CF7-D

STANDARD

PUR Control Cables

Chainflex® CF7-D*

PUR Energy Chain® cable, oil-resistant, coolant-resistant, notch-proof, flame-retardant, hydrolysis-resistant and microbe-resistant, conforms to DESINA standards

Price Index

Conductor
Especially bend-resistant fine wire stranded conductor

Strain relief
Center core for high tensile strength

Core
Braiding in bundles around high tensile strength core

Outer jacket
Pressure extruded, PUR blend

Construction

Conductors: Finely stranded bundled bare copper wires. According to EN 60228.
Conductor insulation: Mechanically high-quality, PVC-insulating compound.
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: Conductors black with white numbers, one green-yellow.
Outer jacket: Low-adhesion PUR blend, adapted to the requirements of the Energy Chain®. Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** grey (RAL 7040).

Technical Data

Minimum bending radius, moving: <10m travel = 6.8 x outer diameter; ≥10m travel = 7.5 x outer diameter
Minimum bending radius, fixed: 4 x outer cable diameter
Permissible temperature, moving: -4°F to +176°F (-20°C to +80°C)
Permissible temperature, fixed: -40°F to +176°F (-40°C to +80°C)
Oil-resistance: High
UV-resistance: Medium
Voltage: 300V 20-16 AWG; 600 V 14 AWG
Testing voltage: 2000 V (according to DIN VDE 0281-2)
Regulations: cRUus: UL AWM for USA & Canada styles 20317 80°C 300V, **Flame-resistance:** FT1, **DESINA, RoHS: 2002/95/EC;** Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for high mechanical load requirements
- indoor and outdoor applications without direct sun radiation
- especially for freely suspended and gliding travel distances up to 328 ft.
- storage and retrieval units for high-bay warehouses, machining units/packaging machines, quick handling, indoor cranes, refrigerating sector

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)
*CF7-07-12-D	18	12 x 0.75	.49	(12.5)	58.5	(86)	106.1	(156)
*CF7-15-03-D	16	3 x 1.5	.28	(7.0)	29.2	(43)	61.9	(91)
*CF7-15-07-D	16	7 x 1.5	.39	(10)	68.7	(101)	97.9	(144)
*CF7-15-12-D	16	12 x 1.5	.61	(15.5)	117.6	(173)	172.0	(253)
*CF7-15-18-D	16	18 x 1.5	.67	(17)	176.1	(259)	319.6	(470)
*CF7-15-25-D	16	25 x 1.5	.85	(21.5)	244.8	(360)	367.2	(540)

NOTE: The mentioned external diameters are maximum values.
*Call for availability

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

PUR Control Cables

Chainflex® CF8*

PUR Energy Chain® cable, shielded, oil-resistant, coolant-resistant, notch-proof, flame-retardant, hydrolysis-resistant and microbe-resistant

Price Index

CF8

STANDARD

Construction

Conductors: Finely stranded bundled bare copper wires. According to EN 60228.
Conductor insulation: Mechanically high-quality, PVC-insulating compound.
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: Conductors black with white numbers, one green-yellow.
Intermediate jacket: PVC-based, low-adhesion blend, adapted to the requirements of the Energy Chain®.
Shield: Tinned copper braid, coverage approx. 90% optical.
Outer jacket: Low-adhesion PUR blend, adapted to the requirements of the Energy Chain. Silicon-free in compliance with PV 3.10.7 - status 1992. **Color:** green (RAL 6005).

Conductor
Especially bend-resistant fine wire stranded conductor

Strain relief
Center core for high tensile strength

Core
Braiding in bundles around high tensile strength core

Inner jacket
Gusset-filling, pressure extruded

Overall shield
Highly flexible braided copper shield

Outer jacket
Pressure extruded, PUR blend

Technical Data

Minimum bending radius, moving: <10m travel = 6.8 x outer diameter; ≥10m travel = 7.5 x outer diameter
Minimum bending radius, fixed: 4 x outer cable diameter
Permissible temperature, moving: -4°F to +176°F (-20°C to +80°C)
Permissible temperature, fixed: -40°F to +176°F (-40°C to +80°C)
Oil-resistance: High
UV-resistant: Medium
Voltage: 300V 20-16 AWG, 600V 14 AWG
Testing voltage: 2000 V (according to DIN VDE 0281-2)
Regulations: UL AWM: for USA & Canada styles 20317 80°C 300V 20-16 AWC; 20234 80°C 600V 16 AWG, **Flame resistance:** FT1
CE, RoHS: 2002/95/EC; Please reference the Design Section (Chapter 1) for more information.

Typical Applications

- for high mechanical load requirements
- indoor and outdoor applications with average sun exposure
- especially for freely suspended and gliding travel distances up to 328 ft (100m).
- storage and retrieval units for high-bay warehouses, machining units/packaging machines, quick handling, indoor cranes, refrigerating sector

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)
*CF8-05-05	20	5 x 0.5	.33	(8.5)	33.3	(49)	59.8	(88)
*CF8-05-07	20	7 x 0.5	.37	(9.5)	40.8	(60)	74.1	(109)
*CF8-05-09	20	9 x 0.5	.43	(11.0)	52.4	(77)	100.0	(147)
*CF8-05-12	20	12 x 0.5	.51	(13.0)	63.2	(93)	150.3	(221)
*CF8-05-18	20	18 x 0.5	.61	(15.5)	106.1	(156)	193.8	(285)
*CF8-05-24**	20	24 x 0.5	.67	(17.0)	129.2	(190)	251.6	(370)
*CF8-07-03	18	3 x 0.75	.31	(8.0)	35.4	(52)	55.8	(82)
*CF8-07-05	18	5 x 0.75	.35	(9.0)	42.2	(62)	74.1	(109)
*CF8-07-12	18	12 x 0.75	.55	(14.0)	93.8	(138)	191.8	(282)
*CF8-07-24**	18	24 x 0.75	.73	(18.5)	170.0	(250)	290.4	(427)
*CF8-10-03	17	3 x 1	.33	(8.5)	41.5	(61)	63.9	(94)
*CF8-10-05	17	5 x 1	.37	(9.5)	59.2	(87)	86.4	(127)
*CF8-10-07	17	7 x 1	.43	(11.0)	76.8	(113)	127.2	(187)
*CF8-10-12	17	12 x 1	.59	(15)	116.3	(171)	204.0	(300)
*CF8-10-24**	17	24 x 1	.79	(20.0)	208.8	(307)	363.8	(535)
*CF8-15-03	16	3 x 1.5	.35	(9.0)	55.1	(81)	72.8	(107)
*CF8-15-04	16	4 x 1.5	.39	(10.0)	78.2	(115)	90.4	(133)
*CF8-15-07	16	7 x 1.5	.51	(13)	104.0	(153)	152.3	(224)
*CF8-15-12	16	12 x 1.5	.69	(17.5)	127.2	(187)	257.0	(378)
*CF8-15-18	16	18 x 1.5	.85	(21.5)	231.2	(340)	421.6	(620)
*CF8-25-07	14	7 x 2.5	.75	(19.0)	170.7	(251)	367.2	(540)

The Chainflex® types marked with ** are cables based on 4-conductor bundles. Due to their excellent electrical properties (star-quad with particularly low crosstalk), these cables can be used in virtually all applications normally requiring twisted-pair cables.

NOTE: The mentioned external diameters are maximum values.
*Call for availability

PDF: www.igus.com/pdf/chainflex.asp
Specs/CAD/RFQ: www.igus.com/chainflex.asp
RoHS info: www.igus.com/RoHS.asp