TKK series

Dirt-repellent cable carriers made of plastic

223

Cable carrier

Cable carrier configuration

Configuration guidelines

Materials information

MONO series

QuickTrax® series

UNIFLEX Advanced series

TKP35 series

TKK series

EasyTrax® series
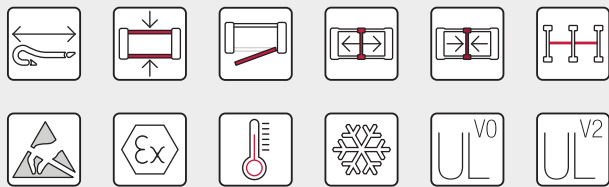
1 Very short steel end connectors

2 Plastic chain links

3 Extensive unsupported length

4 Link system repels dust and chips

5 Smooth surface for smooth running

6 Inside openable (design 040)

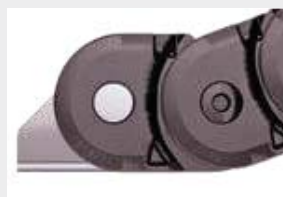7 Dividers and height separations for cable separation

Features

» High torsional rigidity

» Optimised dividers to protect cables: rounded inner and outer profile

» Extensive unsupported length

» New dirt-resistant design of the chain links to protect against dust and chips

» Smooth surface for optimum running

» Closed and openable designs

» Very short end connectors

» Fixable dividers

» Optimised stroke system

» High side stability

» Space-saving design for small spaces

Optimised divider design to protect cables

New design of chain links. Link system repels dust, chips and dirt

Very short end connectors

TKK series | Overview

Type	Opening variant	Stay variant	h_i [mm]	h_G [mm]	B_i [mm]	B_k [mm]	B_i-grid [mm] X mm	t [mm]	KR [mm]	Additional load ≤ [kg/m]	Cable-d_{max} [mm]	
TKK39												
		020	39	50	39 – 99	60 – 120	–	39	46 – 95	10	31	
		040	39	50	39 – 99	60 – 120	–	39	46 – 95	10	31	

Unsupported arrangement			Gliding arrangement			Inner Distribution				Movement			Page
Travel length ≤ [m]	v_{max} ≤ [m/s]	a_{max} ≤ [m/s²]	Travel length ≤ [m]	v_{max} ≤ [m/s]	a_{max} ≤ [m/s²]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	
4.8	3	9	120	2.5	9	•	•	–	–	•	•	•	228
4.8	3	9	–	–	–	•	•	–	–	•	•	•	229

TKK39

	Pitch 39 mm		**Inner height** 39 mm		**Inner width** 39 – 99 mm		**Bending radii** 46 – 95 mm
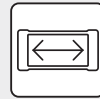
Stay variants

Design 020 .... page **228**

Closed frame
» Weight-optimised, closed plastic frame with particularly high torsional rigidity.
» **Outside/inside:** closed.

Design 040 .... page **229**

Frame with inside opening crossbar
» Weight-optimised plastic frame with particularly high torsional rigidity.
» Crossbars can be opened at any position on one side.
» **Inside:** openable.

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
tsubaki-kabelschlepp.com/traxline.

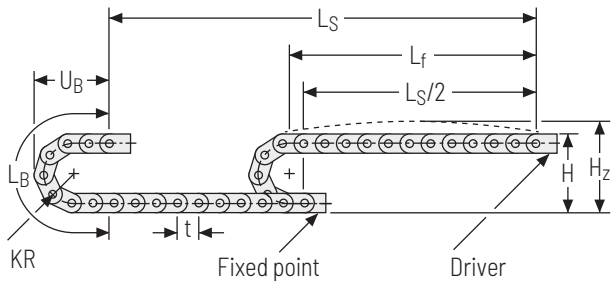### Additional product information online

Installation instructions, etc.:
Additional information via your smartphone or online at
tsubaki-kabelschlepp.com/downloads

Configure your cable carrier here:
**online-engineer.de**

Unsupported arrangement

KR [mm]	H [mm]	Hz [mm]	LB [mm]	UB [mm]
46	142	172	222	149
58	166	196	260	161
70	190	220	298	173
95	240	270	376	198

