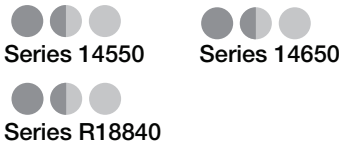


14550
14650
R19050



Price Index



Special Features / Options

- ESD classification: Electrically conductive ESD/ATEX version upon request
- High torsional rigidity
- Side-mounted - unsupported

Assembly Tips



Opening E-Chains®: Remove crossbars and clips - Insert screwdriver into the slot, push down, release by lever action



Remove lids/bottoms (E-Tubes) - Insert screwdriver into the slot, release by lever action

Other Installation Methods

- Vertical, hanging ≤ 262 ft (80 m)
- Vertical, standing ≤ 19.69 ft (6 m)
- Side-mounted, un supp. ≤ 6.56 ft (2 m)
- Rotary requires further calculation

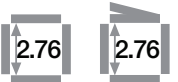
Usage Guidelines

- If weight and price reduction is needed
- If an E-Chain®/E-Tube with an inner height of 2.76" (70 mm) is required

- If an extremely low-noise version is required
 - Series E6-80
- If side-mounted chain/tube with a longer unsupported travel is required
 - Series E4-80, Series 15050
- If increased unsupported lengths and longer travels are required
 - Series E4-80, Series 15050

6.141

**E-Chain System® E4 Light
Series 14550/14650/R19050**



Features & Benefits

- 1 KMA mounting brackets with attachment points on all sides
- 2 Noise dampening pads, optional = -10dB(A)
- 3 Hinged snap-open removable lids along outer radius of E-Tube
- 4 Lateral glide surfaces for side-mounted operation
- 5 25% faster assembly with QuickLock Crossbar
- 6 High stability due to undercut design
- 7 Notch crossbar with visual scale
- 8 No camber: no rework due to special design



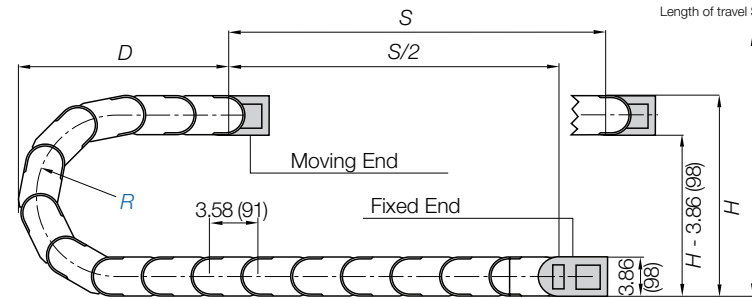
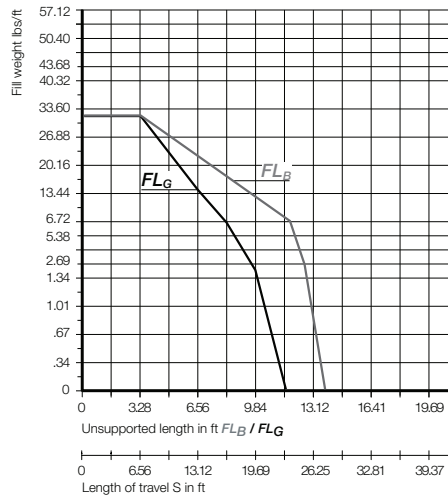
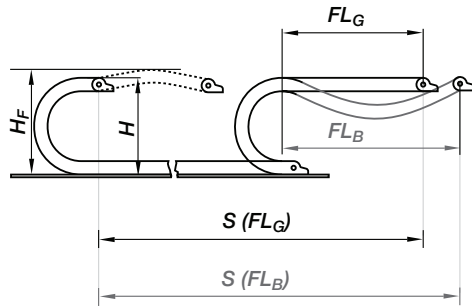
Order Example: Complete E-Chain®
Please indicate chain length or number of links. Example:

16.4 ft (5 m) 14550-30-300-0	E-Chain®
With 2 separators 70-1-1 assembled every 2nd link	Interior Separation
1 Set 145500-30-12P	Mounting Bracket

E-Chain System® E4 Light Series 14550/14650/R19050 Installation Dimensions

Short travel, unsupported length

- FL_B = unsupported with permitted sag
 - FL_G = unsupported with straight upper run
- Further information ► Design, Chapter 1

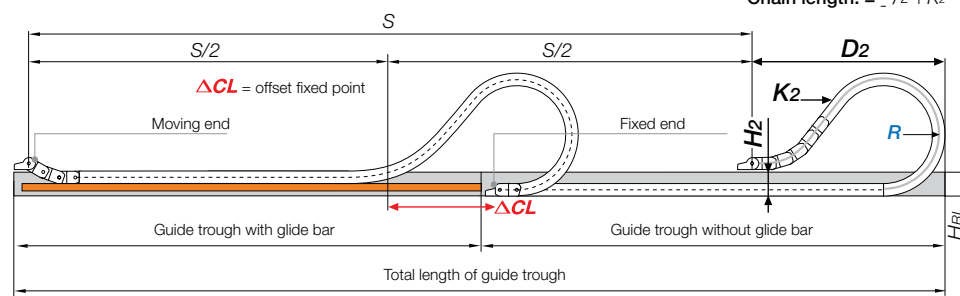


The required clearance height: $H_f = H + 1.97$ in. (50 mm) (with 1.68 lbs/ft (2.5 kg/m) fill weight).
Please consult igus® if space is particularly restricted.

