



GERMAN
DESIGN
AWARD
WINNER
2021

E4Q

The next generation of easy-to-assemble e-chains® **New**



Advantages of the E4Q system:

- 40% faster filling compared to E4.1 system - crossbar designed for tool-free opening and closing
- 10% less weight compared to E4.1 system - material recesses for optimised weight and strength
- Stronger compared to the E4.1 system - vertically and horizontally positioned stop-dogs for the best stability depending on the type of installation
- 17dB(A) less noise than 4040C series - optional noise dampening can be retrofitted at any time



When to use another e-chain® series:

- When a fully enclosed e-tube with similar strength and size is required
▶ E4.1 page 616
- When an e-chain® must fulfil ISO Class 1 cleanroom standard
▶ E6.1, page 832
- When a light, cost-effective echain®/e-tube with higher dynamics is needed
▶ E4.1L, page 538

Attachment from any side: with KMA mounting brackets

40% faster filling¹⁾: crossbar designed for tool-free opening and closing

15% higher pull-out strength of the crossbars¹⁾: strong connection to the e-chain[®]

10% less weight¹⁾: material recesses for optimised weight and strength

More strength¹⁾: vertically and horizontally positioned stop-dogs for the best stability depending on the type of installation

17dB(A) less noise²⁾: optional noise dampening, can be retrofitted, upon request

1) Compared to E4.1 system
2) Compared to 4040C series

The next generation of easy-to-assemble e-chains[®] - E4Q

Easy opening and closing, without tools

The latest E4Q e-chains[®] generation combines proven design features of the 12-year old, E4.1 e-chain[®] standard with new organic design and a novel opening mechanism. This gives the E4Q an even longer service life and significantly improved ease of installation.

- Tool-free opening and closing
- Sustainability - 10% less material means 10% less energy consumption during production
- Short cross-bar pickup for even easier filling of the e-chain[®]
- Optimised interior geometry for longer cable service life
- Novel integrated grid structure on crossbars for fixed interior separation with narrower separators
- Inner/outer link principle for straight run
- Undercut design ensures the best hold as well as high lateral and torsion strength

Typical industries and applications

- Machine tools ● Cranes ● Automation systems



Series	Inner height <i>hi</i> [mm]	Inner width <i>Bi</i> [mm]	Outer width <i>Ba</i> [mm]	Outer height <i>ha</i> [mm]	Bend radius <i>R</i> [mm]	Unsupported length ≤ [m]	Page
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e-chains[®] with crossbars every link
the all-rounder - and for particularly demanding applications
Please observe the guidelines for the e-chains[®] selection, further information ► From page 114

E4Q.34 ¹⁾ New	34	075 - 250	98 - 273	54	063 - 300	3.60	592
E4Q.44 ¹⁾ New	44	075 - 250	101 - 276	64	075 - 350	4.00	598
E4Q.58 New	58	100 - 362	134 - 397	84	135 - 500	5.00	604
E4Q.82 New	82	100 - 362	150 - 413	108	150 - 1,000	6.20	610



e-chains[®] with crossbars every 2nd link
the cost-effective, easy-to-install alternative for almost all applications
Please observe the guidelines for the e-chains[®] selection, further information ► From page 114

H4Q.34 ¹⁾ New	34	075 - 250	98 - 273	54	063 - 300	3.60	592
H4Q.44 ¹⁾ New	44	075 - 250	101 - 276	64	075 - 350	4.00	598
H4Q.58 New	58	100 - 362	134 - 397	84	135 - 500	5.00	604
H4Q.82 New	82	100 - 362	150 - 413	108	150 - 1,000	6.20	610

1) Available widths and radii available from spring 2021.

Available from stock. Ready to ship in 24 - 48hrs.*
*Average time before the ordered goods are dispatched.



