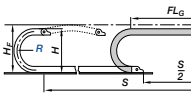


Design and calculation aids, applications, diagrams

Designing with E-Chains® ▶ from page 1.1

1

Multi-axis E-Chains® for robotic or 3D movements

Triflex® R, Triflex®, TwisterChain® ▶ from page 2.1

2

Low-priced, easy to fill E-Chains®

Easy Chain®, System E1, SnapChain ▶ from page 3.1

3

Zip-open, easy to fill E-Chains® and E-Tubes

Zipper E-Chains® and E-Tubes ▶ from page 4.1

4

Allrounder E-Chains® and E-Tubes, snap-open*, micro, mini, medium sizes

E2 micro, mini, E2/000 medium ▶ from page 5.1 *enclosed series from page 5.86

5

Dirt- and debris protection, snap-open E-Tubes

E2 E-Tubes: Serie R, R100 and RX ▶ from page 6.1

6

Universal E4 modular kit, E-Chains® and E-Tubes for all applications

System E4 - Series E4.1, E4/light, E4/00, E4/4 ▶ from page 7.1

7

Cleanroom E-Chains® and E-Tubes, low noise, low vibration

System E3, T3, E6 ▶ from page 8.1

8

Guide troughs and special solutions for long travel applications

System P4, Rol E-Chain®, AUTO-GLIDE, Guidelok, Flizz® ▶ from page 9.1

9

Strain relief... clamps, tiewrap plates, clips etc.

Chainfix strain relief ▶ from page 10.1

10

Cable protection

PMA conduits ▶ from page 11.1

11

Older products, about igus®, terminology index, igus® addresses

Classic-series, technical annex ▶ from page 12.1

12

Products

Robotic- and 3D E-Chains®, circular movements

Robotics applications **Triflex® R TRC** | closed design	Robotics applications **Triflex® R TRE** | "Easy" design	Non robotic applications **Triflex® R TRL** | light design
New accessories, new size!	**New accessories, new size!**	**New accessories!**
TRC: closed design, smooth and robust exterior ▶ **page 2.12**	TRE: "easy" Design, easily to be filled 3D E-Chain® ▶ **page 2.14**	TRL: llight weight and cost-efficient 3D E-Chain® ▶ **page 2.16**

Price attractive, easy to fill E-Chains®

Simply press cables in **Easy Chain®** | Version **E**	Simply press cables in **Easy Chain®** | Version **Z**	E-Chain® on one strip **System E1**
Also available as ESD version!	**Also available as ESD version!**	
Split crossbar along the outer radius. Some series available with multiple chamber system ▶ **from page 3.4**	Split crossbar along the inner radius. Some series available with multiple chamber system ▶ **from page 3.4**	Snap-open lids along the outer radius, very easy to fill ▶ **from page 3.64**

Smallest E-Chains®

Small E-Chains®

Smallest sizes - one-piece **E2 micro** | Non snap-open	Smallest sizes - two-piece **E2 micro** | Snap-open	Small sizes - one-piece **E2 mini** | Non snap-open
	New in this catalog!	
Non snap-open. Smallest inner heights and bending radii. ▶ **from page 5.8**	Snap-open along outer radius with film-hinge ▶ **from page 5.30 /5.38**	Non snap-open. Large pins and double stop dog system ▶ **from page 5.48**

Continuation

3D applications
Easy Triflex® | Simple filling

13-38,5
13-38,5

Easy Triflex®: "easy" Design, easily to be filled
▶ page 2.36

3D applications
Triflex® | Closed version

16-75

Triflex®: protection against dirt and chips, combined circle- and stroke-movements ▶ page 2.48

Circular movements
TwisterChain® | Snap-open

New guide trough system!

28-56

Crossbars can be opened on both sides, circular motions up to 6
▶ page 2.62

Zip fastening E-Chains®/E-Tubes

Loop - E-Chains®
SnapChain

50-120

Adjustable loops, to be opened along the outer radius. 2 sizes available ▶ from page 3.68

Fast assembly with Zipper
Zipper | E-Chains®

9-32

Zip-open along outer radius, fast assembly
▶ from page 4.4

Fast assembly with Zipper
Zipper | E-Tubes

10,3-32

Zip-open along outer radius, fast assembly
▶ from page 4.28

Allrounder E-Chains®/E-Tubes

Small sizes - two-piece
E2 mini | Snap-open

New version!

20-32

Snap-open along inner radius, double stop dog system
▶ from page 5.66

Small sizes - two-piece
E2 mini | Snap-open

17-32

Snap-open along outer radius, double stop dog system
▶ Seite 5.70

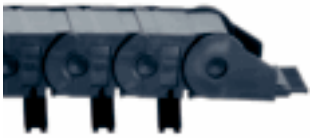
Medium sizes - **E-Chain®** - two-piece
E2/000 | Snap-open

21-45

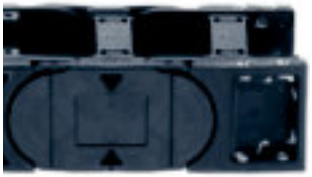
Snap-open along inner radius. High stability, quiet motion
▶ from page 5.90

Products

Allrounder E-Chains®/E-Tubes (Continuation of page 3)

Medium sizes - **E-Chain®** - two-piece **E2/000** | Snap-open	Medium sizes - **half E-tube** - two-piece **E2/000** | Snap-open	Medium sizes - **E-Tube** - two-piece **E2/000** | Snap-open
	New sizes! 	New sizes!
21-45 Snap-open along outer radius. High stability, quiet motion ▶ **from page 5.90**	21-45 Snap-open along inner radius. High stability, quiet motion ▶ **from page 5.90**	21-45 Snap-open along inner radius. High stability, quiet motion ▶ **from page 5.90**

E4.1 - Universal E4 modular kit, E-Chains®/E-Tubes for almost all applications

Standard - 4-piece, snap-open **E4.1** | Crossbars every link	Standard - 4-piece, snap-open **E4.1** | Crossbars every 2nd link	Standard - 4-piece - hinged, removable lids **E4.1** | E-Tubes, fully enclosed
New, optimized Interior separation kit for E4.1, new accessories! 		
New sizes! 21-350 Long travels, large unsupported lengths, snap-open along both radii ▶ **from page 7.14**	32-80 Long travels, large unsupported lengths, snap-open along both radii ▶ **from page 7.14**	New widths! 28-112 Long travels, large unsupported lengths, snap-open along both radii ▶ **from page 7.14**

E4/00 - For new designs we recommend E4.1!

4-piece, snap-open along both radii **E4/00** | Crossbars every link	4-piece, snap-open along both radii **E4/00** | Crossbars every 2nd link	Standard - 4-piece - hinged, removable lids **E4/00** | E-Tubes, fully enclosed
28-112 The E4.1 predecessor for smooth motion and easy assembly ▶ **from page 7.160**	32-108 The E4.1 predecessor for smooth motion and easy assembly ▶ **from page 7.160**	28-108 The E4.1 predecessor for smooth motion and easy assembly ▶ **from page 7.160**

Continuation

Protection against dirt and chips, snap-open E-Tubes

Snap-open along both radii **E2 E-Tubes** | R100	Snap-open along oter radius **E2 E-Tubes** | R	Snap-open along oter radius **RX E-Tubes** | RX40
		World premiere!
 Snap-open on both sides. Excellent chip protection ▶ **from page 6.4**	 Removable lids along outer radius. Small pitch for smooth operation ▶ **from page 6.4**	 Full chip protection without under-cuts, projecting edges and gaps ▶ **from page 6.54**

E4/light - Low weight, economic and stable

4-piece, snap-open **E4/light** | Crossbars every link	4-piece, snap-open **E4/light** | Crossbars every 2nd link	4-piece - hinged, removable lids **E4/light** | E-Tubes, fully enclosed
 Light and stable. Inner-/outer-link design - Save weight and money! ▶ **from page 7.122**	 Light and stable. Inner-/outer-link design - Save weight and money! ▶ **from page 7.122**	 Light and stable. Inner-/outer-link design - Save weight and money! ▶ **from page 7.122**

E4/4 - For new designs we recommend E4.1!

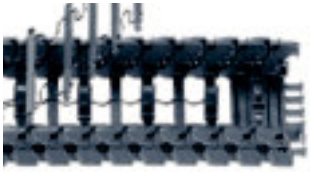
4-piece, snap-open along both radii **E4/4** | Crossbars every link	4-piece, snap-open along both radii **E4/4** | Crossbars every 2nd link	4-piece - hinged, removable lids **E4/4** | E-Tubes, fully enclosed
 The E4.1 predecessor for long travel and side-mounted applications ▶ **from page 7.222**	 The E4.1 predecessor for long travel and side-mounted applications ▶ **from page 7.222**	 The E4.1 predecessor for long travel and side-mounted applications ▶ **from page 7.222**

Products

Cleanroom E-Chains® - low noise, low vibration

Superquiet in small spaces
E3 | E-Chains®

New widths, new radii



10-22

Snap-open along outer radius. Fast assembly - crossbars "on a string" ▶ **from page 8.8**

For highly dynamic applications, low-noise
T3 | E-Chains® - Band

29

Snap-open along outer radius. Low-price for simple applications ▶ **from page 8.26**

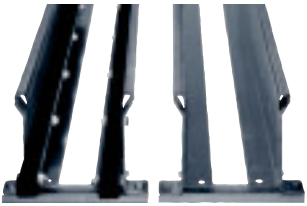
Low vibration, for cleanroom applications
E6 | E-Chains®

New radius!

29-80

No pin/bore connections, minimal abrasion, snap-open along both radii ▶ **from page 8.38**

Stable and rugged for heavy duty applications
Steel guide troughs



56-112

For special applications in rough environments. Huge product range ▶ **from page 9.42**

Lets light and dirt through
Tubular troughs | System RS

90-146

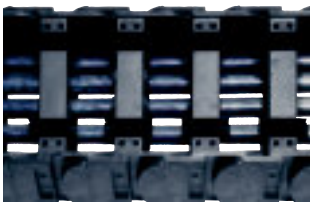
Resistant to dirt. Easy assembly and low price ▶ **from page 9.66**

Low price, easy assembly
Snap-in troughs | System SP

55,5-138,6

Very small trough. Easy assembly and low price ▶ **from page 9.68**

Long travels without guide troughs
AUTO-GLIDE



25-80

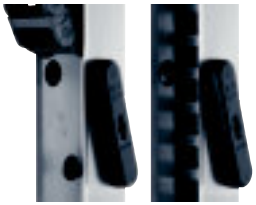
Self-guiding E-ChainSystem®. No guide troughs required ▶ **from page 9.90**

Upper run guide, unsupported travels 50m
Guidelok | horizontal

New in this catalog!

Upper run guide for long travels, unsupported in critical chip areas ▶ **from page 9.96**

Secure vertical guidance up to 80 m
Guidelok | vertical



Simple, costeffective solution for vertical applications with lateral motion ▶ **from page 9.98**

Guide Troughs - secure guide on long travels

Superquiet, low vibration, cleanroom
E6 | E-Tubes, removable lids

29-52

No pin/bore connections, minimal abrasion, snap-open along both radii ▶ **from page 8.38**

Basic version - for general machinery
Aluminium "SuperTrough"

77-236

The igus® standard guide trough. Very simple, modular assembly ▶ **from page 9.12**

Heavy-duty version - for rugged plant construction
Aluminium "SuperTrough"

87-236

Recommended for plant construction ▶ **from page 9.12**

Support of the lower run

Support tray tool kit
Support tray

New in this catalog!

