

Control cable | PVC | chainflex® CF150.UL

- 10 million** Double strokes guaranteed
- 7.5 x d** Bend radius, e-chain®
- 50m** Travel distance

- For medium duty applications
- PVC outer jacket
- Oil-resistant
- Flame-retardant
- TC-ER (Power and Control Tray Cable)

UL TC-ER UL 1277 MTW UL 1063 WTTTC UL 2277 DP-1 UL 1690 AWM 2587	CSA: C(UL) C/C/TC Specifications: OIL RES I / SUN RES 75°C wet ≥2.5mm² 90°C dry DIR BUR ≥2.5mm²
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Dynamic information

Bend radius	e-chain® linear flexible	minimum 7.5 x d minimum 6 x d
	fixed	minimum 4 x d
Temperature	e-chain® linear flexible	+5°C up to +70°C -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	3m/s
	gliding	2m/s
a max.		20m/s²
Travel distance		Unsupported travels and up to 50m for gliding applications, Class 4
Torsion		Torsion ±90°, with 1m cable length, Class 2

Cable structure

Conductor	Finely stranded conductor consisting of bare copper wires (following DIN EN 60228).
Core insulation	Mechanically high-quality PVC/PA 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.
Outer jacket	Low-adhesion, oil-resistant PVC mixture, adapted to suit the requirements in e-chains® (following DIN EN 50363-4-1) Colour: jet black (similar to RAL 9005)
CFRIP®	Strip cables faster: a tear strip is moulded into the outer jacket Video ► www.igus.eu/CFRIP

Electrical information

Nominal voltage	300/500V (following DIN VDE 0298-3) 600V TC-ER, 1000V WTTTC, 600V MTW, 600V AWM
Testing voltage	2,000V (following DIN EN 50395)

EPLAN download, configurators ► www.igus.eu/CF150UL

4-years guarantee ... more than 1,350 cable types from stock ... no cutting charges



EU2024

EU2024



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 4.4.2.2

Properties and approvals

UV resistance	Medium
Oil resistance	Oil resistant (according to DIN EN 50363-4-1), UL Oil Res I, Class 2
Flame-retardant	According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Horizontal Flame, FT4
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)
PFAS-free	Use of PFAS-free materials according to the content of the REACH directive and its rules for the production and processing of chemical substances
UL verified	Certificate No. V293650: "igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year"
UL listed	TC-ER UL 1277, WTTTC UL 2277, MTW UL W63
UL/CSA AWM	See data sheet for details ► www.igus.eu/CF150UL
NEC	In accordance with Article 501 Part II 501.10(B) Class I Division 2 and Article 502 Part II 502.10(B), TC-ER cables may be used in Class I and Class II, Division 2 hazardous areas.
NFPA	Following NFPA 79-2018, chapter 12.9
REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
RoHS	Following 2011/65/EC (RoHS-II)
CE	Following 2014/35/EU

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. [x d]	R min. [x d]	R min. [x d]	R min. [x d]	R min. [x d]	R min. [x d]
+5/+15	10	12.5	11	13.5	12	14.5
+15/+60	7.5	10	8.5	11	9.5	12
+60/+70	10	12.5	11	13.5	12	14.5

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

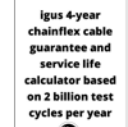
Typical application areas

- For medium duty applications, Class 4
- Unsupported travels and up to 50m for gliding applications, Class 4
- Light oil influence, Class 2
- Torsion ±90°, with 1m cable length, Class 2
- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C
- Storage and retrieval units for high-bay warehouses, machining units/packaging machines, quick handling, indoor cranes, laying of cables on cable trays



