

TKHD series

Heavy duty cable carriers
for long travel lengths and
high additional loads



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Subject to change.



Inner heights



Inner widths



- 1 Aluminum stays available in **1 mm width sections**
- 2 Plastic chain link plates
- 3 Quick and easy opening to the inside or outside for cable laying
- 4 Cable-friendly interior – no interfering edges
- 5 Fixable dividers
- 6 Dividers and subdivision for separating the cables
- 7 Replaceable glide shoes for increased service life in gliding application
- 8 Robust, multiple stop system
- 9 Steel installation brackets
- 10 RSC-system with external role
- 11 With integrated roll for standard guide channels

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Features

- Massive, enclosed, stain-repellent stop system
- Massive sidebands through robust double fork-bracket-construction
- Sidebands easy to assemble
- Reinforced pin bore connection
- Integrated noise damping
- Quick and easy opening to the inside or outside for cable laying
- Soil-resistant outer contour
- Easy change of components
- Maintenance-free
- Symmetrical force curve in the sideband
- Quiet and low-wear operating through polygon-optimized contour and radii
- Reduce drive power through less friction



Variable vertical and horizontal inner distribution optional with fixable dividers



Suitable also for roller-mounted application (RSC)



Replaceable glide shoes for longer service life in gliding applications



Roller chain for travel distances up to 800 m

Key for abbreviations
on page 62

Design guidelines
from page 16

Technical support:
technik@kabelschlepp.de

online-engineer.de
Cable Carrier Configurator

Type	Opening variant	Stay variant	h_i [mm]	h_G [mm]	B_i [mm]	B_k [mm]	B_i - grid [mm]	t [mm]	KR [mm]	Additional load ≤ [kg/m]	Cable- d _{max} [mm]
TKHD90											
		RMF	87	117	100–800	170–870	1	91	250–500	100	69
TKHD90-R											
		RMF	87	117	100–800	170–870	1	91	250–500	60	69

TKHD series | Overview

Unsupported arrangement			Gliding/Rolling arrangement			Inner distribution				Installation variants			Page
Travel length \leq [m]	$v_{max} \leq$ [m/s]	$a_{max} \leq$ [m/s ²]	Travel length \leq [m]	$v_{max} \leq$ [m/s]	$a_{max} \leq$ [m/s ²]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	
13.5	5	2.5	200	8	20	•	•	-	-	•	-	-	388
-	-	-	800	10	50	•	•	-	-	-	-	-	394

Inner heights



Inner widths



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TKHD90

Key for abbreviations
on page 62

Stay variants



Aluminum stay RMF page 388

Frame stay, solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- **Inside/outside:** Threaded joint easy to release.

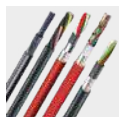
Design guidelines
from page 16Technical support:
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online-engineer.de
Cable Carrier Configurator



TOTALTRAX® complete systems

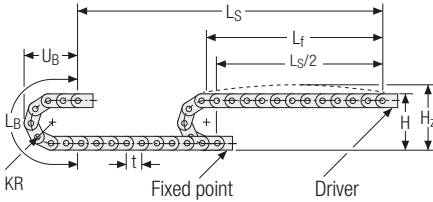
Benefit from the advantages of the TOTALTRAX® complete system. A complete delivery from one source – with a warranty certificate on request! Learn more at tsubaki-kabelschlepp.com



TRAXLINE® cables for cable carriers

Hi-flex electric cables which were specially developed, optimised and tested for use in cable carriers can be found at traxline.de.

Unsupported arrangement



KR [mm]	H [mm]	H ₂ [mm]	L _B [mm]	U _B [mm]
250	680	860	965	510
310	800	980	1154	570
360	900	1080	1311	620
500	1180	1360	1751	680

Inner heights



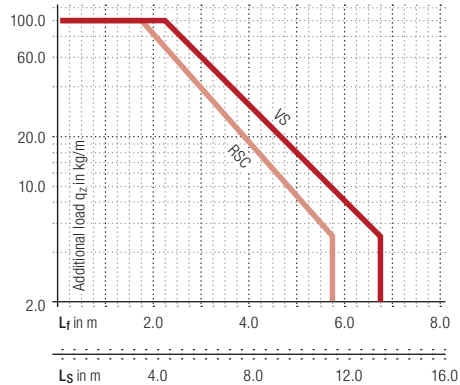
Inner widths



Load diagram for unsupported length depending on the additional load.