R	5.91 (150*)	6.89 (175*)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	19.68 (500)	23.62 (600)
H	15.67 (398)	17.64 (448)	19.61 (498)	23.54 (598)	27.48 (698)	31.42 (798)	35.35 (898)	39.29 (998)	43.23(1098)	51.10 (1298)
D	13.23 (336)	14.21 (361)	15.19 (386)	17.17 (436)	19.13 (486)	21.10 (536)	23.07 (586)	25.04 (636)	27.01 (686)	30.94 (786)
K	25.79 (655)	28.94 (735)	32.09 (815)	38.19 (970)	44.29 (1125)	50.59 (1285)	56.29 (1440)	62.99 (1600)	69.09 (1755)	81.50 (2070)

For long travels with lowered mounting height

Long travel lengths from 32.8 ft.(10m) to max. 492 ft. (150m)



For center mount applications:
Chain length = $\frac{S}{2} + K_2$

R	5.91 (150*)	6.89 (175*)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	19.68 (500)	23.62 (600)
H ₂	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	10.47 (266)	2)
D ₂ ²⁵	17.72 (450)	20.87 (530)	27.95 (710)	36.22 (920)	44.09 (1120)	52.76 (1340)	60.24 (1530)	1)	72.05 (1830)	2)
K ₂	32.24 (819)	39.41 (1001)	50.16 (1274)	64.49 (1638)	75.24 (1911)	85.98 (2184)	100.31 (2548)	1)	125.39 (3185)	2)
ΔCL	4.88 (124)	6.26 (159)	8.22 (209)	14.13 (359)	20.04 (509)	25.94 (659)	32.64 (829)	37.76 (959)	45.63 (1159)	2)

For support of the lower run, see Chapter 9 for the Support Tray tool kit

¹Radius not available for E-Tubes

Speed / acceleration FL_G	max. 65.6 ft/s (20 m/s) / max. 656 ft/s ² (200 m/s ²)
Speed / acceleration FL_B	max. 9.84 ft/s (3 m/s) / max. 19.69 ft/s ² (6 m/s ²)
Gliding speed / acceleration (maximum)	max. 32.8 ft/s (10 m/s) / max. 164 ft/s ² (50 m/s ²)
Material - permitted temperature	igumid G / -40°F (-40°C) up to +248°F (+120°C)
Flammability Class, igumid G	VDE 0304 IIC UL94 HB



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Short Travels - Unsupported



Unsupported E-Chains® feature positive camber over short travels. This must be accounted for when specifying the clearance height. Please refer to Installation dimensions for further details.

Legend

- S = Length of travel
 - R = Bending radius
 - H = Nominal clearance height
 - D = Overlength E-Chain® radius in final position
 - $K = \pi \cdot R + \text{safety buffer}$
 - H_f = Required clearance height
 - HRI = Trough inner height
 - H₂ = *Mounting height
 - D₂ = Overlength - long travels, gliding
 - $K_2 = \text{*Add-on}$
- *If the mounting bracket location is set lower

2.76

PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS

Long Travels - Gliding



If the unsupported length is exceeded, the E-Chain®/ Tube must glide on itself. This requires a guide trough.

Design, Chapter 1

Technical Data



Details of material properties ► Chapter 1

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E-Chain System® E4 Light Series 14550/14650/R19050

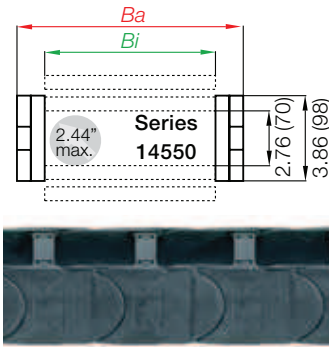
igus® E-Chain
System®

Telephone 1-800-521-2747
Fax 1-401-438-7270

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/quickspec>

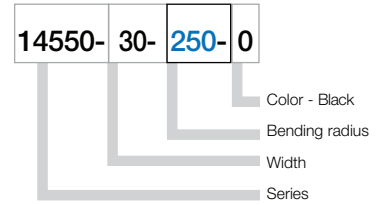
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Series 14550 - E-Chain® with crossbars every link

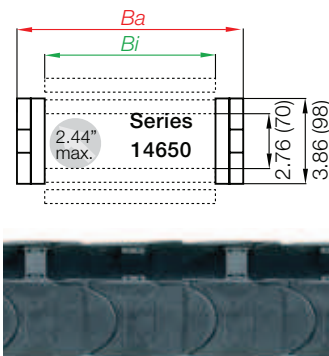


- Crossbars every link
- For use with rigid hydraulic hoses
- For particularly demanding applications
- Can be opened from both sides

Part Number Structure

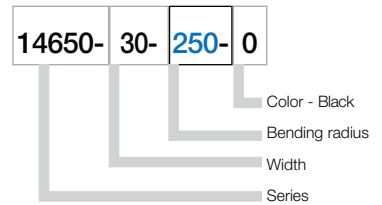


Series 14650 - E-Chain® with crossbars every other link

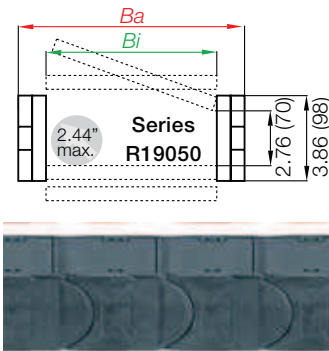


- Crossbars every other link - Standard configuration
- For nearly every situation
- Can be opened from both sides
- Easy assembly
- Stable
- Cost-effective

