

### Price Index



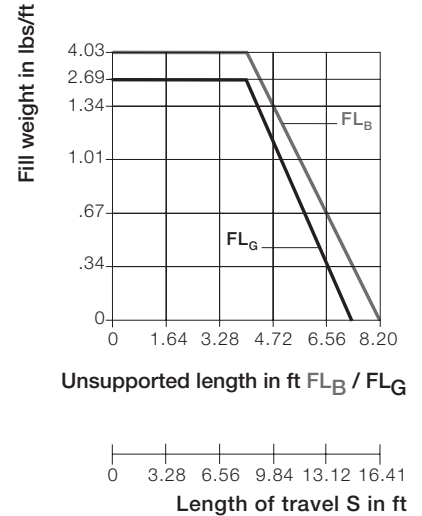
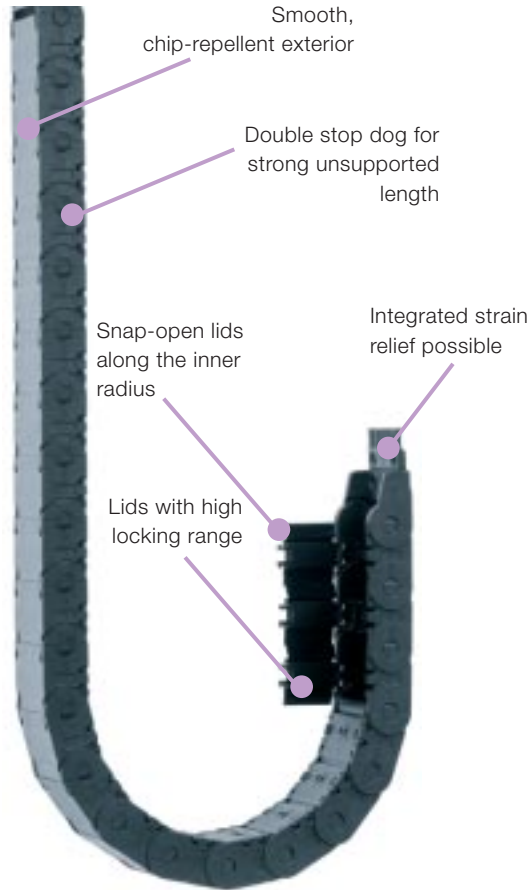
4 Widths  
up to 5 Bending Radii



Interior separation  
possible

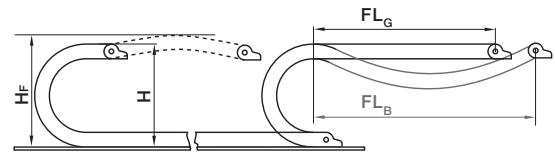


5 options for  
mounting brackets



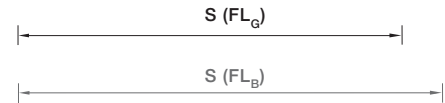
### Unsupported length

- FL<sub>B</sub> = unsupported with permitted sag
- FL<sub>G</sub> = unsupported with straight upper run



### Product Range:

Inner Widths (Bi) inches (mm):	1.50 (38), 2.24 (57), 3.03 (77), 4.06 (103),
Bending Radii (R) inches (mm):	3.94 (100), 4.92 (125), 5.91 (150),
	7.87 (200), 9.84 (250)
Pitch:	1.81 (46 mm)/link = 6.71 links/ft
	(22 links/m) 39.8 (1012 mm)



[Click Here for Specs & CAD Files](#)



### When to use the Series R2480:

- If hinged, snap-open accessibility along inner radius is required
- If a low-cost, lightweight Energy Tube for many types of applications is required
- If flush mounting is required
- If chip-repellent features are required



### When not to use the Series R2480:

- If snap-open accessibility along both radii is required
  - ▶ System E4/100, Series R770, **Chapter 6**
- If particularly quiet operation is required
  - ▶ Series R58, **Chapter 5**

