PVC

36 10 million

PVC outer jacket

Flame-retardant

Dynamic information

Bend radius

Contractor Temperature

v____ v max.

👝 a max.

Cable structure

Travel distance

Conductor

Core insulation

Overall shield

Outer jacket

Electrical information

Nominal voltage

Testing voltage

Core structure

Core identification

 Shielded Oil-resistant

Double strokes quaranteed

For medium duty applications

Bus cable | PVC | chainflex® CFBUS.PVC

e-chain[®] linear

e-chain[®] linear

unsupported

flexible

flexible

gliding

30m/s²

fixed

fixed

12.5 x d

Bend radius, e-chain®

minimum 12.5 x d

minimum 10 x d

minimum 7 x d

3m/s

2m/s

copper wires (following DIN EN 60228).

According to bus specification.

According to bus specification.

According to bus specification. Product range table

+5°C up to +70°C

Unsupported travels and up to 20m for gliding applications, Class 3

Bending-resistant braiding made of tinned copper wires.

300V (following UL), except CFBUS.PVC.020: 30V (following UL)

Coverage linear approx. 55%, optical approx. 80%

e-chains® (following DIN EN 50363-4-1).

Colour: Red lilac (similar to RAL 4001)

Variants Product range table

-5°C up to +70°C (following DIN EN 60811-504)

-15°C up to +70°C (following DIN EN 50305)

Stranded conductor in especially bending-resistant version consisting of bare

Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in

20m

Travel distance, e-chain®



EPLAN download, configurators ► v	www.igus.eu/CFBUSPVC
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50V

500V

36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges



Free from
1992)

Medium

Basic requirements

Travel distance

Oil resistance

Torsion

🔍 UL verified

Silicone-free

Class 4.3.2.1

Properties and approvals

UV resistance

Oil resistance

Flame-retardant

oil

CUL listed

UL/CSA AWM

CLPA CLPA

EHE EAC REACH REACH

RoHS Lead-free

CECE

CA

UK UKCA

Cleanroom

Following 2011/65/EC (RoHS-II/RoHS-III)

Following 2014/35/EU

In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

ouble strokes*	5 million	
Temperature, from/to [°C]	R min. [factor x d]	
+5/+15	15	
+15/+60	12.5	
+60/+70	15	

* Higher number of double strokes? Service life calculation online b www.igus.eu/chainflexlife

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 20m for gliding applications, Class 3
- Light oil influence, Class 2
- No torsion, Class 1
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Machining units/packaging machines, handling, indoor cranes



snbj

HENNLICH -**ŽIJEME TECHNIKOU**

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EU2020













Oil-resistant (following DIN EN 50363-4-1), Class 2

According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame

n silicone which can affect paint adhesion (following PV 3.10.7 – status

Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year' CMX, 75°C (except CFBUS.PVC.068)

See data sheet for details > www.igus.eu/CFBUSPVC

Following NFPA 79-2018, chapter 12.9

CFBUS.PVC.045: CC-Link IE Elield, Reference no. 153 CFBUS.PVC.049: CC-Línk IE Elield, Reference no. 154 Certificate No. RU C-DE.ME77.B.00295/19

In accordance with regulation (EC) No. 1907/2006 (REACH)

According to ISO Class 1. The outer jacket material of this series complies with CF240.02.24 - tested by IPA according to standard DIN EN ISO 14644-1

> R min. [factor x d] 16 13.5 16

R min. [factor x d] 17 14.5 17





UL-verified chainflex[®] guarantee ... www.igus.eu/ul-verified



CFBUS.PVC













RoHS clean[.] room

CE UK CFBUS.PVC PVC

12.5 x d

Bus cable | PVC | chainflex® CFBUS.PVC

Class 4.3.2.1

Part No.

Profibus (1x2x0.64mm)

