

CF27

PREMIUM



PUR Servo Cables

Chainflex® CF27

PUR Energy Chain® cable, shielded, oil and coolant-resistant, cut-resistant, flame-retardant, hydrolysis-resistant, microbe-resistant, PVC-free/halogen-free



Price Index



Conductor
Highly flexible special conductor

Core
Power conductor with signal pair elements stranded around high-tensile strength core

Pair shield
Extremely highly flexible braided pair copper shield

Inner jacket
gusset filled, pressure extruded

Overall shield
Highly flexible braided copper shield

Outer jacket
Pressure extruded, halogen-free PUR blend

Construction

Power conductor: Finely stranded bare copper wires according to EN 60228

Conductor insulation: Mechanically high quality TPE blend

Conductor twisting: Conductors in short pitch stranded over a high-tensile-strength center core.

Power conductor color/numbering: Black with white numbers, one conductor green-yellow.

1. U / L1 / C / L+
2. V / L2
3. W / L3 / D / L-
4. green / yellow

Conductor identification 1 signal pair: black with white numerals

1. #4
2. #5

Conductor identification 2 signal pairs: black with white numerals

1. #5
2. #6
3. #7
4. #8

Signal pair shield: Tinned copper braid, coverage approx. 90% optical, over aluminum/polyester film.

Intermediate jacket: TPE-based blend, adapted to the requirements of the Energy Chain®.

Overall shielding: 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:** orange (RAL 2003).

Technical Data

Minimum bending radius, moving: 7.5 x outer cable 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)

Voltage: 1000V

Testing voltage: 4000V

Oil resistance: High

UV resistance: Medium

Regulations: cRUus: UL AWM style for USA & Canada: 20234 80°C 1000V **Flame Resistance:** FT1, DESINA, 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, UV-resistant
- designed for AC motors with variable frequency drive (VFD)
- for freely suspended and gliding travel up to 328 ft (100m)
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, cleanroom, semiconductor insertion, 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.	Power AWG	Signal AWG	No. of Conductors and Rated Cross- Section in mm²	Outer Diameter (approx.) in. (mm)	Copper Index lbs/mft (kg/km)	Weight lbs/mft (kg/km)
1 Control Pair Shielded						
CF27-07-05-02-01-D	18		4 C x 0.75			
		20	1 STP x 0.5	.45 (11.5)	64.6 (95)	116.3 (171)
CF27-15-10-02-01-D	16		4 C x 1.5			
		17	1 STP x 1.0	.49 (12.5)	92.5 (136)	149.6 (220)
CF27-25-10-02-01-D	14		4 C x 2.5			
		17	1 STP x 1.0	.53 (13.5)	120 (177)	195.0 (286)
CF27-40-10-02-01-D	12		4 C x 4.0			
		17	1 STP x 1.0	.61 (15.5)	158.0 (232)	242.0 (356)
CF27-60-10-02-01-D	10		4 C x 6.0			
		17	1 STP x 1.0	.69 (17.5)	223.0 (327)	327.0 (481)
CF27-100-10-02-01-D	8		4 C x 10.0			
		17	1 STP x 1.0	.81 (20.5)	361.0 (530)	503.0 (740)
CF27-160-10-02-01-D	6		4 C x 16.0			
		17	1 STP x 1.0	.91 (23.0)	476.0 (700)	696.0 (1023)
CF27-250-15-02-01-D	4		4 C x 25.0			
		16	1 STP x 1.5	1.12 (28.5)	718.0 (1056)	976.0 (1435)
CF27-350-15-02-01-D	2		4 C x 35.0			
		16	1 STP x 1.5	1.28 (32.5)	1057.0 (1553)	1414.0 (2079)

2 Control Pairs Shielded						
CF27-10-07-02-02-D	17		4 C x 1.0			
		18	2 STP x 0.75	.53 (13.5)	97.2 (143)	170.7 (251)
CF27-15-07-02-02-D	16		4 C x 1.5			
		18	2 STP x 0.75	.57 (14.5)	119.0 (175)	200.6 (295)
CF27-25-15-02-02-D	14		4 C x 2.5			
		16	2 STP x 1.5	.65 (16.5)	180.2 (265)	237.3 (349)
CF27-40-15-02-02-D	12		4 C x 4.0			
		16	2 STP x 1.5	.71 (18)	206.0 (303)	275.4 (405)
CF27-60-15-02-02-D	10		4 C x 6.0			
		16	2 STP x 1.5	.77 (19.5)	270.0 (397)	437.2 (643)
CF27-100-15-02-02-D	8		4 C x 1.0			
		16	2 STP x 1.5	.92 (23.5)	380.8 (560)	680.0 (1000)
CF27-160-15-02-02-D	6		4 C x 16.0			
		16	2 STP x 1.5	1.02 (26)	537.2 (790)	850.0 (1250)
CF27-250-15-02-02-D	4		4 C x 25.0			
		16	2 STP x 1.5	1.18 (30.0)	775.2 (1140)	1285.2 (1890)

Without Control Pair						
CF27-07-04-D	18		4 C x 0.75	.37 (9.5)	35 (52)	77 (113)
CF27-10-04-D	17		4 C x 1.0	.39 (10.0)	42 (62)	86 (126)
CF27-15-04-D	16		4 C x 1.5	.41 (10.5)	59 (86)	109 (160)
CF27-25-04-D	14		4 C x 2.5	.47 (12.0)	95 (140)	177 (260)
CF27-500-04-D	1		4 C x 50.0	1.48 (37.5)	1517 (2230)	2177 (3200)

NOTE: The mentioned external diameters are maximum values.

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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