Part Number Structure

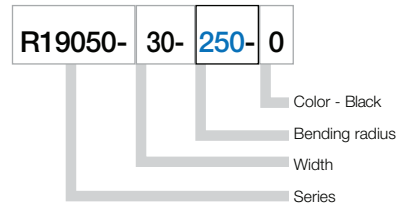


Series R19050 - fully enclosed E-Tube

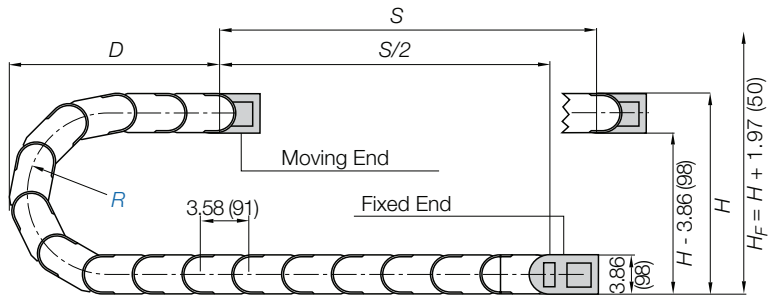
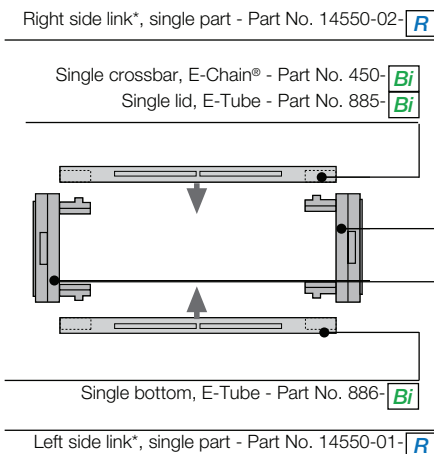


- Fully enclosed
- Excellent cable and hose protection against dirt
- Protection against hot chips
- Lids along inner radius are completely removable
- Lids along the outer radius are single-sided, snap open, hinged on one side as well as completely removable

Part Number Structure



E-Chain® as separate parts, links and side plates



*View from the fixed point of the E-Chain®/E-Tube

E-Chain System® E4 Light Series 14550/14650/R19050

Supplement part number with required radius. Example: 14550-30-300-0
Pitch: 3.58 in. (91mm) per link links/ft (m) = 3.35 (11)



