10 million Cycles guaranteed

For torsion applications

Oil-resistant and coolant-resistant

PUR outer jacket

**Dynamic information** 

Bend radius

v max.

Temperature

Travel distance

Torsion

Core insulation

Core identification

Element shield

Overall shield

Outer jacket

**Electrical information** 

Nominal voltage

Testing voltage

Cable structure Conductor

Shielded

fixed

fixed

twisted

twisted

flexible twisted

Measuring system cable | PUR | chainflex® CFROBOT4

Bend radius, e-chain®

flexible twisted minimum 10 x d

minimum 5 x d

60°/s<sup>2</sup>

Torsion ±180°, with 1m cable length, Class 3

Robots and 3D movements, Class 1

copper wires (following DIN EN 60228).

Mechanically high-quality TPE mixture.

► Product range table

Coverage approx. 80% optical

Variants ► Product range table

Colour: Steel blue (similar to RAL 5011)

According to measuring system specification.

Extremely torsion-resistant tinned wound copper shield.

Extremely torsion-resistant tinned wound copper shield.

suit the requirements in e-chains® (following DIN EN 50363-10-2)

-25°C up to +80°C

Flame-retardant

Notch-resistant

PVC and halogen-free

-50°C up to +80°C (following DIN EN 50305)

Stranded conductor in especially bending-resistant version consisting of tinned

Low-adhesion, halogen-free, highly abrasion resistant PUR mixture, adapted to

Hydrolysis and microbe-resistant

Torsion angle

Torsion

36

c**Fl**us

REACH

## Class 6.1.3.3

operties and approvais	
UV resistance	High

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

Silicone-free Free from silicone which can affect paint adhesion (following PV 3.10.7 – status

UL verified Certificate No. B129699: "igus 36-month chainflex cable guarantee and service life calculator based on 2 hillion test cycles per year"

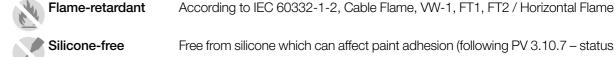
additation of the factorio of page 25 25			
Cycles*	5 million	7.5 million	10 million
Temperature, from/to [°C]	Torsion max. [°/m]	Torsion max. [°/m]	Torsion max. [°/m]
-25/-15	±150	±90	±30
-15/+70	±180	±120	±60
+70/+80	±150	±90	±30

<sup>\*</sup> Higher number of double strokes? Service life calculation online ▶ www.igus.eu/chainflexlife

- 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
- Robots, handling, spindle drives

-UV-	UV resistance	
1		





Halogen-free	Following DIN EN 60754
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	301 VICC IIIC Calculator basco	a on a billion tost cycles per year
UL/CSA AWM	See data sheet for details	www.igus.eu/CFROBOT4

NFPA NFPA	Following NFPA 79-2018, chapter 12.9
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LLIEAU	Certificate No. RU C-DE.ME77.D.00293/19
<b>HL</b> EAC	
LIIL	

REACH	In accordance with regulation (EC) No. 1907/2006 (REACH)
REACH	

Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)	
BoHS Lead-free	Following 2011/65/EC (RoHS-II/RoHS-III)	

	Cleanroom	According to ISO Class 1. The outer jacket material of this series complies with
too	m	CE77 LIL 05 10 D. tosted by IDA appording to standard DIN EN ISO 14644 1

	01 11.0L.00.12.D 103100 by 11 14 door
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)

## Typical application areas

- Indoor and outdoor applications, UV-resistant









30V (following UL)

50V

500V





# 36

























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]
CFROBOT4.001	(3x(2x0.14)C +(4x0.14)+(2x0.5))C	10.5	62	115
CFROBOT4.006	(3x(2x0.14C+(4x0.14) +(4x0.22)+(2x0.5))C	11.5	74	135
CFROBOT4.009	(4x(2x0.25)+(2x0.5))C	9.0	48	90
CFROBOT4.015	(4x(2x0.14)+4x0.5)C	9.0	49	91
CFROBOT4.028 <sup>13)</sup>	(2x(2x0.20)+(2x0.38))C	7.5	44	72

Measuring system cable | PUR | chainflex® CFROBOT4

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits. G = with green-yellow earth core <math>x = without earth core



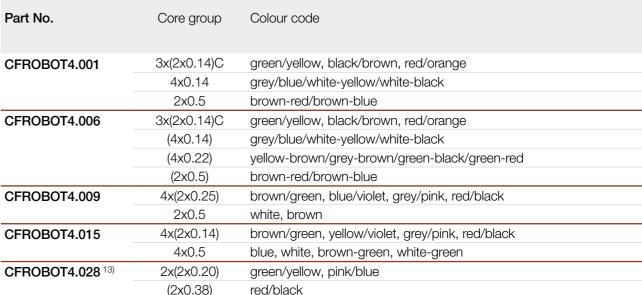
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### Cables available in the chainflex® CASE

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







Order example: CFROBOT4.009 - to your desired length (0.5m steps) CFROBOT4 chainflex® series .009 Code measuring system type



Order online ▶ www.igus.eu/CFROBOT4



Delivery time 24hrs or today. Delivery time means time until goods are shipped.



Guarantee

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





<sup>13)</sup> Colour outer jacket: Yellow-green (RAL 6018)