





- For heaviest duty applications
- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant

- Low-temperature-flexible
- PVC and halogen-free
- Hydrolysis and microbe-resistant

Dynamic information

e-chain® linear min. 7.5 x d Bend radius

> flexible min. 6 x d fixed min. 4 x d

e-chain® linear -35 °C up to +70 °C Temperature

> flexible -50 °C up to +70 °C (following DIN EN 60811-504)

fixed -55 °C up to +70 °C (following DIN EN 50305)

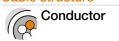
v max. unsupported 10 m/s gliding 6 m/s

100 m/s²

a max.

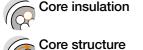
Travel distance Unsupported travels and up to 400 m and more for gliding applications, Class 6

Cable structure

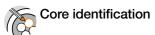


Stranded conductor in especially bending-resistant version consisting of bare

copper wires (following DIN EN 60228). According to bus specification.



According to bus specification.



According to bus specification.

► Product range table



TPE mixture adapted to suit the requirements in e-chains[®].



Extremely bending-resistant braiding made of tinned copper wires.

Coverage linear approx. 70 %, optical approx. 90 %

Outer jacket

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)

Variants ► Product range table

Electrical information



50 V Nominal voltage



chainflex CFBUS,LB,049

Testing voltage 500 V (following DIN EN 50289-1-3)

EU04.201







CFBUS.LB TPE 7.5 x d

Properties and approvals

UV resistance

Medium

Basic requirements

Torsion

Oil resistance

DESINA

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

Following DIN EN 60754 Halogen-free

CLPA CLPA CFBUS.LB.045: CC-Línk | E [ield], Reference no. 131 CFBUS.LB.049: CC-Línk | Field, Reference no. 138 Certificate No. RU C-DE.ME77.B.02806 (TR ZU) EAC

RoHS-II Lead-free Following 2011/65/EC (RoHS-II)

According to ISO Class 1. The outer jacket material of this series complies with Cleanroom CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1

According to VDW, DESINA standardisation

(€ce Following 2014/35/EU

Guaranteed service life (details see page 22-23)

Double strokes*	s* 5 million			nillion	10 million		
Temperature,	CFBUS.LB .001022	CFBUS.LB .040060	CFBUS.LB .001022	CFBUS.LB .040060	CFBUS.LB .001022	CFBUS.LB .040060	
from/to [°C]	R min. [factor x d]						
-35/-25	12.5	10	13.5	11	14.5	12	
-25/+60	10	7.5	11	8.5	12	9.5	
+60/+70	12.5	10	13.5	11	14.5	12	

^{*} Higher number of double strokes? Service life calculation online ▶ www.igus.eu/chainflexlife

Typical mechanical application areas

- For heaviest duty applications, Class 7
- Unsupported travels and up to 400 m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- No torsion, Class 1
- Indoor and outdoor applications without direct sun radiation
- Storage and retrieval units for high-bay warehouses, Machining units/machine tools, quick handling, Cleanroom, semiconductor insertion, indoor cranes, low temperature applications























Bus cable | TPE | chainflex® CFBUS.LB

igus chainflex CFBUS.LB.049



Example image

	Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]	Part No.	Characteristic wave impedance approx. [Ω]	Core group	Colour code
	Profibus (1x2x0,64 mm)	[·····]	[]	[9/]	[19.4.1]		[]		
# # # # # # # # # # # # # # # # # # #	CFBUS.LB.001	(2x0.25)C	9.0	32	78	CFBUS.LB.001	150	(2x0.25)C	red, green
## ## ## ## ## ## ## ## ## ## ## ## ##	CFBUS.LB.004 ²⁾	(4x0.25)C	9.0	35	80	CFBUS.LB.004 ²⁾	150	(4x0.25)C	green, yellow, red, brown (Star-quad)
	CAN-Bus								
	CFBUS.LB.020 ²⁾	(4x0.25)C	6.5	28	52	CFBUS.LB.020 ²⁾	120	(4x0.25)C	white, green, brown, yellow (Star-quad)
	CFBUS.LB.021	(2x0.5)C	8.0	38	78	CFBUS.LB.021	120	(2x0.5)C	white, brown
	CFBUS.LB.022 2)	(4x0.5)C	8.5	43	84	CFBUS.LB.022 ²⁾	120	(4x0.5)C	white, green, brown, yellow (Star-quad)
	Ethernet/CAT5								
EtherCAT.	CFBUS.LB.040 ²⁾	(4x0.25)C	7.0	33	64	CFBUS.LB.040 ²⁾	100	(4x0.25)C	white, green, brown, yellow (Star-quad)
	Ethernet/CAT5e								
CC-Línk IE E	cFBUS.LB.045	(4x(2x0.15))C	8.5	41	86	CFBUS.LB.045	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
	Ethernet/CAT6								
CC-Línk IE B	cFBUS.LB.049	(4x(2x0.15))C	8.5	42	86	CFBUS.LB.049	100	(4x(2x0.15))C	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
	Profinet								
Ether CA	← CFBUS.LB.060 ^{2) 13)}	(4x0.38)C	7.5	39	64	CFBUS.LB.060 ²⁾ 13)	100	(4x0.38)C	white, orange, blue, yellow (Star-quad)

²⁾ The chainflex® types marked with 2) 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



Order example: CFBUS.LB.045 – to your desired length (0.5 m steps) CFBUS.LB chainflex® series .045 Code Bus type



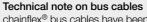
Online order ► www.chainflex.eu/CFBUS.LB

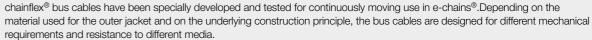
EPLAN download, configurators ▶ www.igus.eu/CFBUS.LB



Delivery time 24hrs or today.

Delivery time means time until goods are shipped.





The cables have been electrically designed in such a way that, on the one hand, the electrical requirements of the respective bus specification are reliably met and, on the other, there is a high degree of EMC reliability.

It is also ensured that the electrical values remain stable over the long term in spite of constant movement.

The overall quality of transmission in a complete bus communication system, however, is not solely dependent on the cable used. What is also essential is that all components (electronic parts, connecting system and cable) are precisely matched to each other and that the maximum transmission lengths, which are dependent on the respective system, are adhered to with regard to the data transmission rates needed. A cable is thus not solely responsible for the reliable transmission of signals.

igus® advises you when you are designing your bus system to take all these factors into account and, with its extensive tests, helps you to ensure the process reliability of your system from the very beginning.









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¹³⁾ Colour outer jacket: Yellow-green (RAL 6018)