Torsion



#



















# Servo cable | TPE | chainflex® CF29.D







- For heaviest duty applications
- TPE outer jacket
- Shielded
- Oil and bio-oil-resistant
- PVC and halogen-free
- UV-resistant
- Hydrolysis and microbe-resistant

Now available with UL approval **& 25% longer** service life

#### Dynamic information

Dynamic imormation		
Bend radius	e-chain® linear	minimum 6.8 x d
Bella ladius	flexible	minimum 5 x d
	fixed	minimum 4 x d
* Temperature	e-chain® linear	-35°C up to +100°C
	flexible	-50°C up to +100°C (following DIN EN 60811-504)
	fixed	-55°C up to +100°C (following DIN EN 50305)
v w max.	unsupported	10m/s
	gliding	5m/s

a max.	80m/s <sup>2</sup>

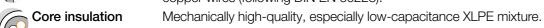
Travel distance

Element shield

Unsupported travels and up to 400m and more for gliding applications, Class 6

#### Cable structure

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



Core structure	Power cores with control pair elements wound with elements for high tensile
	stresses.

	Sti 65565.
Core identification	<b>Power cores:</b> Black cores with white numbers, one green-yellow core.  1. Core: U / I 1 / C / I + 2. Core: V / I 2 3. Core: W / I 3 / D / I -
	1 Core: U/I1/C/I+ 2 Core: V/I2 3 Core: W/I3/D/I-

1 control pair: Black cores with white numbers.

1. Control core: 4 2. Control core: 5

Extremely bending-resistant braiding made of tinned copper wires.

TPE mixture adapted to suit the requirements in e-chains<sup>®</sup>. Inner jacket

Overall shield Extremely bending-resistant braiding made of tinned copper wires. Coverage linear approx. 70%, optical approx. 90%

Low-adhesion, extremely abrasion-resistant and highly flexible TPE mixture,

adapted to suit the requirements in e-chains®. Colour: Pastel orange (similar to RAL 2003)

#### **Electrical information**

igus" chainflex" CF29.D

Outer jacket

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

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

## EPLAN download, configurators ▶ www.igus.eu/CF29D



Properties and approvals UV resistance

Class 7.6.4.1

REACH REACH

DESINA

Oil-resistant (following DIN EN 60811-404), bio-oil-resistant (following VDMA Oil resistance

24568 with Plantocut 8 S-MB tested by DEA), Class 4

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

Following DIN EN 60754 Halogen-free

Medium

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** See data sheet for details ▶ www.igus.eu/CF29D

> (from production date 01/2022) In accordance with regulation (EC) No. 1907/2006 (REACH)

RoHS 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 CF9.15.07 - tested by IPA according to standard DIN EN ISO 14644-1

According to VDW, DESINA standardisation

( **E**CE Following 2014/35/EU

**UK** 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 m	illion		nillion	12.5 ו	million
T	< 10m	≥ 10m	< 10m	≥ 10m	< 10m	≥ 10m
Temperature, from/to [°C]	R min. [factor x d]					
-35/-25	8.5	10	9.5	11	10.5	12
-25/+90	6.8	7.5	7.5	8.5	8.5	9.5
+90/+100	8.5	10	9.5	11	10.5	12

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

### Typical application areas

- For heavy-duty applications, Class 7
- Unsupported travels and up to 400m and more for gliding applications, Class 6
- Almost unlimited resistance to oil, also with bio-oils
- No torsion, Class 1
- Indoor and outdoor applications, UV-resistant, Class 4
- Storage and retrieval units for high-bay warehouses, machining units/machine tools, quick handling, cleanroom, semiconductor insertion, outdoor cranes, low-temperature applications

Part No.	Number of cores and conductor nominal cross section [mm²]	Outer diameter (d) max. [mm]	Copper index [kg/km]	Weight [kg/km]
1 control pair shielded				
CF29.15.15.02.01.D	(4G1.5+(2x1.5)C)	13.0	145	231
CF29.25.15.02.01.D	(4G2.5+(2x1.5)C)C	14.0	199	291
CF29.40.15.02.01.D	(4G4.0+(2x1.5)C)C	15.5	256	367