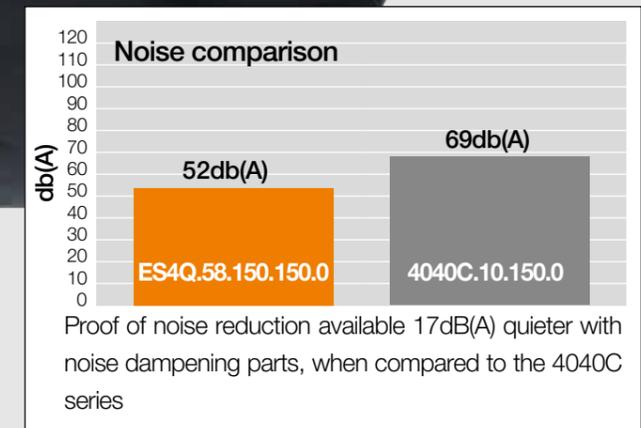
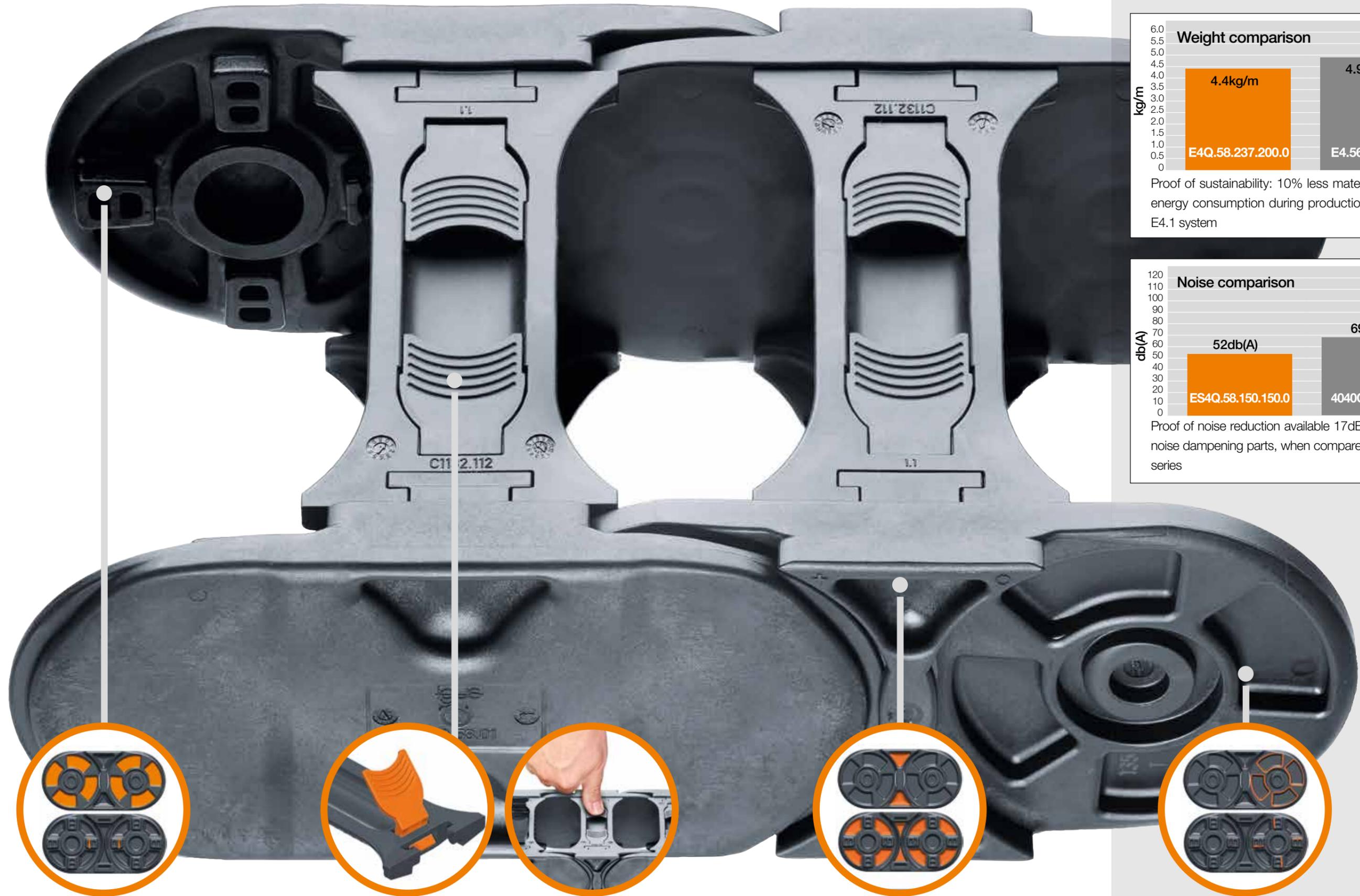
Easy handling - opening and closing of an e-chain[®] without tools, save up to 40% assembly time compared to E4.1 series

The E4Q innovation | Design principle

Open and close easily without tools ...

