Control cable | iguPUR | chainflex® CF891

- For flexing applications
- iguPUR outer jacket
- Oil-resistant
- Shielded
- Flame retardant

Dynamic information

Bend radius	**e-chain®**	minimum 12.5 x d
	flexible	minimum 10 x d
	fixed	minimum 7 x d
Temperature	**e-chain®**	-20 °C to +80 °C
	flexible	-40 °C to +80 °C (following DIN EN 60811-504)
	fixed	-50 °C to +80 °C (following DIN EN 50305)
v max.	**unsupported**	3 m/s
a max.		20 m/s²
Travel distance		Unsupported travel distances up to 10 m, Class 1

Cable structure

Conductor	Conductor consisting of bare copper wires (following DIN EN 60228).
Core insulation	Mechanically high-quality PVC mixture.
Core structure	Cores wound with an optimised pitch length.
Core identification	Black cores with white numerals, one core green-yellow.
Overall shield	Braiding made of tinned copper wires. Coverage approx. 60 % optical
Outer jacket	Low-adhesion iguPUR mixture, adapted to suit the requirements in e-chains®. Colour: Jet black (similar to RAL 9005)

Electrical information

Nominal voltage	300/500 V
Testing voltage	2000 V (following DIN EN 50395)

Example image

Class 3.1.3.1

Basic requirements	low	1	2	**3**	4	5	6	7	highest
Travel distance	unsupported	**1**	2	3	4	5	6		≥ 400 m
Oil resistance	none	1	2	**3**		highest			
Torsion	none	**1**	2	3	±180°				

Properties and approvals

UV resistance	Medium.
Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3.
Flame retardant	According to IEC 60332-1-2, CEI 20-35, FT1, VW-1
Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992).
UL/CSA	Style 11008 and 20940, 600 V, 80 °C
EAC	Certificate no. RU C-DE.ME77.B.01560 (TR ZU)
CTP	Certificate no. C-DE.PB49.B.00449 (Fire safety)
Lead-free	Following 2011/65/EU (RoHS-II).
CE	Following 2014/35/EU.

Guaranteed lifetime according to guarantee conditions (Page 22-23)

Double strokes*	1 million	3 million	5 million
Temperature, from/to [°C]	R min. [factor x d]	R min. [factor x d]	R min. [factor x d]
-20/-10	15	16	17
-10/+70	12.5	13.5	14.5
+70/+80	15	16	17

* Higher number of double strokes? Online lifetime calculation: www.igus.eu/chainflexlife

Typical mechanical application areas

- For flexing applications
- With influence of oil
- Indoor and outdoor applications without direct solar radiation
- Especially for unsupported travels
- Machining units/machine tools, low temperature applications

CF891
iguPUR
12.5 x d

PVC | iguPUR | PUR | TPE

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Basic requirements	low	1	2	**3**	4	5	6	7	highest	
Travel distance	unsupported	**1**	2	3	4	5	6		≥ 400 m	
Oil resistance	none	1	2	**3**	4	highest				
Torsion	none	**1**	2	3	±180°					

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12.5 x d

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
CF891.05.02	(2x0.5)C	6.0	28	50
CF891.05.03	(3G0.5)C	6.5	34	57
CF891.05.05	(5G0.5)C	7.5	50	82
CF891.05.12	(12G0.5)C	10.5	104	165
CF891.05.18	(18G0.5)C	12.0	141	228
CF891.05.25	(25G0.5)C	14.5	203	325
CF891.07.02	(2x0.75)C	6.5	34	57
CF891.07.03	(3G0.75)C	7.0	47	72
CF891.07.04	(4G0.75)C	7.5	55	84
CF891.07.05	(5G0.75)C	8.0	69	106
CF891.07.07	(7G0.75)C	10.0	90	143
CF891.07.12	(12G0.75)C	11.5	136	207
CF891.07.18	(18G0.75)C	13.5	194	295
CF891.07.25	(25G0.75)C	16.0	280	418
CF891.10.02	(2x1.0)C	7.0	44	69
CF891.10.03	(3G1.0)C	7.5	55	82
CF891.10.04	(4G1.0)C	8.0	72	103
CF891.10.05	(5G1.0)C	8.5	82	121
CF891.10.07	(7G1.0)C	10.5	114	170
CF891.10.12	(12G1.0)C	12.0	173	247
CF891.10.18	(18G1.0)C	14.5	262	373
CF891.10.25	(25G1.0)C	17.0	356	506
CF891.15.02	(2x1.5)C	8.5	61	99
CF891.15.03	(3G1.5)C	9.0	77	119
CF891.15.04	(4G1.5)C	10.0	98	153
CF891.15.05	(5G1.5)C	11.0	120	185
CF891.15.07	(7G1.5)C	13.0	163	259
CF891.15.12	(12G1.5)C	16.0	272	410
CF891.15.18	(18G1.5)C	18.5	387	588
CF891.15.25	(25G1.5)C	22.0	519	787
CF891.25.04	(4G2.5)C	11.0	146	213
CF891.25.05	(5G2.5)C	12.0	178	253
CF891.25.07	(7G2.5)C	15.0	256	371
CF891.25.12	(12G2.5)C	17.5	409	567
CF891.25.25	(25G2.5)C	25.0	792	1106

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