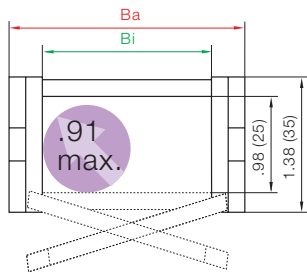
# Series R2480 "E2 Tubes"



R2480

## Series R2480 Energy Tube

(hinged, snap-open along the inner radius)



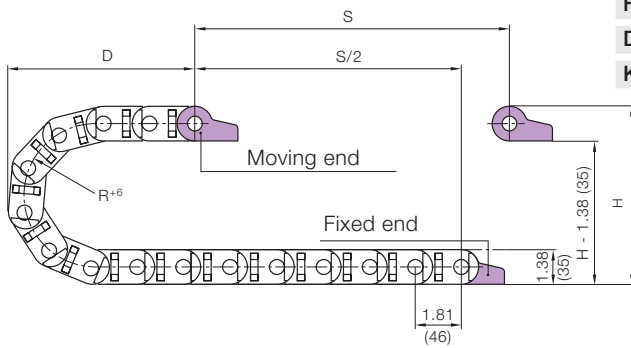
**Click Here for Specs & CAD Files**

Part No.	Bi	Ba	Bending Radii for ALL Widths	
2480-03	1.50 (038)	2.13 (054)		3.94 (100)
2480-05	2.24 (057)	2.87 (073)		4.92 (125)
2480-07	3.03 (077)	3.66 (093)		5.91 (150)*
2480-10	4.06 (103)	4.69 (119)		7.87 (200)**
			9.84 (250)***	

Supplement part number with required radius for example, 2480-03-100-0

- \* Currently NOT available for the 038 width
  - \*\* Currently ONLY available in the 103 width
  - \*\*\* Currently ONLY available in the 038 and 103 widths
- Call igus to check on availability

## Installation Dimensions



R	3.94 (100)	4.92 (125)	5.91 (150)	7.87 (200)	9.84 (250)
H*) <sub>0</sub>	9.25 (235)	11.22 (285)	13.19 (335)	17.13 (435)	21.06 (535)
D	6.69 (170)	7.68 (195)	8.66 (220)	10.63 (270)	12.60 (320)
K	16.30 (414)	19.53 (496)	22.76 (578)	29.21 (742)	36.22 (920)

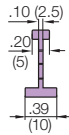
\*The required clearance height is HF = H + .98 (25) with 1.01 (1.5 kg/m) fill weight. Please consult igus® if space is particularly restricted.

- Pitch: = 1.81 (46 mm) per link
- Links per ft (m): = 6.71 (22)
- Tube length: =  $\frac{S}{2} + K$

## Interior Separation

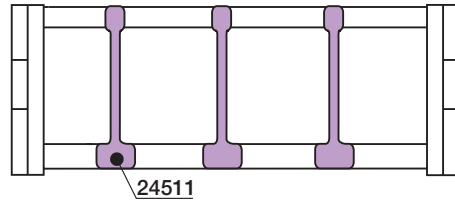
### Option 1: vertical separators

Vertical separators are used to divide the interior of the Energy Tube. They most commonly perform the tasks of distributing the carrier's fill weight evenly and keeping dissimilar cables/hoses apart. Separators are removable and adjustable for a variety of chamber widths.



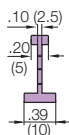
#### Separators

Unassembled	Part No. 24501
Assembled	Part No. 24511



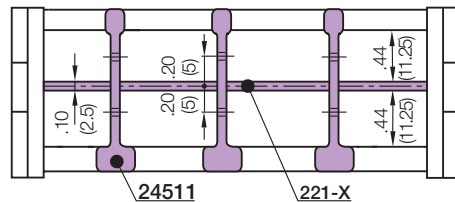
### Option 2: full-width shelf

This option is available for the snap-open Series 2480 chains. It is ideal for use in applications involving many thin cables with similar or identical diameters. This shelf slides into place and spans the entire width of the chain.



