



Example image

36

10,000,000

Cycles guaranteed

7.5 x d

Bend radius E-Chain®

328.1 ft

Travel distance E-Chain®

● For high mechanical load requirements

● PVC outer jacket

● Shielded

● Twisted pair

● Oil-resistant

● Flame-retardant

Dynamic Information

Bend radius

E-Chain® linear

flexible

fixed

min. 7.5 x d

min. 6 x d

min. 4 x d

Temperature

E-Chain® linear

flexible

fixed

+41 °F to +158 °F (+5 °C to +70 °C)

+23 °F to +158 °F (-5 °C to +70 °C)

+5 °F to +158 °F (-15 °C to +70 °C)

v max.

unsupported

gliding

16.41 ft/s (5 m/s)

9.84 ft/s (3 m/s)

a max.

164.1 ft/s² (50 m/s²)

Travel distance

Unsupported travel distances and for gliding applications up to 328.1 ft (100 m), Class 5

Cable structure

Conductor

Conductor

Conductor insulation

Conductor construction

Color code

Intermediate layer

Overall shield

Outer jacket

Conductor consisting of bare copper wires.

Mechanically high-quality TPE mixture.

Twisted Pairs cabled together with short pitch lengths.

Color code in accordance with DIN 47100.

Polyester tape over external layer

Extremely bending-resistant tinned copper braid.  
90 % optical coverage

Low-adhesion, oil-resistant mixture on the basis of PVC, adapted to suit the requirements in E-Chains® (following DIN EN 50363-4-1).  
Color: Gray (similar to RAL 7001)

Electrical Information

Nominal voltage

Test voltage

300 V

1500 V (following DIN EN 50395)

## Class 5.5.2.1

Properties and approvals

Oil resistance

Flame resistance

Silicone-free

UL verified

UL/CSA AWM

NFPA 79

EAC

REACH

Lead-free

Cleanroom

CE

Oil-resistant (following DIN EN 50363-4-1), Class 2

According to IEC 60332-1-2, FT1, VW-1

Free from silicone which can affect paint adhesion (following PV 3.10.7 – status 1992)

Certificate No. B129699: igus 36-month chainflex cable guarantee and service life calculator based on 2 billion test cycles per year  
300 V, +80 °C  
See data sheet for details ► [www.igus.com/CF211](http://www.igus.com/CF211)

Complies to Electrical Standard for Industrial Machinery NFPA 79 Section 12.9

Certificate No. RU C-DE.ME77.B.00300/19 (TR ZU)

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

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

According to ISO Class 1. The outer jacket material of this series complies with CF240.02.24 - tested by IPA according to standard DIN EN ISO 14644-1  
Following 2014/35/EU

Guaranteed service life (details see page 26-27)

| Cycles*                   | 5 million           | 7.5 million         | 10 million          |
|---------------------------|---------------------|---------------------|---------------------|
| Temperature, from/to [°F] | R min. [factor x d] | R min. [factor x d] | R min. [factor x d] |
| +41/+59                   | 10                  | 11                  | 12                  |
| +59/+140                  | 7.5                 | 8.5                 | 9.5                 |
| +140/+158                 | 10                  | 11                  | 12                  |

\* Higher number of cycles? Online lifetime calculation ► [www.chainflex.com/chainflexlife](http://www.chainflex.com/chainflexlife)

- Typical application areas
- For high mechanical load requirements, Class 5
  - Unsupported travel distances and for gliding applications up to 328 ft (100 m), Class 5
  - Light oil influence, Class 2
  - Preferably indoor applications, can be used in outdoor applications with temperatures > 41°F
  - Storage and retrieval units for high-bay warehouses, machining units/ packaging machines, Handling, indoor cranes

Configurators ► [www.igus.com/CF211](http://www.igus.com/CF211)

36 month guarantee ... 1,354 types from stock ... no cutting charges



Guarantee

igus chainflex

36

up to 36 months guarantee

chainflex

CONTINUOUS FLEX

CABLE TEST PROCESS

VERIFICATION

UL

VERIFIED

B129699

igus® 36-month chainflex® cable guarantee and service life calculator based upon 2 billion test cycles per year.

