Control cable | PVC | chainflex® CF150.UL

Example image

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

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**	+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**	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 WTTC, 600V MTV, 600V AWM

Testing voltage 2,000V (following DIN EN 50395)

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

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

Class 4.4.2.2

Basic requirements	low	1	2	3	**4**	5	6	7	highest
Travel distance	unsupported	1	2	3	**4**	5	6		≥ 400m
Oil resistance	none	1	**2**	3	4				highest
Torsion	none	1	**2**	3	4				±360°

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)
UL verified	Certificate No. B129699: „igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year“
UL listed	TC-ER UL 1277, WTTC 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)
Lead-free	Following 2011/65/EC (RoHS-II)
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	
Temperature, from/to [°C]	< 10m	≥ 10m	< 10m	≥ 10m	< 10m	≥ 10m
	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]
+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

CF150.UL
PVC
7.5 x d

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

igus EU2023

Control cable | PVC | chainflex® CF150.UL

Strip cables 50% faster with CFRIP® tear strip

Class 4.4.2.2

Basic requirements	low	1	2	3	**4**	5	6	7	highest
Travel distance	unsupported	1	2	3	**4**	5	6	≥ 400m	
Oil resistance	none	1	**2**	3	4	highest			
Torsion	none	1	**2**	3	4	±360°			

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
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	12.0	173	268
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®.

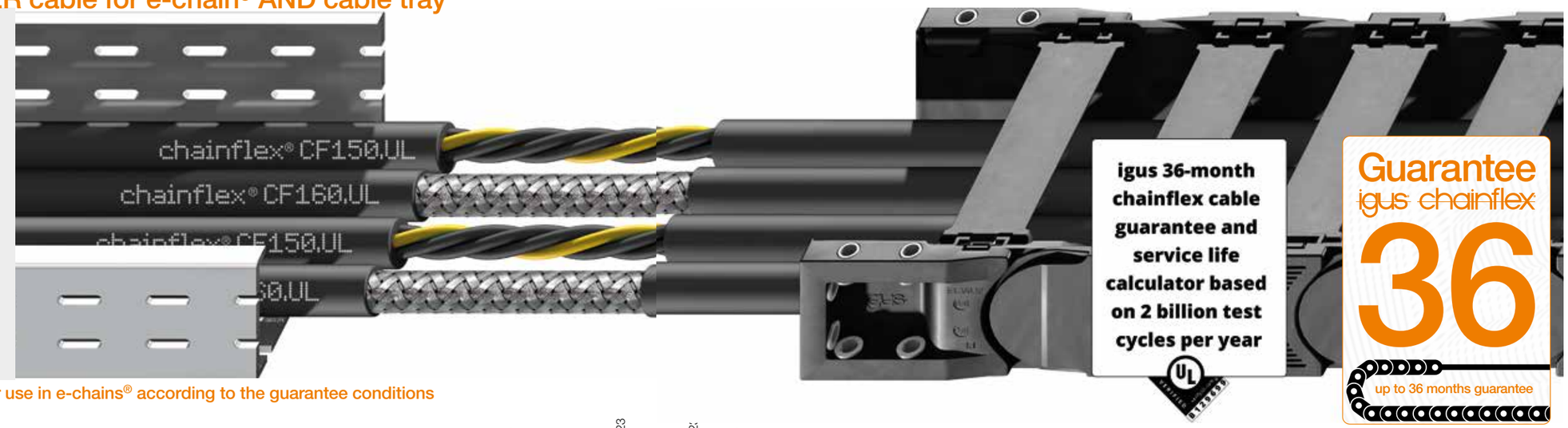
More on this on page 24/25 and online: www.igus.eu/cf-case

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