

Bus cable | PVC | chainflex® CF888

36 5,000,000
Cycles guaranteed

15 x d
Bend radius E-Chain®

32.8 ft
Travel distance E-Chain®

- For low duty flexing applications
- PVC outer jacket
- Shielded
- Flame-retardant

Now with 300 V
UL approval

Dynamic Information

	Bend radius	E-Chain® linear	min. 15 x d
		flexible	min. 12 x d
		fixed	min. 8 x d
	Temperature	E-Chain® linear	+41 °F to +158 °F (+5 °C to +70 °C)
		flexible	+23 °F to +158 °F (-5 °C to +70 °C)
		fixed	+5 °F to +158 °F (-15 °C to +70 °C)
	v max.	unsupported	9.84 ft/s (3 m/s)
		a max.	65.6 ft/s ² (20 m/s ²)
	Travel distance	Unsupported travel distances up to 32.8 ft (10 m), Class 1	

Cable structure

	Conductor	Conductor consisting of bare copper wires (according to DIN EN 60228).
	Conductor insulation	According to bus specification.
	Conductor construction	According to bus specification.
	Color code	According to bus specification. ▶ See P/N Table
	Overall shield	aluminum/polyester tape and tinned cooper braid. 60 % optical coverage
	Outer jacket	Low-adhesion mixture on the basis of PVC, adapted to suit the requirements in E-Chains®. Color: Violet (similar to RAL 4001) Variants ▶ See P/N Table

Electrical Information

	Nominal voltage	300 V, except CF888-001: 30 V
	Test voltage	500 V

Basic requirements
Travel distance
Oil resistance
Torsion

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 1312 ft	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			

Class 3.1.1.1

Properties and approvals

	Flame resistance	According to IEC 60332-1-2, FT1, VW-1
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	UL verified	Certificate No. B129699: igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year
	UL/CSA AWM	300 V, +60 °C See data sheet for details ▶ www.igus.com/CF888
	NFPA 79	Complies to Electrical Standard for Industrial Machinery NFPA 79 Section 12.9
	EAC	Certificate No. RU C-DE.ME77.B.00295/19 (TR ZU)
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	CE	Following 2014/35/EU

Guaranteed service life (details see page 26-27)

Cycles*	1 million	3 million	5 million
Temperature, from/to [°F]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
+41/+59	17.5	18.5	19.5
+59/+140	15	16	17
+140/+158	17.5	18.5	19.5

* Higher number of cycles? Online lifetime calculation ▶ www.chainflex.com/chainflexlife

Typical application areas

- For low duty flexing applications, Class 3
- Especially for unsupported travels, Class 1
- Without influence of oil, Class 1
- Preferably indoor applications
- Wood/stone processing, Packaging industry, supply systems, Handling, adjusting equipment

Guarantee
igus chainflex
36
up to 36 months guarantee

igus 36-month
chainflex cable
guarantee and
service life
calculator based
on 2 billion test
cycles per year

CFRIP

UL LISTED

UL US

NFPA

EAC

REACH

EAC

REACH

RoHS

Chainflex

UL

CE

Guarantee
igus chainflex
36
up to 36 months guarantee

chainflex
CONTINUOUS FLEX
CABLE TEST PROCESS
VERIFICATION
UL
igus® 36-month chainflex® cable guarantee
and service life calculator based upon
2 billion test cycles per year.
VERIFIED B129699

Example image

Configurators ▶ www.igus.com/CF888

36 month guarantee ... 1,354 types from stock ... no cutting charges



Example image

Part No.	AWG	Number of Conductors and rated cross section	Outer diameter max.		Copper index		Weight		Part No.	Characteristic Impedance	Core group	Color code
			[in.]	[mm]	lbs/mft	[kg/km]	lbs/mft	[kg/km]		[Ω]		
Profibus (1x2x0.64 mm)												
CF888-001	24	1 PR x 0.25	0.31	8.0	12.1	18	39.6	59	CF888-001	150	2x0.25	red, green
CAN-Bus												
CF888-021	20	1 PR x 0.5	0.33	8.5	16.1	24	49.1	73	CF888-021	120	2x0.5	white, brown
Ethernet/CAT5e												
CF888-045	26	4 PR x 0.14	0.28	7.0	16.8	25	41.7	62	CF888-045	100	4x(2x0.14)	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown
Profinet												
CF888-060 ^{2) 13)}	22	2 PR x 0.34	0.28	7.0	16.8	25	39.6	59	CF888-060 ^{2) 13)}	100	4x0.34	white, orange, blue, yellow (Star-quad)

The chainflex® types marked with ²⁾ are cables designed as a star-quad.

¹³⁾ Color outer jacket: Yellow-green (similar to RAL 6018)

Note: The given outer diameters are maximum values.

G = with green-yellow earth core x = without earth core

PR = Twisted Pair

cost down...



Reduce cost, improve technology, now!

Do the chainflex® price check now ...
www.igus.com/info/cable-price-check

... just one idea for you: Reduce bend radius with CFBUS ...

...life up

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 different 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, 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.



chainflex® CF888 bus cables in a handling application

Guarantee igus chainflex **36** months

igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

CFRIP

UL LISTED

UL US

NFPA

EAC

REACH

RoHS

Clean Room

CE

Guarantee igus chainflex **36** months

up to 36 months guarantee

chainflex®

CONTINUOUS FLEX CABLE TEST PROCESS VERIFICATION

UL VERIFIED

igus® 36-month chainflex® cable guarantee and service life calculator based upon 2 billion test cycles per year.

www.igus.com/ul-verified

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