#### Separators

Unassembled	Part No. 220
Assembled	Part No. 221



Width X in. (mm)	Part No. Unassembled	Part No. Assembled
1.50 (38)	220-38	221-38
2.24 (57)	220-57	221-57
3.03 (77)	220-77	221-77
4.06 (103)	220-103	221-103

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 Specs/CAD//RFQ: [www.igus.com/echain.asp](http://www.igus.com/echain.asp)  
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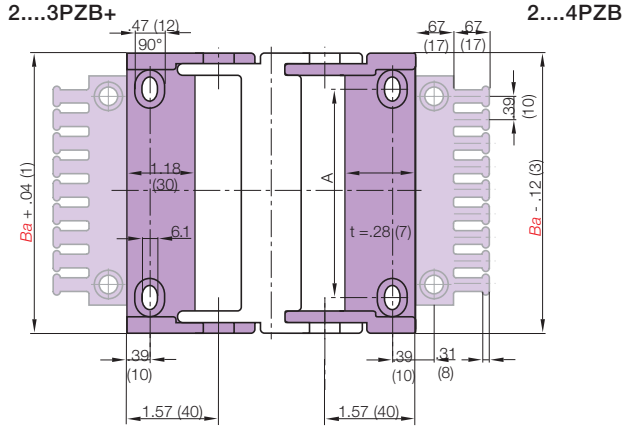
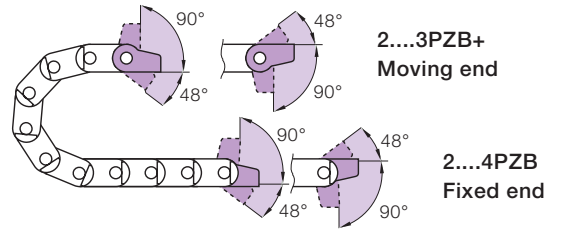


upon request

### Mounting Brackets

#### Option 1: polymer pivoting

- Pivoting
- Short and long travel
- Space-restricted conditions
- Corrosion-resistant



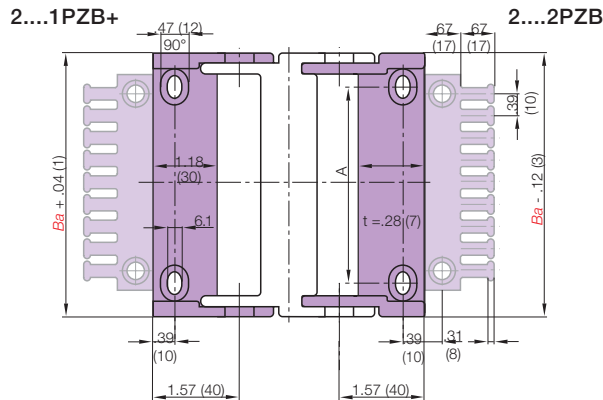
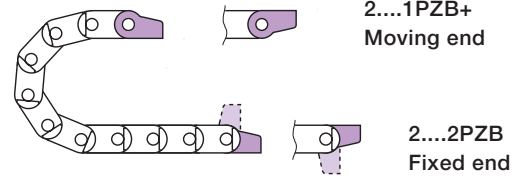
[Click Here for Specs & CAD Files](#)

Chain Type	Part No. Full Set with Tiewrap Plates	Part No. Set with Tiewrap Plates and 10 Cable Tiewraps	Part No. Mounting Bracket Set	Dimension A in. (mm)
2480-03	2030-34PZB+	2030-34PZBK1+	2030-34PZ+	.98 (25)
2480-05	2050-34PZB+	2050-34PZBK1+	2050-34PZ+	1.73 (44)
2480-07	2070-34PZB+	2070-34PZBK1+	2070-34PZ+	2.52 (64)
2480-10	2100-34PZB+	2100-34PZBK1+	2100-34PZ+	3.54 (90)

- 2...34 PZB+ = Full set, each part with pin/bore, including tiewrap plates
- 2...3 PZB+ = Mounting bracket with bore, including tiewrap plates
- 2...4 PZB = Mounting bracket with pin, including tiewrap plates

