



10 million

Double strokes guaranteed



10 x d

Bend radius, e-chain®



10m

Travel distance, e-chain®

- For medium duty applications
- PVC outer jacket
- Shielded
- Oil-resistant
- Flame-retardant

**New cable
suitable for
Siemens
SINAMICS S210**

Dynamic information

	Bend radius	e-chain® linear	minimum 10 x d
		flexible	minimum 8 x d
		fixed	minimum 5 x d
	Temperature	e-chain® linear	+5°C up to +70°C
		flexible	-5°C up to +70°C (following DIN EN 60811-504)
		fixed	-15°C up to +70°C (following DIN EN 50305)
	v max.	unsupported	10m/s
		gliding	2m/s
	a max.		50m/s²
	Travel distance		Unsupported travels and up to 10m for gliding applications, Class 2

Cable structure

	Conductor	Stranded conductor in bending-resistant version consisting of bare copper wires (following DIN EN 60228).
	Core insulation	Mechanically high-quality, especially low-capacitance XLPE mixture.
	Core structure	Power cores and control pair elements wound with a short pitch length around a high tensile strength centre element.
	Core identification	According to Servo-Hybrid specification, Current data sheet ► www.chainflex.sk/CF220ULH
	Element shield	Bending-resistant braiding made of tinned copper wires.
	Intermediate layer	Foil taping over the outer layer.
	Overall shield	Bending-resistant braiding made of tinned copper wires. Coverage linear approx. 55%, optical approx. 80%
	Outer jacket	Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1). Colour: Pastel orange (similar to RAL 2003) Variants ► Product range table

Electrical information

	Nominal voltage	600/1,000V (following DIN VDE 0298-3) 1,000V (following UL) Variants ► Product range table
	Testing voltage	4,000V (following DIN EN 50395)

4-year guarantee ... more than 1,350 cable types from stock ... no cutting costs

Class 4.2.2.1

Properties and approvals

	UV resistance	Medium
	Oil resistance	Oil-resistant (following DIN EN 50363-4-1), Class 2
	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) The design of these products does not contain PTFE
	PTFE-free	
	UL-verified	Certificate No. V293650: „igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year“ See data sheet for details ► www.igus.sk/CF220ULH
	UL/CSA AWM	
	NFPA	Following NFPA 79-2018, chapter 12.9
	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 2. The outer jacket material of this series complies with CF5.10.07 - tested by IPA according to standard DIN EN ISO 14644-1 Following 2014/35/EU
	CE	
	Info	As hybrid cables are always designed for specific drive systems, additional electrotechnical data may need to be considered. You will find more information in the latest data sheet for the cable series.

Guaranteed service life (details see page 14-15)

Double strokes*	5 million	7.5 million	10 million
Temperature, from/to [°C]	R min. [x d]	R min. [x d]	R min. [x d]
+5/+15	12.5	13.5	14.5
+15/+60	10	11	12
+60/+70	12.5	13.5	14.5

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

Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 10m for gliding applications, Class 2
- Light oil influence, Class 2
- No torsion, Class 1
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Wood/stone processing, packaging industry, feeding, handling, adjusting devices

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

Class 4.2.2.1

igus® chainflex® CF220.UL.H

Image exemplary

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]	Shop and prices online	
SICK (HIPERFACE DSL)						
CF220.UL.H100.07.04	(4G0.75+(2x0.34)C+(2xAWG22)C)C	11.5	106	166	 www.igus.sk/ CF220ULH	
CF220.UL.H101.10.04	(4G1.0+(2x0.75)C+(2xAWG22)C)C	12.0	129	200		
CF220.UL.H101.15.04	(4G1.5+(2x0.75)C+(2xAWG22)C)C	13.0	151	226		
CF220.UL.H102.25.04	(4G2.5+(2x1.0)C+(2xAWG22)C)C	14.5	199	289		
SEW cable type E/1.5						
CF220.UL.H203.15.04	(4G1.5+(3x1.0)C)C	11.5	133	201		
SINAMICS S210						
CF220.UL.H300.03.04	(4Gx0.34+(2x0.34)C+(4xAWG26)C)C	10.0	78	128		
CF220.UL.H301.07.04	(4Gx0.75+(2x0.5)C+(4xAWG26)C)C	11.0	99	149		
CF220.UL.H304.15.04	(4G1.5+(2x1.5)C+(4xAWG26)C)C	13.0	159	234		
ctrlX DRIVE						
CF220.UL.H402.15.04	(4G1.5+(2x0.75)+(4xAWG24)C)C	13.0	147	236		
HEIDENHAIN						
CF220.UL.H501.15.04	(4G1.5+(2x0.75)C+(2x2x0.14+2x0.25)C)C	13.5	150	240		

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



Drilling machine for wooden plates equipped with latest hybrid cable technology with Hiperface DSL

4-year guarantee ... more than 1,350 cable types from stock ... no cutting costs

Part No.	Hybrid technology	Hybrid manufacturer
SICK (HIPERFACE DSL)		
CF220.UL.H100.07.04	SICK (HIPERFACE DSL)	please see selection table on page 239
CF220.UL.H101.10.04	SICK (HIPERFACE DSL)	please see selection table on page 239
CF220.UL.H101.15.04	SICK (HIPERFACE DSL)	please see selection table on page 239
CF220.UL.H102.25.04	SICK (HIPERFACE DSL)	please see selection table on page 239
SEW cable type E/1.5		
CF220.UL.H203.15.04	SEW cable type E/1.5	SEW
CF220.UL.H300.03.04	SINAMICS S210	Siemens
CF220.UL.H301.07.04	SINAMICS S210	Siemens
CF220.UL.H304.15.04	SINAMICS S210	Siemens
ctrlX DRIVE		
CF220.UL.H402.15.04	ctrlX DRIVE	Bosch Rexroth
HEIDENHAIN		
CF220.UL.H501.15.04	HEIDENHAIN	B&R



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 online: www.igus.sk/cf-case

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