

## Test Intention:

In test 3089 we want to investigate the lifespan of a CFBUS.045 in a 75mm radius on the short way.

## Client:

Name: Frank Schorn      Team: chainflex®      Date: 10.09.2008

## Order-Info:

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

Series / No: CFBUS      Installation type: horizontal, short way

Customer test:      Yes  No       Development test:      Yes  No

## Technical data

## Target & Examination

e-chain® type: 255.07.075.0	Cable length [m]: 10,0
e-chain® radius [mm]: 75	Target [strokes]: <b>Lifespan</b>
Stroke [m]: 1,2	Optical check: <input checked="" type="checkbox"/>
Acceleration a [m/sec <sup>2</sup> ]: 7,5	Function check: <input checked="" type="checkbox"/>
Velocity v [m/s]: 2,0	Standard measuring: <input type="checkbox"/>
Ambient temperature [°C]: approx. 25°C	AutΩMeS: <input type="checkbox"/>

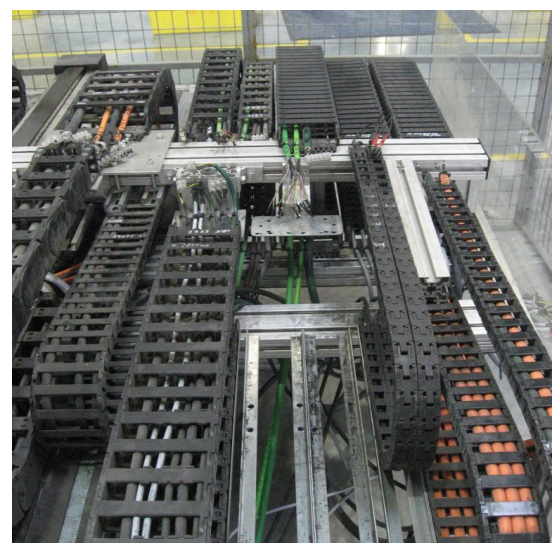
## Experimental setup (Sketch, Photo ...)

### 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:

The following pictures show the test laboratory and test machine, the „2m Bahr“.



## 2. Cable and hose packages:

No. 1: **1x CFBUS.045** with the cable marking

*01027m igus CHAINFLEX CFBUS.045 (4x(2x0,15))C E310776 CЯUs AWM Style 21235 AWM I/II A/B 80°C 300V FT1 CE RoHS conform www.igus.de*

## 3. Description of the cable construction:

Standard igus chainflex® catalogue cable.

## 4. Remarks:

The CFBUS.045 is readymade with RJ45 connectors; we will check the function regularly with the Fluke DTX-ELT.

The following charts give an overview regarding the test parameters:

Cable no.	Cable type	E-chain radius [mm]	Outer diameter [mm]	Bending factor [xd]	Bending factor catalogue [xd]
1.1	CFBUS.045	75	8,0	9,4	12,5

Cable no.	Cable type	Counter reading		Effectively tested strokes	Cable okay after ... strokes
		... mounting	... demounting		
1.1	CFBUS.045	9.130.134	86.114.356	76.984.222	76.984.222

**Test-order was checked by ... [Rainer Rössel or Martin Göllner and further employee]**

Date:	<b>10.09.2008</b>	Name:		Name:	<b>Frank Schorn</b>
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## Result