#### Option 2: polymer locking

- Locked connections
- Vertical hanging/standing travels
- Extreme accelerations
- Corrosion-resistant



Chain Type	Part No. Full Set with Tiewrap Plates	Part No. Set with Tiewrap Plates and 10 Cable Tiewraps	Part No. Mounting Bracket Set	Dimension A in. (mm)
2480-03	2030-12PZB+	2030-12PZBK1+	2030-12PZ+	.98 (25)
2480-05	2050-12PZB+	2050-12PZBK1+	2050-12PZ+	1.73 (44)
2480-07	2070-12PZB+	2070-12PZBK1+	2070-12PZ+	2.52 (64)
2480-10	2100-12PZB+	2100-12PZBK1+	2100-12PZ+	3.54 (90)

- 2...12 PZB+ = Full set, each part with pin/bore, including tiewrap plates
- 2...1 PZB+ = Mounting bracket with bore, including tiewrap plates
- 2...2 PZB = Mounting bracket with pin, including tiewrap plates

# Series R2480 "E2 Tubes"

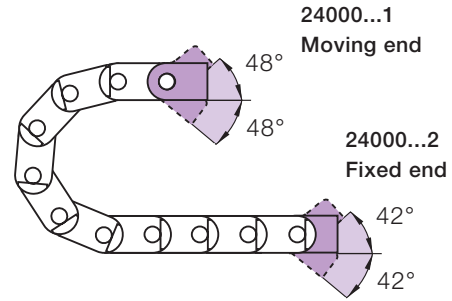


R2480

## Mounting Brackets

### Option 3: KMA pivoting

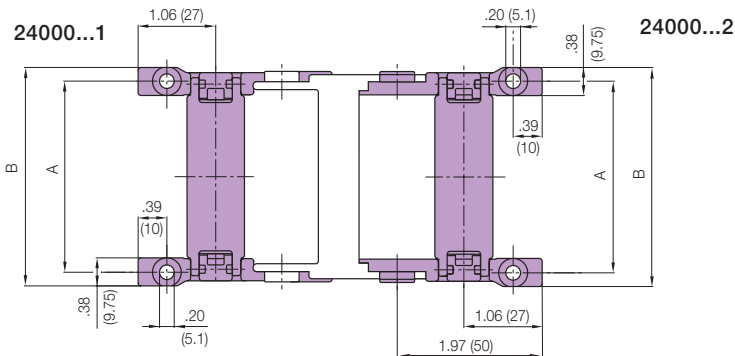
- Pivoting
- Short travels
- Space-restricted conditions
- Corrosion-resistant
- Bolted connection outside of chain cross-section



• Stackable



**Click Here for  
Specs &  
CAD Files**

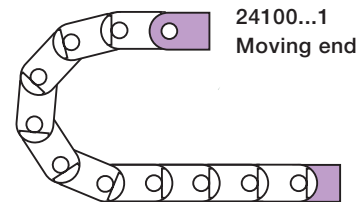


Chain Type	Part No. Full Set	Dimension A in. (mm)	Dimension B in. (mm)
2480-03	24000-03-12	1.87 (47.5)	2.24 (57)
2480-05	24000-05-12	2.62 (66.5)	2.99 (76)
2480-07	24000-07-12	3.41 (86.5)	3.78 (96)
2480-10	24000-10-12	4.43 (112.5)	4.80 (122)

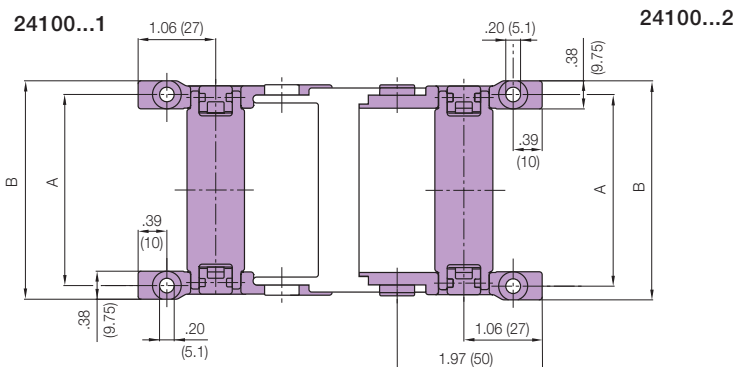
24000...12 = Full set, each with pin/bore  
 24000...1 = Mounting bracket with bore  
 24000...2 = Mounting bracket with pin

