

TPE Bus Cables

Chainflex® CF11-Low Capacitance

TPE Energy Chain® cable, shielded, oil-resistant, bio-oil-resistant, PVC-free, halogen-free, UV-resistant



Conductor
Especially bend-resistant fine wire
stranded conductor

Core
Pairs twisted together
with short pitch

Inner jacket
Gusset filled,
pressure
extruded

Overall shield
Highly flexible
braided copper
shield

Outer jacket
Pressure extruded,
halogen-free TPE
blend



Construction

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

Conductor insulation: Foamed polymer

Conductor colors: Color code DIN 47100

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

Shield: Tinned copper braid, coverage approx., 90% optical.

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 +158°F (-35°C to +70°C)

Permissible temperature, fixed: -40°F to +158°F (-40°C to +70°C)

UV resistance: Medium

Oil resistance: High

Voltage: 30V

Test voltage: 500V

Regulations: 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
- especially for freely suspended and gliding travel up to 1312 ft (400m)
- storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, indoor cranes, low temperature applications

CAN-BUS	AWG	No. of Conductors and Rated Cross-Section in mm ²	Outer Diameter (approx)	Copper Index	Weight
Part No.			in. (mm)	lbs/mft (kg/km)	lbs/mft (kg/km)
CF11-05-01-02 LC	20	1 x 2 x 0.5	.33 (8.5)	24.5 (36)	39.4 (58)
CF11-05-02-02 LC	20	2 x 2 x 0.5	.33 (8.5)	30.3 (44.5)	40.8 (60)

Characteristic Impedance: 120 Ohms

Interbus	AWG	No. of Conductors and Rated Cross-Section in mm ²	Outer Diameter (approx)	Copper Index	Weight
Part No.			in. (mm)	lbs/mft (kg/km)	lbs/mft (kg/km)
CF11-02-03-02-IB-S	24	3 x 2 x 0.25	.33 (8.5)	28.6 (42)	56.4 (83)
CF11-02-03-02-10-03-IB-S	24	3 x 2 x 0.25			
	17	3 x 1	.39 (10)	50.3 (74)	91.8 (135)

Characteristic Impedance: 100 Ohms

Please refer to the Design Section for Electrical Characteristics

NOTE: The mentioned external diameters are maximum values.