Support tray tool kit for support of the lower run, price-saving ▶ **page 9.70**

Special solutions - long travels without guide troughs

Energy efficiency system for long travels
System P4 | Rol E-Chain®

New size!

32-80

Secure, virtually maintenance-free energy supply for long travels up to 800 m ▶ **from page 9.78**

Rolling instead of gliding
Rol E-Chain®

32-80

Reduction in drive power to less than 25 % for moving the E-Chain® ▶ **from page 9.86**

Enclosed plastic trough
LBT Flizz®

24

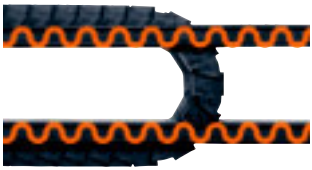
High speeds and accelerations, price-saving ▶ **from page 9.100**

Small E-Chains® in aluminum profile
Micro Flizz®

11-13

Master long travels with the smallest E-Chains® without failures ▶ **from page 9.104**

Magnetic, floating, gliding
LeviChain



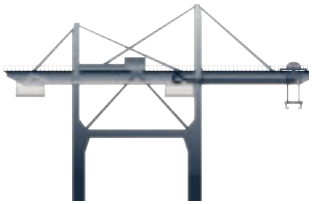
22,5

Magnetic, "floating" E-ChainSystem® ▶ **from page 9112**

Products

Project (Continuation of page 7)

Fast project planning, completely from stock
Modular system for projects



Faster quotations,
faster project planning
▶ **from page 9.116**

Chainfix strain relief

For maximum pull forces, adjustable
Clamps (Galvanized or stainless steel)

New version!

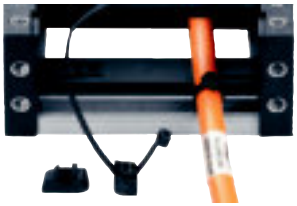
Single, double and triple clamp housing incl. top/bottom and stacker saddle clamps. Galvanized or stainless steel (Material 1.4301)
▶ **from page 10.4**

For various possibilities
Multi-Clamps

New in this catalog!

Chainfix-Adapter. Save assembly time, space and money. Compact and modular. For small outer diameters ▶ **page 10.6**

For top hat rail and C-profile
Nuggets



Completely simple and universal cable fixation for top hat rail and C-profile
▶ **page 10.10**

Separators with integrated strain relief
Strain relief separators

New size!

Separator with integrated strain relief - easy strain relief with cable tiewraps
▶ **page 10.11**

Strain relief for hoses
Blocks

igus® blocks - Special strain relief for hoses. A Modular, space-saving system
▶ **page 10.11**

igus® classics - older products are still available! - For new designs we recommend E2/000

Classic-Series
E2 medium (Both snap-open)

25-45

Both snap-open.
Double stop dog system
▶ **from page 12.4**

Classic-Series
E2 medium (Snap-open)

25-45

Snap-open along inner radius.
Double stop dog system
▶ **from page 12.6**

Classic-Series
E2 medium (Snap-open)

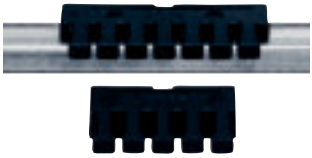
25-45

Snap-open along outer radius.
Double stop dog system
▶ **page 12.8**

For universal tiewrap, bolted or clip-on
Tiewrap plates

Chainfix tiewrap plates as single parts, suitable for assembly in the KMA mounting brackets ▶ **from page 10.8**

Clip-on connection for the C-profile
Tiewrap plates



Tiewrap plates with clip-on connection for the C-profile. Easy to assemble and disassemble without any screws ▶ **page 10.69**

High tensile forces, modular, clip-on
Clips

For E-Chains® with C-profiles, also suitable for assembly in the KMA mounting brackets and clip-on strain relief for crossbars ▶ **from page 10.10**

PMA

Cable protection
PMAFLEX conduits

Conduits
▶ **page 11.4**

Safety and sealing systems
PMAFIX connectors

Connectors
▶ **page 11.4**

PMA - Accessories

Accessories
▶ **page 11.4**

Special solutions

Increased inner height, crossbars every link
Series 38022 | E4/00

52

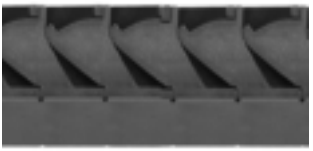
Based on Series 380 - version with increased inner height ▶ **from page 12.12**

Increased inner height, crossbars every link
Series 383822 | E4/4

52

Based on Series 3838 - version with increased inner height ▶ **from page 12.14**

Special solution
E-Band



25,5

Low-abrasion chain links are suitable for cleanroom applications ▶ **page 12.18**

News 2009 in this catalog and online

Triflex® R (TRC/TRE)
New size: 125 (Ø135 mm)

The now largest 3D igus® E-Chain®
for very large fill packages as
TRC- and TRE-version ▶ **page 2.12**

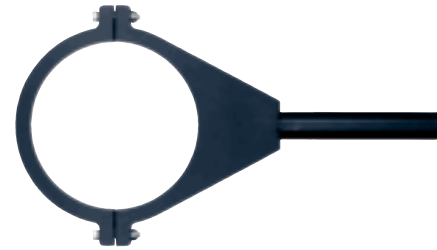
Triflex® RS
Universal modul, new size: 100

The approved universal modul robotic
movements now with Triflex® R size 100
▶ **page 2.22**

Triflex® RS - Adapter brackets
for 43 robots from stock

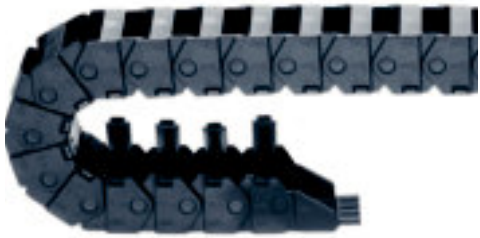
43 adapter bracket types for many different robots
and RS-modules from stock - please download 3D-data
▶ **www.igus.eu/triflexconsole** ▶ **page 2.23**

Fixation to axis 6
for all robots



Easy and fast fixation to axis 6
▶ **page 2.23**

Line extension -
Two-piece E2 mini E-Chains®, Series B17i



Series B17 snap-open along outer
radius with film-hinge ▶ **page 5.76**

Line extension -
E2/000-Tubes

New widths for the E2/000-allrounder
E-Tubes Series 3450/3480 ▶ **page 5.118**

Triflex® R Quick exchange kit

Quick exchange of hose packages within seconds, without tools
▶ page 2.21

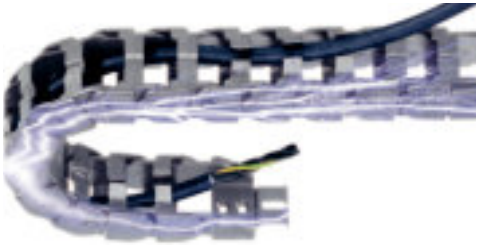
Triflex® R QuickLock protector

Easy and fast assembly, no additional screws
▶ page 2.25

TwisterChain® - Better guidance for circular motion - increase cycle life

New Guide Trough system for igus® TwisterChain® . Reduce installation time and increase cycle life
▶ page 2.70

Quick assembly with Easy Chain® Now available as ESD



Cost effective and easy to fill E-Chains® for ESD/Atex applications
▶ chapter 3

Totally new, two-piece E-Tube RX with chip repellent design

A world premiere from igus®- a totally redesigned E-Tube - repels chips, is extremely tight, and can still be opened!
▶ page 6.50

E4 E-Tubes with snap-on lids made of Polymer or Aluminum

Another world premiere against chips. Lids with special seals are clipped onto an E-Chain®. All existing elements are still useable - absolutely chip-tight! ▶ www.igus.eu/spaene

News 2009 in this catalog and online

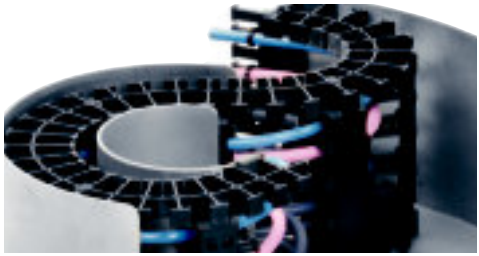
New: Interior separator kit for System E4.1

Guide cables precisely and increase cycle life. Cables last up to 4 times. Better interior separation with fewer parts ► **page 7.12**

Crossbars with notch teeth for side-mounted applications

Notch teeth on the crossbar ensure safe fit against the notch separators, for side-mounted applications. The additional, plane surface scaling makes exact positioning of the separator easy ► **page 7.12**

E-Chains® and modules for circular movement - ex stock

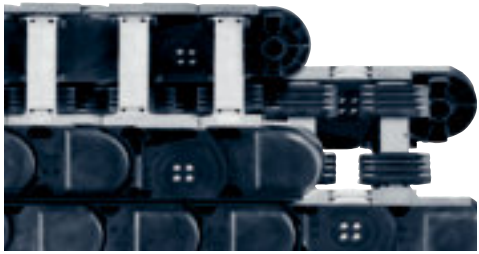


Small circular T3 modules for reverse bending radii (RBR). Available from stock as complete system.
► **www.igus.eu/circularmovement**

New widths and new radii for System E3

Small E-Chains® for highly dynamic applications. Inner heights: 10 - 22 mm. IPA Class 1 Certification (DIN ISO EN 14644, E3.15.040.075.0) ► **page 8.4**

P4 RoI E-Chain® - new sizes for energy efficient power supply



New sizes complete the tool box for energy efficient power supply on long travels. Save up to ca. 60% power with P4 ► **page 9.78**

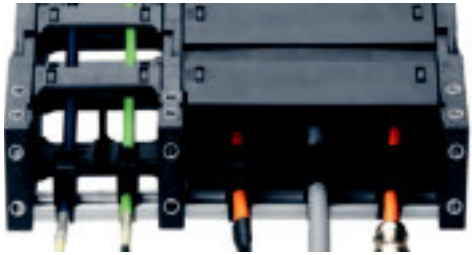
Avoid chips on long travels Guidelok horizontal

Especially for long, gliding travels on machine tools, metallic chips are a problem. igus® Guidelok is a cost-effective solution ► **page 9.96**

Line extension
New widths for enclosed E4.1 E-Tubes

New widths for enclosed E-Tubes,
ensuring protection against dirt and chips -
Series R4.42 ▶ **page 7.48** and R4.80 ▶ **page 7.76**

Line extension
Extension links for E4.80



"Infinite" E-Chain® and E-Tube width with
igus® extension links. New: Extension links
for Series E4.80 and R4.80 ▶ **page 7.84**

New widths and new radii
for System E6

New radius for series E6.35. Wear resistant spring connectors ensure cleanroom compatibility and IPA cleanroom class 1 certification (DIN ISO EN 14644, E6.29.060.150.0.CR) ▶ **page 8.50**