14550
14650
R19050

Part Number			<i>Bi</i>	<i>Ba</i>	14550	14650	R19050
Crossbars	Crossbars	Tube	in. (mm)	in. (mm)	lbs/ft (kg/m)	lbs/ft (kg/m)	lbs/ft (kg/m)
Every link	Every other	Version					
14550-05-	14650-05-	<input type="checkbox"/> -0	1.97 (50)	3.03 (77)	≈ 2.41 (3.28)	≈ 2.49 (3.27)	-
14550-06-	14650-06-	<input type="checkbox"/> -0	2.56 (65)	3.62 (92)	≈ 2.26 (3.37)	≈ 2.22 (3.31)	-
14550-07-	14650-07-	19050-07- <input type="checkbox"/> -0	2.95 (75)	4.02 (102)	≈ 2.31 (3.44)	≈ 2.25 (3.35)	≈ 2.69 (4.00)
14550-08-	14650-08-	<input type="checkbox"/> -0	3.43 (87)	4.49 (114)	≈ 2.37 (3.52)	≈ 2.27 (3.38)	-
14550-10-	14650-10-	19050-10- <input type="checkbox"/> -0	3.94 (100)	5.00 (127)	≈ 2.43 (3.61)	≈ 2.30 (3.43)	≈ 2.91 (4.33)
14550-11-	14650-11-	<input type="checkbox"/> -0	4.41 (112)	5.47 (139)	≈ 2.51 (3.73)	≈ 2.35 (3.49)	-
14550-12-	14650-12-	19050-12- <input type="checkbox"/> -0	4.92 (125)	5.98 (152)	≈ 2.56 (3.81)	≈ 2.37 (3.53)	≈ 3.16 (4.70)
14550-13-	14650-13-	<input type="checkbox"/> -0	5.39 (137)	6.46 (164)	≈ 2.65 (3.94)	≈ 2.42 (3.60)	-
14550-15-	14650-15-	19050-15- <input type="checkbox"/> -0	5.91 (150)	6.97 (177)	≈ 2.67 (3.98)	≈ 2.43 (3.62)	≈ 3.39 (5.04)
14550-16-	14650-16-	<input type="checkbox"/> -0	6.38 (162)	7.44 (189)	≈ 2.75 (4.09)	≈ 2.47 (3.67)	-
14550-17-	14650-17-	19050-17- <input type="checkbox"/> -0	6.89 (175)	7.95 (202)	≈ 2.84 (4.23)	≈ 2.51 (3.74)	≈ 3.64 (5.41)
14550-18-	14650-18-	<input type="checkbox"/> -0	7.36 (187)	8.43 (214)	≈ 2.92 (4.34)	≈ 2.55 (3.80)	-
14550-20-	14650-20-	19050-20- <input type="checkbox"/> -0	7.87 (200)	8.94 (227)	≈ 2.95 (4.39)	≈ 2.57 (3.82)	≈ 3.79 (5.64)
14550-21-	14650-21-	<input type="checkbox"/> -0	8.35 (212)	9.41 (239)	≈ 3.00 (4.46)	≈ 2.59 (3.86)	-
14550-22-	14650-22-	<input type="checkbox"/> -0	8.86 (225)	9.92 (252)	≈ 3.04 (4.53)	≈ 2.61 (3.89)	-
14550-23-	14650-23-	<input type="checkbox"/> -0	9.33 (237)	10.39 (264)	≈ 3.12 (4.64)	≈ 2.84 (3.95)	-
14550-25-	14650-25-	19050-25- <input type="checkbox"/> -0	9.84 (250)	10.91 (277)	≈ 3.20 (4.76)	≈ 2.69 (4.00)	≈ 4.25 (6.32)
14550-26-	14650-26-	<input type="checkbox"/> -0	10.31 (262)	11.38 (289)	≈ 3.26 (4.85)	≈ 2.72 (4.05)	-
14550-27-	14650-27-	19050-27- <input type="checkbox"/> -0	10.83 (275)	11.89 (302)	≈ 3.33 (4.95)	≈ 2.76 (4.10)	≈ 4.47 (6.65)
14550-28-	14650-28-	<input type="checkbox"/> -0	11.30 (287)	12.36 (314)	≈ 3.37 (5.01)	≈ 2.78 (4.13)	-
14550-30-	14650-30-	19050-30- <input type="checkbox"/> -0	11.81 (300)	12.87 (327)	≈ 3.47 (5.16)	≈ 2.83 (4.21)	≈ 4.70 (6.99)
14550-31-	14650-31-	<input type="checkbox"/> -0	12.28 (312)	13.35 (339)	≈ 3.49 (5.20)	≈ 2.84 (4.23)	-
14550-32-	14650-32-	<input type="checkbox"/> -0	12.79 (325)	13.86 (352)	≈ 3.56 (5.30)	≈ 2.88 (4.28)	-
14550-33-	14650-33-	<input type="checkbox"/> -0	13.27 (337)	14.33 (364)	≈ 3.64 (5.42)	≈ 2.92 (4.34)	-
14550-35-	14650-35-	19050-35- <input type="checkbox"/> -0	13.78 (350)	14.84 (377)	≈ 3.78 (5.62)	≈ 2.98 (4.44)	≈ 5.16 (7.68)
14550-36-	14650-36-	<input type="checkbox"/> -0	14.25 (362)	15.31 (389)	≈ 3.72 (5.53)	≈ 2.95 (4.39)	-
14550-37-	14650-37-	<input type="checkbox"/> -0	14.76 (375)	15.83 (402)	≈ 3.78 (5.63)	≈ 2.98 (4.44)	-
14550-38-	14650-38-	<input type="checkbox"/> -0	15.24 (387)	16.30 (414)	≈ 3.86 (5.74)	≈ 3.02 (4.50)	-
14550-40-	14650-40-	19050-40- <input type="checkbox"/> -0	15.75 (400)	16.81 (427)	≈ 4.04 (6.01)	≈ 3.11 (4.63)	≈ 5.62 (8.36)
14550-41-	14650-41-	<input type="checkbox"/> -0	16.22 (412)	17.28 (439)	≈ 3.99 (5.94)	≈ 3.09 (4.60)	-
14550-42-	14650-42-	<input type="checkbox"/> -0	16.73 (425)	17.79 (452)	≈ 4.19 (6.23)	≈ 3.19 (4.74)	-
14550-43-	14650-43-	<input type="checkbox"/> -0	17.20 (437)	18.27 (464)	≈ 4.08 (6.07)	≈ 3.13 (4.66)	-
14550-45-	14650-45-	<input type="checkbox"/> -0	17.72 (450)	18.78 (477)	≈ 4.30 (6.40)	≈ 3.25 (4.83)	-
14550-46-	14650-46-	19050-46- <input type="checkbox"/> -0	18.19 (462)	19.25 (489)	≈ 4.27 (6.35)	≈ 3.23 (4.80)	≈ 6.19 (9.21)
14550-47-	14650-47-	<input type="checkbox"/> -0	18.70 (475)	19.76 (502)	≈ 4.29 (6.39)	≈ 3.24 (4.82)	-
14550-48-	14650-48-	<input type="checkbox"/> -0	19.17 (487)	20.24 (514)	≈ 4.46 (6.64)	≈ 3.33 (4.95)	-
14550-50-	14650-50-	<input type="checkbox"/> -0	19.69 (500)	20.75 (527)	≈ 4.53 (6.74)	≈ 3.36 (5.00)	-
14550-51-	14650-51-	<input type="checkbox"/> -0	20.16 (512)	21.22 (539)	≈ 4.47 (6.65)	≈ 3.33 (4.95)	-
14550-52-	14650-52-	<input type="checkbox"/> -0	20.67 (525)	21.73 (552)	≈ 4.58 (6.82)	≈ 3.39 (5.04)	-
14550-53-	14650-53-	<input type="checkbox"/> -0	21.14 (537)	22.20 (564)	≈ 4.65 (6.92)	≈ 3.42 (5.09)	-
14550-55-	14650-55-	<input type="checkbox"/> -0	21.65 (550)	22.72 (577)	≈ 4.93 (7.34)	≈ 3.56 (5.30)	-
14550-60-	14650-60-	<input type="checkbox"/> -0	23.62 (600)	24.69 (627)	≈ 5.09 (7.57)	≈ 3.64 (5.41)	-

Choose from the radii below for all of the above sizes

Radius (mm) Example: 14550-30-300-0

	150*	175*	200	250	300	350	400	450	500	600
<i>R</i>	5.91 (150)	6.89 (175)	7.87 (200)	9.84 (250)	11.81 (300)	13.78 (350)	15.75 (400)	17.72 (450)	19.68 (500)	23.62 (600)
<i>H</i>	15.67 (398)	17.64 (448)	19.61 (498)	23.54 (598)	27.48 (698)	31.42 (798)	35.35 (898)	39.29 (998)	43.23 (1098)	51.10 (1298)
<i>D</i>	13.23 (336)	14.21 (361)	15.19 (386)	17.17 (436)	19.13 (486)	21.10 (536)	23.07 (586)	25.04 (636)	27.01 (686)	30.94 (786)
<i>K</i>	25.79 (655)	28.94 (735)	32.09 (815)	38.19 (970)	44.29 (1125)	50.59 (1285)	56.29 (1440)	62.99 (1600)	69.09 (1755)	81.50 (2070)

* This radius is not available for the Tube Series

¹⁾ Values upon request

²⁾ Note: for using *R 600* for long travels (gliding) please consult igus® first.