Sagging of the cable carrier is technically permitted for extended travel lengths, depending on the specific application.

Intrinsic cable carrier weight $q_k = 10 \text{ kg/m}$. For other inner widths, the maximum additional load changes.



- Pre-tensioning of the cable carrier for unsupported arrangement, maximum H₂ dimension.
- Decreased pre-tensioning of the cable carrier for RSC (rolling system) application, reduced H₂ dimension.

Speed
up to 5 m/s

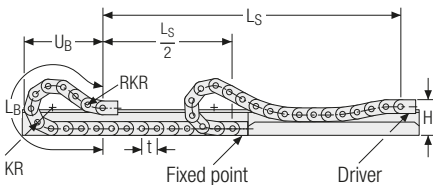
Acceleration
up to 2.5 m/s²

Travel length
up to 13.5 m

Additional load
up to 100 kg/m

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Gliding arrangement | GO module with chain links optimized for gliding



KR [mm]	H [mm]	n _{RKR}	L _B [mm]	U _B [mm]	Q _z max [kg/m]
250	351	6	2420	1090	100
310	351	6	2780	1208	100
360	351	6	3230	1380	90
500	351	6	4400	1820	75

Speed
up to 20 m/s

Acceleration
up to 8 m/s²

Travel length
up to 200 m

Additional load
up to 100 kg/m

The gliding cable carrier must be guided in a channel. See p. 732.

The GO module mounted on the driver is a defined sequence of 6 adapted KR/RKR link plates.

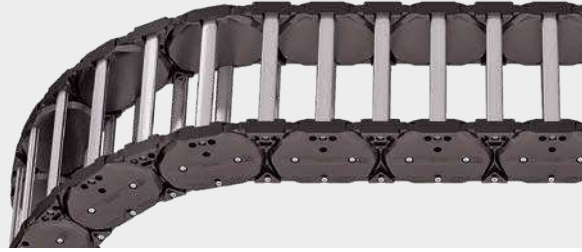
Glide shoes must be used for gliding applications.



Our technical support can provide help for gliding arrangements:
technik@kabelschlepp.de

Aluminum stay RMF – frame stay solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- Available customized in **1 mm grid**.
- **Inside/outside:** Threaded joint easy to release.



Key for abbreviations on page 62

Design guidelines from page 16

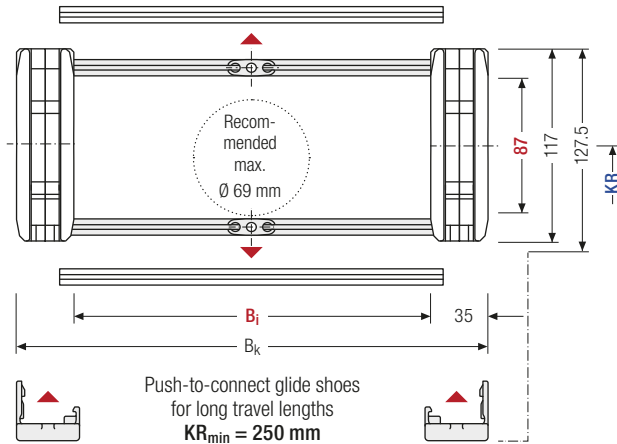
Technical support: technik@kabelschlepp.de



Stay arrangement on each chain link (VS: fully-stayed)



1 mm B_i 100 – 800 mm in 1 mm width sections



The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_s}{2} + L_B$$

Cable carrier length L_k rounded to pitch t

h _i [mm]	h _G [mm]	h _G * [mm]	B _i [mm]*	B _k [mm]	KR [mm]				q _k [kg/m]
87	117	127,5	100 – 800	B _i + 70	250	310	360	500	10.37 – 17.47

* in 1 mm width sections

Order example

TKHD90
Type
400
B_i [mm]
RMF
Stay variant
310
KR [mm]
2700
L_k [mm]
VS
Stay arrangement

Divider systems

As a standard, the divider system is mounted on every 2nd chain link on the center bracket.

As a standard, dividers and the complete divider system (dividers with height separations) can be moved in the cross section (**version A**).

For applications with lateral acceleration and free hanging on the side, the dividers can be attached by simple insertion of a fixing profile into the RMF stay, available as an accessory (**version B**).