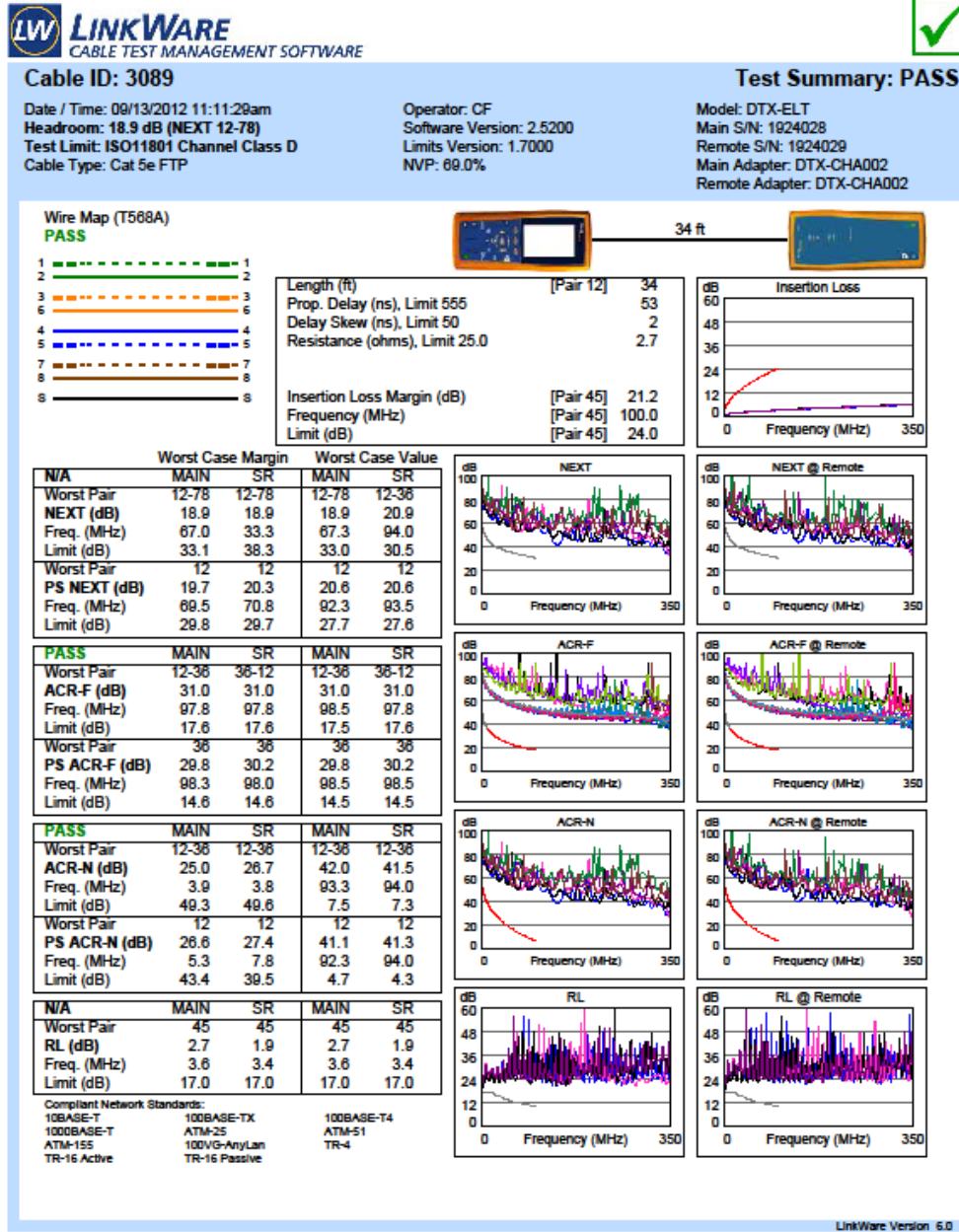
### Start report 10.09.2008:

At the 10.09.2008 we started test 3089 at counter reading 9.130.134, we will make a function check regularly.

### Interim report from 13.09.2012:

At the 13.09.2012 we demounted the CFBUS.045 after 76.984.222 strokes, to finalize the test

The following diagram shows the Fluke-protocol of cable no.1.1 CFBUS.045 after 76.984.222 strokes.



