, white-gray, black, yellow-brown, brown-green,
white, yellow, pink, gray-brown

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 22-24 AWG; 600V 20-10 AWG

Regulations: cRUus: UL AWM for USA & Canada styles 21539 90°C 300V 22-24 AWG; 21530 90°C 600V 20-10 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

TPE Control Cables

Chainflex® CF9-UL

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



CF9-UL

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)
CF9-UL-02-02	24	2 x 0.25	.20	(5.0)	3.4	(5)	18.8	(28)
CF9-UL-02-03-INI	24	3 x 0.25	.22	(5.5)	5.4	(8)	21.4	(32)
CF9-UL-02-04	24	4 x 0.25	.22	(5.5)	6.7	(10)	25.5	(38)
CF9-UL-02-06	24	6 x 0.25	.24	(6)	10.1	(15)	33.5	(50)
CF9-UL-02-07	24	7 x 0.25	.26	(6.5)	11.4	(17)	38.1	(57)
CF9-UL-02-08	24	8 x 0.25	.28	(7)	13.4	(20)	42.2	(63)
CF9-UL-02-12	24	12 x 0.25	.33	(8.5)	19.5	(29)	63.7	(95)
CF9-UL-03-04-INI	22	4 x 0.34	.24	(6)	8.7	(13)	28.8	(43)
CF9-UL-03-05-INI	22	5 x 0.34	.24	(6)	10.8	(16)	34.2	(51)
CF9-UL-03-06	22	6 x 0.34	.26	(6.5)	13.4	(20)	38.9	(58)
CF9-UL-03-08	22	8 x 0.34	.30	(7.5)	17.5	(26)	50.9	(76)
CF9-UL-05-02	20	2 x 0.5	.24	(6)	6.7	(10)	29.5	(44)
CF9-UL-05-03	20	3 x 0.5	.26	(6.5)	10.1	(15)	34.8	(52)
CF9-UL-05-04	20	4 x 0.5	.28	(7)	13.4	(20)	41.5	(62)
CF9-UL-05-05	20	5 x 0.5	.28	(7)	16.1	(24)	48.2	(72)
CF9-UL-05-07	20	7 x 0.5	.33	(8.5)	22.8	(34)	65.0	(97)
CF9-UL-05-12	20	12 x 0.5	.43	(11)	39.0	(58)	131.3	(196)
CF9-UL-05-18	20	18 x 0.5	.53	(13.5)	58.4	(87)	162.1	(242)
CF9-UL-05-25	20	25 x 0.5	.57	(14.5)	80.6	(120)	204.4	(305)
CF9-UL-05-36	20	36 x 0.5	.73	(18.5)	116.2	(173)	305.5	(456)
CF9-UL-07-05	18	5 x 0.75	.32	(8)	24.2	(36)	63.0	(94)
CF9-UL-07-07	18	7 x 0.75	.37	(9.5)	34.3	(51)	85.8	(128)
CF9-UL-07-12	18	12 x 0.75	.49	(12.5)	58.4	(87)	160.8	(240)
CF9-UL-07-20	18	20 x 0.75	.61	(15.5)	96.8	(144)	229.1	(342)
CF9-UL-07-25	18	25 x 0.75	.65	(16.5)	121.0	(180)	276.0	(412)
CF9-UL-10-03	17	3 x 1	.30	(7.5)	19.5	(29)	52.3	(78)
CF9-UL-10-04	17	4 x 1	.31	(8.)	26.2	(39)	65.7	(98)
CF9-UL-10-05	17	5 x 1	.27	(8.5)	32.3	(48)	75.0	(112)
CF9-UL-10-12	17	12 x 1	.53	(13.5)	78.0	(116)	192.3	(287)
CF9-UL-10-18	17	18 x 1	.65	(16.5)	116.3	(173)	264.0	(394)
CF9-UL-10-25	17	25 x 1	.73	(18.5)	161.3	(240)	348.4	(520)
CF9-UL-15-04	16	4 x 1.5	.35	(9)	39.0	(58)	85.1	(127)
CF9-UL-15-05	16	5 x 1.5	.37	(9.5)	48.4	(72)	101.8	(152)
CF9-UL-15-07	16	7 x 1.5	.43	(11)	67.9	(101)	132.7	(198)
CF9-UL-15-12	16	12 x 1.5	.61	(15.5)	116.3	(173)	258.0	(385)
CF9-UL-15-18	16	18 x 1.5	.75	(19)	174.7	(260)	358.5	(535)
CF9-UL-15-25	16	25 x 1.5	.77	(19.5)	241.9	(360)	459.0	(685)
CF9-UL-25-04	14	4 x 2.5	.39	(10)	64.5	(96)	126.6	(189)
CF9-UL-25-05	14	5 x 2.5	.43	(11)	80.6	(120)	147.4	(220)
CF9-UL-25-07	14	7 x 2.5	.53	(13.5)	112.9	(168)	193.0	(288)
CF9-UL-25-12	14	12 x 2.5	.75	(19)	193.6	(288)	410.7	(613)
CF9-UL-25-16	14	16 x 2.5	.85	(21.5)	258.1	(384)	539.4	(805)
CF9-UL-25-18*2	14	18 x 2.5	.93	(23.5)	290.3	(432)	570.8	(852)
CF9-UL-25-25	14	25 x 2.5	1.04	(26.5)	403.2	(600)	779.2	(1163)
CF9-UL-40-04	12	4 x 4	.47	(12)	103.5	(154)	186.3	(278)
CF9-UL-60-04	10	4 x 6	.53	(13.5)	154.6	(230)	255.9	(382)

igus® Energy Chain
Systems®

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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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