Basic requirements Travel distance Oil resistance Torsion



CFROBOT6 PUR ±180°/m

36























Motor cable | PUR | chainflex® CFROBOT6







- For torsion applications
- PUR outer jacket
- Oil-resistant and coolant-resistant
- Flame-retardant

- PVC and halogen-free
- Notch-resistant
- Hydrolysis and microbe-resistant

Dynamic information

Bend radius	flexible twisted	minimum 10 x d
(LR	fixed	minimum 5 x d
Temperature	flexible twisted	-25°C up to +80°C
	fixed	-55°C up to +80°C (following DIN EN 50305)

	•
twisted	180°/s

a a max.	twisted	60°/s²

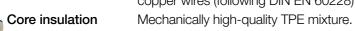
Iravel distance Robots and 3D movements, Class	Travel distance	Robots and 3D movements, Class 1
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Torsion	Torsion $\pm 180^{\circ}$, with 1m cable length, Class 3
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Cable structure

v max.

Conductor	Stranded conductor in especially bending-resistant version consisting of bare
100	copper wires (following DIN EN 60228).



Core identification	Black cores with white numbers 1-2, one green-yellow core.
(196	

Outer jacket	Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to
(9)	suit the requirements in e-chains® (following DIN EN 50363-10-2)

Colour: Steel blue (similar to RAL 5011)

Electrical information

1/u	Nominal voltage	600/1,000V (following DIN VDE 0298-3)
70		1,000V (following UL)

A	Testing voltage	4,000V (following DIN EN 50395)

High

Properties and approvals UV resistance

IGUS CHAINFLEX OF ROBOT 6

1,	
Oil resistance	Oil-resistant (following DIN EN 50363-10-2), Class 3

Flame-retardant According to IEC 60332-1-2, Cable Flame, VW-1, FT1, FT2 / Hori	Iorizontal Flame
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Silicone-free	Free from silicone which can affect paint adhesion (following PV 3.10.7 – status
	1992)

Halogen-free Following DIN EN 60754

Class 6.1.3.3

UL verified Certificate No. B129699: "igus 36-month 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.eu/CFROBOT6	

NFPA NFPA	Following NFPA 79-2018, chapter 12.9
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EAC	Certificate No. RU C-DE.ME77.B.00863/20
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REACH REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
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RoHS Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)
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	Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with
room		CF77.UL.05.12.D - tested by IPA according to standard DIN EN ISO 14644-1

CE	Following 2014/35/EU

UK UKCA	In accordance with the valid regulations of the United Kingdom (as at 08/2021)
CA	

Guaranteed service life (details see page 28-29)

Cycles*	5 million	7.5 million	10 million
Temperature, from/to [°C]	Torsion max. [°/m]	Torsion max. [°/m]	Torsion max. [°/m]
-25/-15	±150	±90	±30
-15/+70	±180	±120	±60
+70/+80	±150	±90	±30
* Higher number of double str	okoo? Conico lifo coloulation o	online Nanau igus ou/obeinfle	vlifo

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

Typical application areas

- For heaviest duty applications with torsion movements, Class 6
- Especially for robots and 3D movements, Class 1
- Almost unlimited resistance to oil, Class 3
- Torsion ±180°, with 1m cable length, Class 3
- Indoor and outdoor applications, UV-resistant
- Robots, handling, spindle drives

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFROBOT6.160.03 11)	3G16	18.0	475	578
CFROBOT6.250.03 11)	3G25	22.0	737	896

¹¹⁾ Phase-out model

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