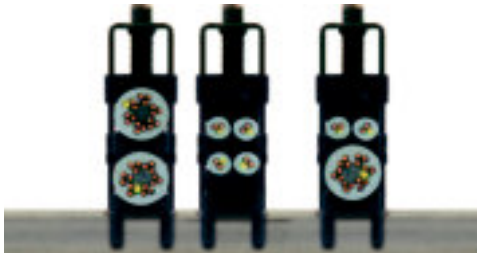
Support for the lower run
Ready made Support Trays

Simple one-piece support trays for the lower E-Chain® run. We supply the fitting E-Chain®, together with the support tray system. Ready to install onto your machine or application ▶ **page 9.70**

Strain relief - even faster
Chainfix clamp

Improved stability and identification
with correct install direction for all
igus® CFX-clamps ▶ **page 10.5**

Strain relief - more versatile
Chainfix Multi



Chainfix-Adapter for numerous applications.
Reduced assembly time and space. Compact and modular.
For small diameters, price-saving ▶ **page 10.6**

News 2009 Chainflex®-catalog and online

Cost effective PUR data cable Chainflex® CF112 PUR

Cost-effective data cable features high abrasion-resistant PUR jacket blend and a pressure-extruded PUR inner jacket. Oil resistant, flame-retardant, PVC-free, halogen-free, 10 x d ► **www.igus.eu/chainflexnews**

Cost-effective twisted pair data cable Chainflex® CF113 PUR

The cost-effective twisted pair data cable with a highly flexible overall copper shield. Oil resistant, flame-retardant, PVC-free, halogen-free, 10 x d ► **www.igus.eu/chainflexnews**

Torsion-resistant Chainflex® hybrid cable Chainflex® CFROBOT9

The highly wear-resistant, flame-retardant and halogen free PUR jacket blend protects the braiding elements, torsion angles of ± 180 ° with 1 m cable length ► **www.igus.eu/chainflexnews**

Torsion-resistant Chainflex® bus cable Chainflex® CFROBOT8

High abrasion-resistant halogen-free PUR jacket blend with stranded, dampening elements, flame-retardant ► **www.igus.eu/chainflexnews**

MTW, NFPA control cable Chainflex® CF150.MTW

Bundle twisted control cable according to NFPA- Standard. UL listed, oil-proof PVC jacket blend, flame-retardant, 10 x d ► **www.igus.eu/chainflexnews**

MTW, NFPA-cable Chainflex® CF160.MTW

Bundle twisted, shielded control cable according to NFPA- Standard. UL listed, oil-proof PVC jacket blend, flame-retardant, 10 x d ► **www.igus.eu/chainflexnews**

Harnessed TPE Koax cable Chainflex® CFKoax1

Koax cable for maximum load requirements, TPE outer jacket. Resistant to: oil, also to bio-oils, UV, Hydrolysis and microbe. 10 x d ► **www.igus.eu/chainflexnews**

Chainflex® CFKoax1.01 and 1.05 Connector-cabel combinations

Harnessed Koax cables for maximum load requirements in many connector-cabel combinations ► **www.igus.eu/chainflexnews**

Cost effective PVC servo cable Chainflex® CF210.UL PVC

The cost-effective servo cable with oil-proof PVC jacket blend, UL recognized, shielded, oil-resistant, flame-retardant, specifically for the use in unsupported E-Chains®, 10 x d ► **www.igus.eu/chainflexnews**

Cost effective PVC servo cable Chainflex® CF270.UL.D PVC

The cost-effective, UL/CSA recognized, shielded and oil-resistant and mud-resistant PUR servo cable family. Highly wear-resistant, PVC- and halogen free servo cable, 10 x d ► **www.igus.eu/chainflexnews**

Torsion-resistant Chainflex® motor cable Chainflex® CFROBOT6

Unshielded, torsion-resistant motor cable for torsion of ±180° over a length of 1 m. Highly wear-resistant, flame-retardant and halogen free PUR jacket blend and stranded, dampening elements. ► **www.igus.eu/chainflexnews**

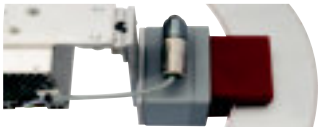
Torsion-resistant Chainflex® motor cable Chainflex® CFROBOT7

Shielded motor cable. The highly wear-resistant and halogen free PUR jacket blend protects the braiding elements, which are optimized for torsion, torsion ± 180 ° with 1 m cable length. Flame-retardant ► **www.igus.eu/chainflexnews**

Fiber optic cable Chainflex® CFLG.2LB

Universal bus cable with highly wear-resistant TPE jacket blend, gradient glass fibers, PVC-free, halogen-free, 5 x d. High cycle counts and bending radii of only 40 mm ► **www.igus.eu/chainflexnews**

invis® Power Small PickUp



Inductive, contactless power transmission, small and light. 150 W peak capacity, 120 W continuous output. Output: 560 V DC ► **www.igus.eu/chainflexnews**

Drive systems in 24-48 hours Harnessed power-, servo- and encoder cables

New for B&R, Danaher Motion, Heidenhain and ELAU, any required length available. Perfect service life even with small bending radii, PVC, PUR, TPE. High availability for short lead time ► **www.igus.eu/chainflexnews**

Shielded initiators Chainflex® CF10.INI

Shielded initiator with shield and a bending radius of 5 x d. The ideal solution for high speed applications, small bending radii, space restrictions ► **www.igus.eu/chainflexnews**

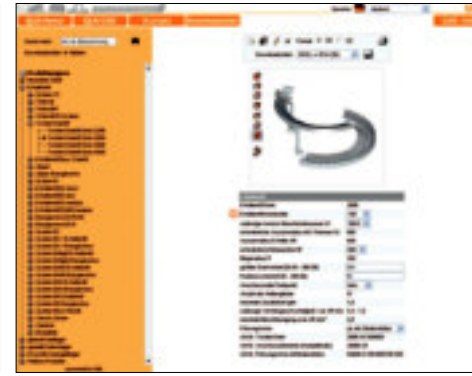
News 2009

www.igus.eu/online-tools

Spiral moves in minutes
Generate 3D-models online

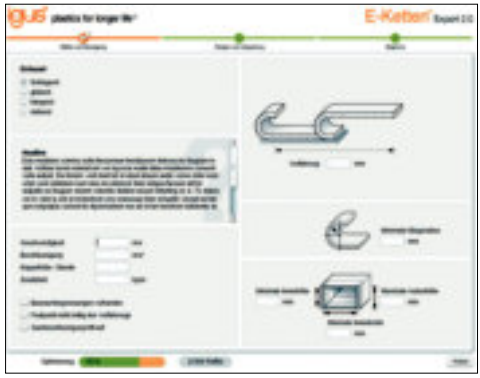
Generate fast complete 3D-models for spiral moves with "RB"
► **www.igus.eu/br-configurator**

Generate fast complete TwisterChain® 3D-models with guide troughs and accessories



Calculate the E-Chain® length with entering only the rotation angle
► **www.igus.eu/twisterconfigurator**

E-Chain® Expert 2.0
Easy layout of your E-Chain®



Calculation and layout of E-Chains® for unsupported, gliding, hanging and standing applications. Upon data entry on travel length, speed, acceleration and fill weight, the E-Chain® Expert recommends the E-Chain®, that fits your application ► **www.igus.eu/online-tools**

Harnessing in minutes
ReadyChain® Basic Configurator

Layout of complete E-Chains®, with interior separation, cables/hoses and strain relief. For registered customers/users the ReadyChain® Basic configurator is available online ► **www.igus.eu/online-tools**

QuickPin 2.0
Online Pinout-Configurator

In only 3 minutes you choose out of 750 Chainflex® cables and 3,500 connector components, configure cables online, order directly and generate ePLAN electric P8 macro ▶ **www.igus.eu/quickpin**

Cycle life calculation
for E-Chains®

With just a few clicks, you will find out the expected cycle life of an E-Chain®
▶ **www.igus.eu/Echain-lifetime**

Quick search for industry solutions -
Find a reference!

More than 470 inspiring applications examples with E-ChainSystems® and polymer bearings. Browse through already implemented customer applications and filter them ▶ **www.igus.eu/industrysolutions**

Individual customer catalog -
Reduce processing costs!

Now igus® can compose individual online catalogs from more than 80.000 products according to the customers desires. The administration takes place in the existing “myigus” customer system.
▶ **www.igus.eu/customercatalog**

Technical Details | Triflex® R | Triflex® | TwisterChain®

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

	Öpening principle	Series / Product	Inner height *hi* [mm] + ø cable max.	Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to

Triflex® R - 3D E-Chain® for robot applications

TRC - closed design

TRC.30	12/10	ø 10	12/10	ø 34,5	ø 34,5	50
TRC.40	15/13	ø 13	15/13	ø 43	ø 43	58
TRC.60	22,5/19,5	ø 20,5	22,5/19,5	ø 65	ø 65	87
TRC.70	28/24	ø 26	28/24	ø 81	ø 81	110
TRC.85	33/28	ø 31	33/28	ø 94,5	ø 94,5	135
TRC.100	37,5/32,5	ø 35,5	37,5/32,5	ø 108	ø 108	145
TRC.125 New	43,3/43,3	ø 41	43,3/43,3	ø 135	ø 135	182

TRE - "Easy" design for fast installation of conduits

TRE.30	12/10	ø 10	12/10	ø 34,5	ø 34,5	50
TRE.40	15/13	ø 13	15/13	ø 43	ø 43	58
TRE.60	22,5/19,5	ø 20,5	22,5/19,5	ø 65	ø 65	87
TRE.70	28/24	ø 26	28/24	ø 81	ø 81	110
TRE.85	33/28	ø 31	33/28	ø 94,5	ø 94,5	135
TRE.100	37,5/32,5	ø 35,5	37,5/32,5	ø 108	ø 108	145
TRE.125 New	43,3/43,3	ø 41	43,3/43,3	ø 135	ø 135	182

TRL - light version with "Easy" Design

TRL.30	12/10	ø 10	12/10	ø 34,5	ø 34,5	50
TRL.40	15/13	ø 13	15/13	ø 45	ø 45	58
TRL.60	22,5/19,5	ø 20,5	22,5/19,5	ø 65	ø 65	87
TRL.70	28/24	ø 26	28/24	ø 81	ø 81	110
TRL.100	37,5/32,5	ø 35,5	37,5/32,5	ø 108	ø 108	145

Easy Triflex® - for 3D motion - simple filling from 2 sides

"Easy" design for fast installation of conduits

E332.25	25	ø 09	25	34	34	48 - 200
E332.32	32	ø 12	32	50	50	75 - 250
E332.50	50	ø 21	50	68	68	100 - 250
E332.75	75	ø 33	75	96	96	140 - 300
E333.25	25	ø 09	25	34	34	48 - 200
E333.32	32	ø 12	32	50	50	75 - 250
E333.50	50	ø 21	50	68	68	100 - 250
E333.75	75	ø 33	75	96	96	140 - 300

