

Test Intention:

In test 5006 we want to investigate the lifespan of our CFBUS.052 in a 100mm radius.

Client:

Name: M. Göllner Team: chainflex® Date: 28.05.2013

Order-Info:

Customer / No.: igus® GmbH, Spicher Str.1a, 51147 Köln

Series / No: CFBUS	Installation type: horizontal, short way
Customer test: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Development test: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Technical data

Target & Examination

e-chain® type: E6.29.050.100.0	Target [trokes]: Lifespan
e-chain® radius [mm]: 100	Optical check: <input checked="" type="checkbox"/>
Stroke [m]: 1,5	Fluke DTX-ELT: <input type="checkbox"/>
Ambient temperature [°C]: approx. 25°C	Standard measuring: <input type="checkbox"/>
Cable length [m]: 7,0	AutΩMeS: <input type="checkbox"/>

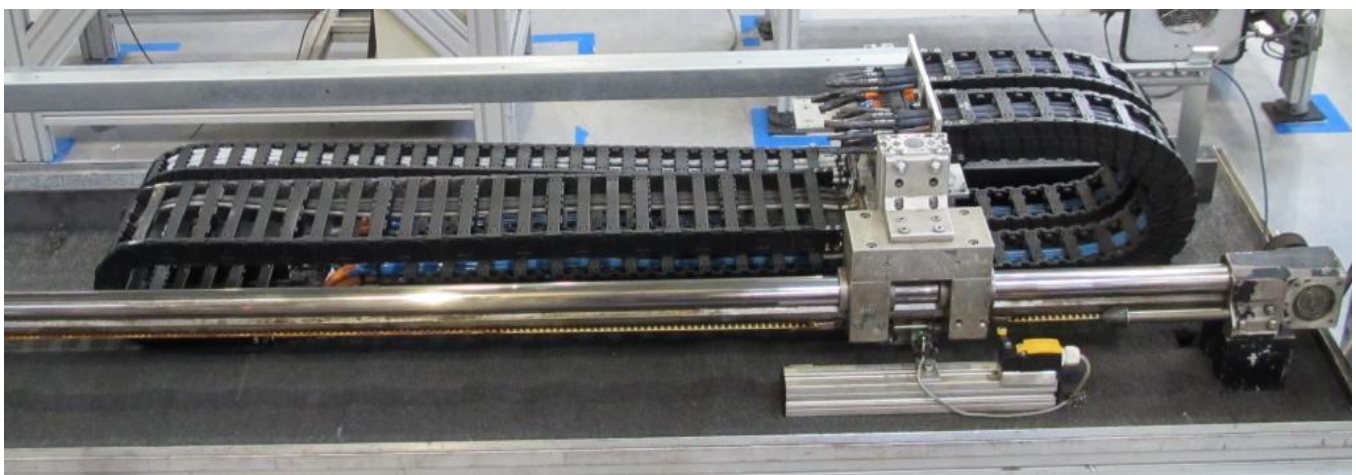
Experimental setup

Checklist for the experimental preparations

- additional inscription/label at all wires
- strain reliefs at both ends of the chain
- correct electrical connection of all wires
- radius was marked at the cables and the energy chain

1. Construction:

This test is built up on the „Zollern“. The following picture shows the test structure:



2. Cable and hose packages:

No. 1: **1x CFBUS.052** with the cable marking

01025m igus chainflex CFBUS.052 (4x(2x0,15)C)C E310776 N cFLus AWM Style 21235 VW-1
AWM I/II A/B 80°C 300V FT-1 CE N P/CF DESINA Ethernet / CAT7 conform RoHS-II conform
www.igus.de

3. Description of the cable construction:

Standard igus chainflex® catalogue cable

4. Remarks:

The following charts give an overview regarding the test parameters:

Cable no.	Cable type	e-chain radius [mm]	External diameter [mm]	Bending factor [xd]	Bending factor catalogue [xd]
1.X	CFBUS.052	100	10,2	9,8	12,5

Cable no.	Cable type	Counter reading		Effectively tested strokes	Cable okay after ... strokes
		... mounting	... demounting		
1.1	CFBUS.052	92.520.886	33.814.706	41.293.820	41.293.820

Test-order was checked by ... [Martin Göllner or Christian Mittelstedt and further employee]

Date:	28.05.2013	Name:		Name:	Jakob Gödde
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Result

Start report 10.06.2013:

At the 10.06.2013 we started the test 5006 at counter reading of 92.520.886, and we will make an optical check regularly.

Interim report 28.06.2013

At the 28.06.2013 we checked the cable 1.1 after 1.169.132 strokes. The specimen looks well and shows no abrasion.

Interim report 16.08.2013

At the 16.08.2013 we checked the cable 1.1 after 4.414.428 strokes. The specimen looks well and shows no abrasion.

Interim report 06.12.2013

At the 06.12.2013 we checked the cable 1.1 after 5.616.154 strokes. The specimen looks well and shows no noteworthy abrasion.

Interim report 04.04.2014

At the 04.04.2014 we checked the cable 1.1 after 18.340.188 strokes. The specimen looks well and shows no noteworthy abrasion.

Interim report 01.08.2014:

At the 01.08.2014 we checked the cable 1.1 after 25.763.988 strokes. The specimen looks well and shows no immoderate abrasion.

End report 16.04.2015:

At the 16.04.2015 we demounted the cable 1.1 after 41.293.820 strokes. The specimen looks well and shows no immoderate abrasion.

Evaluation

Dissection report:

The following pictures show the dissected elements of the cables

The condition of the cable no.1.1 (CFBUS.052) after 41.293.820 strokes





Strokes	41.293.820
Condition outer jacket	O.K.
Condition overall shielding	O.K.
Condition filler	O.K.
Condition centre element	O.K.
(2x0,15mm²)C	
Condition element shielding	Single broken wires
Condition element banding	O.K.
Condition filler	O.K.
Condition core insulation	O.K.
Condition conductor	O.K.

Name: **C. Szodrow**

Date: **14.01.2018**