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igus®

E2/000 | Series 2400·2450·2480·2500

25 25

Price index

IPA Qualification Certificate Air Cleanless Class ISO Class 3 (at v = 2 m/s)

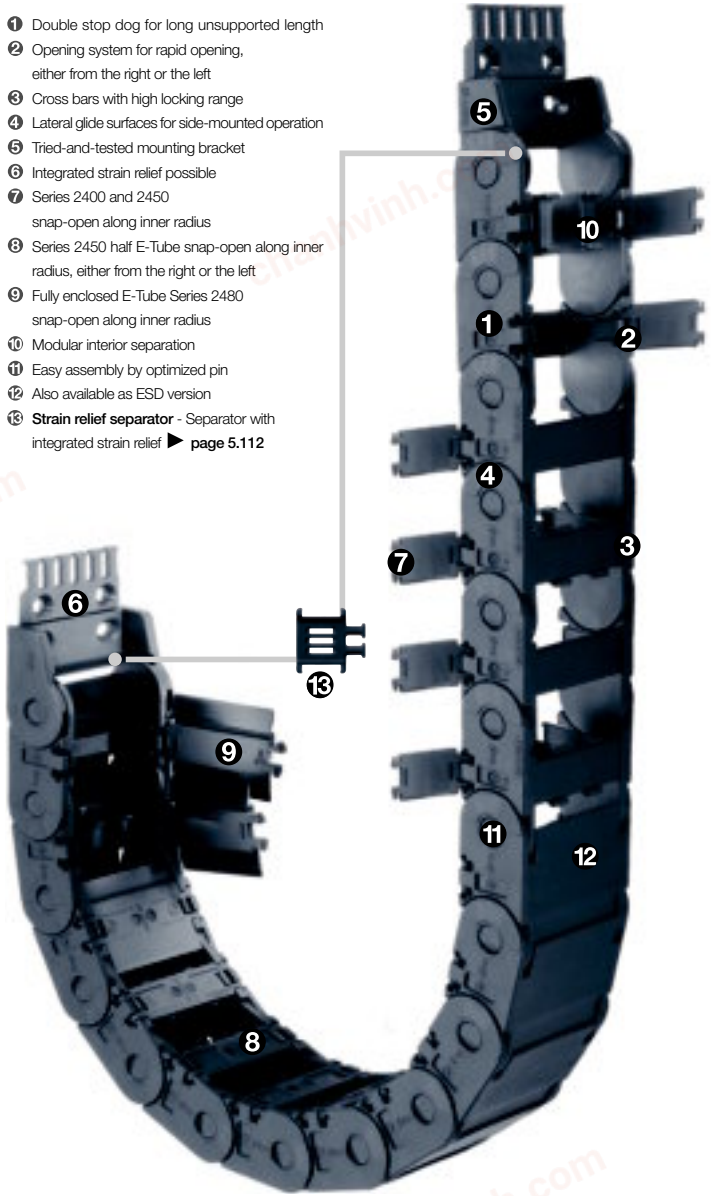
ESD classification: Electrically conductive ESD/ATEX version upon request

UL94 V2 classifications upon request



Snap-open mechanism, choice of snap-open on left or right. Hinged crossbar can be swiveled by more than 180° on both sides. Lightning-fast closing by hand. Secure fit without additional locking devices.

1. Double stop dog for long unsupported length
2. Opening system for rapid opening, either from the right or the left
3. Cross bars with high locking range
4. Lateral glide surfaces for side-mounted operation
5. Tried-and-tested mounting bracket
6. Integrated strain relief possible
7. Series 2400 and 2450 snap-open along inner radius
8. Series 2450 half E-Tube snap-open along inner radius, either from the right or the left
9. Fully enclosed E-Tube Series 2480 snap-open along inner radius
10. Modular interior separation
11. Easy assembly by optimized pin
12. Also available as ESD version
13. **Strain relief separator** - Separator with integrated strain relief ▶ **page 5.112**



When to use the Series 2400/2450/2480/2500:

- Snap-open accessibility along both radii
- If integrated strain relief is required at the connection point
- Modular interior separation
- If long service life is required
- If easy installation is required
- If half E-Tube is required (Series 2450)
- If fully enclosed E-Tube is required (Series 2480)

When not to use it:

- If maximum stability is required ▶ **System E4.1, Series E4.21, page 7.16**
- If the application is very simple ▶ **Easy Chain®, Series E200, page 3.36**
- E-Tubes with small bending radii 060, 075 ▶ **System E2 E-Tubes, Series R48, page 6.26**

Order example complete E-Chain®

Please indicate chain-lenghts or number of links **Example: 3 m or 66 links**

3 m **2500.10.100.0**	**E-Chain®**
with 2 separators **211** assembled every 2nd link	**Interior separation**
1 set **2100.34PZB+**	**Mounting bracket**

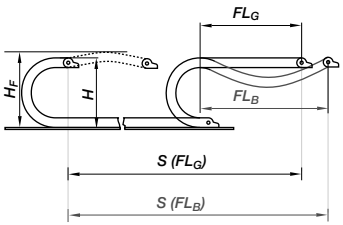
Available from stock. Delivery in 24h or today! (Delivery time means time until shipping of goods)

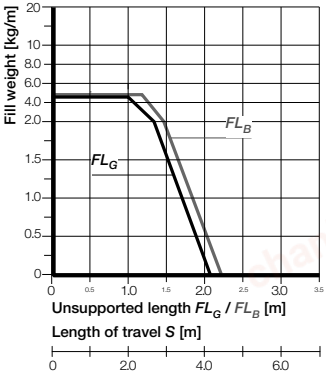
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Fax +49- (0) 22 03-96 49-222

