

TPE Data Cable

Chainflex® CF12

TPE Energy Chain® cable, double-shielded,
oil-resistant, bio-oil-resistant, PVC-free/halogen-free,
UV-resistant, hydrolysis resistant and microbe resistant

igus®

CF12

Price Index



CLASS
6.4.4

Construction

Conductors: Finely stranded bare copper conductor with extreme flexibility. According to EN 60228

Conductor insulation: TPE thin-wall version

Conductor twisting: Twisted pairs are cabled together with a short pitch around a high tensile strength core

Pair shielding: Tinned copper braid

Pair insulation: Each conductor pair covered individually with TPE over the pair shielding.

Conductor colors: Color code DIN 47100 for 24 AWG. 20AWG and 17AWG Black with printed white numbers

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

Shield: Galvanized steel wire braid. 90% optical coverage.

Outer jacket: TPE: particularly abrasion-resistant, high-flex blend, oil-resistant, coolant-resistant. Color: dark blue (RAL 5011).

Technical Data

Minimum bending radius, moving: 10 x outer cable diameter

Minimum bending radius, fixed: 5 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

Voltage: 300V

Test voltage: 1500V

Regulations: CE: 2006/95/EG CEI: 20-35, RoHS: Complies to 2011/65/EU (RoHS-II)

Cleanroom: According to ISO Class 1, material/cable tested by IPA according to ISO standard 14644-1. Test cable CF9-15-07

Typical Applications

- for maximum mechanical load requirements
- indoor and outdoor applications, UV-resistant
- especially for unsupported and gliding travel up to 1312 ft (400m)
- storage and retrieval units for high-bay warehouses, machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low temperature applications, high EMI resistance needed



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)
CF12-02-02-02	24	2PR x 0.25	.43	(11)	18.4	(22)	103.4	(152)
CF12-02-04-02	24	4 PR x 0.25	.45	(11.5)	50.3	(74)	91.8	(135)
CF12-02-05-02	24	5PR x 0.25	.51	(13)	63.3	(93)	150.0	(228)
CF12-05-03-02	20	3 PR x 0.5	.51	(13)	44.9	(66)	142.8	(210)
CF12-05-04-02	20	4 PR x 0.5	.55	(14)	59.8	(88)	173.4	(255)
CF12-05-05-02	20	5 PR x 0.5	.61	(15.5)	74.8	(110)	202.0	(297)
CF12-05-06-02	20	6 PR x 0.5	.67	(17)	89.8	(132)	244.8	(360)
CF12-05-08-02	20	8 PR x 0.5	.79	(20)	120.4	(177)	324.4	(477)
CF12-05-10-02	20	10 PR x 0.5	.91	(23)	150.3	(221)	372.6	(548)
CF12-05-14-02	20	14 PR x 0.5	.91	(23)	210.1	(309)	491.6	(723)
CF12-10-06-02	17	6 PR x 1.0	.79	(20)	134.6	(198)	368.6	(542)

PR = Twisted Pair

STP = Shielded twisted pair

NOTE: The mentioned external diameters are maximum values.

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

Clean-Room