Inner heights



Inner widths



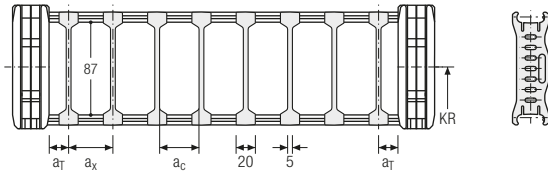
Increments



Divider system TSO without height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	a _x Raster [mm]	Π _T min
A	10	20	15	—	—
B	12.5	20	15	5	—

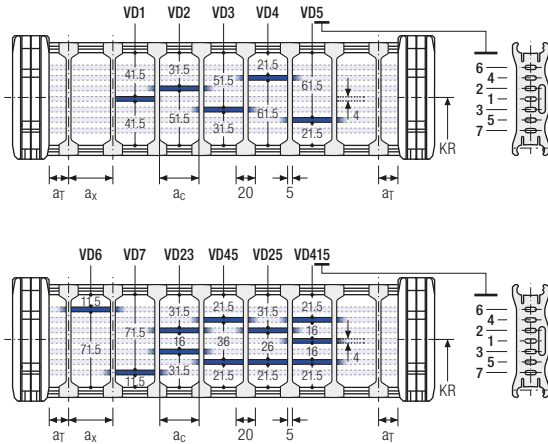
The dividers can be moved within the cross section (version A) or fixed (version B).



Divider system TS1 with continuous height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	a _x Raster [mm]	Π _T min
A	10	20	15	—	2
B	12.5	20	15	5	2

The dividers can be moved within the cross section (version A) or fixed (version B).



Order example

TS1

·

A

·

3

-

VD1

⋮

-

VD3

Divider system
Version
Π_T
Height separation

Please state the designation of the divider system (TS0, TS1,...), the version, and the number of dividers per cross section [Π_T].

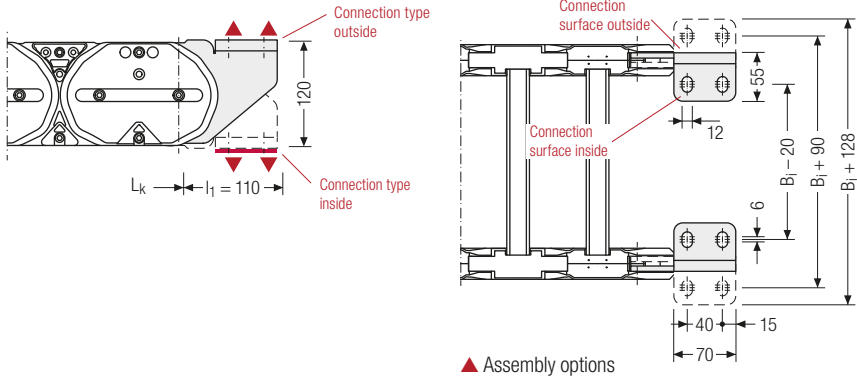
When using divider systems with height separation (TS1), please additionally state the position (e.g. VD1) viewed from the left driver belt. You are welcome to add a sketch to your order.

End connectors – steel short

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.

Key for abbreviations on page 62

Design guidelines from page 16



Connection point

- F** – fixed point
- M** – driver

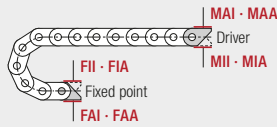
Connection surface

- I** – connection surface inside
- A** – connection surface outside

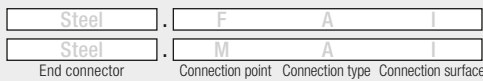
Connection type

- A** – threaded joint to outside (standard)
- I** – threaded joint to inside

Technical support: technik@kabelschlepp.de



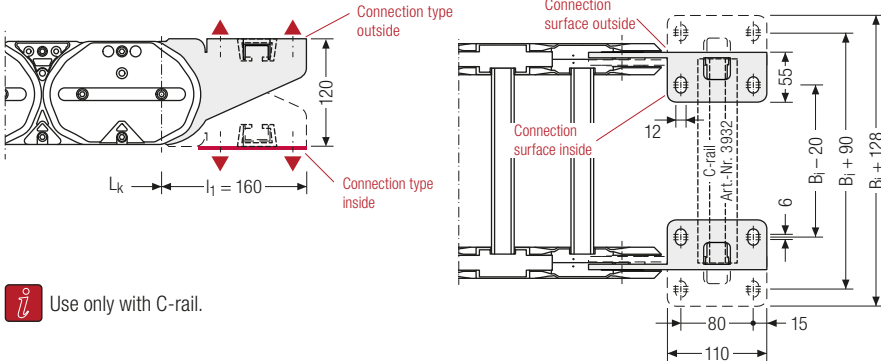
Order example



We recommend the use of strain reliefs before driver and fixed point. See from p. 794.