The E4Q innovation | Design principle | Proof

... simple handling



Optional noise dampening - new system for noise reduction. 17dB(A) quieter than 4040C series

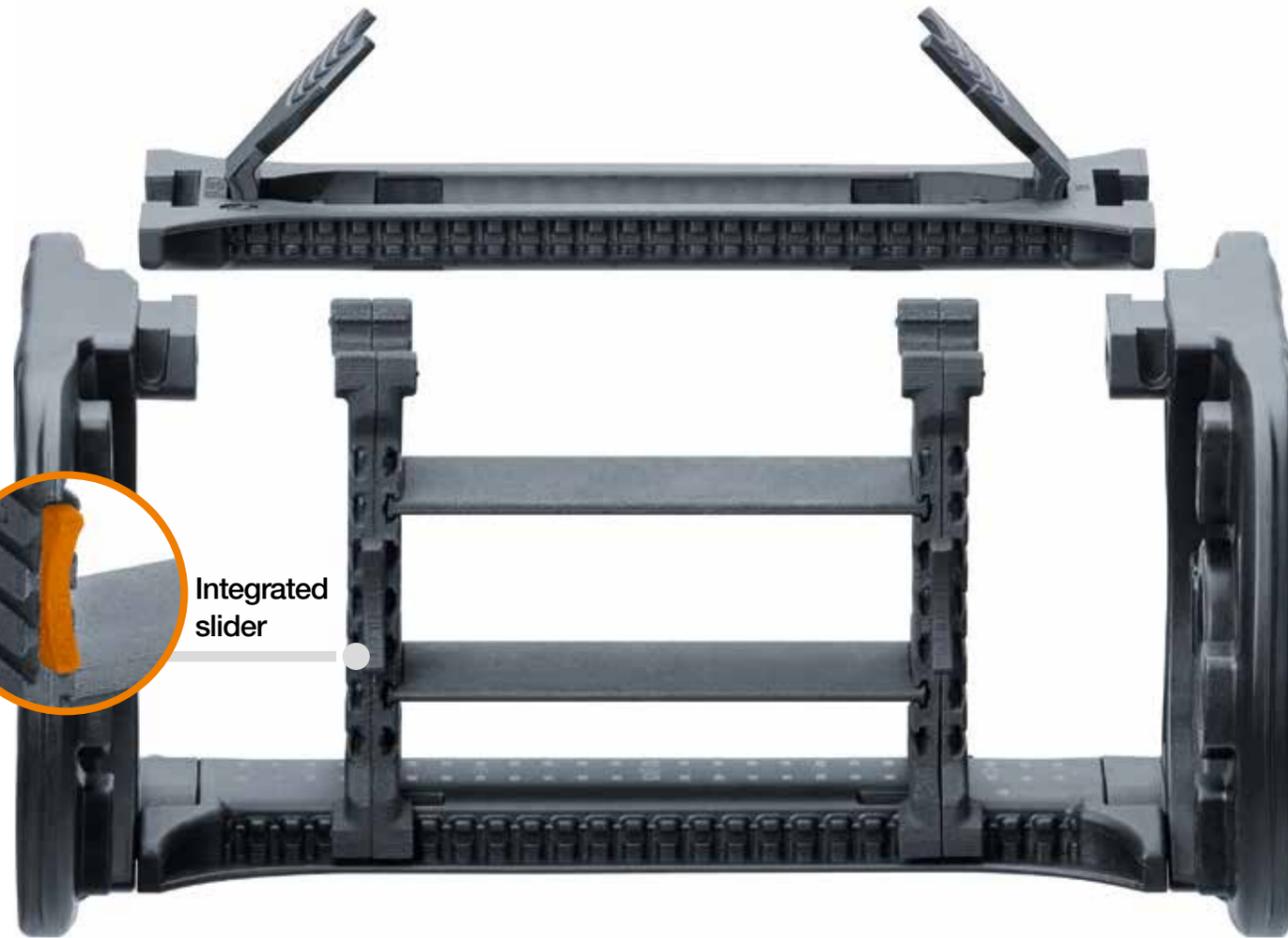
Open and close the E4Q e-chain® easily without tools. 40% faster assembly or filling compared to E4.1 system

Lighter structure of the e-chain® links due to material saving. 10% less weight compared to E4.1 system.