CFBUS.PVC.001

Basic requirements Travel distance Oil resistance Torsion

igus° chainflex° CFBUS.PVC.049

Example image

	Part No.	Number of cores and conductor nominal cross section	Outer diameter (d) max.	Copper index	Weight
		[mm ²]	[mm]	[kg/km]	[kg/km]
	Profibus (1x2x0.64mm)				
	CFBUS.PVC.001	(2x0.25)C	8.5	25	77
	CAN-Bus				
	CFBUS.PVC.020 ²⁾	(4x0.25)C	7.0	23	57
	CFBUS.PVC.021	(2x0.5)C	8.5	32	86
	CFBUS.PVC.022 ²⁾	(4x0.5)C	8.5	43	94
	CC-Link				
	CFBUS.PVC.035	(3x0.5)C	8.0	40	82
	Ethernet/CAT5I				
ther CAT.	CFBUS.PVC.040 ²⁾	(4x0.25)C	6.5	29	70
	Ethernet/CAT5e				
CC-Línk <mark>IE B</mark> ield	CFBUS.PVC.045	(4x(2x0.15))C	7.5	33	67
	Ethernet/CAT6				
CC-Línk <mark>IE B</mark> ield	CFBUS.PVC.049	(4x(2x0.15))C	7.5	33	67
	Ethernet/CAT6A				
	CFBUS.PVC.050	4x(2x0.20)C	10.0	65	123
	Ethernet/CAT7				
	CFBUS.PVC.052	(4x(2x0.15)C)C	9.5	89	136
	Profinet				
Ether CAT	CFBUS.PVC.060 ^{2) 13)}	(4x0.38)C	7.0	33	67
	USB 3.0				
	CFBUS.PVC.068	(2x(2xAWG28) +2x(2xAWG28)C)C	7.0	39	68

The chainflex[®] types marked with ²⁾ are cables designed as a star-quad. ⁽³⁾ Colour outer jacket: Yellow-green (RAL 6018).

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



Cables available in the chainflex[®] CASE

Simple savings on delivery, storage space and re-ordering with the chainflex[®] CASE - ship'n store by igus[®].





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HENNLICH -



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36-month guarantee ... more than 1,350 cable types from stock ... no cutting charges