End connectors LF – steel long

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



Inner heights



Inner widths



Use only with C-rail.

Assembly options

Connection point

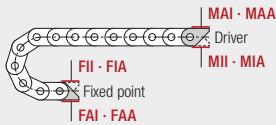
- F – fixed point
- M – driver

Connection surface

- I – connection surface inside
- A – connection surface outside

Connection type

- A – threaded joint to outside (standard)
- I – threaded joint to inside



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Order example

Steel	.	F	A	I
Steel	.	M	A	I
End connector		Connection point	Connection type	Connection surface

More product information online



Assembly instructions etc.:
Additional info via your smartphone or check online at tsubaki-kabelschlepp.com/support



Configure your custom cable carrier here:
onlineengineer.de

TKHD90-R

Heavy-duty cable carrier with integrated roller



Pitch
90 mm



Inner height
87 mm



Inner widths
100 – 800 mm



Bending radii
250 – 500 mm

Stainless steel ball bearings with application-specific lubrication and plastic rollers ensure quiet and smooth

- suitable for all long travel applications
- lower drive power required
- quiet and low-vibration operation
- space-saving and cost-optimized
- long service life – low maintenance
- easy access to rollers
- minimized loads on cable carrier and cables

operation. Integrated, wear-free damping systems minimize the mechanical load for the entire system.

- low push and pull forces
- high travel speed and acceleration
- large additional loads possible
- using proved standard cable carriers
- retrofit of existing systems
- exchange other makes up to 100 %
- integration of existing guide channels

Stay variants



Aluminum stay RMF page 394

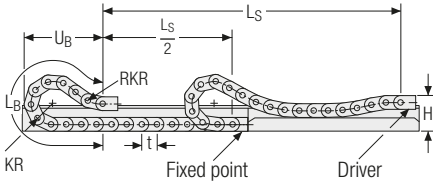
Frame stay, solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- **Inside/outside:** Threaded joint easy to release.

TKHD90-R | Installation dim. | Unsupported · Rolling

TKHD series

Rolling arrangement | Cable carrier with integrated roller



KR [mm]	H [mm]	n _{RKR}	L _B [mm]	U _B [mm]	q _z max [kg/m]
250	351	6	2420	1090	100
310	351	6	2780	1208	100
360	351	6	3230	1380	90
500	351	6	4400	1820	75



Speed
up to 10 m/s



Acceleration
up to 50 m/s²



The rolling cable carrier must be guided in a channel. See p. 732.



Travel length
up to 800 m



Additional load
up to 100 kg/m

The GO module mounted on the driver is a defined sequence of 6 adapted KR/RKR link plates.



Our technical support can provide help for rolling arrangements:
technik@kabelschlepp.de

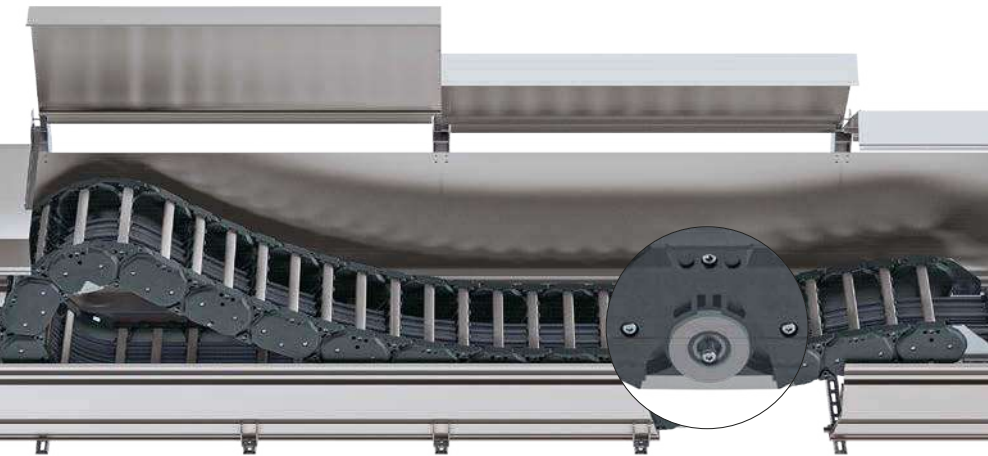
Inner heights



Inner widths



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Aluminum stay RMF – frame stay solid