0=Standard color black. For other colors see Chapter 1

For wider chains see page 6.146. For large diameter hoses see page 6.146

PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS

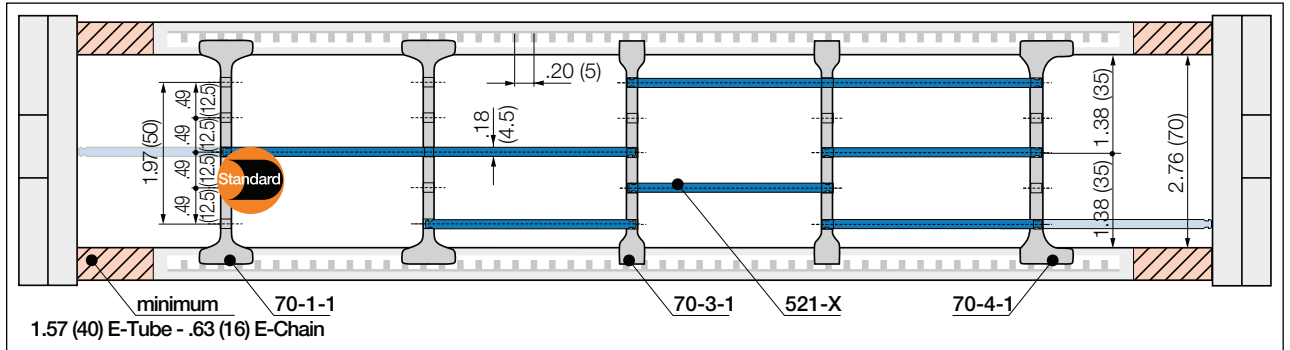


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14650
R19050



E-Chain System® E4 Light Series 14550/14650/R19050 Interior Separation

igus® E-Chain
System®



Note Please maintain a lateral spacing of 1.57" (40 mm) for E-Tube and .63" (16 mm) for E-Chains® between the separators and the side links. In the standard configuration separators are assembled every 2nd E-Chain® link

Telephone 1-800-521-2747
Fax 1-401-438-7270

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/quickspec>

		Separator, wide base	Unassembled Part No. 70-1	Assembled Part No. 70-1-1
		Separator, narrow head	Unassembled Part No. 70-2	Assembled Part No. 70-2-1
		Separator, narrow base	Unassembled Part No. 70-3	Assembled Part No. 70-3-1
		Separator, asymmetrical	Unassembled Part No. 70-4	Assembled Part No. 70-4-1
		Separator, asymmetrical	Unassembled Part No. 70-5	Assembled Part No. 70-5-1

- **Standard separator 70-1 for all applications**
Separator with wide base for maximum locking strength and safe standing in E-Chains®.
- **Separator 70-2 For even faster installation**
Separator for igus® QuickLock crossbar 385-X-Q. Firm hold to one side with a wide base, narrow on opposed side for easy cable assembly (slight grip)
- **Separator 70-3 For many thin cables**
Separator with a narrow base for many thin cables side by side. Saves space in E-Chains® and E-Tubes.
- **Separator 70-4 For side mounted applications**
Asymmetrical separator, for defined distance. No additional spacers necessary for E-Chains® and E-Tubes.
- **Separator 70-5 Locks safely in .20" (5 mm) increments**
Notch separator for exact positioning in E-Chains®. Recommended for side-mounted applications.

Lockable full-width shelves - for the standard interior separation

		Full width shelf, lockable	Unassembled Part No. 520-X	Assembled Part No. 521-X
--	--	-----------------------------------	-----------------------------------	---------------------------------

- **Full width shelf, lockable**
Shelf locks safely into separators on both ends, fixed width possible. Separators can be moved freely over the shelf in horizontal direction. Can be arranged at 5 different heights.

Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled	Width X in. (mm)	Part No. Unassembled	Part No. Assembled
1.97 (50)	520-50	521-50	5.91 (150)	520-150	521-150	11.81 (300)	520-300	521-300
2.56 (65)	520-65	521-65	6.89 (175)	520-175	521-175	13.78 (350)	520-350	521-350
2.95 (75)	520-75	521-75	7.87 (200)	520-200	521-200	14.76 (375)	520-375	521-375
3.94 (100)	520-100	521-100	8.86 (225)	520-225	521-225	15.24 (387)	520-387	521-387
4.92 (125)	520-125	521-125	9.84 (250)	520-250	521-250	17.723 (450)	520-450	521-450

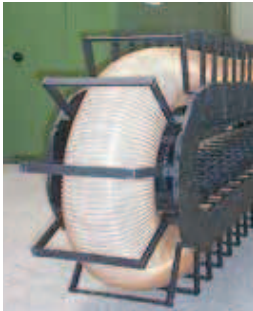
E-Chain System® E4 Light

Series 14550/14650/R19050

Special Accessories



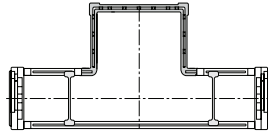
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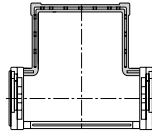
Consult igus® for your extender crossbar applications. We will be happy to assist you with your design layout.

Extender crossbars - For careful guiding of large diameter cables and hoses

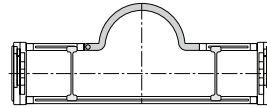
- Intended for cables and hoses with a maximum outer diameter of 9.64 in. (245 mm).
- Can be attached along either the inner or outer radius, inner radius preferred
- Gliding operation with crossbars assembled along the outer radius in conjunction with a special guide trough
- Gliding operation not guaranteed with crossbars assembled along the inner radius
- The extender crossbar can either be attached to the side links directly or can be used in combination with two standard snap-open crossbars.