Triflex® - for 3D motion - closed

Closed design

332.16	16	ø 14	16	26	26	38 - 100
332.32	32	ø 28	32	50	50	75 - 250
332.50	50	ø 45	50	68	68	100 - 250
332.75	75	ø 67	75	96	96	140 - 300
333.16	16	ø 14	16	26	26	38 - 100
333.32	32	ø 28	32	50	50	75 - 250
333.50	50	ø 45	50	68	68	100 - 250
333.75	75	ø 67	75	96	96	140 - 300

To open

352.50	50	ø 45	50	68	68	100 - 250
353.50	50	ø 45	50	68	68	100 - 250

TwisterChain® - for circular and spiral movements

To open from both sides

2208	28	ø 25	52,5 - 112,5	42	80 - 140	55 - 150
2808	32	ø 29	50 - 150	54	81 - 181	100 - 250
3808	42	ø 39	50 - 200	64	85 - 235	100 - 250
4008	56	ø 53	50 - 200	84	93 - 243	150 - 400

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length E_B max [m]	Long travel max [m]	Interior separation possiblities: Separators	Interior separation possiblities: Full-width shelves	Interior separation possiblities: Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
11,3	–	–	–	●	–	–	*	○	●	●	●●●	2.12
13,9	–	–	–	●	–	–	▲	○	●	●	●●●	2.12
20,4	–	–	–	●	–	–	▲	○	●	●	●●●	2.12
25,6	–	–	–	●	–	–	▲	○	●	●	●●●	2.12
30,6	–	–	–	●	–	–	▲	○	●	●	●●●	2.12
34,5	–	–	–	●	–	–	▲	○	●	●	●●●	2.12
44,6	–	–	–	●	–	–	▲	○	●	●	●●●	2.12
11,3	–	–	–	●	–	–	–	○	●	●	●●●	2.14
13,9	–	–	–	●	–	–	–	○	●	●	●●●	2.14
20,4	–	–	–	●	–	–	–	○	●	●	●●●	2.14
25,6	–	–	–	●	–	–	–	○	●	●	●●●	2.14
30,6	–	–	–	●	–	–	–	○	●	●	●●●	2.14
34,5	–	–	–	●	–	–	–	○	●	●	●●●	2.14
44,6	–	–	–	●	–	–	–	○	●	●	●●●	2.14
11,3	–	–	–	●	–	–	–	○	●	●	●●●	2.16
13,9	–	–	–	●	–	–	–	○	●	●	●●●	2.16
20,4	–	–	–	●	–	–	–	○	●	●	●●●	2.16
25,6	–	–	–	●	–	–	–	○	●	●	●●●	2.16
34,5	–	–	–	●	–	–	–	○	●	●	●●●	2.16
14,5	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
25	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
30	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
36	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
14,5	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
25	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
30	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
36	–	–	–	●	–	–	▲	○	●	●	●●●	2.36
13,3	–	–	–	–	–	–	▲	○	▲	○	●●●	2.48
25	–	–	–	●	–	–	▲	○	▲	○	●●●	2.48
30	–	–	–	●	–	–	▲	○	▲	○	●●●	2.48
36	–	–	–	●	–	–	▲	○	▲	○	●●●	2.48
13,3	–	–	–	–	–	–	▲	○	▲	○	●●●	2.48
25	–	–	–	●	–	–	▲	○	▲	○	●●●	2.48
30	–	–	–	●	–	–	▲	○	▲	○	●●●	2.48
36	–	–		●	–	–	▲	○	▲	○	●●●	2.48
30	–	–	–	●	–	–	▲	○	▲	○	●●●	2.48
30	–	–	–	●	–	–	▲	○	▲	○	●●●	2.48
	Fill weight max [kg/m] 180° 360°											
44	1,5 1	–	–	●	●	●	▲	○	▲	●	●●●	2.64
56	2 1	–	–	●	●	●	▲	○	▲	●	●●●	2.65
67	3 1,8	–	–	●	●	●	▲	○	▲	●	●●●	2.66
91	4 2,5	–	–	●	●	●	▲	○	▲	●	●●●	2.67

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

Easy Chain® - very easy to fill - simply press cables in

E-Version, split crossbar along the outer radius

Öpening principle	Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
	E03	5	ø 3	5 - 10	8	8,7 - 13,7	10 - 28
	E04	7	ø 4,5	7	10	13	15 - 48
	E045	9,4	ø 5,5	10 - 27	12,5	16 - 37	18 - 38
	E06	10,7	ø 6,5	10 - 20	15	16,5 - 26,5	18 - 38
	E065	11,3	ø 7	16 - 36	15	24,8 - 49,3	18 - 38
	E08	14,6	ø 10	10 - 50	19,3	18,2 - 58,2	28 - 48
	E14	19	ø 13	15 - 50	25	27 - 62	28 - 125
	E200	24,3	ø 20	57	35	74,4	55 - 200
	E200.2	24,3	ø 18	37 - 50	35	94,4 - 120,4	55 - 200
	E16	32	ø 25	23 - 100	39	37,5 - 115,3	60 - 100
	E26	36,5	ø 28	75	50	92	63 - 250
	E26.2	37,1	ø 20	48 / 48	50	117	63 - 250
	E26.3	37,1	ø 20	47 / 48 / 47	50	167	63 - 250
	E300	48,5	ø 35	75	64	95	75 - 300
	E300.2	48,5	ø 18	48 / 48	64	120	75 - 300
	E300.3	48,5	ø 18	47 / 46 / 47	64	170	75 - 300

Z-Version, split crossbar along the inner radius

	Z045	9,4	ø 5,5	14 - 16	12,5	23	18 - 38
	Z06	10,5	ø 6,5	10 - 16	15	16,5 - 22,5	18 - 38
	Z08	14,7	ø 10	10 - 50	19,3	18,2 - 58,2	28 - 48
	Z14	19	ø 13	15 - 50	25	27 - 62	28 - 125
	Z200	24,3	ø 20	57	35	74,4	55 - 200
	Z200.2	24,3	ø 18	37 - 50	35	94,4 - 120,4	55 - 200
	Z16	32	ø 25	23 - 100	39	37,5 - 115,3	40 - 100
	Z26	36,5	ø 28	75	50	92	63 - 250
	Z26.2	37,1	ø 20	48 / 48	50	117	63 - 250
	Z26.3	37,1	ø 20	47 / 48 / 47	50	167	63 - 250
	Z300	48,5	ø 35	75	64	95	75 - 300
	Z300.2	48,5	ø 18	48 / 48	64	120	75 - 300
	Z300.3	48,5	ø 18	47 / 46 / 47	64	170	75 - 300

System E1 - modular, 1-piece strip design for simple applications

zip-open along the outer radius

	E1.10	10	ø 9	13	15,5	16,5	18
	E1.17	17	ø 15	21 - 44	25	26 - 49	28
	E1.20	20	ø 18	15	27	22	28

Zipper E-Chains® and E-Tubes - lightning-fast opening and closing

E-Chains®, zip-open along the outer radius

	047	9	ø 7	10 - 16	12,5	16 - 22	18 - 38
	07	10,3	ø 8	6 - 64	15	12,5 - 71	18 - 38
	09	15	ø 13	10 - 50	19,3	18,2 - 58,2	28 - 48
	15	17	ø 15	15 - 100	24	26 - 113	38 - 180
	17	32	ø 28	15 - 100	39	26 - 113	63 - 125

E-Tubes, zip-open along the outer radius

	R07	10,3	ø 8	10 - 50	15	16,5 - 57	38 - 48
	R09	15	ø 12,5	10 - 50	19,3	18,2 - 58,2	48 - 100
	R15	17	ø 15	25 - 80	24	36 - 94	63 - 180
	R17	32	ø 28	15 - 63	39	26 - 76	63 - 125

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length FL_B max [m]	Long travel max [m]	Interior separation possibilities: Separators	Interior separation possibilities: Full-width shelves	Interior separation possibilities: Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
10	0,23	0,4	–	–	–	–	○	■	●	■	◐◐◐	3.6
16,7	0,35	0,55	–	–	–	–	▲	■	●	●	◐◐◐	3.10
13	0,25	0,4	–	●	–	–	▲	■	●	■	◐◐◐	3.14
20	0,45	0,55	–	–	–	–	▲	■	●	●	◐◐◐	3.20
15	0,45	0,6	–	●	–	–	▲	■	●	●	◐◐◐	3.24
20	0,7	1	–	–	–	–	▲	■	●	●	◐◐◐	3.28
30,5	0,5	0,65	–	–	–	–	▲	■	●	●	◐◐◐	3.32
46	2	1,75	–	–	–	–	▲	■	●	●	◐◐◐	3.36
46	2	1,75	–	●	–	–	▲	■	●	●	◐◐◐	3.36
30,5	0,7	1	–	–	–	–	▲	■	●	●	◐◐◐	3.42
56	4	2	–	–	–	–	▲	■	●	●	◐◐◐	3.46
56	4	2	–	●	–	–	▲	■	●	●	◐◐◐	3.46
56	4	2	–	●	–	–	▲	■	●	●	◐◐◐	3.46
67	8	2,25	–	–	–	–	▲	■	●	●	◐◐◐	3.52
67	8	2,25	–	●	–	–	▲	■	●	●	◐◐◐	3.52
67	8	2,25	–	●	–	●	▲	■	●	●	◐◐◐	3.52
13	0,25	0,4	–	●	–	–	▲	■	●	■	◐◐◐	3.14
20	0,45	0,55	–	–	–	–	▲	■	●	●	◐◐◐	3.20
20	0,7	1	–	–	–	–	▲	■	●	●	◐◐◐	3.28
30,5	0,5	0,65	–	–	–	–	▲	■	●	●	◐◐◐	3.32
46	2	1,75	–	–	–	–	▲	■	●	●	◐◐◐	3.36
46	2	1,75	–	●	–	–	▲	■	●	●	◐◐◐	3.36
30,5	0,7	1	–	–	–	–	▲	■	●	●	◐◐◐	3.42
56	4	2	–	–	–	–	▲	■	●	●	◐◐◐	3.46
56	4	2	–	●	–	–	▲	■	●	●	◐◐◐	3.46
56	4	2	–	●	–	–	▲	■	●	●	◐◐◐	3.46
67	8	2,25	–	–	–	–	▲	■	●	●	◐◐◐	3.52
67	8	2,25	–	●	–	–	▲	■	●	●	◐◐◐	3.52
67	8	2,25	–	●	–	●	▲	■	●	●	◐◐◐	3.52
20	*	–	–	–	–	–	○	●	▲	●	◐◐◐	3.64
25,5	*	–	–	–	–	–	○	●	▲	●	◐◐◐	3.64
25	*	–	–	–	–	–	○	●	▲	●	◐◐◐	3.64
13	0,25	0,4	–	–	–	–	○	●	▲	■	◐◑◐	4.6
20	0,4	0,55	–	–	–	–	○	●	▲	■	◐◑◐	4.10
20	0,7	1	–	–	–	–	○	●	▲	■	◐◑◐	4.14
30,5	1,5	1,2	–	●	●	–	○	●	▲	■	◐◑◐	4.18
30,5	1	1	–	●	●	–	○	●	▲	■	◐◑◐	4.24
20	0,4	0,55	–	–	–	–	○	●	▲	■	◐◑◐	4.28
20	0,7	1	–	–	–	–	○	●	▲	■	◐◑◐	4.32
30,5	1,5	1,2	–	●	●	–	○	●	▲	■	◐◑◐	4.36
30,5	1,5	1,2	–	●	●	–	○	●	▲	■	◐◑◐	4.42