Unsupported length

FL_G = with straight upper run
FL_B = with permitted sag
Further information ▶ **Design, page 1.12**

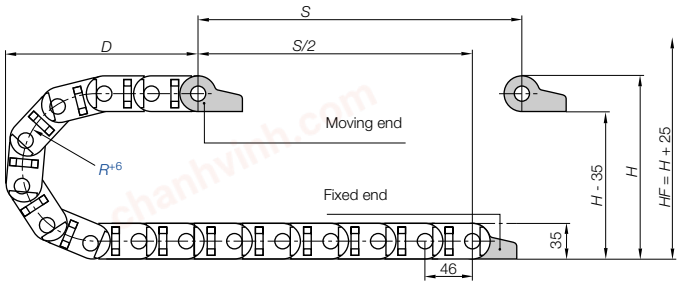




S = Length of travel
R = Bending radius
H = Nominal clearance height
H_F = Required clearance height
H_{RI} = Trough inner height
D = Overlength E-Chain® radius in final position
K = $\pi \bullet R$ + "safety"
D_2 = Over length - long travels, gliding
K_2 = *Further add-on
H_2 = *Mounting height
*if the mounting bracket location is set lower

Other installation methods

Vertical, hanging ≤ 40 m
Vertical, standing ≤ 3 m
Side mounted, unsupp. ≤ 1 m
Rotary requires further calculation
Unsupported length of upper run = upon request



Pitch = 46 mm/link **Links/m =** 22 (1012 mm) **Chain length =** $S/2 + K$

R	055*	075*	100	125	150	175	200	225	250
H	145	185	235	285	335	385	435	485	535
D	125	150	170	195	220	245	270	295	320
K	276	346	414	496	578	660	742	814	920
H_2	145	185	100	100	100	100	100	100	100
D_2^{+25}	125	150	380	440	590	755	950	1040	1130
K_2	276	346	644	736	1012	1242	1472	1610	1794

*for Series 2450/2480 upon request

Standard

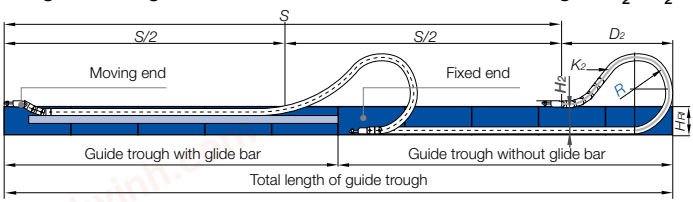
Short travels - unsupported

Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height H_F. Please consult igus® if space is particularly restricted.

The required clearance height:
$H_F = H + 25$ mm
(with 1,5 kg/m fill weight)

Long travel lengths from 10 m to max. 100 m

Chain length = $S/2 + K_2$



In case of travels between 4 and 10 m we recommend a longer unsupported length.

Gliding, long travel applications (max. 100 m)

In this case the E-Chain® upper run will be introduced in a guide trough on the lower run. We recommend to realize the engineering of such a plant by our technicians.

Technical Data

Speed / acceleration FL_G	max. 20 [m/s] / max. 200 [m/s²]
Speed / acceleration FL_B	max. 3 [m/s] / max. 6 [m/s²]
Gliding speed / acceleration (maximum)	max. 10 [m/s] / max. 50 [m/s²]
Material - permitted temperature °C	igumid G / -40° up to +120° C
Flammability class, igumid G	VDE 0304 IIC UL94 HB

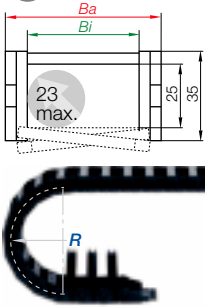
Details of material properties
▶ **page 1.38**

▶ page 5.91

For support of the lower run - **Support Tray tool kit** available ▶ page 9.70

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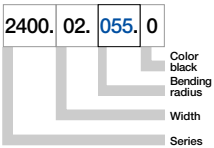
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Series 2400 **E-Chain®** - snap-open along inner radius

Part No.	Bi [mm]	Ba [mm]	R [mm] Bending radii									Weight [kg/m]
2400.02.□.0	25	41	055	075	100	125	150	175	200	225	250	≈ 0,77
2400.03.□.0	38	54	055	075	100	125	150	175	200	225	250	≈ 0,83
2400.05.□.0	57	73	055	075	100	125	150	175	200	225	250	≈ 0,91
2400.07.□.0	77	93	055	075	100	125	150	175	200	225	250	≈ 1,01
2400.09.□.0	89	105	055	075	100	125	150	175	200	225	250	≈ 1,08
2400.10.□.0	103	119	055	075	100	125	150	175	200	225	250	≈ 1,15
2400.12.□.0	125	141	055	075	100	125	150	175	200	225	250	≈ 1,22

Part No. structure

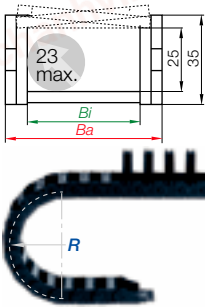


Supplement Part No. with required radius. Example: 2400.02.055.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 46 mm/link - Links/m = 22



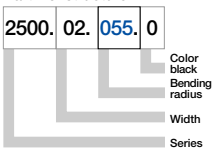
Please note: For using this series for long travels (gliding), please consult with igus® first. For long travels, igus® specifies E-Chains® that snap open on the outer radius.



Series 2500 - **E-Chain®** - snap-open along outer radius - Standard!

Part No.	Bi [mm]	Ba [mm]	R [mm] Bending radii									Weight [kg/m]
2500.02.□.0	25	41	055	075	100	125	150	175	200	225	250	≈ 0,77
2500.03.□.0	38	54	055	075	100	125	150	175	200	225	250	≈ 0,83
2500.05.□.0	57	73	055	075	100	125	150	175	200	225	250	≈ 0,91
2500.07.□.0	77	93	055	075	100	125	150	175	200	225	250	≈ 1,01
2500.09.□.0	89	105	055	075	100	125	150	175	200	225	250	≈ 1,08
2500.10.□.0	103	119	055	075	100	125	150	175	200	225	250	≈ 1,15
2500.12.□.0	125	141	055	075	100	125	150	175	200	225	250	≈ 1,22

Part No. structure



Supplement Part No. with required radius. Example: 2500.02.055.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 46 mm/link - Links/m = 22



Info ▶ www.igus.de/en/2400 · www.igus.de/en/2450 · www.igus.de/en/2480 · www.igus.de/en/2500

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Series 2450 - half **E-Tube** - snap-open along inner radius

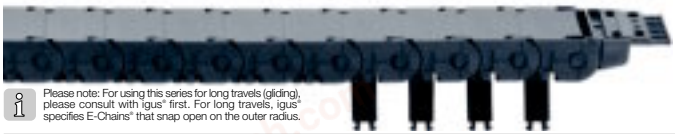
Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm] Bending radii	Weight [kg/m]
2450.02.□.0	25	41	100 125 150 175 200 225 250	≈ 0,80
2450.03.□.0	38	54	100 125 150 175 200 225 250	≈ 0,88
2450.05.□.0	57	73	100 125 150 175 200 225 250	≈ 0,99
2450.07.□.0	77	93	100 125 150 175 200 225 250	≈ 1,12
2450.09.□.0	89	105	100 125 150 175 200 225 250	≈ 1,20
2450.10.□.0	103	119	100 125 150 175 200 225 250	≈ 1,27
2450.12.□.0	125	141	100 125 150 175 200 225 250	≈ 1,35

The widths ***Bi* 125** are available upon request. Time of delivery approx. 6-8 weeks after order.

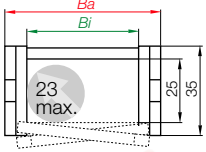
The bending radii 055 075 are available upon request.

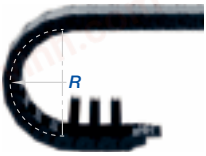
Supplement Part No. with required radius. Example: 2450.02.100.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 46 mm/link - Links/m = 22



Please note: For using this series for long travels (gliding), please consult with igus® first. For long travels, igus® specifies E-Chains® that snap open on the outer radius.





Part No. structure

2450. 02. 100. 0

- Color black
- Bending radius
- Width
- Series

Series 2480 - **E-Tube** - snap-open along inner radius

Part No.	*Bi* [mm]	*Ba* [mm]	*R* [mm] Bending radii	Weight [kg/m]
2480.02.□.0	25	41	100 125 150 175 200 225 250	≈ 0,82
2480.03.□.0	38	54	100 125 150 175 200 225 250	≈ 0,92
2480.05.□.0	57	73	100 125 150 175 200 225 250	≈ 1,03
2480.07.□.0	77	93	100 125 150 175 200 225 250	≈ 1,17
2480.09.□.0	89	105	100 125 150 175 200 225 250	≈ 1,26
2480.10.□.0	103	119	100 125 150 175 200 225 250	≈ 1,34
2480.12.□.0	125	141	100 125 150 175 200 225 250	≈ 1,43

The widths ***Bi* 25/125** are available upon request. Time of delivery approx. 6-8 weeks after order.

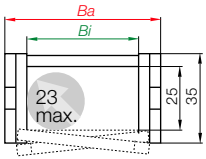
The bending radii 055 075 are available upon request.

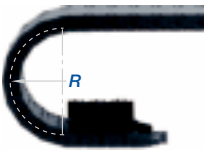
Supplement Part No. with required radius. Example: 2480.03.100.0

0 = standard color, other colors ▶ page 1.39 · Pitch = 46 mm/link - Links/m = 22



Please note: For using this series for long travels (gliding), please consult with igus® first. For long travels, igus® specifies E-Chains® that snap open on the outer radius.





Part No. structure

2480. 03. 100. 0

- Color black
- Bending radius
- Width
- Series

For smaller bending radii we recommend the fully closed E-Tubes, Series R48 ▶ page 6.34

▶ page 5.91

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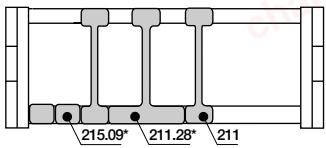
Option 1: Vertical Separators and Spacer for **E-Chains®**

Vertical Separators are used if a vertical subdivision of the E-Chain® interior is required - By standard Vertical Separators are assembled every other E-Chain® link

- **Standard:** subdivision **(Series 2400/Series 2500)** with **Vertical Separator 211**
- If a broad distance shall be kept between the separators or they have to be fixed in their position, e.g. in case of side mounted applications, **Separators with wide base 211.28** or **Spacer 215.09** (not for openable crossbars) can be used
- **Strain Relief Separator 2020.Z**, integrable in the mounting bracket, to postition at any point

Standard		
Vertical Separator		
unassembled	201	
assembled	211	
Vertical Separator*		
unassembled	201.28	
assembled	211.28	
Spacer*		
unassembled	205.09	
assembled	215.09	
Strain Relief Separator		
unassembled	2020.Z	
assembled	2120.Z	

*For side-mounted applications



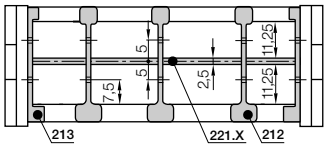


Option 2: Full-Width Shelves for **E-Chains®**

For applications involving many thin cables with similar or identical diameters

- **Vertical Separator, slotted 212** and **Side Plate 213** - for applications with **Full-Width Shelf 221.X**

Vert. Separator, slotted		
unassembled	202	
assembled	212	
Side Plate		
unassembled	203	
assembled	213	

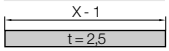




Width X [mm]	Part No. unassembled	Part No. assembled
025	220.25	221.25
038	220.38	221.38
057	220.57	221.57
077	220.77	221.77

Width X [mm]	Part No. unassembled	Part No. assembled
090	220.90	221.90
103	220.103	221.103
125	220.125	221.125

Full-Width Shelf

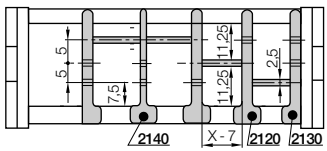


Option 3: Shelves for **E-Chains®**

For applications involving many cables with different diameters. The Shelves can be arranged elevator-shifted with different bottoms within the entire E-Chain® width.

- **Shelf 2210.X** can be combined with **Middle Plate 2120**, **Vertical Separator, slotted 2140** and **Side Plate 2130**

Side Plate		
unassembled	2030	
assembled	2130	
Vert. Separator, slotted		
unassembled	2040	
assembled	2140	
Middle Plate		
unassembled	2020	
assembled	2120	

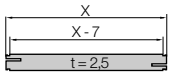




Width X [mm]	Part No. unassembled	Part No. assembled
018	2200.18	2210.18
023	2200.23	2210.23
028	2200.28	2210.28
033	2200.33	2210.33
038	2200.38	2210.38
043	2200.43	2210.43

Width X [mm]	Part No. unassembled	Part No. assembled
048	2200.48	2210.48
058	2200.58	2210.58
068	2200.68	2210.68
073	2200.73	2210.73
088	2200.88	2210.88
099	2200.99	2210.99

Shelf



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Option 4: Vertical Separators for **E-Tubes**

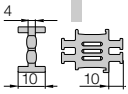
Vertical Separators are used if a vertical subdivision of the E-Tube interior is required -
By standard Vertical Separators are assembled every other E-Tube link

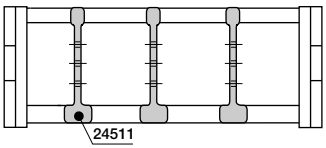
- **Standard** subdivision of the half E-Tube **(Series 2450)** and the fully enclosed E-Tube **(Series 2480)** with **Vertical Separator, slotted 24511**, for combinations with **Full-Width Shelf 221.X**
- **Strain Relief Separator 2020.ZR**, integrable in the mounting bracket, to postition at any point

Vert. Separator, slotted	
unassembled	**24501**
assembled	**24511**



Strain Relief Separator	
unassembled	**2020.ZR**
assembled	**2120.ZR**



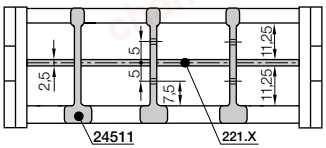




Option 5: Full-Width Shelves for **E-Tubes**

For applications involving many thin cables with similar or identical diameters

- **Vertical Separator, slotted 24511** - for applications with **Full-Width Shelf 221.X**





Width X [mm]	Part No. unassembled	Part No. assembled
025	**220.25**	**221.25**
038	**220.38**	**221.38**
057	**220.57**	**221.57**
077	**220.77**	**221.77**

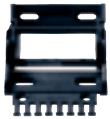
Width X [mm]	Part No. unassembled	Part No. assembled
090	**220.90**	**221.90**
103	**220.103**	**221.103**
125	**220.125**	**221.125**

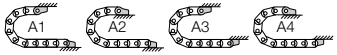
Full-Width Shelf
X - 1
t = 2,5

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▶ page 5.91

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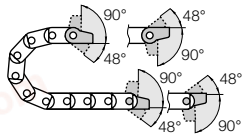



Possible installation conditions for assembled mounting brackets ▶ Order example "preassembled" below

The Standard - option polymer - pivoting

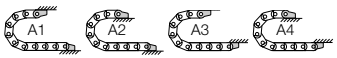
- Recommended for unsupported and gliding applications
- Well suited for tight installation conditions
- Strain relief with detachable tiewrap plates
- Variable traverse angle for flexible assembly
- The twistability of the E-Chain® and the option to assemble the mounting brackets on the fixed end and/or the moving end, enable various installation options

Moving end with bore (outer link) 2...3PZ(B)+



2...4PZ(B)+ Fixed end with pin (inner link)



Possible installation conditions for assembled mounting brackets ▶ Order example "preassembled" below

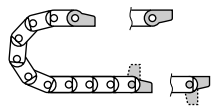
Option polymer - locking

- Recommended for unsupported and gliding applications

Furthermore:

- At very high speed and/or acceleration
- If space is limited for height (the H_F measurement)
- The twistability of the E-Chain® and the option to assemble the mounting brackets on the fixed end and/or the moving end, enable various installation options

Moving end with bore (outer link) 2...1PZ(B)+



2...2PZ(B)+ Fixed end with pin (inner link)

Dimensions and order configurations

Strain relief is possible on the moving end and/or the fixed end.

Part No. structure (pivoting)

2020. | 34 | PZB+ | A1 | Standard

- A1 ... must be indicated on preassembled configurations
- With assembled strain relief tiewrap plates
- **Full set pivoting = 34**
- Mounting brackets for selected chain type

Full set, for both ends:

2020. 34 PZB+ +tiewrap plate

Single-part order:

2020. 3 PZB+ +tiewrap plate
Mounting bracket **with bore**

2020. 4 PZB+ +tiewrap plate
Mounting bracket **with pin**

Part No. structure (locking)

2020. | 12 | PZB+ | A1

- A1 ... must be indicated on preassembled configurations
- With assembled strain relief tiewrap plates
- **Full set locking = 12**
- Mounting brackets for selected chain type

Full set, for both ends:

2020. 12 PZB+ +tiewrap plate

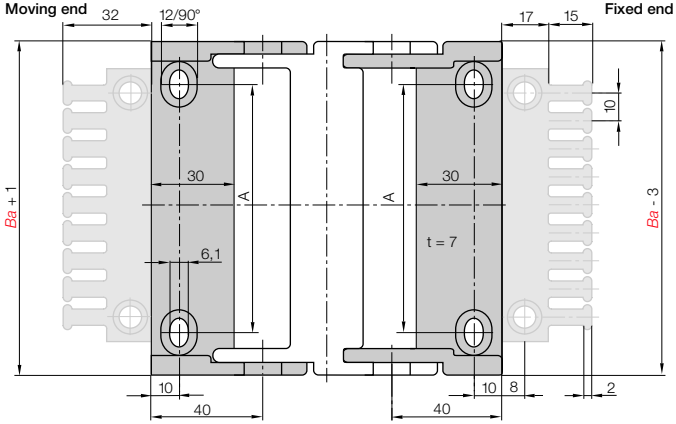
Single-part order:

2020. 1 PZB+ +tiewrap plate
Mounting bracket **with bore**

2020. 2 PZB+ +tiewrap plate
Mounting bracket **with pin**

2...3PZ(B)+ Standard! (pivoting)
2...1PZ(B)+ (locking)
Moving end

Standard! (pivoting) 2...4PZ(B)+
(locking) 2...2PZ(B)+
Fixed end



For E-Chain®	Part No. full set **with** tiewrap plate	Part No. **with** tiewrap plate + 10 cable tiewraps	Part No. full set **without** tiewrap plate	Dim. A [mm]
2400 - 2500.02 ▶	2020. ☐ PZB+	2020. ☐ PZBK1+	2020. ☐ PZ+	12
2400 - 2500.03 ▶	2030. ☐ PZB+	2030. ☐ PZBK1+	2030. ☐ PZ+	25
2400 - 2500.05 ▶	2050. ☐ PZB+	2050. ☐ PZBK1+	2050. ☐ PZ+	44
2400 - 2500.07 ▶	2070. ☐ PZB+	2070. ☐ PZBK1+	2070. ☐ PZ+	64
2400 - 2500.09 ▶	2090. ☐ PZB+	2090. ☐ PZBK1+	2090. ☐ PZ+	77
2400 - 2500.10 ▶	2100. ☐ PZB+	2100. ☐ PZBK1+	2100. ☐ PZ+	90
2400 - 2500.12 ▶	2125. ☐ PZB+	2125. ☐ PZBK1+	2125. ☐ PZ+	112

Please add the Part No. with the requested index - 34 for the pivoting configuration **e.g. 2020. 34 PZB+** or 12 for the locking configuration **e.g. 2020. 12 PZB+**
For the **preassembled** mode please add the index A1 ... A4 **e.g. 2020. 34 PZB+ A1**

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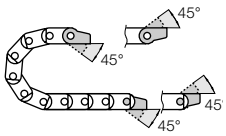
Info ▶ www.igus.de/en/2400 · www.igus.de/en/2450 · www.igus.de/en/2480 · www.igus.de/en/2500

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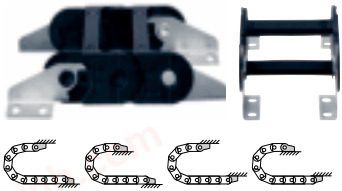
Steel mounting bracket - pivoting

- Pivoting connections
- One part for all chain widths
- Electrically conductive
- Bolted connection outside of chain cross-section possible

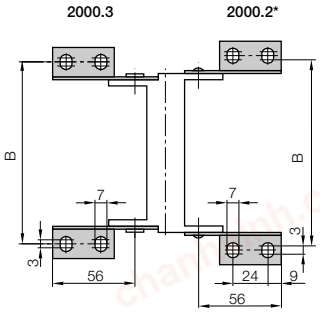
Moving end with bore (outer link) 2000.3

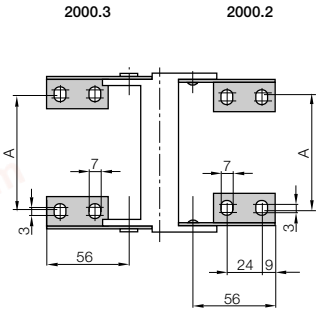


2000.2 Fixed end with pin (inner link)



Possible installation conditions - Further installation angles ▶ installation sketch





Dimensions and order configurations

*pivoting with no stop, (360°)

For E-Chain®	Part No. full set	Dim. A [mm]	Dim. B [mm]
2400 - 2500.02 ▶	2000. 32	–	60
2400 - 2500.03 ▶	2000. 32	25	73
2400 - 2500.05 ▶	2000. 32	44	92
2400 - 2500.07 ▶	2000. 32	64	112
2400 - 2500.09 ▶	2000. 32	76	124
2400 - 2500.10 ▶	2000. 32	90	138
2400 - 2500.12 ▶	2000. 32	112	160

2000. 32 **Full set,** 4 parts 2 with pin / 2 with bore

Single-part order:

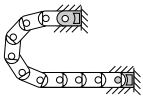
2000. 3 Mounting bracket **with bore,** 1 part left / right

2000. 2 Mounting bracket **with pin,** 1 part left / right

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▶ page 5.91





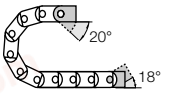
The attachment variants arising automatically by the choice of the KMA mounting bracket

KMA = Polymer Metal Mounting Bracket

Option KMA, pivoting for **E-Chains®** Series 2400 and Series 2500

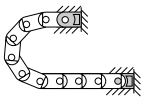
- Recommended for unsupported applications
- Bolted connection outside of chain cross-section
- Confined installation conditions
- Universal mountable with attachment capability on all sides
- Strain relief separator pluggable into the KMA-bracket, adjustable in 3 heights
- Stackable

Moving end with bore
Series 2400 = **24001....1**
Series 2500 = **24001....1**



Series 2400 = **24001....2**
Series 2500 = **24001....2**
Fixed end with pin





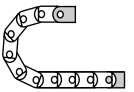
The attachment variants arising automatically by the choice of the KMA mounting bracket

KMA = Polymer Metal Mounting Bracket

Option KMA, locking for **E-Chains®** Series 2400 and Series 2500

- Recommended for vertical hanging / standing applications
- Bolted connection outside of chain cross-section
- At very high speed and acceleration
- Universal mountable with attachment capability on all sides
- Strain relief separator pluggable into the KMA-bracket, adjustable in 3 heights
- Stackable

Moving end with bore
Series 2400 = **24101....1**
Series 2500 = **24101....1**

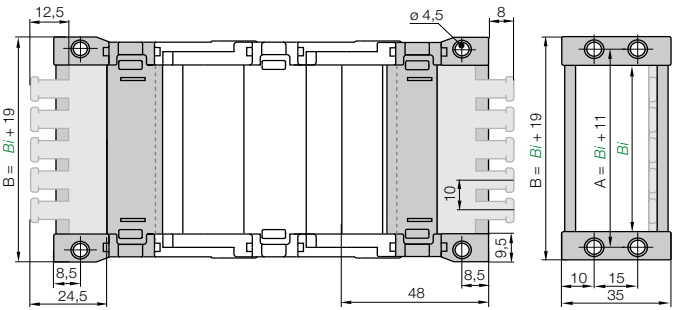


Series 2400 = **24101....2**
Series 2500 = **24101....2**
Fixed end with pin

Dimensions and order configurations

2400 | 2500 = **24001...1** (pivoting)
2400 | 2500 = **24101...1** (locking)
Moving end

2400 | 2500 = **24001...2** (pivoting)
2400 | 2500 = **24101...2** (locking)
Fixed end



Part No. structure (pivoting)

24001. | 02. | 12 | A

A...must be indicated on preassembled configurations
Full set
Width
KMA **pivoting** for the selected E-Chain® type

Full set, for both ends:
24001. | 02. | 12

Single-part order:
24001. | 02. | 1
Mounting bracket **with bore**
24001. | 02. | 2
Mounting bracket **with pin**

Part No. structure (locking)

24101. | 02. | 12 | A

A...must be indicated on preassembled configurations
Full set
Width
KMA **locking** for the selected E-Chain® type

Full set, for both ends:
24101. | 02. | 12

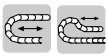
Single-part order:
24101. | 02. | 1
Mounting bracket **with bore**
24101. | 02. | 2
Mounting bracket **with pin**

For E-Chain® Series 2400/2500	Part No. full set **with** tiewrap plate	Part No. full set **without** tiewrap plate	Dim. A [mm]	Dim. B [mm]
2400.02 / 2500.02 ▶	[ ].02.12.ZB	[ ].02.12	36	44
2400.03 / 2500.03 ▶	[ ].03.12.ZB	[ ].03.12	49	57
2400.05 / 2500.05 ▶	[ ].05.12.ZB	[ ].05.12	68	76
2400.07 / 2500.07 ▶	[ ].07.12.ZB	[ ].07.12	88	86
2400.09 / 2500.09 ▶	[ ].09.12.ZB	[ ].09.12	100	108
2400.10 / 2500.10 ▶	[ ].10.12.ZB	[ ].10.12	114	122
2400.12 / 2500.12 ▶	[ ].12.12.ZB	[ ].12.12	136	144

- For **E-Chains®** please add the Part No. with the requested index
  For the pivoting option e.g. [24001].**02.12** or for the locking option e.g. [24101].**02.12**
  For the **preassembled** mode please add the index [A] e.g. [24001].**02.12** [A]

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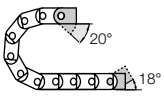


KMA = Polymer Metal Mounting Bracket

Option KMA, pivoting for **half E-Tubes** Series 2450 and for **full E-Tubes** Series 2480

- Recommended for unsupported applications
- Bolted connection outside of chain cross-section
- Confined installation conditions
- Universal mountable with attachment capability on all sides
- Strain relief separator pluggable into the KMA-bracket, adjustable in 3 heights
- Stackable

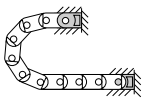
Moving end with bore
Series 2450 = **24501....1**
Series 2480 = **24801....1**

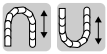


Series 2450 = **24501....2**
Series 2480 = **24801...2**
Fixed end with pin



The attachment variants arising automatically by the choice of the KMA mounting bracket



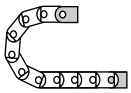


KMA = Polymer Metal Mounting Bracket

Option KMA, locking for **half E-Tubes** Series 2450 and for **full E-Tubes** Series 2480

- Recommended for vertical hanging / standing applications
- Bolted connection outside of chain cross-section
- At very high speed and acceleration
- Universal mountable with attachment capability on all sides
- Strain relief separator pluggable into the KMA-bracket, adjustable in 3 heights
- Stackable

