tested...

1,750 m² lab... more than 700 tests...
... 2 billion test cycles...

Cost down ... life up!

Championing engineering innovation
Moving energy made easy:
chainflex® Ethernet CAT5e CFBUS.044 lasts for more than 76 million cycles. Proven in test 3089, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.
Test number: 3089
Cable type: Bus cable CFBUS.044 (4x(2x0.15))C
Test parameter: bending radius 75 mm
Service life: 76 million strokes
Moving energy made easy:
chainflex® fibre optic cable CFLG.2LB lasts for more than 50 million cycles. Proven in test 4011, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.
Test number: 4011
Cable type: CFLG.2LB.50/125
  2x50/125
Test parameter: test with bending factor 4,2 x d
Service life: 50 million strokes
chainflex® lasts: tested for 97 million strokes

Moving energy made easy:
Thermocouple cable CFTHERMO.K001 lasts for more than 97 million cycles. Proven in test 4009, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.

▶ www.chainflex.eu/test4009
Test number: 4009
Cable type: CFThermo.K.001 (2x0.23)C
Test parameter: bending radius 48 mm
Service life: 97 million strokes
Moving energy made easy:
Twistable fibre optic cable CFROBOT5.501 last for more than 27 million cycles. Proven in test 3105, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.

www.chainflex.eu/test3105
Test number: 3105
Cable type: CFROBOT5.501
Test parameter: Torsion test ± 180°/m
Service life: 27.5 million cycles

Test-Report chainflex®

Test Intention:
In test 3105 we want to investigate the lifespan of the new chainflex® LWL cable for torsion applications.

Client:
Name: Rainer Rössel
Team: chainflex®
Date: 24.09.2008

Order-Info:
Customer/ No.: igus® GmbH, Spicher Str.1a, 51147 Köln
Series / No: CFROBOT5.501
Installation type: ±180°
Development test: Yes ☑

Technical data
Target & Examination

e-chain® type: TRC.100.145.0
Cable length [m]: 50,0

e-chain® radius [mm]: 145
Cycle ['m]: ±180

Acceleration a ['m/s²]: 60
Velocity v [m/s]: 0,5
Ambient temperature [°C]: approx. 25°C

Optical check: ☑
Function check: ☑
Standard measuring: ☑
AutØMeS: ☑

Experimental value (Sketch/Photo...)
Moving energy made easy:
chainflex® control cable CF5.10.25 lasts for more than 41 million cycles. Proven in test 2233, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.

▶ www.chainflex.eu/test2233
Test number: 2233
Cable type: CF5.10.25
25G1.0
Test parameter: bending radius 100 mm
Service life: 41 million strokes

<table>
<thead>
<tr>
<th>Test number:</th>
<th>2233</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable type:</td>
<td>CF5.10.25 25G1.0</td>
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<tr>
<td>Test parameter:</td>
<td>bending radius 100 mm</td>
</tr>
<tr>
<td>Service life:</td>
<td>41 million strokes</td>
</tr>
</tbody>
</table>

Test Report chainflex®

Test Intention:
In test 2233 we want to investigate the lifespan of a CF5.10.25 in an e-chain with 100mm radius on the short way.

Client:
Name: Martin Gölner
Team: chainflex®
Date: 29.11.2005

Order Info:
Customer/No.: igus® GmbH, Spicher Str.1a, 51147 Köln
Series/No.: CF5.10.25
Installation type: horizontal short way

Customer test: Yes [ ] No [ ]
Development test: Yes [ ] No [ ]

Technical data

| e-chain type: | 250.10.100.0 |
| e-chain radius [mm]: | 100 |
| Stroke [m]: | 1.5 |
| Acceleration [m/sec²]: | 7.5 |
| Velocity [m/s]: | 2.0 |
| Ambient temperature [°C]: | approx. 25°C |

Target & Examination

| Cable length [m]: | 5.0 |
| Target [strokes]: | Lifespan |
| Optical check: | ☑ |
| Function check: | ☑ |
| Standard measuring: | ☑ |
| AutOmEs: | ☑ |
Moving energy made easy:

chainflex® measuring system cable CF11.D lasts for more than 66 million cycles. Proven in test 3479, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²).

Online calculation available. One metre or more from stock without cutting charges.

▶ www.chainflex.eu/test3479
Test number: 3479
Cable type: CF11.002.D
(3x(2x0.14)C+2x(0.5)C)C
Test parameter: bending radius 75 mm
Service life: 66 million strokes
Moving energy made easy:
chainflex® servo cable CF21 lasts for more than 53 million cycles. Proven in test 3841, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.

► www.chainflex.eu/test3841
Test number: 3841
Cable type: CF21.25.15.02.02.UL (4 G 2.5+2x(2x1.5)C)C
Test parameter: bending radius 100 mm
Service life: 53 million strokes
chainflex® lasts: tested for 138 million strokes

Moving energy made easy:
chainflex® control cable CF98.05.04 lasts for more than 138 million cycles. Proven in test 3621, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.

► www.chainflex.eu/test3621
Test number: 3621
Cable type: CF98.05.04
4x0.5
Test parameter: bending radius 18 mm
Service life: 138 million strokes
chainflex® lasts: tested for 65 million strokes

Moving energy made easy: chainflex® data cable CF113 lasts for more than 65 million cycles. Proven in test 4003, part of 700 parallel test programs in the largest test laboratory for flexible cables (1750 m²). Online calculation available. One metre or more from stock without cutting charges.

▶ www.chainflex.eu/test4003
Test number: 4003
Cable type: CF113.02.05.02 (5x(2x0.25))C
Test parameter: bending radius 48 mm
Service life: 65 million strokes

Test Intention:
In test 4003 we want to investigate the lifespan of CF113.02.05.02 on the short way.

Client:
Name: M. Göllner Team: chainflex® Date: 23.08.2010

Order-Info:
Customer / No.: igus® GmbH, Spicher Str.1a, 51147 Köln
Series / No: CF113.02.05.02 Installation type: horizontal, short way
Customer test: Yes ☑ No ☐ Development test: Yes ☑ No ☐

Technical data
<table>
<thead>
<tr>
<th>Technical data</th>
<th>Target &amp; Examination</th>
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<tbody>
<tr>
<td>e-chain® type:</td>
<td>1500.125.048.0</td>
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<tr>
<td>e-chain® radius [mm]:</td>
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<td>Ambient temperature [°C]:</td>
<td>approx. 25°C</td>
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<tr>
<td>Cable length [m]:</td>
<td>4.0</td>
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<td>Target [Strokes]:</td>
<td>Lifespan</td>
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<td>AutΩMeS:</td>
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</table>
36 months guarantee for all chainflex® cables from current catalogue range