Technical Details | **E2 micro** | **E2 mini** | **E2/000**

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

E2 micro - one-piece E-Chains® - small sizes

E2 micro, non snap-open

Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
03	5	ø 3,5	5 - 10	8	8,7 - 13,7	10 - 28
04	7	ø 5	7 - 30	10	12 - 35	15 - 48
045	10,3	ø 8	6 - 64	12,5	12 - 70	18 - 38
05	10	ø 8	6 - 64	12	10 - 68	18 - 38
06	10,5	ø 8	6 - 64	15	12,5 - 71	18 - 38
08	15	ø 12	10 - 50	19,3	18,2 - 58,2	25 - 48

E2 micro, snap-open along outer radius

B07 New	10,3	ø 8	16 - 40	15	22,5 - 47	18 - 38
B09 New	14,3	ø 12,5	16 - 40	19,3	24,2 - 48,2	28 - 48

E2 mini - one/two-piece E-Chains® - small and medium sizes

E2 mini, non snap-open

10	18	ø 16	15 - 100	23	26 - 113	28 - 180
11.031	23	ø 21	31	28	41,2	45 - 70
11.080	28	ø 26	80	33,4	93	38
11.1/11.2	41	ø 22	15 - 25	46	25,5 - 35,5	40 - 100

E2 mini, snap-open along inner radius

14	20	ø 16	15 - 50	25	26 - 61	28 - 125
B15i	17	ø 14	15 - 100	23	26 - 113	38 - 180
B17i New	32	ø 28	38	39	48,5	48 - 125
F7	32	ø 28	15	39	26	48

E2 mini, snap-open along outer radius

B15	17	ø 14	15 - 100	23	26 - 113	38 - 180
B17	32	ø 28	15 - 100	39	25,5 - 113	48 - 125

Standard E2/000 E-Chain® - two-piece E-Chains® - the E2 standard!

E2/000, snap-open along inner radius

1400	21	ø 18	15 - 125	28	28,5 - 138,5	35 - 180
2400	25	ø 23	25 - 125	35	41 - 141	55 - 250
2600	35	ø 32	50 - 175	50	66 - 194	63 - 250
3400	45	ø 42	50 - 250	64	70 - 270	75 - 300

E2/000, snap-open along outer radius

1500	21	ø 18	15 - 125	28	28,5 - 138,5	35 - 180
2500	25	ø 23	25 - 125	35	41 - 141	55 - 250
2700	35	ø 32	50 - 175	50	66 - 194	63 - 250
3500	45	ø 42	50 - 250	64	70 - 270	75 - 300
255	24	ø 22	38 - 103	35	54 - 119	55 - 250

E2/000, snap-open along inner radius

1450	21	ø 18	15 - 125	28	28,5 - 138,5	75 - 180
2450	25	ø 23	25 - 103	35	41 - 119	100 - 250
2650	35	ø 32	50 - 125	50	66 - 141	100 - 250
3450	45	ø 42	75 - 225	64	95 - 245	125 - 300

E2/000, snap-open along inner radius

1480	21	ø 18	15 - 125	28	28,5 -138,5	75 - 180
2480	25	ø 23	38 - 103	35	54 - 119	100 - 250
2680	35	ø 32	50 - 125	50	66 - 141	100 - 250
3480	45	ø 42	75 - 175	64	95 - 195	125 - 300

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length FL_B max [m]	Long travel max [m]	Interior separation possibilities: Separators	Full-width shelves	Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
10	0,24	0,4	–	–	–	–	○	○	▲	■	●●●	5.10
16,7	0,35	0,5	–	–	–	–	▲	○	▲	●	●●●	5.14
13	0,25	0,5	–	▲	–	–	▲	○	▲	■	●●●	5.18
20	0,375	0,55	–	–	–	–	▲	○	▲	●	●●●	5.22
20	0,48	0,6	–	▲	–	–	▲	○	▲	●	●●●	5.26
20	0,75	1	–	–	–	–	▲	○	▲	●	●●●	5.34
20	0,4	0,55	–	–	–	–	○	●	▲	■	●●●	5.30
20	0,7	1	–	–	–	–	○	●	▲	■	●●●	5.38
30,5	1,5	1,2	–	●	–	–	▲	●	▲	●	●●●	5.48
30,5	1,5	1,35	–	–	–	–	▲	○	▲	●	●●●	5.54
30,5	1,5	1,5	–	–	–	–	▲	○	▲	●	●●●	5.58
30,5	1,5	1,35	–	–	–	–	▲	○	▲	●	●●●	5.62
30,5	0,5	0,65	–	–	–	–	▲	■	▲	●	●●●	5.66
30,5	1,5	1,2	–	●	●	–	▲	●	▲	●	●●●	5.70
30,5	1	1	–	●	●	–	▲	○	▲	●	●●●	5.76
30,5	1,5	1,2	–	●	●	–	▲	○	▲	●	●●●	5.82
30,5	1,5	1,2	–	●	●	–	▲	●	▲	●	●●●	5.70
30,5	1	1	–	●	●	–	▲	○	▲	●	●●●	5.76
33,3	2	1,75	75*	●	●	–	▲	○	–	●	●●●	5.92
46	5	2,25	100*	●	●	●	▲	●	–	●	●●●	5.102
56	8	2,75	120*	●	●	●	▲	○	–	●	●●●	5.114
67	13	3	150*	●	●	●	▲	○	–	●	●●●	5.126
33,3	2	1,75	75	●	●	–	▲	○	–	●	●●●	5.92
46	5	2,25	100	●	●	●	▲	●	–	●	●●●	5.102
56	8	2,75	120	●	●	●	▲	○	–	●	●●●	5.114
67	13	3	150	●	●	●	▲	○	–	●	●●●	5.126
27,8	2	1,8	100	●	●	●	▲	●	–	■	●●●	5.138
33,3	2	1,75	75*	●	●	–	▲	○	–	●	●●●	5.92
46	5	2,25	100*	●	●	▲	▲	○	–	●	●●●	5.102
56	8	2,75	120*	●	●	●	▲	○	–	●	●●●	5.114
67	13	3	150*	●	●	●	▲	○	–	●	●●●	5.126
33,3	2	1,75	75*	●	●	–	▲	○	–	○	●●●	5.92
46	5	2,25	100*	●	●	▲	▲	○	–	○	●●●	5.102
56	8	2,75	120*	●	●	●	▲	○	–	○	●●●	5.114
67	13	3	150*	●	●	●	▲	○	–	○	●●●	5.126

*Conditionally suitable in inner radii

Technical Details E-Tubes | **R100** | **R** | **RX**

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

Series / Product	Inner height *hi* [mm] + ø cable max.	Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
E2 R100 - two-piece E-Tube - hinged lids					
E2 R100, snap-open along inner radius					
R117	21 ø 17	20 - 100	28	32 - 112	63 - 180
R157	40 ø 37	40 - 200	50	56 - 216	100 - 250
R167	50 ø 46	50 - 250	64	68 - 268	100 - 300
E2 R100, snap-open along outer radius					
R118	21 ø 17	25 - 80	28	37 - 92	63 - 180
R158	40 ø 37	40 - 200	50	56 - 216	100 - 250
R168	50 ø 46	50 - 200	64	68 - 218	100 - 300
E2 R - two-piece E-Tubes - small pitch					
E2 R, snap-open along outer radius					
R48	25 ø 22	25 - 130	36	36 - 141	60 - 250
R58	35 ø 32	50 - 200	50	66 - 216	75 - 250
R68	45 ø 42	50 - 250	64	68 - 268	100 - 300
RX full chip protection without undercuts, projecting edges and gaps					
E2 RX snap-open along outer radius					
RX80 New	52 ø 48	100	70	123	100

Further E-Tube versions at a glance

Series	Product	Inner height *hi* [mm]	Inner width *Bi* [mm]	unsupported length max. [m]	Page
System "Zipper" - 1-piece, small tubes, quick opening due to zipper-principle					
R07	Zipper	10,3	10 - 50	0,55	4.28
R09	Zipper	15	10 - 50	1	4.32
R15	Zipper	17	25 - 80	1,2	4.36
R17	Zipper	32	15 - 63	1,2	4.42
System E2/000 - 2-piece E-Tubes for medium loads, to open from the left or right side					
1480	E2/000	21	15 - 125	1,75	5.92
2480	E2/000	25	25 - 125	2,25	5.102
2680	E2/000	35	50 - 125	2,75	5.114
3480	E2/000	45	75 - 175	3	5.126
E4.1 - Standard, for almost all applications, long travles and high unsupported lenghts					
R4.28	E4.1	28	50 - 300	2,5	7.24
R4.32	E4.1	32	50 - 300	3,3	7.34
R4.42	E4.1	42	50 - 300	4	7.48
R4.56	E4.1	56	75 - 462	5	7.62
R4.80	E4.1	80	200 - 400	6,2	7.76
R1608	E4.1	112	200 - 400	4,5	7.96

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length FL_B max [m]	Long travel max [m]	Interior separation possiblities: Separators	Interior separation possiblities: Full-width shelves	Interior separation possiblities: Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
30,5	1,5	1,2	–	●	–	–	▲	○	–	○	●●●	6.6
46	8	2,25	–	●	●	●	▲	○	–	○	●●●	6.12
58,8	10	2,5	–	●	●	●	▲	○	–	○	●●●	6.20
30,5	1,5	1,2	–	●	–	–	▲	○	–	○	●●●	6.6
46	8	2,25	–	●	●	●	▲	○	–	○	●●●	6.12
58,8	10	2,5	–	●	●	●	▲	○	–	○	●●●	6.20
30,3	1	1,5	50	●	▲	–	▲	○	–	●	●◐●	6.26
33,3	8	2,3	75	●	●	●	▲	○	–	●	●◐●	6.34
36	10	2,5	100	●	●	●	▲	○	–	●	●◐●	6.42
40	5	1,5	–	●	●	–	▲	○	–	●	●◐●	6.56

Further E-Tube versions at a glance

Series	Product	Inner height *hi* [mm]	Inner width *Bi* [mm]	Unsupported length max. [m]	Page
E4/light - economical and light weight, 4-piece E-Tube for short unsupported travels					
R18840	E4/light	56	75 - 462	4	7.124
R19850	E4/light	80	75 - 462	4,6	7.144
E4/00 - easy to assemble, 4-piece E-Tube with increased inner heights					
R760	E4/00	28	50 - 300	2	7.162
R770	E4/00	32	50 - 300	3	7.170
R780	E4/00	42	50 - 300	3,8	7.180
R880	E4/00	56	75 - 462	4,5	7.190
R608	E4/00	108	200 - 400	7	7.200
E4/4 - robust, 4-piece E-Tube for rough environments and special installations					
R7728	E4/4	32	50 - 300	3	7.224
R7838	E4/4	42	50 - 300	3,8	7.236
R8840	E4/4	56	75 - 462	4,5	7.248
R9850	E4/4	80	75 - 462	6	7.268
System E6 - almost no abrasion, low noise and vibration-free running for medium loads					
R6.29	E6	28	30 - 120	1,75	8.46
R6.40	E6	40	62	2,75	8.62
R6.52	E6	52	50 - 175	3	8.72