- Aluminum profile bars for heavy loads and large cable carrier widths. Easy threaded connection.
- Available customized in **1 mm grid**.
- **Inside/outside:** Threaded joint easy to release.



Key for abbreviations
on page 62

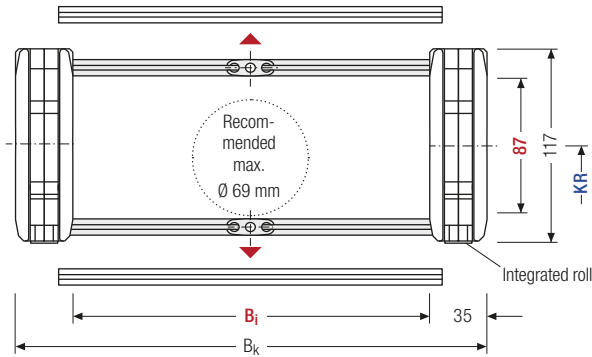


Stay arrangement on each chain link (**VS: fully-stayed**)



1 mm B_i 100 – 800 mm
in 1 mm width sections

Design guidelines
from page 16



The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

Calculating the cable carrier length

Cable carrier length L_k

$$L_k \approx \frac{L_s}{2} + L_B$$

Cable carrier length L_k
rounded to pitch t

Technical support:
technik@kabelschlepp.de

online-engineer.de
Cable Carrier Configurator

h_i [mm]	h_G [mm]	B_i [mm]*	B_k [mm]	KR [mm]				q_k [kg/m]
87	117	100 – 800	$B_i + 70$	250	310	360	500	10.37 – 17.47

* in 1 mm width sections

** When using this KR please contact our technical support.

Order example

	TKHD90-R Type	·	400 B_i [mm]	·	RMF Stay variant	·	310 KR [mm]	·	2700 L_k [mm]	·	VS Stay arrangement
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Divider systems

As a standard, the divider system is mounted on every 2nd chain link on the center bracket.

As a standard, dividers and the complete divider system (dividers with height separations) can be moved in the cross section (**version A**).

For applications with lateral acceleration and free hanging on the side, the dividers can be attached by simple insertion of a fixing profile into the RMF stay, available as an accessory (**version B**).

Inner heights



Inner widths



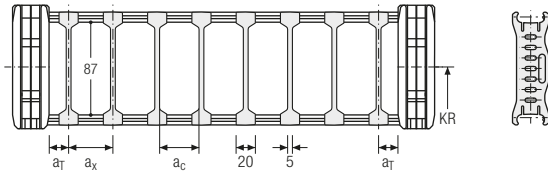
Increments



Divider system TSO without height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	a _x Raster [mm]	Π _T min
A	10	20	15	—	—
B	12.5	20	15	5	—

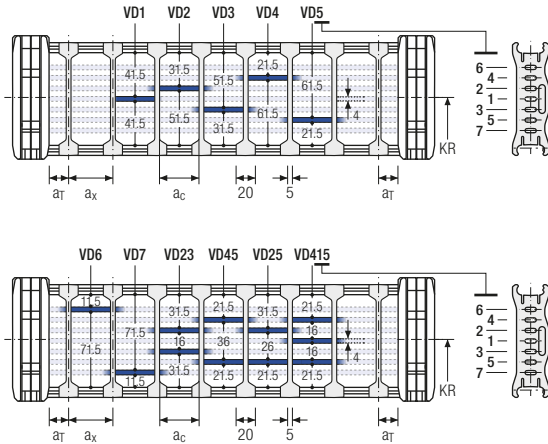
The dividers can be moved within the cross section (version A) or fixed (version B).



