

# Bus cable | TPE | chainflex® CF11.LC

- For extremely heavy duty applications
- TPE outer jacket
- Shielded
- Oil-resistant, bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

This series will be replaced by: **CFBUS.LB**  
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## Dynamic information

	<b>Bend radius</b>	<b>e-chain® linear</b>	minimum 10 x d
		<b>flexible</b>	minimum 8 x d
		<b>fixed</b>	minimum 5 x d
	<b>Temperature</b>	<b>e-chain® linear</b>	-35 °C to +70 °C
		<b>flexible</b>	-50 °C to +70 °C (following DIN EN 60811-504)
		<b>fixed</b>	-55 °C to +70 °C (following DIN EN 50305)
	<b>v max.</b>	<b>unsupported</b>	10 m/s
		<b>gliding</b>	6 m/s
	<b>a max.</b>		100 m/s <sup>2</sup>
	<b>Travel distance</b>		Unsupported travel distances and up to 400 m and more for gliding applications, Class 6

## Cable structure

	<b>Conductor</b>	Stranded conductor in especially bending-resistant design consisting of bare copper wires (following DIN EN 60228).
	<b>Core insulation</b>	According to bus specification.
	<b>Core structure</b>	According to bus specification.
	<b>Core identification</b>	According to bus specification. ▶ Product range table
	<b>Inner jacket</b>	TPE mixture, adapted to suit the requirements in e-chains®.
	<b>Overall shield</b>	Extremely bending-resistant braiding made of tinned copper wires. Coverage approx. 70 % inear, approx. 90 % optical
	<b>Outer jacket</b>	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®. Colour: Steel-blue (similar to RAL 5011)

## Electrical information

	<b>Nominal voltage</b>	50 V
	<b>Testing voltage</b>	500 V

## Properties and approvals

	<b>UV resistance</b>	High.
	<b>Oil resistance</b>	Oil resistant (following DIN EN 60811-404), bio-oil resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4.
	<b>Silicone-free</b>	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
	<b>Halogen-free</b>	Following DIN EN 60754.

## Class 6.6.4.1

Basic requirements	low	1	2	3	4	5	6	7	highest
Travel distance	unsupported	1	2	3	4	5	6	7	≥ 400 m
Oil resistance	none	1	2	3	4	highest			
Torsion	none	1	2	3	±180°				



EAC

Certificate no. RU C-DE.ME77.B.01218 (TR ZU)



Lead-free

Following 2011/65/EU (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/EU.

## Guaranteed lifetime according to guarantee conditions (Page 22-23)

Double strokes*	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-35/-25	12.5	13.5	14.5
-25/+60	10	11	12
+60/+70	12.5	13.5	14.5

\* Higher number of double strokes? Online lifetime calculation: [www.igus.eu/chainflexlife](http://www.igus.eu/chainflexlife)

## Typical mechanical application areas

- For extremely heavy duty applications
- Almost unlimited resistance to oil, also with bio-oils
- Indoor and outdoor applications, UV resistant
- Unsupported travel distances and up to 400 m and more for gliding applications
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling equipment, Clean room, semiconductor handling, outdoor cranes, low temperature applications

Part No.	Number of cores and conductor nominal cross section [mm <sup>2</sup> ]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
<b>Profibus</b>				
CF11.02.02.02.PBA.LC <sup>2)</sup>	(4x0.25)C	9.0	37	82
<b>Interbus</b>				
CF11.02.03.02.10.03.IB-S	(3x(2x0.25)+(3G1.0))C	10.5	88	134
CF11.02.03.02.IB-S	(3x(2x0.25))C	9.0	51	84
<b>CAN-Bus</b>				
CF11.05.01.02.LC	(2x0.5)C	8.0	41	80
CF11.05.02.02.LC <sup>2)</sup>	(4x0.5)C	8.5	46	87

The chainflex® types marked with <sup>2)</sup> are cables designed as a star-quad.  
Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.  
G = with green-yellow earth core x = without earth core

Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
<b>Profibus</b>			
CF11.02.02.02.PBA.LC <sup>2)</sup>	150	(4x0.25)C	green, yellow, red, brown (star-quad stranding)
<b>Interbus</b>			
CF11.02.03.02.10.03.IB-S	100	3x(2x0.25)	white/brown, green/yellow, grey/pink
		(3G1.0)	red, blue, green-yellow
CF11.02.03.02.IB-S	100	(3x(2x0.25))C	white/brown, green/yellow, grey/pink
<b>CAN-Bus</b>			
CF11.05.01.02.LC	120	(2x0.5)C	white, brown
CF11.05.02.02.LC <sup>2)</sup>	120	(4x0.5)C	white, green, brown, yellow (star-quad stranding)