Technical Details | **System E4.1** | **E4/light**

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

E4.1 - Open E-Chain® family for all applications

E4.1 - crossbars every link robust version

Series E421 is structurally identical to Series 210 and will replace them

Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
E4.21**	21	ø 18	30 - 120	28	44 - 134	38 - 200
E4.28	28	ø 25	40 - 300	42	60 - 320	55 - 250
E4.32	32	ø 28	50 - 400	54	73 - 423	63 - 300
E4.42	42	ø 38	50 - 400	64	76 - 426	75 - 350
E4.56	56	ø 50	50 - 600	84	84 - 634	135 - 500
E4.80	80	ø 74	50 - 600	108	100 - 650	150 - 1000
1640	112	ø 100	50 - 600	140	84 - 634	200 - 600
800	200	ø 184	200 - 600	236	260 - 660	325 - 1000
840	204	ø 184	100 - 563	236	160 - 623	325 - 1000
E4.350 New	350	ø 315	200 - 1000	450	340 - 1140	500 - 1000

E4.1 - crossbars every 2nd link standard version

E4.32	32	ø 28	50 - 400	54	73 - 423	63 - 300
E4.42	42	ø 38	50 - 400	64	76 - 426	75 - 350
E4.56	56	ø 50	50 - 600	84	84 - 634	135 - 500
E4.80	80	ø 74	50 - 600	108	100 - 650	150 - 1000

R4.1 - E-Tube - fully enclosed - protection against chips, dust and dirt

R4.28	28	ø 25	50 - 300	42	70 - 320	75 - 250
R4.32	32	ø 28	50 - 300	54	73 - 323	125 - 300
R4.42	42	ø 38	50 - 300	64	76 - 326	125 - 350
R4.56	56	ø 50	75 - 462	84	109 - 497	150 - 500
R4.80	80	ø 74	200 - 400	108	250 - 450	200 - 1000
R1608	112	ø 100	200 - 400	140	234 - 434	250 - 600

E4/light - specialty:light weight - low price

E4/light - crossbars every link, snap-open from both sides

14040	56	ø 50	50 - 600	84	76 - 626	135 - 500
14240	62	ø 56	50 - 400	84	76 - 426	135 - 500
15050	80	ø 74	50 - 600	108	80 - 630	150 - 500

E4/light - crossbars every 2nd link, snap-open from both sides

14140	56	ø 50	50 - 600	84	76 - 626	135 - 500
14340	62	ø 56	50 - 400	84	76 - 426	135 - 500
15150	80	ø 74	50 - 600	108	80 - 630	150 - 500

E4/light - E-Tube, fully enclosed, snap-open from both sides

R18840	56	ø 50	75 - 462	84	101 - 489	150 - 500
R19850	80	ø 74	75 - 462	108	105 - 493	200 - 500

Can be opened from both sides - the E4 standard!

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length FL_B max [m]	Long travel max [m]	Interior separation possibilities: Separators	Interior separation possibilities: Full-width shelves	Interior separation possibilities: Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
30,5	4	2,5	120	●	●	–	▲■	*	–	▲■	●●●	7.16
46	10	2,5	200	●	●	●	▲■	*	–	▲■	●●●	7.24
56	15	3,3	200	●	–	●	▲■	*	–	▲■	●●●	7.34
67	37	4	300	●	–	●	▲■	*	–	▲■	●●●	7.48
91	62,5	5	400	●	–	●	▲■	*	–	▲■	●●●	7.62
111	80	6,2	400	●	–	●	▲■	*	–	▲■	●●●	7.76
143	50	4,5	400	●	–	●	▲■	○	–	●	●●●	7.90
250	90	8	450	●	–	●	▲	○	–	■	●●●	7.100
250	90	8	450	●	–	–	▲	○	–	■	●●●	7.106
470	600	6,2	–	●	–	●	*	–	–	–	●●●	7.112
56	15	3,3	200	●	–	●	▲■	*	–	▲■	●●◐	7.34
67	37	4	300	●	–	●	▲■	*	–	▲■	●●◐	7.48
91	62,5	5	400	●	–	●	▲■	*	–	▲■	●●◐	7.62
111	80	6,2	400	●	–	●	▲■	*	–	▲■	●●◐	7.76
46	10	2,5	200	●	●	●	▲■	*	–	▲■	●●◐	7.24
56	15	3,3	200	●	–	●	▲■	*	–	▲■	●●◐	7.34
67	37	4	300	●	–	●	▲■	*	–	▲■	●●◐	7.48
91	62,5	5	400	●	–	●	▲■	*	–	▲■	●●◐	7.62
111	80	6,2	400	●	–	●	▲■	○	–	▲■	●●◐	7.76
143	50	4,5	400	●	–	●	▲■	○	–	●	●●◐	7.90
91	40	4	150	●	–	●	▲■	○	–	●	●◐●	7.124
91	40	4	150	●	–	●	▲■	○	–	●	●○○	7.134
91	55	4,6	250	●	–	●	▲■	○	–	●	●◐●	7.144
91	40	4	150	●	–	●	▲■	○	–	●	●○○	7.124
91	40	4	150	●	–	●	▲■	○	–	●	◐○○	7.134
91	55	4,6	250	●	–	●	▲■	○	–	●	●○○	7.144
91	40	4	150	●	–	●	▲■	○	–	●	●●○	7.124
91	55	4,6	250	●	–	●	▲■	○	–	●	●●○	7.144

Technical Details | **E4/00** | **E4/4**

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

Öpening principle

Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to

E4/00 - For new designs we recommend E4.1!

E4/00 - crossbars every link - snap-open from both sides

*Series E4.21 is structurally identical to Series 210 and will replace them

210*	21	ø 18	30 - 120	28	44 - 134	38 - 200
220	28	ø 25	40 - 300	42	60 - 320	55 - 250
280	32	ø 28	50 - 400	54	73 - 423	63 - 300
380	42	ø 38	50 - 400	64	76 - 426	75 - 350
400	56	ø 50	50 - 600	84	84 - 634	135 - 500
600	108	ø 97	200 - 600	140	252 - 652	200 - 1000
640	112	ø 100	87 - 562	140	139 - 614	200 - 1000

E4/00 - crossbars every 2nd link, snap-open from both sides

290	32	ø 28	50 - 400	54	73 - 423	63 - 300
390	42	ø 38	50 - 400	64	76 - 426	75 - 350
410	56	ø 50	50 - 600	84	84 - 634	135 - 500
601	108	ø 97	200 - 600	140	252 - 652	200 - 1000

E4/00 - E-Tube, fully enclosed, snap-open from both sides

R760	28	ø 25	50 - 300	42	75 - 320	63 - 250
R770	32	ø 28	50 - 300	54	73 - 323	125 - 300
R780	42	ø 38	50 - 300	64	76 - 326	125 - 350
R880	56	ø 50	75 - 462	84	109 - 497	150 - 500
R608	108	ø 97	200 - 400	140	252 - 452	250 - 1000

E4/4 - For new designs we recommend E4.1!

E4/4 - crossbars every link - snap-open from both sides

2828	28	ø 28	50 - 400	54	74 - 424	63 - 300
3838	42	ø 38	50 - 400	64	77 - 427	75 - 350
4040	56	ø 50	50 - 600	84	86 - 636	135 - 500
5050	80	ø 74	50 - 600	108	100 - 650	150 - 1000

E4/4 HD - "Heavy Duty"- crossbars every link - very sturdy

4040HD	56	ø 50	50 - 600	84	104 - 654	135 - 300
5050HD	80	ø 74	50 - 600	108	110 - 660	200 - 500

E4/4 - crossbars every 2nd link, snap-open from both sides

2928	32	ø 28	50 - 400	54	74 - 424	63 - 300
3938	42	ø 38	50 - 400	64	77 - 427	75 - 350
4140	56	ø 50	50 - 600	84	86 - 636	135 - 500
5150	80	ø 74	50 - 600	108	100 - 650	150 - 1000

E4/4 - E-Tube, fully enclosed, snap-open from both sides

R7728	32	ø 28	50 - 300	54	74 - 324	125 - 300
R7838	42	ø 38	50 - 300	64	77 - 327	125 - 350
R8840	56	ø 50	75 - 462	84	111 - 499	150 - 500
R9850	80	ø 74	75 - 462	108	125 - 513	200 - 1000

E4/4 HD - "Heavy Duty" E-Tube - fully enclosed - very sturdy

R8840HD	56	ø 50	75 - 462	84	129 - 516	150 - 300
R9850HD	80	ø 74	75 - 462	108	135 - 522	200 - 500

For new designs we recommend E4.1!

Continuation

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length FL_B max [m]	Long travel max [m]	Interior separation possiblities: Separators	Interior separation possiblities: Full-width shelves	Interior separation possiblities: Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
30,5	4	2,5	120	●	●	–	▲	●	–	■	●●●	7.16
46	8	2	200	●	●	●	▲	●	–	■	●●●	7.162
56	10	3	200	●	–	●	▲	●	–	■	●●●	7.170
67	30	3,8	300	●	–	●	▲	○	–	■	●●●	7.180
91	48	4,5	400	●	–	●	▲	○	–	■	●●●	7.190
143	65	7	450	●	–	●	▲	○	–	■	●●●	7.200
143	65	7	450	●	–	●	▲	○	–	■	●◐●	7.208
56	10	3	200	●	–	●	▲	●	–	■	●◐●	7.170
67	30	3,8	300	●	–	●	▲	○	–	■	●◐●	7.180
91	48	4,5	400	●	–	●	▲	○	–	■	●◐●	7.190
143	65	7	450	●	–	●	▲	○	–	■	●◐●	7.200
46	8	2	200	●	●	●	▲	○	–	■	●●◐	7.162
56	10	3	200	●	–	●	▲	○	–	■	●●◐	7.170
67	30	3,8	300	●	–	●	▲	○	–	■	●●◐	7.180
91	48	4,5	400	●	–	●	▲	○	–	■	●●◐	7.190
143	65	7	450	●	–	●	▲	○	–	■	●●◐	7.200
56	10	3	200	●	–	●	▲■	○	–	●	●●●	7.224
67	30	3,8	280	●	–	●	▲■	○	–	●	●●●	7.236
91	48	4,5	300	●	–	●	▲■	○	–	●	●●●	7.248
91	60	6	400	●	–	●	▲■	○	–	●	●●●	7.268
91	48	4,5	> 350	●	–	●	▲■	○	–	●	●●●	7.260
91	60	6	> 500	●	–	●	▲■	○	–	●	●●●	7.280
56	10	3	200	●	–	●	▲■	○	–	●	●◐●	7.224
67	30	3,8	280	●	–	●	▲■	○	–	●	●◐●	7.236
91	48	4,5	300	●	–	●	▲■	○	–	●	●◐●	7.248
91	60	6	400	●	–	●	▲■	○	–	●	●◐●	7.268
56	10	3	200	●	–	●	▲■	○	–	●	●●◐	7.224
67	30	3,8	280	●	–	●	▲■	○	–	●	●●◐	7.236
91	48	4,5	300	●	–	●	▲■	○	–	●	●●◐	7.248
91	60	6	400	●	–	●	▲■	○	–	●	●●◐	7.268
91	48	4,5	> 350	●	–	●	▲■	○	–	●	●●◐	7.260
91	60	6	> 500	●	–	●	▲■	○	–	●	●●◐	7.280

