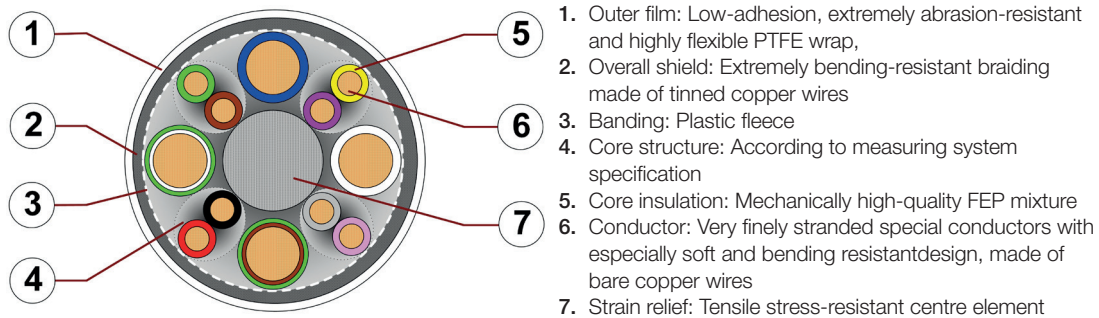


Data sheet

chainflex® CFCLEAN4



Measuring system element for heaviest duty applications in e-skin® flat ● PTFE foil wrap
● Shielded ● Highly abrasion-resistant ● PVC-free



Example image

For detailed overview please see design table

Cable structure

	Conductor	Very finely stranded special conductors with especially soft and bending resistant design, made of bare copper wires.
	Core insulation	Mechanically high-quality FEP mixture.
	Core structure	According to measuring system specification.
	Core identification	► Design table
	Overall shield	Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%
	Outer film	Low-adhesion, extremely abrasion-resistant and highly flexible PTFE wrap, adapted to suit the requirements in e-skin® flat. Colour: White Printing: Black

„00000 m“* igus chainflex CFCLEAN4.--① ----② 300/300V E310776

RU AWM Style 22417 90°C 300V CE UKCA RoHS-II conform

www.igus.eu +++ chainflex cable works +++

* **Length printing:** Not calibrated. Only intended as an orientation aid.

① / ② Cable identification according to Part No. (see technical table).

Example: ... chainflex **CFCLEAN4.015 (4x(2x0.14)+4x0.5)C 300/300V ...**



Example image

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Dynamic information

	Bend radius	e-skin® flat linear fixed	minimum 70 mm minimum 3 x d
	Temperature	e-skin® flat linear fixed	-10 °C up to +80 °C -25 °C up to +90 °C (following DIN EN 50305)
	v max.	unsupported	2 m/s
	a max.		40 m/s ²
	Travel distance	Short, very fast applications with small radii and restricted installation space in an e-skin® flat	

These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Electrical information

	Nominal voltage	300/300 V 300 V (following UL)
	Testing voltage	2000 V



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



Example image

Data sheet

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● Shielded ● Highly abrasion-resistant ● PVC-free



Properties and approvals



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 AWM

Details see table UL/CSA AWM



REACH

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



Lead-free

Following 2011/65/EC (RoHS-II/RoHS-III)



Cleanroom

Air Purity Class 1, material/stranded structure tested by IPA according to ISO 14644-14, test report IG 2107-1242



CE

Following 2014/35/EU



Properties and approvals

UL/CSA AWM Details

Part No.	UL style	UL Voltage Rating [M]	UL Temperature Rating [°C]
CFCLEAN4.015	22417	300	90

Example image

Data sheet

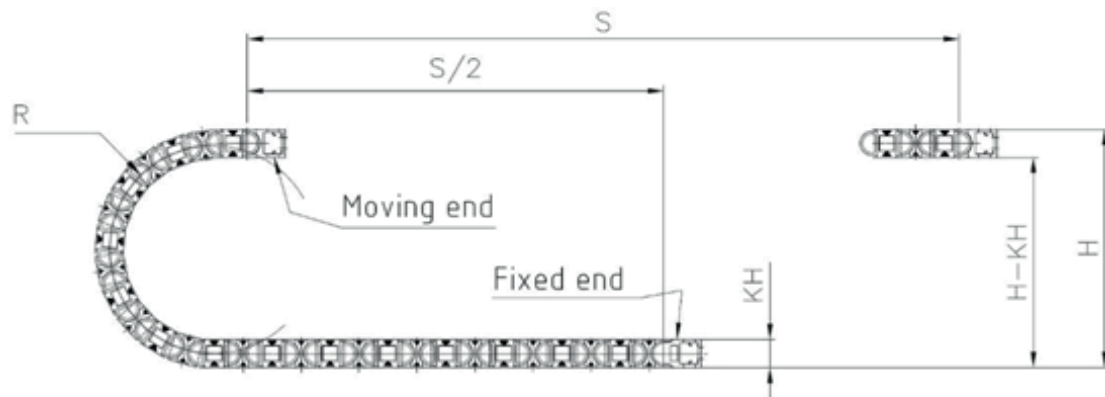
chainflex® CFCLEAN4



Measuring system element for heaviest duty applications in e-skin® flat ● PTFE foil wrap
● Shielded ● Highly abrasion-resistant ● PVC-free

Typical lab test setup for this cable series

Test bend radius R	approx. 70 mm
Test travel S	approx. 0,8 m
Test duration	minimum 10 - 20 million double strokes
Test speed	approx. 3 m/s
Test acceleration	approx. 20 m/s ²



Typical application areas

- For heaviest duty applications and especially small radii in cleanroom with e-skin® flat
- Especially for short, very fast applications with small radii and restricted installation space
- Indoor applications with e-skin® flat
- Semi-conductor/OLED manufacturing, medical cleanroom



chainflex® CFCLEAN are not cables in the sense of the normal standards for cables. Due to the absence of the outer jacket in CFCLEAN, which provides mechanical protection for cables, the use of chainflex® CFCLEAN is only permitted inside e-skin® flat.



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



Example image

Data sheet

chainflex® CFCLEAN4



Measuring system element for heaviest duty applications in e-skin® flat ● PTFE foil wrap
● Shielded ● Highly abrasion-resistant ● PVC-free

Technical tables:

Mechanical information

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
CFCLEAN4.015	(4x(2x0.14)+4x0.5)C	6.5	60	77

Note: The given outer diameters are maximum values and may tend toward lower tolerance limits.

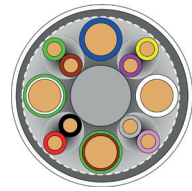
G = with green-yellow earth core x = without earth core

Electrical information

Conductor nominal cross section [mm²]	Maximum conductor resistance at 20 °C (following DIN EN 50289-1-2) [Ω/km]	Max. current rating at 30 °C [A]
0.14	134	4
0.5	39	12

The final maximum current rating depends among other things on the ambient conditions, the type of the installation and the number of loaded cores.

Design table

Part No.	Core group	Colour code	Core design
CFCLEAN4.015	4x(2x0.14)	brown/green, yellow/violet, grey/pink, red/black	
	4x0.5	blue, white, brown-green, white-green	



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



Example image