### Option 4: KMA locking

- Locked connections
- Vertical hanging/standing travels
- Extreme accelerations
- Corrosion-resistant
- Bolted connection outside of chain cross-section



• Stackable



Chain Type	Part No. Full Set	Dimension A in. (mm)	Dimension B in. (mm)
2480-03	24100-03-12	1.87 (47.5)	2.24 (57)
2480-05	24100-05-12	2.62 (66.5)	2.99 (76)
2480-07	24100-07-12	3.41 (86.5)	3.78 (96)
2480-10	24100-10-12	4.43 (112.5)	4.80 (122)

24000...12 = Full set, each with pin/bore  
 24000...1 = Mounting bracket with bore  
 24000...2 = Mounting bracket with pin

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 RoHS info: [www.igus.com/RoHS.asp](http://www.igus.com/RoHS.asp)

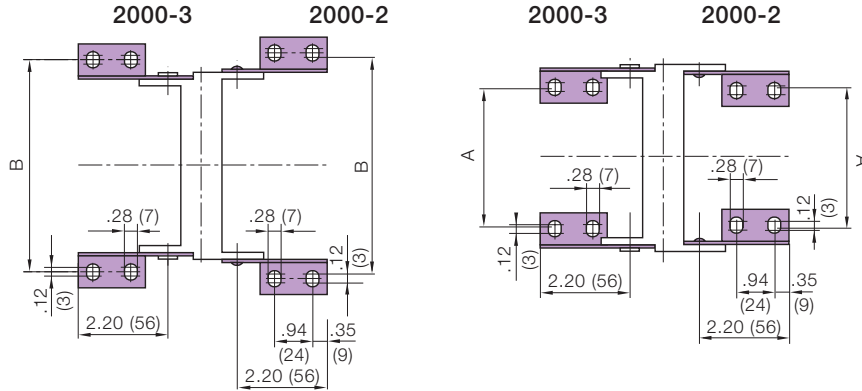
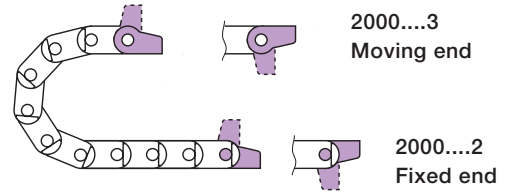


upon request

Mounting Brackets

Option 5: Steel

- One part for all chain widths
- Electrically conductive



Chain Type	Part No. Full Set	Dimension A		Dimension B	
		in.	(mm)	in.	(mm)
2480-03	2000-32	.98	(25)	2.87	(73)
2480-05	2000-32	1.73	(44)	3.62	(92)
2480-07	2000-32	2.52	(64)	4.41	(112)
2480-10	2000-32	3.54	(90)	5.43	(138)

2000-32 = Full set, 4 parts,  
2 with pin, 2 with bore  
2000-3 = Mounting bracket with bore,  
1 part left/right  
2000-2 = Mounting bracket with pin,  
1 part left/right

Strain Relief for Polymer Mounting Brackets (pivoting or locking)

The strain relief tiwrap plates can be snapped directly onto the mounting bracket without additional hardware. When the mounting brackets are bolted into place, the tiwrap plates are also connected firmly to the machine surface. No separate installation is necessary. Cable tiwraps secure cables using the "teeth" of the tiwrap plate for time-saving, effective strain relief.