Technical Details | **System E3 | T3 | E6**

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

E3 - 3-piece E-Chain®, small, high dynamics - smooth and low noise

E3 E-Chain®, zip open lids

Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
E3.10	**10**	ø 8	20 - 60	15	32 - 72	15 - 48
E3.15	**15**	ø 13	20 - 60	20	32 - 72	32 - 75
E3.22	**22**	ø 20	20 - 60	27	32 - 72	44 - 75

T3 - 3-piece E-Chain® - very light weight and quiet

T3 E-Chain®, to open from both sides

Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
T3.29	**29**	ø 25	30 - 120	35	55 - 145	38

E6 - 6-piece E-Chain® - for extremely low-noise operations

E6 E-Chain®, crossbars every other link

Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
E6.29	**29**	ø 25	30 - 120	35	46 - 136	55 - 150
E6.35	**35**	ø 31	30 - 120	42	50 - 140	55 - 100
E6.40	**40**	ø 36	40 - 300	54	60 - 320	63 - 200
E6.52	**52**	ø 46	40 - 300	65	64 - 324	75 - 250
E6.62	**62**	ø 54	50 - 400	84	86 - 436	115 - 350
E6.80L	**80**	ø 72	112 - 550	108	140 - 578	175
E6.80	**80**	ø 72	50 - 600	108	100 - 650	150 - 450

E6 E-Tube - fully enclosed

Series / Product	Inner height *hi* [mm] + ø cable max.		Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
R6.29	**28**	ø 25	30 - 120	35	46 - 136	55 - 150
R6.40	**40**	ø 36	62	54	82	63 - 200
R6.52	**52**	ø 46	50 - 175	65	74 - 199	75 - 250

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length FL_B max [m]	Long travel max [m]	Interior separation possiblities: Separators	Interior separation possiblities: Full-width shelves	Interior separation possiblities: Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
16,7	0,3	0,75	–	●	–	–	▲	■■	▲	■■	●●◐	8.10
16,7	0,7	0,9	–	●	▲	–	▲	■■	▲	■■	●●◐	8.14
16,7	0,85	1,2	–	●	▲	–	▲	■■	▲	■■	●●◐	8.18
15	1	1,45	–	●	●	●	▲	■■	▲	■■	●●○	8.28
22	3	1,75	–	●	●	●	▲	■■	▲	■■	●●●	8.40
25	6	1,9	–	●	●	●	▲	■■	▲	■■	●●●	8.50
27,8	10	2,75	60*	●	●	●	▲	■■	▲	■■	●●●	8.56
30	15	3	80*	●	●	●	▲	■■	▲	■■	●●●	8.66
50	43	4	100*	●	●	●	▲	■■	▲	■■	●●●	8.76
65	25	2,5	–	●	–	●	▲	■■	▲	■■	●●●	8.82
65	55	5,25	120*	●	–	●	▲	■■	▲	■■	●●●	8.88
22	3	1,75	–	●	–	–	▲	■■	▲	■■	●●●	8.46
27,8	10	2,75	60*	●	–	–	▲	■■	▲	■■	●●●	8.62
30	15	3	80*	●	–	–	▲	■■	▲	■■	●●●	8.72
			* upon request									

Technical Details | **Classic Series**

Legend
- ● Standard
- ○ Suitable to a limited extent
- ▲ Options
- ■ Especially suitable
- * In preparation / on request

E2 medium Classic - For new designs we recommend E2/000

E2 medium, closed design

Opening principle	Series / Product	Inner height *hi* [mm] + ø cable max.	Inner width *Bi* [mm] from - to	Outer height *ha* [mm]	Outer width *Ba* [mm] from - to	Bending radius *R* [mm] from - to
	200 Classic	**25** ø 23	25 - 125	35	41 - 141	55 - 250
	26 Classic	**35** ø 32	50 - 200	50	66 - 219	63 - 250

E2 medium, snap-open along inner radius

	240 Classic	**25** ø 23	25 - 125	35	41 - 141	55 - 250
	27i Classic	**35** ø 32	50 - 200	50	66 - 219	63 - 250
	340 Classic	**45** ø 42	50 - 250	64	70 - 270	75 - 300

E2 medium, snap-open along outer radius

	250 Classic	**25** ø 23	25 - 125	35	41 - 141	55 - 250
	27 Classic	**35** ø 32	50 - 200	50	66 - 219	63 - 250
	350 Classic	**45** ø 42	50 - 250	64	70 - 270	75 - 300

Line extensions and special solutions

Version with increased inner height - based on Series 380 and 3838

38022 E4/00 **383822 E4/4**

	38022 E4/00	**52** ø 48	50 - 400	64	76 - 426	75 - 350
	383822 E4/4	**52** ø 48	50 - 400	64	77 - 427	75 - 350

E-Band - split crossbar along the outer radius

	E-Band	**25,5** ø 22	25	36	36	45 - 200

Selection table - Classics online-program

Series	Product	Inner height *hi* [mm]	Inner width *Bi* [mm]	Outer width *Ba* [mm]	Outer height *ha* [mm]	Radius *R* [mm]	Unsupported length max. [m]	Internet Link "Classic-Serien"
15 classic	**Zipper**	17	15 - 50	26 - 61	24	38 - 180	1,2	**www.igus.de/en/15s**
10 classic	**E2 mini**	18	15 - 50	26 - 61	23	28 - 180	1,2	**www.igus.de/en/10s**
B15 classic	**E2 mini**	17	15 - 50	26 - 61	24	38 - 180	1,2	**www.igus.de/en/B15s**
20/25	**E2 medium**	25	11 - 103	27 - 118	34	55 - 250	2	**www.igus.de/en/20**
30/35/36	**E2 medium**	45	75 - 175	93 - 195	64	75 - 300	2,5	**www.igus.de/en/30**
R58 classic	**E2 Tubes**	35	50 - 75	66 - 92	50	75 - 250	2,3	**www.igus.de/en/r58s**
R68 classic	**E2 Tubes**	45	75 - 175	93 - 196	64	100 - 300	2,5	**www.igus.de/en/r68s**
140/141/R188	**E4/light**	56	50 - 600	76 - 626	84	135 - 500	4	**www.igus.de/en/140**
142/143	**E4/light**	62	50 - 400	76 - 426	84	135 - 500	4	**www.igus.de/en/142**
150/151/R198	**E4/light**	80	50 - 600	80 - 630	108	150 - 500	4,5	**www.igus.de/en/150**
22/23/R76	**E4/0**	28	40 - 300	60 - 320	42	55 - 250	2,1	**www.igus.de/en/22**
28/29/R77	**E4/0**	32	50 - 400	73 - 423	54	63 - 300	2,5	**www.igus.de/en/28**
38/39/R78	**E4/0**	42	50 - 400	77- 427	64	75 - 350	3,25	**www.igus.de/en/38**
40/41/R88	**E4/0**	56	50 - 600	86- 636	84	135 - 500	4,5	**www.igus.de/en/40**
50/51/R98	**E4/0**	80	50 - 600	100- 650	108	150 - 1000	6	**www.igus.de/en/50**

Pitch [mm]	Unsupported fill weight max [kg/m]	Unsupported length FL_B max [m]	Long travel max [m]	Interior separation possibilities: Separators	Interior separation possibilities: Full-width shelves	Interior separation possibilities: Shelves	ESD/ATEX	Cleanroom	UL-V2	Low noise	Price index	Page
46	4	2	100	●	●	●	–	–	–	–	●○○	12.4
56	8	2,2	120	●	●	●	–	–	–	–	●○○	12.6
46	4	2	100	●	●	●	–	–	–	–	●○○	12.4
56	8	2,2	120	●	●	●	–	–	–	–	●○○	12.6
67	10	2,5	150	●	●	●	–	–	–	–	●○○	12.8
46	4	2	100	●	●	●	–	–	–	–	●○○	12.4
56	8	2,2	120	●	●	●	–	–	–	–	●○○	12.6
67	10	2,5	150	●	●	●	–	–	–	–	●○○	12.8
67	30	3,8	300	●	–	●	▲	○	–	■	●●○	12.12
67	30	3,8	280	●	–	●	▲■	○	–	●	●●○	12.14
25	1,5	1,5	–	–	–	–	▲	●	–	●	●◐○	12.18

Recommended, new Series	Page
15	4.18
10	5.48
B15	5.70
2400	5.102
3400	5.126
R58	6.34
R68	6.42
14040	7.124
14240	7.134
15050	7.144
E4.28	7.24
E4.32	7.34
E4.42	7.48
E4.56	7.62
E4.80	7.76

You miss a classic series in this catalog? At ▶ **www.igus.eu/classics** you will find all igus® Classic series. There you can download the entire PDF-catalogue.

For a printed catologue please call us: **+49 (0) 2203/9649-800** - Thank you!

Technical Details | **Guide troughs** Long travel applications

Legend of materials
- ● Aluminium, seewater-resistant
- ○ Galvanized steel
- ■ Stainless steel upon request
- ▲ Galvanized steel/polymer

Standard Super-alu-trough, basic version - for general machinery

Series / Product	Outer height Trough side part [mm]	Series Zipper	Series E2 mini	Series E2/000 *Conditionally suitable in inner radii	Series E2 E-Tubes
970.30.SL / 970.31.SL	77	15/R15	10/B15	–	–
970.30.SL / 970.32.SL	77	–	–	1400/1450/1480/1500	–
971.30.SL / 971.31.SL	87	–	–	2400*/2450*/2480*/2500/255	R48
972.02.30.SL / 972.02.31.SL	117	–	–	–	–
972.30.SL / 972.31.SL	117	–	–	–	–
972.30.SL / 972.32.SL	117	–	–	2600/2650/2680*/2700	R58
973.30.SL / 973.31.SL	144	–	–	3400/3450/3480*/3500	R68
974.30.SL / 974.31.SL	184	–	–	–	–
975.30.SL / 975.31.SL	236	–	–	–	–
HD-version					
974.30.SL / 974.31.SL	184	–	–	–	–
975.30.SL / 975.31.SL	236	–	–	–	–

Specialty: Steel guide trough - for harsh environments

92.30 / 92.31	70	–	–	2400*/2450*/2480*/2500/255	–
95.30 / 95.31	100	–	–	2600/2650/2680*/2700	R58
99.30 / 99.31	100	–	–	–	–
97.30 / 97.31	130	–	–	–	–
93.30 / 93.31	130	–	–	3400/3450/3480*/3500	R68
94.30 / 94.31	170	–	–	–	–
96.30 / 96.31	220	–	–	–	–
98.30 / 98.31	300	–	–	–	–
90.30 / 90.31	480	–	–	–	–
One-piece trough					
91.10 - 91.71	48	15/R15	10/B15	–	–