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



Control cable | PVC | chainflex® CF150.UL

Strip cables 50% faster with CFRIP® tear strip

Class 4.4.2.2

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Oil resistance
Torsion

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

igus® chainflex® CF150.UL

Example image

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CF150.UL.10.03	3G1.0	8.0	30	78
CF150.UL.10.04	4G1.0	8.5	40	94
CF150.UL.10.05	5G1.0	9.0	50	112
CF150.UL.10.07	7G1.0	10.5	70	155
CF150.UL.10.12	12G1.0	15.0	119	281
CF150.UL.10.18	18G1.0	19.0	178	425
CF150.UL.15.03	3G1.5	8.5	45	98
CF150.UL.15.04	4G1.5	9.0	60	122
CF150.UL.15.05	5G1.5	10.0	75	148
CF150.UL.15.07 ¹⁷⁾	7G1.5	12.0	104	205
CF150.UL.15.12	12G1.5	16.5	178	365
CF150.UL.15.18	18G1.5	21.0	267	529
New CF150.UL.15.25	25G1.5	24.5	371	746
CF150.UL.25.03	3G2.5	9.5	75	133
CF150.UL.25.04	4G2.5	10.0	100	164
CF150.UL.25.05	5G2.5	11.0	124	200
CF150.UL.25.07 ¹⁷⁾	7G2.5	13.5	173	291
CF150.UL.25.12	12G2.5	18.5	297	502
CF150.UL.25.18	18G2.5	24.5	445	808

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

Order example: **CF150.UL.10.03** - to your desired length (0.5m steps)
CF150.UL chainflex® series .10 Code nominal cross section .03 Number of cores

Order online ► www.igus.eu/CF150UL

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



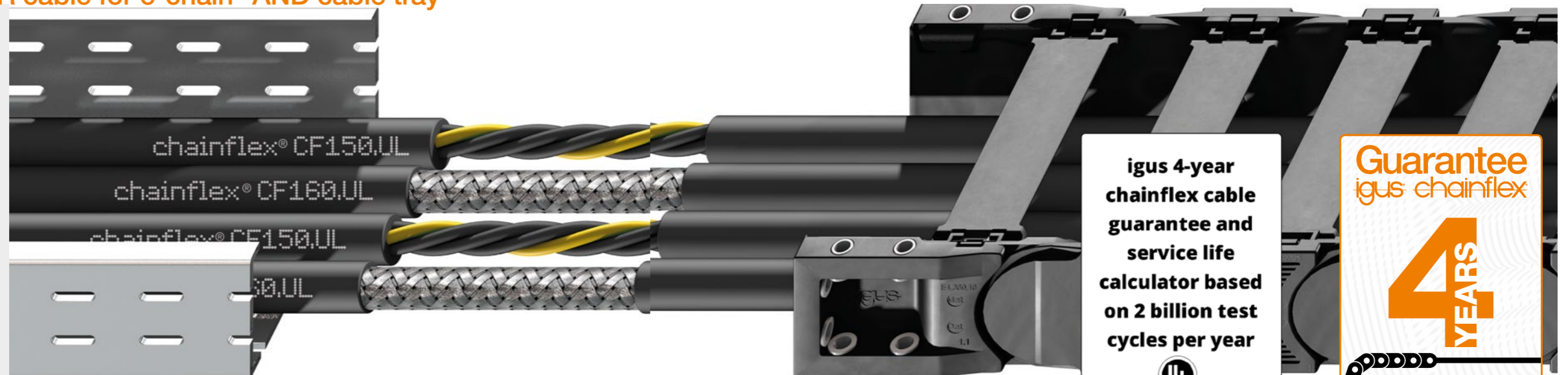
The only MTW/TC-ER cable for e-chain® AND cable tray

- UL**
TC-ER UL 1277
MTW UL 1063
WTTC UL 2277
DP-1 UL 1690
AWM 2587

- CSA:**
C(UL) CIC/TC

- Specifications:**
OIL RES I / SUN RES
75°C wet ≥2.5mm²
90°C dry
DIR BUR ≥2.5 mm²

* with guaranteed service life for use in e-chains® according to the guarantee conditions



igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

Guarantee igus chainflex

4 YEARS

up to 4 years guarantee

Guarantee igus chainflex

4 YEARS

igus 4-year chainflex cable guarantee and service life calculator based on 2 billion test cycles per year

CFRIP

UL LISTED

UL

nec

NFPA

REACH

RoHS

clean-room

CE