More strength and a higher unsupported length compared to the E4.1 system due to vertical and horizontal stop-dogs

E4Q | Universal interior separation **New**

Particularly simplified assembly with the new universal separators



Complete flexibility, reliability and ease of assembly in one The new universal system for modular shelving offers complete flexibility:

Depending on accessibility, choose the side from which you want to fit the shelf and whether it is easier to access the inner or outer radius of the e-chain® in order to release the crossbars. The shelves are locked in place by means of the integrated slider and additionally when the crossbar is fitted. Thanks to positive-locking, assembly is possible with virtually no force. Locking is simple and fast but the shelves are strongly captive. To unlock, release the crossbar on the inner or outer radius, depending on accessibility. The new E4Q e-chains® can be opened quickly and without tools. After the crossbar has been released, the shelf can be unlocked by means of the slider and then simply pulled out.



Opening of the lock via integrated slider



Shelf can be used in several layers and securely locked



When the crossbar is inserted, the lock is automatically activated

E4Q | Interior separation options | Overview

The E4Q interior separation product range is constantly being expanded ...

Universal interior separation | For even more horizontal separation options

The interior separation elements shown here are exemplary and the number of slots depends on the inner height of the series!



Series	Universal middle plate ¹⁾	Universal side plate ¹⁾	Universal separator ¹⁾	Shelves ¹⁾ lockable (XXX = mm)
E4Q.34 / H4Q.34	34.21	34.22	34.23	S428.XXX
E4Q.44 / H4Q.44	44.21	44.22	44.23	S428.XXX
E4Q.58 / H4Q.58	58.21	58.22	58.23	S428.XXX
E4Q.82 / H4Q.82	82.21	82.22	82.23	S428.XXX

¹⁾ Available from spring 2021.

Standard interior separations | Lean separators

The interior separation elements shown here are exemplary and the number of slots depends on the inner height of the series!



Series	Standard separator	Notch separator	Lean notch separator*	Shelves, lockable (X = mm)
E4Q.34 / H4Q.34	34.1 ¹⁾	34.5 ²⁾	34.15 ²⁾	3200.X
E4Q.44 / H4Q.44	44.1 ¹⁾	44.5 ²⁾	44.15 ²⁾	3200.X
E4Q.58 / H4Q.58	58.1	58.5 ²⁾	58.15	520.X
E4Q.82 / H4Q.82	82.1	82.5	82.15	520.X

¹⁾ Available from spring 2021. ²⁾ Available upon request. Please consult igus® for delivery time.

*Note: Please combine a maximum of four lean notch separators with one shelf. Not suitable for side-mounted e-chains®!



Open and close the e-chain® easily without tools



Four stop-dogs for maximum strength in any installation orientation



Less material used where it does not add to the strength



Optional noise dampeners for even quieter operation



KMA mounting brackets with attachment options from any side



Notches in the crossbar for secure grip of the separators



Particularly simplified assembly with the new universal separators



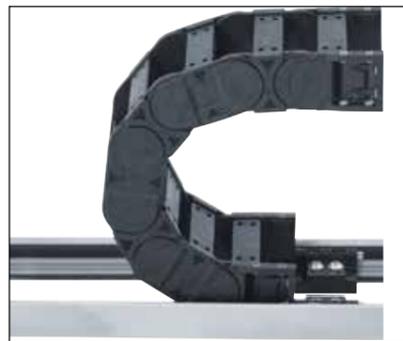
Standard interior separation from the proven E4 modular system available from stock



Lean separators enable extremely fast cable filling in several layers



Strain relief e.g. clamps, tiwrap plates, nuggets, etc. ▶ From page 1392



Aluminium and steel support tray for support of the lower run ▶ From page 1362



Super-aluminium trough with low wear glide bar for some series, available from stock ▶ From page 1298

