



10 million

Double strokes guaranteed



7.5 x d

Bend radius, e-chain®



400m

Travel distance, e-chain®

- For extremely heavy duty applications
- TPE outer jacket
- Oil and bio-oil-resistant
- Flame-retardant
- UV-resistant
- Hydrolysis and microbe-resistant

Now with 90°C
UL/CSA AWM
approval

Dynamic information

	Bend radius	e-chain® linear	minimum 7.5 x d
		flexible	minimum 6 x d
		fixed	minimum 4 x d
	Temperature	e-chain® linear	-35°C up to +90°C
		flexible	-45°C up to +90°C (following DIN EN 60811-504)
		fixed	-50°C up to +90°C (following DIN EN 50305)
	v max.	unsupported	10m/s
	a max.	gliding	6m/s
	Travel distance	Unsupported travels and up to 400m and more for gliding applications, Class 6	
	Torsion	Torsion ±90°, with 1m cable length, Class 3	

Cable structure

	Conductor	Cores <10mm²: Stranded conductor in especially bending-resistant version consisting of bare copper wires (following DIN EN 60228).	
		Cores ≥ 10mm²: Conductor cable consisting of pre-leads (following DIN EN 60228).	
		Mechanically high-quality, especially low-capacitance XLPE mixture.	
	Core insulation		
	Core structure	Cores wound with a short pitch length around a high tensile strength centre element.	
	Core identification	Black cores with white numbers, one green-yellow core.	
		1. Core: U / L1 / C / L+ 2. Core: V / L2	
		3. Core: W / L3 / D / L- 4. Core: 4 / N	
	Outer jacket	Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture, adapted to suit the requirements in e-chains®.	
		Colour: Signal black (similar to RAL 9004)	
	CFRIP®	Strip cables faster: a tear strip is moulded into the outer jacket	
		Video ► www.igus.sk/CFRIP	

Electrical information

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

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

Basic requirements
Travel distance
Oil resistance
Torsion

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

Class 6.6.4.2

Properties and approvals

	UV resistance	High
	Oil resistance	Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA 24568 with Plantocut 8 S-MB tested by DEA), Class 4
	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)
	PTFE-free	The design of these products does not contain PTFE
	UL-verified	Certificate No. V293650: „igus 4-year 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.sk/CF34ULD
	NFPA	Following NFPA 79-2018, chapter 12.9
	DNV	Type Approval Certificate TAE00003X9 (Issue 04/2025)
		Current information in the data sheet ► www.igus.sk/CF34ULD
	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, material/cable tested by IPA according to DIN EN ISO standard 14644-1
	DESINA	According to VDW, DESINA standardisation
	CE	Following 2014/35/EU

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]
-35/-25	10	11	12
-25/+80	7.5	8.5	9.5
+80/+90	10	11	12

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

Typical application areas

- For heavy-duty applications, Class 6
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils, Class 4
- Torsion ±90°, with 1m cable length, Class 2
- Indoor and outdoor applications, UV-resistant
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications