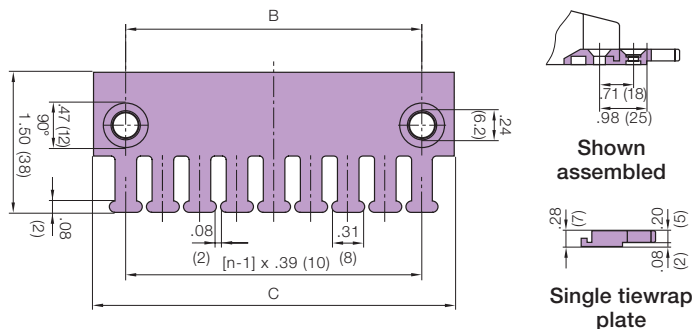


Strain relief for KMA and steel mounting brackets

With these mounting brackets, strain relief tiwrap plates may be bolted into the bores in front of the mounting bracket.



Tiwrap plate as an individual part



Tiwrap Plates	n Number of Teeth	C Overall Width	B Distance Between Bore Holes
2030-ZB	4	1.57 (40)	.79 (20)
2050-ZB	6	2.36 (60)	1.57 (40)
2070-ZB	8	3.15 (80)	2.36 (60)
2100-ZB	10	3.94 (100)	3.15 (80)

Cable tiwraps as individual parts

Cable tiwraps 100 pieces/bag	Width x Length		Maximum Ø		Tensile Strength	
	in.	(mm)	in.	(mm)	lbs	(N)
CFB-001	.19 x 5.91	(4.8 x 150)	1.42	(36)	50	(222)

- Other strain relief elements
- ▶ Strain Relief, Chapter 10

igus® Energy Chain System®

Telephone 1-800-521-2747  
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QuickSpec: <http://www.igus.com/qs/echain.asp>

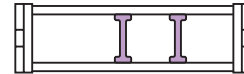
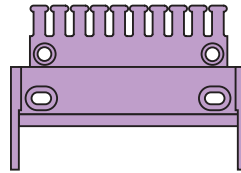
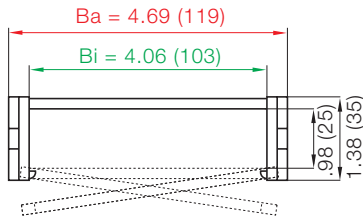
# Order Example and Technical Data: Series R2480 "E2 Tubes"



R2480

## Order example

2480-10



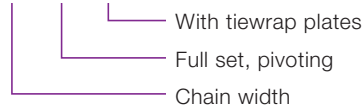
### 1. Chain selection:

2480-10-100-0



### 2. Mounting brackets:

2100-34-PZB+

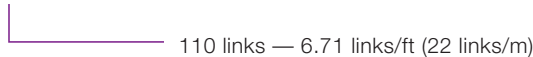


### 3. Interior separation:

2 separators, unassembled, (Part No. 24501), or assembled every other link (Part No. 24511). Alternative interior separation configuration according to design layout possible.

### 4. Additional information on guide troughs ► Chapter 9

For 16.4 ft (5 m) chain, color black, with pivoting mounting brackets  
16.4 ft (5 m) 2480-10-100-0 and 2100-34PZ+



## Technical data

Chain Type	Weight Per Link		Weight	
	(oz.)	(g)	(lbs/ft)	(kg/m)
2480-03	0.081	(0.037)	0.54	(0.81)
2480-05	0.090	(0.041)	0.60	(0.90)
2480-07	0.101	(0.046)	0.68	(1.01)
2480-10	0.128	(0.058)	0.77	(1.15)

Material	igumid G
Permitted temperature	-40°/+266°F (-40°/+130°C)
Gliding speed max.	16.4 ft/s (5 m/s)
Unsupported V max.	32.8 ft/s (10 m/s)
Flammability class	VDE 0304 IIC UL94 1H

### Guide Troughs



- Other technical data on guide troughs
- Chapter 9

- Details of material properties
- Design, Chapter 1

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RoHS info: [www.igus.com/RoHS.asp](http://www.igus.com/RoHS.asp)



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