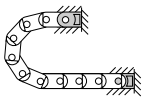
Moving end with bore
Series 2450 = **24511....1**
Series 2480 = **24811....1**



Series 2450 = **24511....2**
Series 2480 = **24811...2**
Fixed end with pin



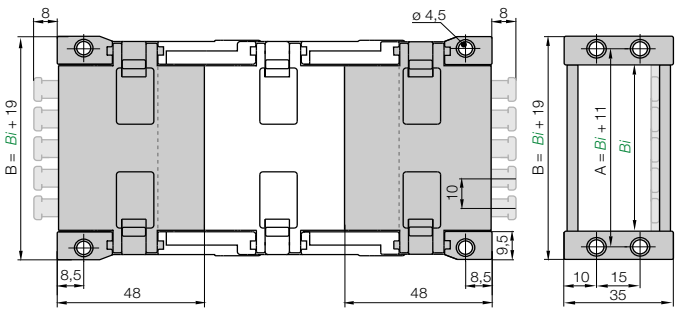
The attachment variants arising automatically by the choice of the KMA mounting bracket



2450 = **24501...1** | 2480 = **24801...1** (pivoting)
2450 = **24511...1** | 2480 = **24811...1** (locking)

2450 = **24501...2** | 2480 = **24801...2** (pivoting)
2450 = **24511...2** | 2480 = **24811...2** (locking)

Moving end **Fixed end**



For E-Chain® Series 2400/2500	Part No. full set **with** tiewrap plate	Part No. full set **without** tiewrap plate	Dim. A [mm]	Dim. B [mm]
2450.02 / 2480.02 ▶	[ ].02.12.ZB	[ ].02.12	36	44
2450.03 / 2480.03 ▶	[ ].03.12.ZB	[ ].03.12	49	57
2450.05 / 2480.05 ▶	[ ].05.12.ZB	[ ].05.12	68	76
2450.07 / 2480.07 ▶	[ ].07.12.ZB	[ ].07.12	88	96
2450.09 / 2480.09 ▶	[ ].09.12.ZB	[ ].09.12	100	108
2450.10 / 2480.10 ▶	[ ].10.12.ZB	[ ].10.12	114	122
2450.12 / 2480.12 ▶	[ ].12.12.ZB	[ ].12.12	136	144

- For **half E-Tube** please add the Part No. with the requested index
  For the pivoting option e.g. [24501].**02.12** or for the locking option e.g. [24511].**02.12**
  For the **preassembled** mode please add the index [A] e.g. [24501].**02.12** [A]
- For **full E-Tube** please add the Part No. with the requested index
  For the pivoting option e.g. [24801].**02.12** or for the locking option e.g. [24811].**02.12**
  For the **preassembled** mode please add the index [A] e.g. [24801].**02.12** [A]

Dimensions and order configurations

Part No. structure (pivoting)

24501. / 24801.	02.	12	A

24501. = half E-Tube
24801. = full E-Tube

A...must be indicated on preassembled configurations
Full set

Width
KMA **pivoting** for the selected E-Chain® type

Full set, for both ends:
[24501. / 24801.] [02.] [12]

Single-part order:
[24501. / 24801.] [02.] [1]
Mounting bracket **with bore**
[24501. / 24801.] [02.] [2]
Mounting bracket **with pin**

Part No. structure (locking)

24511. / 24811.	02.	12	A

24511. = half E-Tube
24811. = full E-Tube

A...must be indicated on preassembled configurations
Full set

Width
KMA **locking** for the selected E-Chain® type

Full set, for both ends:
[24511. / 24811.] [02.] [12]

Single-part order:
[24511. / 24811.] [02.] [1]
Mounting bracket **with bore**
[24511. / 24811.] [02.] [2]
Mounting bracket **with pin**

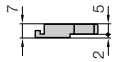
▶ page 5.91

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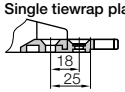


Tiewrap plate as individual part

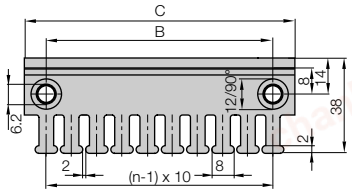
As individual component screwed on KMA. Can be plugged in the mounting brackets. **Details ▶ chapter 10**



Single tiewrap plate



Shown assembled



Tiewrap plate	No. of teeth *n*	Dim. C [mm]	Dim. B [mm]
2020.ZB	3	30	15
2030.ZB	4	40	20
2040.ZB	5	50	30
2050.ZB	6	60	40
2070.ZB	8	80	60
2090.ZB = (2030.ZB + 2040.ZB)	9	90	–
2100.ZB	10	100	80
2125.ZB = (2050.ZB + 2050.ZB)	12	120	–



Cable tiewraps as individual part

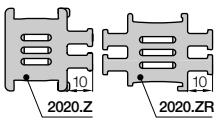
Cable tiewraps (100-piece bag)	Width x length	max. Ø	Tensile strength
CFB.001	4,8 x 150 mm	36 mm	222 N



"Double" strain relief

If an E-Chain® is harnessed with a very large number of cables, strain relief may be necessary at two levels. Our **2050.Z** strain relief system was developed for this purpose. It can be placed in any position along the E-Chain®. As required, the **2050.Z** strain relief system is simply clamped onto the crossbar of the chain link. No additional installation elements are needed. **Details ▶ chapter 10**

Part No.	Width strain relief [mm]	
2050.Z*	60	*not available for Series 2450/2480