Project: CF  
Site: IGUS

**FLUKE**  
networks.

UNTITLED.flw

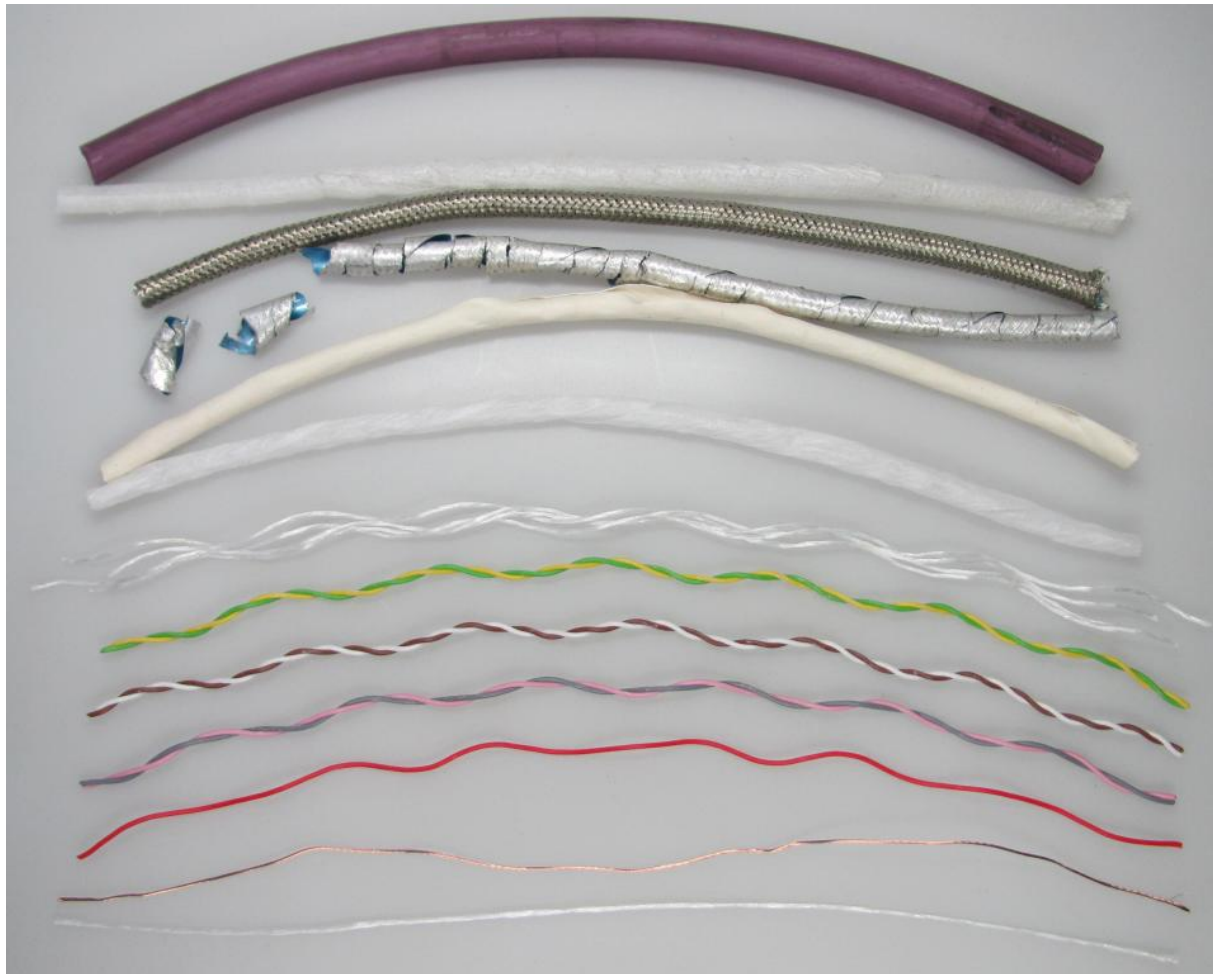
The managing data show the results of the accomplished examinations. With all data it still acts neither around one or more warranties of certain characteristics around one or more warranties regarding the suitability of a product for a certain targeted application, since the examinations on laboratory conditions took place. The warranty of certain characteristics of the products and/or their suitability for a certain application requires writing in the confirmation of order. Finally we recommend user-specific measurements under genuine operating conditions.

## Evaluation

### Dissection report:

The following pictures show the dissected elements of the cables

### The condition of the cable no. 1.1 (CFBUS.045) after 76.984.222 strokes



Strokes	76.984.222
Condition outer jacket	O.K.
Condition overall shielding	O.K.
Condition inner jacket	O.K.
Condition core insulation	O.K.
Condition conductor	O.K.
Condition centre element	O.K.

Name: **Ch. Mittelstedt**

Date: **01.10.2012**