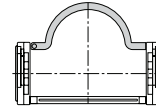
Square extender crossbar combined with standard snap-open crossbars.



Attached directly to the side link.



Round extender crossbar combined with standard snap-open crossbars.



Attached directly to the side link.

Part No.	Max Ø Hose	Style	Installation Side Link	Combined with Snap-Open Crossbars
450-15-RHD115	4.52 (115)	Round	No	Yes
450-17-RD115	4.52 (115)	Round	Yes	No
450-25-D150	5.91 (150)	Square	Yes	No
450-30-D200	7.09 (180)	Square	Yes	No
450-35-D250	7.68 (195)	Square	Yes	No
450-40-D300	9.65 (245)	Square	Yes	No
450-20-HD150	5.91 (150)	Square	No	Yes
450-25-HD200	7.09 (180)	Square	No	Yes
450-30-HD250	7.68 (195)	Square	No	Yes

PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS



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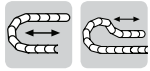


E-Chain System® E4 Light Series 14550/14650/R19050 Mounting Brackets

igus® E-Chain
System®

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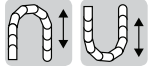
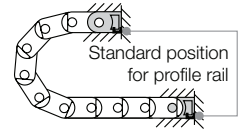
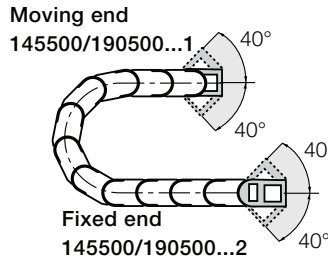
Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/quickspec>
6.147



Standard Standard

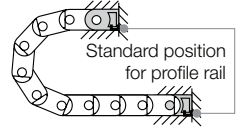
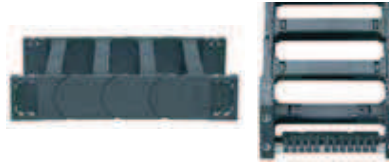
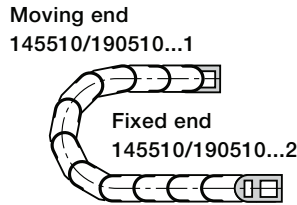
Option 1: KMA pivoting

- Profile rail option
- Universal use
- Corrosion resistant
- Short and long travels
- Space-restricted conditions



Option 2: KMA locking

- Profile rail option
- Universal use
- Corrosion resistant
- Extreme accelerations
- Vertical hanging/standing travels

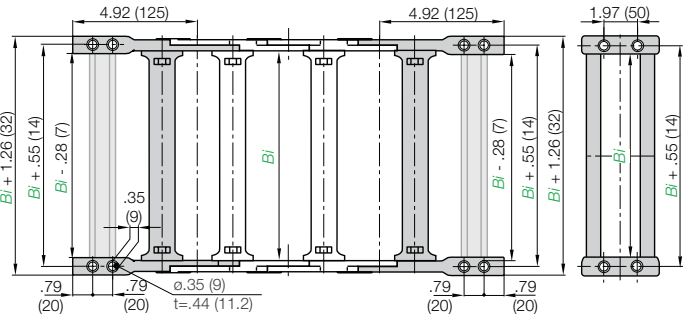


Part Number Structure

145500 05- 12 P

With Profile Rail
Complete Set
Width

145500/190500 = Locking
145510/190510 = Pivoting



Full set, for both ends:

145500- [05- 12] Full set, each part with pin/bore

Single-part order:

145500- [05- 1] Mounting bracket with bore

145500- [05- 2] Mounting bracket with pin

Part number examples are shown for pivoting brackets. For locking brackets change part number to 145510

Part No. Full Set (pivoting for Chain)

Series 14550 or 14650:

145500-Width-12

Part No. Full Set (pivoting for Chain)

with profile rail

Series 14550 or 14650

145550-Width-12P

Part No. Full Set (pivoting for Tube)

Tube Series R19050

190500-Width-12

Part No. Full Set (pivoting for Tube)

with Profile Rail

Tube Series R19050

190510-Width-12P

Width	Part No. Full Set		With Profile	Bi in. (mm)
	Pivoting Chain/Tube	Locking Chain/Tube		
-05	145500-	145510-	05-12	1.97 (50)
-06	145500-	145510-	06-12	2.56 (65)
-07	145500-/190500-	145510-/190510-	07-12	2.95 (75)
-08	145500-	145510-	08-12	3.43 (87)
-10	145500-/190500-	145510-/190510-	10-12	3.94 (100)
-11	145500-	145510-	11-12	4.41 (112)
-12	145500-/190500-	145510-/190510-	12-12	4.92 (125)
-13	145500-	145510-	13-12	5.39 (137)
-15	145500-/190500-	145510-/190510-	15-12	5.91 (150)
-16	145500-	145510-	16-12	6.38 (162)
-17	145500-/190500-	145510-/190510-	17-12	6.89 (175)
-18	145500-	145510-	18-12	7.36 (187)
-20	145500-/190500-	145510-/190510-	20-12	7.87 (200)
-21	145500-	145510-	21-12	8.35 (212)
-22	145500-	145510-	22-12	8.86 (225)
-23	145500-	145510-	23-12	9.33 (237)
-25	145500-/190500-	145510-/190510-	25-12	9.84 (250)
-26	145500-	145510-	26-12	10.31 (262)
-27	145500-/190500-	145510-/190510-	27-12	10.83 (275)
-28	145500-	145510-	28-12	11.30 (287)
-30	145500-/190500-	145510-/190510-	30-12	11.81 (300)

