

TPE Data cable | CF11



- For very high mechanical load requirements
- TPE outer jacket
- Shielded
- Twisted pair
- Oil-resistant, bio-oil-resistant
- PVC-free/halogen-free
- Hydrolysis/microbe-resistant

Dynamic Information

	Bend radius	E-Chain®	min. 6.8 x d
		flexible	min. 5 x d
		fixed	min. 4 x d
	Temperature	E-Chain®	-31 °F to +212 °F (-35 °C to +100 °C)
		flexible	-58 °F to +212 °F (-50 °C to +100 °C)
		fixed	-67 °F to +212 °F (-55 °C to +100 °C)
	v max.	unsupported	32.81 ft/s (10 m/s)
		gliding	19.69 ft/s (6 m/s)
	a max.		328.1 ft/s ² (100 m/s ²)
	Travel distance		Unsupported travel distances and for gliding applications up to 1312 ft (400 m) and more, Class 6

Cable structure

	Conductors	Conductor consisting of bare copper wires (according to EN 60228).
	Conductor insulation	Mechanically high-quality TPE mixture.
	Conductor construction	Twisted Pairs cabled together with short pitch lengths.
	Color code	26-18 AWG: Color code according to DIN 47100. 17-14 AWG: Black with white numbers.
	Inner jacket	TPE mixture adapted to suit the requirements in E-Chains®.
	Overall shield	Extremely bending-resistant tinned copper braid. 90 % optical coverage
	Outer jacket	Low-adhesion mixture on the basis of TPE, especially abrasion-resistant and highly flexible, adapted to suit the requirements in E-Chains®. Color: Dark blue (similar to RAL 5011)

Electrical Information

	Nominal voltage	300 V
	Test voltage	1500 V

Configurators ► www.igus.com/CF11

Class 6.6.4.1

Properties and approvals

	UV resistance	High
	Oil resistance	Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754
	EAC	Certified according to no. TC RU C-DE.ME77.B.01254
	Lead-free	Following 2011/65/EC (RoHS-II)
	Cleanroom	According to ISO Class 1. Outer jacket material complies with CF9-15-07, tested by IPA according to standard 14644-1.
	CE	Following 2014/35/EC

Guaranteed lifetime according to guarantee conditions (Page 22-25)

Cycles*					5 mio.	7.5 mio.	10 mio.
Temperature, from/to [°F]	v max. [ft/s]	a max. [ft/s ²]	Travel distance [ft]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-31 / -13					7,5	8,5	9,5
-13 / +194	32.81	19.69	328.1	≤ 1,312	6,8	7,8	8,8
+194 / +212					7,5	8,5	9,5

* Higher number of cycles possible - please ask for your individual calculation.

Typical application areas

- For maximum mechanical load requirements
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV-resistant
- Unsupported travel distances and for gliding applications up to 1312 ft (400 m) and more
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling, Clean room, semiconductor insertion, outdoor cranes, low temperature applications

Delivery program Measuring system cables

- Page 244, CF211 (PVC)
- Page 254, CF111-D (PUR)
- Page 268, CF11-D (TPE)



Requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	1,312 ft +
Oil-resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	±180°				



Image exemplary.

Part No.	AWG	Number of Pairs and rated cross section [mm ²]	Outer diameter max.		Copper index		Weight	
			in.	mm	lbs/mft	kg/km	lbs/mft	kg/km
CF11-01-04-02	26	4 PR x 0.14	0.30	7.5	20.8	31	43.7	65
CF11-01-18-02	26	18 PR x 0.14	0.47	12.0	71.9	107	133.0	198
CF11-02-01-02	24	1 PR x 0.25	0.24	6.0	12.1	18	26.2	39
CF11-02-02-02	24	2 PR x 0.25	0.26	6.5	18.8	28	34.3	51
CF11-02-03-02	24	3 PR x 0.25	0.31	8.0	24.9	37	53.8	80
CF11-02-04-02	24	4 PR x 0.25	0.33	8.5	29.6	44	61.1	91
CF11-02-05-02	24	5 PR x 0.25	0.35	9.0	34.9	52	71.9	107
CF11-02-06-02	24	6 PR x 0.25	0.39	10.0	49.1	73	90.0	134
CF11-02-09-02	24	9 PR x 0.25	0.49	12.5	68.5	102	139.8	208
CF11-02-10-02	24	10 PR x 0.25	0.51	13.0	73.2	109	149.8	223
CF11-02-14-02	24	14 PR x 0.25	0.53	13.5	88.7	132	155.9	232
CF11-03-08-02	22	8 PR x 0.34	0.51	13.0	75.9	113	152.5	227
CF11-05-04-02	20	4 PR x 0.5	0.37	9.5	55.1	82	92.7	138
CF11-05-06-02	20	6 PR x 0.5	0.47	12.0	73.9	110	137.8	205
CF11-05-08-02	20	8 PR x 0.5	0.55	14.0	97.4	145	182.1	271
CF11-07-03-02	18	3 PR x 0.75	0.39	10.0	58.5	87	106.8	159
CF11-10-04-02	17	4 PR x 1.0	0.47	12.0	90.0	134	159.3	237
CF11-15-06-02	16	6 PR x 1.5	0.67	17.0	176.7	263	286.9	427
CF11-25-03-02	14	3 PR x 2.5	0.61	15.5	151.9	226	264.1	393

Note: The mentioned outer diameters are maximum values.



Order example: CF11-02-03-02 – In your desired length
CF11 Chainflex® series -02 Code nominal cross section -03 Number of pairs -02 Identification pairs



Online order ► www.chainflex.com/CF11



Delivery time 24hr or today.
Delivery time means time until shipping of goods.



Configurators ► www.igus.com/CF11

