






# Bus cable | TPE | chainflex® CF11.LC.D








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

This series will be replaced by: **CFBUS.LB**  
▶ Page 174



## Dynamic information

 <b>Bend radius</b>	<b>e-chain® linear flexible</b>	minimum 10 x d minimum 8 x d minimum 5 x d
 <b>Temperature</b>	<b>e-chain® linear flexible</b>	-35 °C to +70 °C -50 °C to +70 °C (following DIN EN 60811-504) -55 °C to +70 °C (following DIN EN 50305)
 <b>v max.</b>	<b>unsupported</b>	10 m/s
 <b>a max.</b>	<b>gliding</b>	6 m/s 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: Red lilac (similar to RAL 4001)	

## Electrical information

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

## Properties and approvals

 <b>UV resistance</b>	Medium.
 <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.

Example image

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	5	6	7	highest
Torsion	none	1	2	3	4	5	6	7	±180°

# Class 6.6.4.1



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.



DESINA

According to VDW, DESINA standardisation.



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 indoor and outdoor applications without direct solar radiation
- 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>				
CF11.02.01.02.PBA.LC.D	(2x0.25)C	9.0	34	80
CF11.02.02.07.03.PBA.LC.D	(2x0.25)C+3x0.75	11.0	58	130
CF11.02.02.15.04.PBA.LC.D	(2x0.25)C+4x1.5	13.0	94	179
<b>CAN-Bus</b>				
CF11.02.02.02.LC.D <sup>2)</sup>	(4x0.25)C	6.5	29	53
CF11.05.01.02.LC.D	(2x0.5)C	8.0	41	80

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.	Core group	Colour code
Ω			
<b>Profibus</b>			
CF11.02.01.02.PBA.LC.D	150	(2x0.25)C	red, green
CF11.02.02.07.03.PBA.LC.D	150	(2x0.25)C	red/green
		3G0.75	black, blue, green-yellow
CF11.02.02.15.04.PBA.LC.D	150	(2x0.25)C	red/green
		4x1.5	black with white numerals 1-4
<b>CAN-Bus</b>			
CF11.02.02.02.LC.D <sup>2)</sup>	120	(4x0.25)C	white, green, brown, yellow (star-quad stranding)
CF11.05.01.02.LC.D	120	(2x0.5)C	white, brown

