

Control cable | PUR | chainflex® CF78.UL

36

10 million

Double strokes guaranteed

6.8 x d

Bend radius, e-chain®

100m

Travel distance, e-chain®

- For heavy duty applications
 - PUR outer jacket
 - Shielded
 - Oil-resistant and coolant-resistant
- Flame-retardant
 - PVC and halogen-free
 - Notch-resistant
 - Hydrolysis and microbe-resistant

Dynamic information

	Bend radius	e-chain® linear	minimum 6.8 x d
		flexible	minimum 5 x d
		fixed	minimum 4 x d
	Temperature	e-chain® linear	-25°C up to +80°C
		flexible	-40°C up to +80°C (following DIN EN 60811-504)
		fixed	-50°C up to +80°C (following DIN EN 50305)
	v max.	unsupported	10m/s
	a max.	gliding	5m/s
	Travel distance	Unsupported travels and up to 100m for gliding applications, Class 5	

Cable structure

	Conductor	Finely stranded conductor consisting of bare copper wires (following DIN EN 60228).	
	Core insulation	Mechanically high-quality TPE mixture.	
	Core structure	Number of cores < 12: Cores wound in a layer with short pitch length. Number of cores ≥ 12: Cores wound in bundles which are then wound around a high tensile strength centre element, all with optimised short pitch lengths and directions. Especially low-torsion structure.	
	Core identification	Black cores with white numbers, one green-yellow core.	
	Inner jacket	TPE mixture adapted to suit the requirements in e-chains®.	
	Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55%, optical approx. 80%	
	Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-10-2) Colour: Window-grey (similar to RAL 7040)	
	CFRIP®	Strip cables faster: a tear strip is moulded into the inner jacket Video ► www.igus.eu/CFRIP	

Electrical information

	Nominal voltage	300/500V (following DIN VDE 0298-3) Number of cores < 12: Cores < 0.5mm²: 300V (following UL) Cores ≥ 0.5mm²: 1000V (following UL) Number of cores ≥ 12: 1000V (following UL)	
	Testing voltage	2,000V (following DIN EN 50395)	

Basic requirements
Travel distance
Oil resistance
Torsion

low	1	2	3	4	5	6	7	highest
unsupported	1	2	3	4	5	6	≥ 400m	
none	1	2	3	4	highest			
none	1	2	3	4	±360°			

Class 5.5.3.1

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3
	Offshore	MUD-resistant following NEK 606 - status 2016
	Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame
	Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
	Halogen-free	Following DIN EN 60754
	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	See data sheet for details ► www.igus.eu/CF78UL
	NFPA	Following NFPA 79-2018, chapter 12.9
	DNV	Type Approval Certificate TAE00003X1
	EAC	Certificate No. RU C-DE.ME77.B.00300/19
	REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
	Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
	Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1
	CE	Following 2014/35/EU
	UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)

Guaranteed service life (details see page 28-29)

Double strokes*	5 million		7.5 million		10 million	
	< 10m	≥ 10m	< 10m	≥ 10m	< 10m	≥ 10m
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-25/-15	8.5	10	9.5	11	10.5	12
-15/+70	6.8	7.5	7.5	8.5	8.5	9.5
+70/+80	8.5	10	9.5	11	10.5	12

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

Typical application areas

- For heavy-duty applications, Class 5
- Unsupported travels and up to 100m for gliding applications, Class 5
- Almost unlimited resistance to oil, Class 3
- No torsion, Class 1
- Indoor and outdoor applications with average sun radiation
- Machining units/machine tools, storage and retrieval units for high-bay warehouses, packaging industry, quick handling, refrigerating sector



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



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

Control cable | PUR | chainflex® CF78.UL

Strip cables 50% faster with CFRIP® tear strip

igus® chainflex® CF78.UL

Example image

Class 5.5.3.1

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Order example: **CF78.UL.05.04** - to your desired length (0.5m steps)
CF78.UL chainflex® series .05 Code nominal cross section .04 Number of cores

Order online ► www.igus.eu/CF78UL

Delivery time 24hrs or today.
Delivery time means time until goods are shipped.



Cables available in the chainflex® CASE

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

More on this on page 24/25 and online: www.igus.eu/cf-case



cost down...



...life up

Reduce cost, improve technology, now!

Do the chainflex® price check ...

www.igus.eu/cf-price-check

... for example: reduce cost with CF6 ...

¹⁷⁾ When using the cables with "7G1.5mm²" and "7G2.5mm²" minimum bend radius must be 17.5xd with gliding travel distance ≥ 5m.

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

EPLAN download, configurators ► www.igus.eu/CF78UL

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