Width	Part No. Full Set		With Profile	Bi in. (mm)
	Pivoting Chain/Tube	Locking Chain/Tube		
-31	145500-	145510-	31-12	12.28 (312)
-32	145500-	145510-	32-12	12.79 (325)
-33	145500-	145510-	33-12	13.27 (337)
-35	145500-/190500-	145510-/190510-	35-12	13.78 (350)
-36	145500-	145510-	36-12	14.25 (362)
-37	145500-	145510-	37-12	14.76 (375)
-38	145500-	145510-	38-12	15.24 (387)
-40	145500-/190500-	145510-/190510-	40-12	15.75 (400)
-41	145500-	145510-	41-12	16.22 (412)
-42	145500-	145510-	42-12	16.73 (425)
-43	145500-	145510-	43-12	17.20 (437)
-45	145500-	145510-	45-12	17.72 (450)
-46	145500-/190500-	145510-/190510-	46-12	18.19 (462)
-47	145500-	145510-	47-12	18.70 (475)
-48	145500-	145510-	48-12	19.17 (487)
-50	145500-	145510-	50-12	19.69 (500)
-51	145500-	145510-	51-12	20.16 (512)
-52	145500-	145510-	52-12	20.67 (525)
-53	145500-	145510-	53-12	21.14 (537)
-55	145500-	145510-	55-12	21.65 (550)
-60	145500-	145510-	60-12	23.62 (600)

E-Chain System® E4 Light Series 14550/14650/R19050 Strain Relief



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14650
R19050

Chainfix clamps for the profile rail



igus® Chainfix strain relief elements are available in either steel or stainless steel. They can be adjusted with a hexagon socket and are available in single, double and triple configurations.

Part No. Single Clamp		Part No. Double Clamp		Part No. Triple Clamp		Cable ø	
Steel	Stainless	Steel	Stainless	Steel	Stainless	in.	(mm)
CFX12-1	CFX12-1E	CFX12-2	CFX12-2E	CFX12-3	–	.24 - .47	(6 - 12)
CFX14-1	CFX14-1E	CFX14-2	CFX14-2E	CFX14-3	–	.47 - .55	(12 - 14)
CFX16-1	CFX16-1E	CFX16-2	CFX16-2E	CFX16-3	–	.55 - .63	(14 - 16)
CFX18-1	CFX18-1E	CFX18-2	CFX18-2E	CFX18-3	–	.63 - .71	(16 - 18)
CFX20-1	CFX20-1E	CFX20-2	CFX20-2E	CFX20-3	–	.71 - .79	(18 - 20)
CFX22-1	CFX22-1E	CFX22-2	CFX22-2E	CFX22-3	–	.79 - .87	(20 - 22)
CFX26-1	CFX26-1E	CFX26-2	CFX26-2E	–	–	.87 - 1.02	(22 - 26)
CFX30-1	CFX30-1E	CFX30-2	CFX30-2E	–	–	1.02 - 1.18	(26 - 30)
CFX34-1	CFX34-1E	CFX34-2	CFX34-2E	–	–	1.18 - 1.34	(30 - 34)
CFX38-1	CFX38-1E	–	–	–	–	1.34 - 1.50	(34 - 38)
CFX42-1	CFX42-1E	–	–	–	–	1.50 - 1.65	(38 - 42)

For more information please refer to strain relief section of Chapter 10

Chainfix Clip



Modular snap-on strain relief device

Chainfix clip is available for cable diameters ranging from .16" (4mm) to .94" (24 mm). It is suitable for assembly on KMA mounting brackets, clip-on strain relief for crossbars as well as profile rails. Quick assembly without the use of tools. **For more information please refer to strain relief section of Chapter 10**

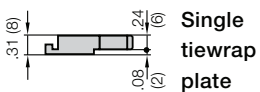
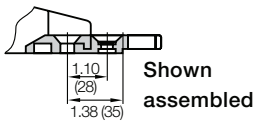
Cable ø	Part No. Clamp	Part No. Bottom
in.	(mm)	
.16-.31	CFC-08-M	CFC-08-C
.31-.47	CFC-12-M	CFC-12-C
.47-.63	CFC-16-M	CFC-16-C
.63-.79	CFC-20-M	CFC-20-C
.79-.94	CFC-24-M	CFC-24-C

Tiewrap Plates

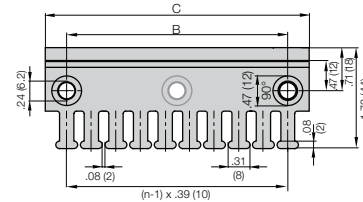
Option 1:

Tiewrap plates as an individual part

Available as an individual component, can be fixed onto a mounting bracket with the use of a profile rail.



Tiewrap Plate	n Number of Teeth	C Overall Width in. (mm)	B Bore Width in. (mm)	Center Bore
3050-ZB	5	1.97 (50)	1.18 (30)	no
3075-ZB	7	2.95 (75)	2.16 (55)	no
3100-ZB	10	3.94 (100)	3.15 (80)	no
3115-ZB	11	4.53 (115)	3.74 (95)	no
3125-ZB	12	4.92 (125)	4.13 (105)	no
3150-ZB	15	5.91 (150)	5.12 (130)	no
3175-ZB	17	6.89 (175)	6.10 (155)	no
3200-ZB	20	7.87 (200)	7.09 (180)	yes
3225-ZB	22	8.86 (225)	8.07 (205)	yes
3250-ZB	25	9.84 (250)	9.06 (230)	yes



If used with KMA brackets with profile rail please add "KMA" to the end of the part number.