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CAN-Bus CFBUS.PVC.020 ²⁾ 120 4x0.25 CFBUS.PVC.021 120 2x0.5 CFBUS.PVC.022 ²⁾ 120 4x0.5 CC-Link	CFBUS.PVC.001	150	2x0.25
CFBUS.PVC.020 ²⁾ 120 4x0.25 CFBUS.PVC.021 120 2x0.5 CFBUS.PVC.022 ²⁾ 120 4x0.5 CC-Link	CAN-Bus		
CFBUS.PVC.021 120 2x0.5 CFBUS.PVC.022 ²⁾ 120 4x0.5 CFBUS.PVC.035 110 3x0.5 Ethernet/CAT5I 7 7 CFBUS.PVC.040 ²⁾ 100 4x0.25 Ethernet/CAT5e 7 7 CFBUS.PVC.045 100 4x(2x0.15) Ethernet/CAT6 7 7 CFBUS.PVC.050 100 4x(2x0.20)C Ethernet/CAT6A 7 7 CFBUS.PVC.052 100 4x(2x0.15) Ethernet/CAT6A 7 7 CFBUS.PVC.052 100 4x(2x0.15)C Ethernet/CAT7 7 7 CFBUS.PVC.060 ^{2) 13)} 100 4x0.38 JSB 3.0 7 7 CFBUS.PVC.068 90 2x(2xAWG28) 2x(2xAWG28)C 7 7	CFBUS.PVC.020 ²⁾	120	4x0.25
CFBUS.PVC.022 ²⁾ 120 4x0.5 CFBUS.PVC.035 110 3x0.5 Ethernet/CAT5I	CFBUS.PVC.021	120	2x0.5
CC-Link 3x0.5 CFBUS.PVC.035 110 3x0.5 Ethernet/CAT5I 100 4x0.25 CFBUS.PVC.040 ²⁾ 100 4x(2x0.15) CFBUS.PVC.045 100 4x(2x0.15) Ethernet/CAT6	CFBUS.PVC.022 ²⁾	120	4x0.5
CFBUS.PVC.035 110 3x0.5 Ethernet/CAT5I 100 4x0.25 CFBUS.PVC.040 ²⁾ 100 4x(2x0.15) Ethernet/CAT6 100 4x(2x0.15) CFBUS.PVC.049 100 4x(2x0.15) Ethernet/CAT6A 100 4x(2x0.20)C CFBUS.PVC.050 100 4x(2x0.20)C Ethernet/CAT7 100 4x(2x0.15)C CFBUS.PVC.052 100 4x(2x0.15)C Profinet 100 4x(2x0.15)C CFBUS.PVC.060 ^{2) 13)} 100 4x(2x0.15)C Profinet 100 4x(2x0.15)C CFBUS.PVC.060 ^{2) 13)} 100 4x0.38 JSB 3.0 2x(2xAWG28) 2x(2xAWG28)	CC-Link		
Ethernet/CAT5I CFBUS.PVC.040 ²⁾ 100 4x0.25 Ethernet/CAT5e 100 4x(2x0.15) CFBUS.PVC.045 100 4x(2x0.15) Ethernet/CAT6	CFBUS.PVC.035	110	3x0.5
CFBUS.PVC.040 ²⁾ 100 4x0.25 Ethernet/CAT5e 100 4x(2x0.15) CFBUS.PVC.045 100 4x(2x0.15) Ethernet/CAT6	Ethernet/CAT5I		
Ethernet/CAT5e CFBUS.PVC.045 100 4x(2x0.15) Ethernet/CAT6	CFBUS.PVC.040 ²⁾	100	4x0.25
CFBUS.PVC.045 100 4x(2x0.15) Ethernet/CAT6	Ethernet/CAT5e		
Ethernet/CAT6 CFBUS.PVC.049 100 4x(2x0.15) Ethernet/CAT6A	CFBUS.PVC.045	100	4x(2x0.15)
CFBUS.PVC.049 100 4x(2x0.15) Ethernet/CAT6A	Ethernet/CAT6		
Ethernet/CAT6A CFBUS.PVC.050 100 4x(2x0.20)C Ethernet/CAT7 CFBUS.PVC.052 100 4x(2x0.15)C Profinet	CFBUS.PVC.049	100	4x(2x0.15)
CFBUS.PVC.050 100 4x(2x0.20)C Ethernet/CAT7 5 CFBUS.PVC.052 100 4x(2x0.15)C Profinet 5 CFBUS.PVC.060 ^(2) 13) 100 4x0.38 JSB 3.0 5 2x(2xAWG28) CFBUS.PVC.068 90 2x(2xAWG28) 2x(2xAWG28)C 5 5	Ethernet/CAT6A		
Ethernet/CAT7 CFBUS.PVC.052 100 4x(2x0.15)C Profinet	CFBUS.PVC.050	100	4x(2x0.20)C
CFBUS.PVC.052 100 4x(2x0.15)C Profinet	Ethernet/CAT7		
Profinet CFBUS.PVC.060 ^{2) 13)} 100 4x0.38 JSB 3.0 2x(2xAWG28) CFBUS.PVC.068 90 2x(2xAWG28) 2x(2xAWG28)C 2x(2xAWG28)C	CFBUS.PVC.052	100	4x(2x0.15)C
CFBUS.PVC.060 2) 13) 100 4x0.38 JSB 3.0 2x(2xAWG28) 2x(2xAWG28) 2x(2xAWG28)C	Profinet		
JSB 3.0 CFBUS.PVC.068 90 2x(2xAWG28) 2x(2xAWG28)C	CFBUS.PVC.060 ^{2) 13)}	100	4x0.38
CFBUS.PVC.068 90 2x(2xAWG28) 2x(2xAWG28)C 2x(2xAWG28)C	JSB 3.0		
2x(2xAWG28)C	CFBUS.PVC.068	90	2x(2xAWG28)
			2x(2xAWG28)C

Characteristic wave

impedance approx. [Ω]

150

Technical note on bus cables

chainflex® bus cables have been specially developed and tested for continuously moving use in e-chains®. Depending on the material used for the outer jacket and on the underlying construction principle, the bus cables are designed for different mechanical requirements and resistance to diverse media.

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, that greater value is placed on a high degree of EMC reliability. It is also ensured that the electrical values remain stable over the long term in spite of permanent 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 extensive tests, helps you to ensure the process reliability of your system from the very beginning.







igus 36-month chainflex cable guarantee and service life alculator based on 2 billion test

c Rus

NFPA

C L P A

EAC

REACH

RoHS

clean-room

CE

UK CA

Core group Colour code

red, green

white, green, brown, yellow (star-quad) white, brown white, green, brown, yellow (star-quad)

white, blue, yellow

white, green, brown, yellow (star-quad)

white-blue/blue, white-orange/orange, whitegreen/green, white-brown/brown

white-blue/blue, white-orange/orange, whitegreen/green, white-brown/brown

white-blue/blue, white-orange/orange, whitegreen/green, white-brown/brown

white-blue/blue, white-orange/orange, whitegreen/green, white-brown/brown

white, orange, blue, yellow (star-quad)

red/black, green/white-green blue/yellow, orange/violet

UL-verified chainflex[®] guarantee ... www.igus.eu/ul-verified