Specialty: Tubular trough system RS - lets light and chips through

92.70 / 92.71	90	–	–	2400*/2450*/2480*/2500/255	–
93.70 / 93.71	146	–	–	3400/3450/3480*/3500	–
95.70 / 95.71	126,3	–	–	2600/2650/2680*/2700	–

Specialty: Snap-in trough system SP - simple and cost effective

91.930	55,5	15	10/B15	–	–
92.930	76,6	–	–	2400*/2450*/2480*/2500	–
93.930	138,6	–	–	3400/3450/3480*/3500	–
95.930	106,6	–	–	2600/2650/2680*/2700	–

System E4.1	System E4/light	System E4/00	System E4/4	System E6 *nach Rücksprache	Material of side parts (see legend)	Price index	Page
	–	–	–	–	●	●●●	9.20
E4.21*	–	210*	–	–	●	●●●	9.22
–	–	–	–	E6.29/R6.29	●	●●●	9.24
E4.28/R4.28	–	220/R760	–	E6.35	●	●●●	9.26
E4.32/H4.32/R4.32	–	280/290/R770	2828/2928/R7728	E6.40/R6.40	●	●●●	9.28
–	–	–	–	–	●	●●●	9.30
E4.42/H4.42/R4.42	–	380/390/R780	3838/3938/R7838	E6.52/R6.52	●	●●●	9.32
E4.56/H4.456/R4.56	14040/14140/R18840/14240/14340	400/410/R880	4040/4140/R8840	E6.62	●	●●●	9.34
E4.80/H4.80/R4.80	15050/15150/R19850	–	5050/5150/R9850	E6.80	●	●●●	9.38
–	–	–	4040HD/R8840HD	–	●	●●●	9.36
–	–	–	5050HD/R9850HD	–	●	●●●	9.40
–	–	–	–	E6.29/R6.29	○ ■	●●●	9.44
–	–	–	–	–	○ ■	●●●	9.46
E4.28/R4.28	–	220/R760	–	E6.35	○ ■	●●●	9.48
E4.32/H4.32/R4.32	–	280/290/R770	2828/2928/R7728	E6.40/R6.40	○ ■	●●●	9.50
E4.42/H4.42/R4.42	–	380/390/R780	3838/3938/R7838	E6.52/R6.52	○ ■	●●●	9.52
E4.56/H4.456/R4.56	14040/14140/14240/14340/R18840	400/410/R880	4040/4140/R8840	E6.62	○ ■	●●●	9.54
E4.80/H4.80	15050/15150/R19850	–	5050/5150/R9850	E6.80	○ ■	●●●	9.56
–	1640/R1608	600/601/R608/640	–	–	○ ■	●●●	9.58
–	800/840	–	–	–	○ ■	●●●	9.60
–	–	–	–	–	○ ■	●●●	9.63
–	–	–	–	E6.29/R6.29	▲	●●●	9.66
–	–	–	–	E6.52/R6.52**	▲	●●●	9.67
–	–	–	–	–	▲	●●●	9.67
				** without distance plate			
–	–	–	–	–	○ ■	●●●	9.68
–	–	–	–	E6.29/R6.29**	○ ■	●●●	9.68
–	–	–	–	E6.52/R6.52	○ ■	●●●	9.69
–	–	–	–		○ ■	●●●	9.69
				** without distance plate			

Legend of materials
- ● Aluminium, seewater-resistant
- ○ Galvanized steel
- ■ Stainless steel upon request
- ▲ Galvanized steel/polymer

Description

System P4 RoI E-Chain® - energy efficient on long travels

Safe, maintenance-free energy supply system on long travels up to 800 m and more for outdoor cranes or conveyor systems. Energy efficient polymer E-Chains® and cables reduce consumption by up to 60%. With the right materials and clever design, the energy consumption can be drastically reduced.

RoI E-Chain® - Rolling instead of gliding

Reduction of driving power down to 25% to move the E-Chain®.
For very long travels with high fill weights. Due to the rolls, the friction coefficient of the system is very low - save money and energy.

AUTO-GLIDE - Long travels without guide troughs

AUTO-GLIDE - special solutions for long travels without trough guides.

Guidelok horizontal - upper run support, unsupported up to 50m

Upper run guide for long travels, self-supporting in chip areas. Unsupported travels up to 50 m are possible. Chips cannot get stuck between upper and lower run. Modular system with few parts.

New in this catalog!

Guidelok vertical - For vertical energy supplies up to heights of 80 m

For vertical applications with lateral motion, igus® Guidelok offers a simple, costeffective and safe system solution! Keeps hanging E-Chains in line - no swinging sideways. No bouncing of E-Chains® in vertical applications with horizontal dynamics. For high speed, acceleration and noise reduction.

LBT Flizz® - Enclosed plastic trough

In its entirety, this system encompasses the igus® Energy Chain®, LBT Flizz® guide trough and - as an option - fully configured igus® Chainflex® cables. The LBT Flizz® guide trough is a modular kit comprising extruded guide profiles and a supporting frame with continuous tubes providing stabilization.

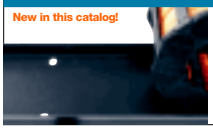
Micro Flizz® - Small E-Chains® in aluminum profile

Compact, cost-saving complete system for safe guidance of energy, data and air. Maintenance-free alternative for power bar.

LeviChain - magnetic E-ChainSystem®, floating, gliding

Long travel possible without laying the E-ChainSystems® on top of each other. Almost no abrasion and very low wear due to low-abrasion E-Chain® links (without pin/hole connection) as well as almost contactless movement of the E-Chain®

New in this catalog!



For support of the lower run - Support tray

Simple one-piece support trays for the lower E-Chain® run, according with your requirements and specification. Your width, height and color - we supply the fitting E-Chain®, together with the support tray system. Ready to install onto your machine or application. Save on procurement and design time. ► **page 9.70**

Typical industries and applications	Travel max. [m]	Travel speed max. [m/s]	Inner heights [mm]	Price index	Page
● Indoor-/Outdoor-applications ● Cranes ● Plant engineering ● Construction machinery ● Steelwork ● Applications with very long travels and speeds ● For harsh environments and high fill weights	≈ 800	≈ 10	32 - 80 mm	●●●	9.78
● Outdoor applications ● cranes ● mining industry ● road building ● steel plants ● all applications with long travels, rough environments and high fill weights	≈ 400 - 800	≈ 6	32 - 80 mm	●●●	9.86
● Indoor-/Outdoor-applications ● cranes ● storage and retrieval machines ● industrial trucks	≈ 50	≈ 1,5	21 - 80 mm (4 options)	●●●	9.90
● Machine tools ● Applications in the chip area ● Wherever a gliding application is not recommended	≈ 50	≈ 2	56 mm	●●●	9.96
● Automated storage/retrieval systems ● Lifts ● Revolving storage systems ● Diagonal lifts ● All vertical applications	≈ 80	≈ 3	25 mm	●●●	9.98
● Sewage treatment plants ● rainwater overflow basins ● galvanic equipment ● cranes	≈ 200	≈ 8	24 mm (In use of E-Chain® Series 255)	●●●	9.100
● Indoor-cranes ● storage and retrieval machines ● indutsry gates ● control panels ● studio equipment (lighting)	Available standard lenghts: 2 m, 3 m, 6 m. Any number of troughs possible. Special lenghts upon request	≈ 6	11/13 mm (Inner height of the applied E-Chain®)	●●●	9.104
● Cleanrooms ● Painting works/plants ● Medical technology ● Measuring technology ● Electronic manufacturing ● Automated storage and retrieval systems ● Material handling ● Industrial robots	≈ 40		25,5 mm	●●●	9.112

igus® modular system for projects - fast, all ex-stock

Special components, tested and approved in numerous projects, have now become available as a modular standard system. ● Faster quotations ● Faster project planning ● Detailed service manuals and documentation ● Time and cost savings ● Safe function ► **page 9.116**

Technical Details | **Chainfix strain relief**

igus® Strain relief	Product	Ø [mm] from - to	Page
Chainfix clamps and stainless-steel* clamps - maximum pull forces			
	Single clamp housing, including top/bottom saddle clamps	6 - 42	10.5
	Double clamp housing, incl. top/bottom saddle clamps and 1 stacker saddle clamp	6 - 34	10.5
	Triple clamp housing, incl. top/bottom saddle clamps and 2 stacker saddle clamp	6 - 22	10.5
	Chainfix Multi clamps*	6 - 12	10.6
	*Standard material: galvanized steel. Also available as stainless steel version		
	(Material stainless steel: 1.4301)		
Tiewrap plates - for cable tiewrap universal, bolted or clip-on			
	Option 1: Chainfix tiewrap plates as individual parts Series 2000 and 3000		10.8
	Cable tiewraps		10.8
Chainfix-tiewrap plates - for strain relief with cable tiewraps for C-profile			
	Option 2: tiewrap plates with clip-on connection for the C-profile		10.9
	Option 3: clip-on tiewrap plates for opening or fixed crossbars		10.9
	Option 4: integrated strain relief for E2 Tubes - Series R		10.9
	Chainfix testresults		10.7
Chainfix Clip - high pull forces, plug-in			
	Available for all igus® E-ChainSystems with C-profiles and also suitable for assembly in the KMA mounting brackets and Clip-on strain relief for crossbars	4 -24	10.10
Chainfix nuggets - for top hat rail and C-profile			
	Option 1: completey simple and universal cable fixation, for diameter with Ø 20 mm and Ø 30 mm	≤ ø 30	10.10
	Option 2: Fastening by clipping onto standard top hat rail	≤ ø 20	10.10
Strain relief separator with integrated teeth			
	Separator with integrated strain relief teeth- easy strain relief with cable tiewrap		10.11
igus® blocks			
	Blocks - special strain relief for hoses. A modular, space-saving system.		10.11

Cable protection	Product	Description	Page

PMAFLEX conduits - cable protection

PACO	Flexible, medium, divisible	**11.4**
TN	Divisible connectors, PG	**11.4**
GTN	Divisible lock nuts, PG	**11.4**
PCL	Very flexible, medium	**11.5**
VOH	Pliable, very heavy	**11.5**
PIS/PIH	Highly flexible, medium	**11.6**
CYL	Very flexible, medium	**11.7**

PMAFIX connectors - safety and sealing systems

IP66 - stat., IP54 dyn.	Universal safety clip	**11.8**
IP68 - stat., IP67 dyn.	Oval clip	**11.8**
PMAFIX	Connectors	**11.9**
PMAFIX Anschlüsse VW	90° elbow, metric & PG	**11.10**
PMAFIX Anschlüsse VN	Straight, metric & PG	**11.11**
PMAFIX Anschlüsse VA	45° elbow, metric & PG	**11.12**
PMAFIX Anschlüsse VB	90° curved elbow, metric & PG	**11.13**
PMAFIX Anschlüsse VO	Flange 90°	**11.13**

PMA - accessories

PMAFIX FH0	One-piece system support	**11.14**
PMA MN	Hexagonal Lock Nuts, metric & PG	**11.14**
PMA SGB	Tube clamps	**11.15**
PMA 514	Plug Screws, metric & PG	**11.15**