Example: 3050-ZBKMA

For more information please refer to strain relief section of Chapter 10



Option 2: Clip-on Tiewrap plates

Available as a clip-on tiewrap plate without the use of bolts They are inserted and removed with a screwdriver used as a lever. Clip-on tiewrap plates are also available as an attachment to the opening crossbars.

Part No.	Number of Teeth	Width of Strain Relief in. (mm)
3050-ZC	5	1.97 (50)
3075-ZC	7	2.95 (75)

For more information please refer to strain relief section of Chapter 10



Option 3: Clip-on Tiewrap plates for opening crossbars

Clip-on tiewrap plates are also available as an attachment to opening crossbars. They can be positioned at any point along the E-Chain®.

Part No.	Number of Teeth	Width of Strain Relief in. (mm)
4550-ZS	5	1.89 (48)
4575-ZS	7	2.91 (74)

For more information please refer to strain relief section of Chapter 10

PDF: www.igus.com/e-chain-pdfs
Specs/CAD/RFQ: www.igus.com/e-chains
RoHS info: www.igus.com/RoHS



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E-Chain System® E4 Light Series 14550/14650/R19050 Guide Trough

igus® E-Chain
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Telephone 1-800-521-2747
Fax 1-401-438-7270

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/quickspec>

Width of Crossbar
14550-10-200-0

	B_{Ri}	Installation Part No.
-05	3.23 (82)	*
-06	3.82 (97)	*
-07	4.21 (107)	94-50-225
-08	4.69 (119)	94-50-250
-10	5.20 (132)	94-50-250
-11	5.67 (144)	94-50-275
-12	6.18 (157)	94-50-275
-13	6.65 (169)	94-50-300
-15	7.17 (182)	94-50-300
-16	7.64 (194)	94-50-325
-17	8.15 (207)	94-50-325
-18	8.62 (219)	94-50-350
-20	9.13 (232)	94-50-350
-21	9.61 (244)	94-50-375
-22	10.12 (257)	94-50-375
-23	10.59 (269)	94-50-400
-25	11.10 (282)	94-50-400
-26	11.57 (294)	94-50-425
-27	12.09 (307)	94-50-425
-28	12.56 (319)	94-50-450
-30	13.07 (332)	94-50-450
-31	13.54 (344)	94-50-475
-32	14.06 (357)	94-50-475
-33	14.53 (369)	94-50-500
-35	15.04 (382)	94-50-500
-36	15.51 (394)	94-50-525
-37	16.02 (407)	94-50-525
-38	16.50 (419)	94-50-550
-40	17.01 (432)	94-50-550
-41	17.48 (444)	94-50-575
-42	17.99 (457)	94-50-575
-43	18.46 (469)	94-50-600
-45	18.98 (482)	94-50-600
-46	19.45 (494)	94-50-625
-47	19.96 (507)	94-50-625
-48	20.43 (519)	94-50-650
-50	20.94 (532)	94-50-650
-51	21.42 (544)	94-50-675
-52	21.93 (557)	94-50-675
-53	22.40 (569)	94-50-700
-55	22.91 (582)	94-50-700
-60	24.88 (632)	94-50-750

Guide troughs are used with applications where the upper run of the E-Chain® glides on the lower run. If using igus® steel guide troughs, the following components are required:

- Full travel length of guide trough
Part No. 94-14550-30
- 1/2 travel length glide bars
Part No. 93-01
- Installation sets as end connectors
Part No. 94-50-XX

.XX indicates the length of the profile rails on which the guide trough is mounted. The values and part numbers are specified in the table on the left. The standard length of the trough components and glide bars is 6.56 ft (2 m). The required overall length of the guide trough directly correlates to the length of travel.

Example:
Length of travel 164 ft (50 m)
Center mounted

Required guide troughs
164 ft (50 m) guide trough
82 ft (25 m) glide bars
= 25 sections of 6.56 ft (2 m) guide trough

Part No. 94-30
= 13 sections of 6.56 ft (2 m) glide bars

Part No. 93-01
Required number of installation sets:
= Number of guide trough components + 1
= 25 + 1 = 26
Part number of the installation sets

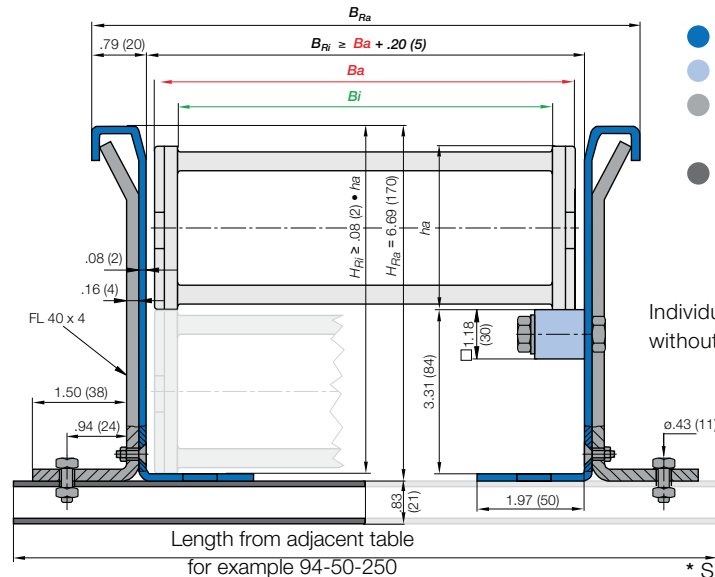
94-50-XXX
Example:
94-50-400 for 15.75 (400 mm) long profile rail



Left: Guide trough with glide bars
Right: Guide troughs without glide bars



Installation sets as section connectors



- Guide trough
- Glide bars
- Installation set "Basic"
- Profile rail

Individual attachment without profile rail

* Specialized guide trough available upon request

Standard length profile rail