Divider system TS1 with continuous height separation

Vers.	a _T min [mm]	a _x min [mm]	a _c min [mm]	a _x Raster [mm]	Π _T min
A	10	20	15	—	2
B	12.5	20	15	5	2

The dividers can be moved within the cross section (version A) or fixed (version B).



Order example

TS1

A

3

VD1

⋮

VD3

Divider system
Version
Π_T
Height separation

Please state the designation of the divider system (TS0, TS1,...), the version, and the number of dividers per cross section [Π_T].

When using divider systems with height separation (TS1), please additionally state the position (e.g. VD1) viewed from the left driver belt. You are welcome to add a sketch to your order.

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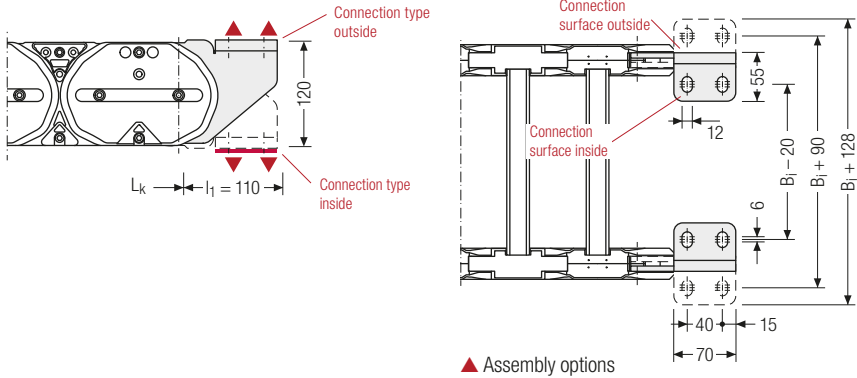
End connectors – steel short

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.

Key for abbreviations on page 62

Design guidelines from page 16

Technical support: technik@kabelschlepp.de



Connection point

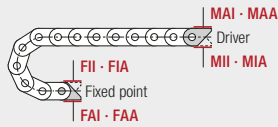
- F** – fixed point
- M** – driver

Connection surface

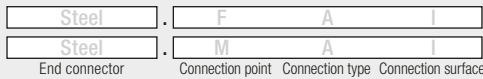
- I** – connection surface inside
- A** – connection surface outside

Connection type

- A** – threaded joint to outside (standard)
- I** – threaded joint to inside



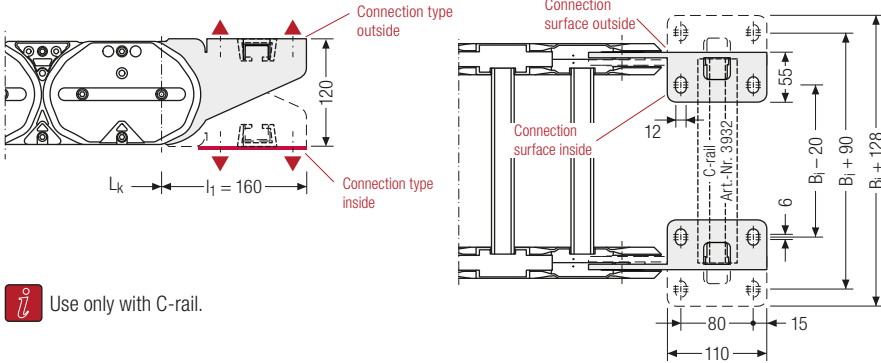
Order example



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End connectors LF – steel long

The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



Inner heights



Inner widths



Use only with C-rail.

Assembly options

Connection point

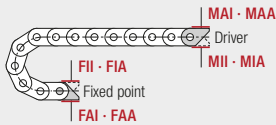
- F – fixed point
- M – driver

Connection surface

- I – connection surface inside
- A – connection surface outside

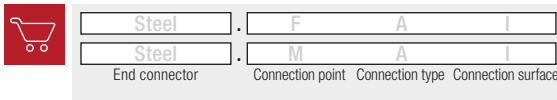
Connection type

- A – threaded joint to outside (standard)
- I – threaded joint to inside



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Order example



More product information online



Assembly instructions etc.:
Additional info via your
smartphone or check online at
[tsubaki-kabelschlepp.com/
support](http://tsubaki-kabelschlepp.com/support)



Configure your custom
cable carrier here:
onlineengineer.de