Strain relief separator

Separator with integrated strain relief, for use in the first or last chain link. For manufacturing of switchgear cabinets or for the assembly of machines. Easy to assemble without any fastening device. Separator base 2020.Z and 2020.ZR is 10 mm wide. The possible number of separators per E-Chain® is defined by its inner width *Bi* and by the cable-diameter. **Details ▶ chapter 10**

Part No.	Number of teeth	For Series
2020.Z	2 one side	**2400/2500** E-Chain®
2020.ZR	2 both sides	**2450/2480** E-Tube



Strain relief for steel mounting brackets

Clip-on connection is not possible with steel mounting brackets. In this case, the tiewrap plates must be bolted directly into separate bore holes in front of the mounting bracket. Alternatively the tiewrap plates **20XX.ZB** can be also used here. **Details ▶ chapter 10**

Other strain relief elements - optional ▶ chapter 10

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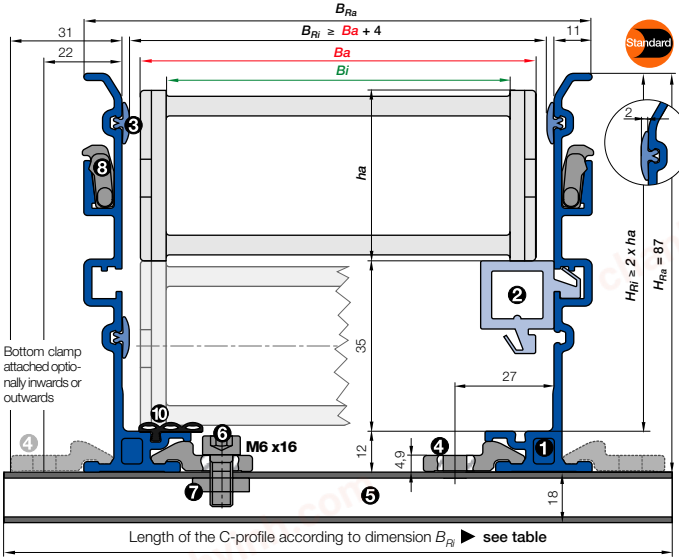
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chanhvinh.com

Part No. 971.30 | **971.31** | Trough height: 87 mm

Aluminum "SuperTrough" | Basic Version

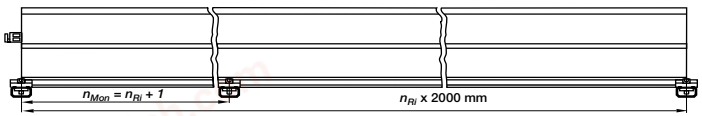




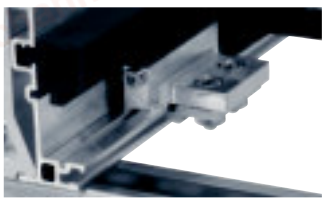
● **Components, trough "Basic":** ❶ Trough side parts, aluminum, 2 m ❷ Glide bar, plastic, 2 m ❸ Glide strips, plastic, 2 m (without glide strips on request) ❿ Optional: Silencer profile, rubber ● **Components, installation set "Basic":** ❹ Bottom clamp, aluminum ❺ C-profile, steel galvanized ❻ Screw M6 x16 ❼ Sliding nut M6 ❽ Interface connector, plastic

Order example: Length of travel 30 m - Center mounted for Series 2500.05.200.0 with B_{Ri} = 77

Guide trough set (set of 2 trough side parts, incl. glide strips) **without** glide bar		
Order text: 16 m guide trough without glide bar (8 x 2 m sections)	Part No.	971.30.SL
Guide trough set (set of 2 trough side parts, incl. glide strips) **with** glide bar		
Order text: 16 m guide trough with glide bar (8 x 2 m sections)	Part No.	971.31.SL
Installation set "Basic" complete **(guide trough-sets + 1)**		
Order text: 17 installation sets "Basic"	Part No.	960.30.125
Module for the fixed end		
Order text: 1 set	Part No.	971.80
Option: For an additional noise dampening with		
silencer profile, please add Index A - Example:	Part No.	971.30.SLA



Principle sketch: Number of installation sets to be installed = Number of trough sections + 1



A quick fix for mounting the stationary end of an E-Chain®

With this module for the fixed end, fast and easy mounting onto the Aluminum "SuperTrough" is now possible without any drilling. Fast mounting of the E-Chain® by clamping onto the aluminum trough ● Quick relocation of the stationary end ● No drilling necessary

Ba = Outer width E-Chains® / E-Tube
Bi = Inner width E-Chains® / E-Tube
ha = Outer height E-Chains® / E-Tube
H_{Ri} = Inner trough height
H_{Ra} = Outer trough height
B_{Ri} = Inner trough width ▶ depends on dim. *Ba*
B_{Ra} = Outer trough width
n_{Mon} = Number of installation sets (left/right)
n_{Ri} = Number of trough sets (left/right)

! $H_{Ri} \geq 2 \bullet ha$
$B_{Ri} \geq Ba + 4$

● = Guide trough set ● = Glide bar
● = Installation set "Basic" ● = C-profile

Installation set "Basic" with C-profile

Bottom Clamp attached optionally **inwards** or **outwards**

2500.05.200.0 ▶ Order example

	B_{Ri} [mm]	Part No. attached inwards	Part No. attached outwards
.02	45	–	960.30.150
.03	58	–	960.30.150
.05	77	960.30.125	960.30.175
.07	97	960.30.150	960.30.200
.09	109	960.30.175	960.30.225
.10	123	960.30.175	960.30.225
.12	145	960.30.200	960.30.250

Insert for the installation set "Heavy-Duty": **971.50.XXX** instead of (**960.30.XXX**) on the right column "attached outwards"

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▶ chapter 9
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