Technical data

	Speed gliding / acceleration gliding	≤ 10 [m/s] / ≤ 50 [m/s ²]
	Speed FL_G / acceleration FL_G	≤ 20 [m/s] / ≤ 200 [m/s ²]
	Speed FL_B / acceleration FL_B	≤ 3 [m/s] / ≤ 6 [m/s ²]
	Material - permitted temperature °C, igumid G	-40°C / +120°C
	Flammability class, igumid G	VDE 0304 IIC UL94-HB

■ FL_G = unsupported with straight upper run ■ FL_B = unsupported with permitted sag

Installation types, maximum travels

Series					
	Unsupported	Gliding ¹⁾	Vertical hanging	Vertical standing	Side mounted unsupported
E4Q.34 / H4Q.34	≤ 7.2m	≤ 200m	≤ 80m	≤ 5.0m	≤ 1.5m
E4Q.44 / H4Q.44	≤ 8.0m	≤ 300m	≤ 100m	≤ 6.0m	≤ 2.0m
E4Q.58 / H4Q.58	≤ 10.0m	≤ 400m	≤ 100m	≤ 6.0m	≤ 2.5m
E4Q.82 / H4Q.82	≤ 12.4m	≤ 400m	≤ 120m	≤ 6.0m	≤ 3.0m

E4Q e-chain® sample request

Are you interested in our new E4Q energy chain? Order your free sample and see the innovative properties for yourself. Request a sample here ▶ www.igus.eu/innovation



Options with order keys | Examples based on series E4Q.58/H4Q.58

 <i>Standard</i>	<i>Optional noise dampers</i>	<i>Simply turn outer side link, no additional rework</i>	<i>Reverse Bend Radius (RBR) for circular movements</i>
Part No. Standard	Part No. Low noise (with pads)	Part No. NC version	Part No. RBR
			
E4Q.58.150.R.0 e-chain® with crossbars every link	ES4Q.58.150.R.0 e-chain® with crossbars every link	E4Q.58.150.R.0.NC e-chain® with crossbars every link	– <i>RBR is not possible</i>
H4Q.58.150.R.0 e-chain® with crossbars every 2 nd link	HS4Q.58.150.R.0 e-chain® with crossbars every 2 nd link	H4Q.58.150.R.0.NC e-chain® with crossbars every 2 nd link	– <i>RBR is not possible</i>
 Ready to ship in 24 - 48hrs.*	Delivery time upon request	Ready to ship in 24 - 48hrs.*	

<i>Unsupported lengths +25% possible</i>	<i>ESD - electrically conductive material</i>
Part No. XXL material	Part No. igumid ESD
	
E4Q.58.150.R.0.XXL e-chain® with crossbars every link ¹⁾	E4Q.58.150.R.0.ESD e-chain® with crossbars every link
H4Q.58.150.R.0.XXL e-chain® with crossbars every 2 nd link ¹⁾	H4Q.58.150.R.0.ESD e-chain® with crossbars every 2 nd link
Ready to ship in 12 business days*	Delivery time upon request

*Average time before the ordered goods are dispatched.

¹⁾ Side-bands made from XXL material ²⁾ Available upon request. Delivery time upon request

Order example | Examples based on series E4Q.58

 **Order example for complete e-chain® (3.0m), colour black, with mounting brackets and interior separation:**

e-chain® (3.0m)	Please indicate e-chain® length or number of links: 3.0m or 33 links	E4Q.58.150.R.0
+ Mounting brackets	1 set (with odd number of links and integrated C-profiles)	E4Q.582.150.1.12.C
Interior separation	with 2 separators assembled every 2 nd link	2 x 58.1.1
Order text:	3m E4Q.58.150.300.0 + E4Q.582.150.1.12.C + 2 x 58.1.1	

Order key and colour examples | Examples based on series E4Q.58/H4Q.58

 **Order key**

e-chain® with crossbars every link	E4Q.58.150.300.0
e-chain® with crossbars every 2 nd link	H4Q.58.150.300.0
Series / Type	
Inner height	
Width index (depends on B)	
Bend radius R	
Colour index (standard black)	

Order index for colour options

Colour	Order index	Colour	Order index		
 Black	Standard	.0	 Orange	Special colour	.2
 Silver-grey	Special colour	.31	 Yellow	Special colour	.4
 White	Special colour	.1	 Light grey	Special colour	.14
 Grey-white	Special colour	.1S			

Black e-chains® ready to ship in 24 - 48hrs.*

Above special colours upon request.