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 = 1.56 kg/m. The maximum additional load changes with deviating inner widths.
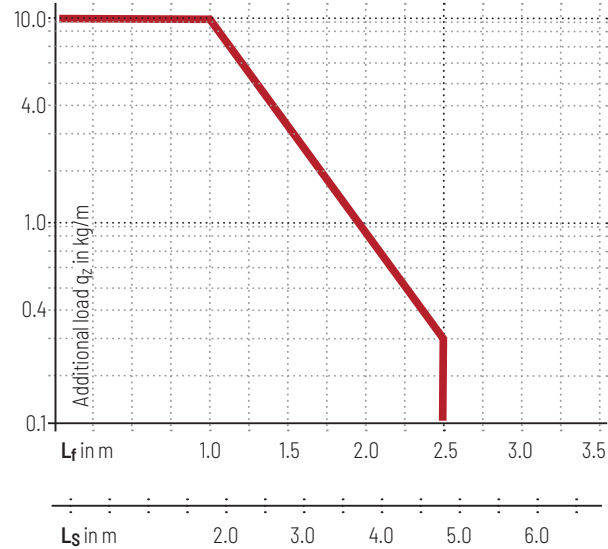
Speed up to 3 m/s

Acceleration up to 9 m/s²

Travel length up to 4.8 m

Additional load up to 10 kg/m

Gliding arrangement
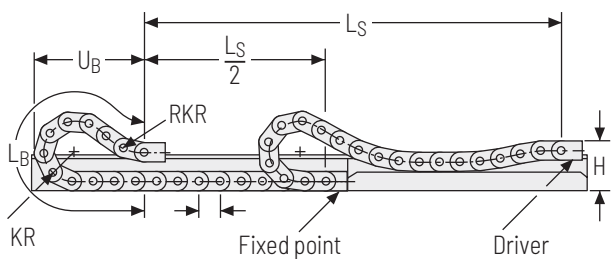
KR [mm]	H [mm]	n_{RKR}	LB [mm]	UB [mm]
46	142	0	222	149
58	150	2	405	196
70	150	3	551	257
95	150	4	770	341

Speed up to 2.5 m/s

Acceleration up to 9 m/s²

Travel length up to 120 m

Additional load up to 10 kg/m

The gliding cable carrier must be guided in a channel.

Glide shoes must be used for gliding applications.

Only design 020 can be used for a gliding arrangement.

(Side tab navigation:) Cable carrier · Cable carrier configuration · Configuration guidelines · Materials information · MONO series · QuickTrax® series · UNIFLEX Advanced series · TKP35 series · TKK series · EasyTrax® series

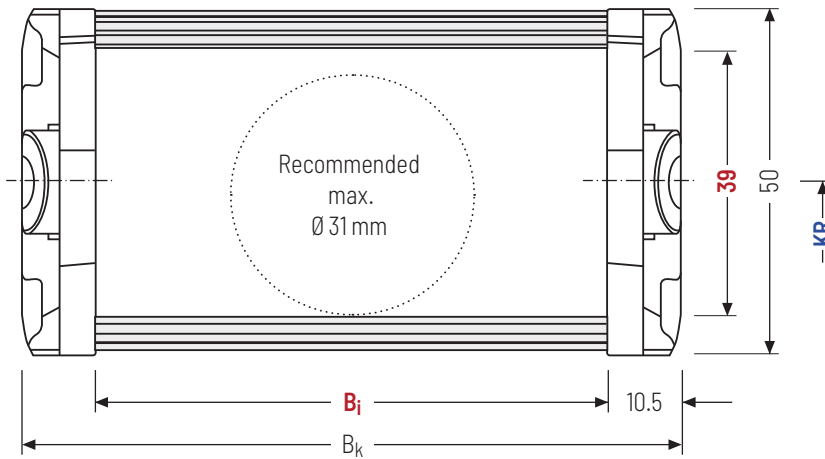# TKK39.020 | Dimensions · Technical data

Stay variant 020 –
closed frame

» Weight-optimised, closed plastic frame with particularly high torsional rigidity.
» **Outside/inside:** closed.

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

B_i 39 – 99 mm

Recommended max. Ø 31 mm

B_i

B_k

10.5

39

50

KR

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]	B_i [mm]				B_k [mm]	KR [mm]				q_k [kg/m]
39	50	**39**	**59**	**74**	**99**	B_i + 21	**46**	**58**	**70**	**95**	1.29 – 1.71

Order example

TKK39	020	74	70	1950	VS
Type	Stay variant	B_i [mm]	KR [mm]	L_k [mm]	Stay arrangement

Stay variant 040 –
with inside opening crossbar

» Weight-optimised plastic frame with particularly high torsional rigidity.
» Crossbars can be opened at any position on one side.
» **Inside:** openable.

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

B$_i$ 39 – 99 mm

Recommended max. Ø 31 mm

39
50
KR

B$_i$
10.5
B$_k$

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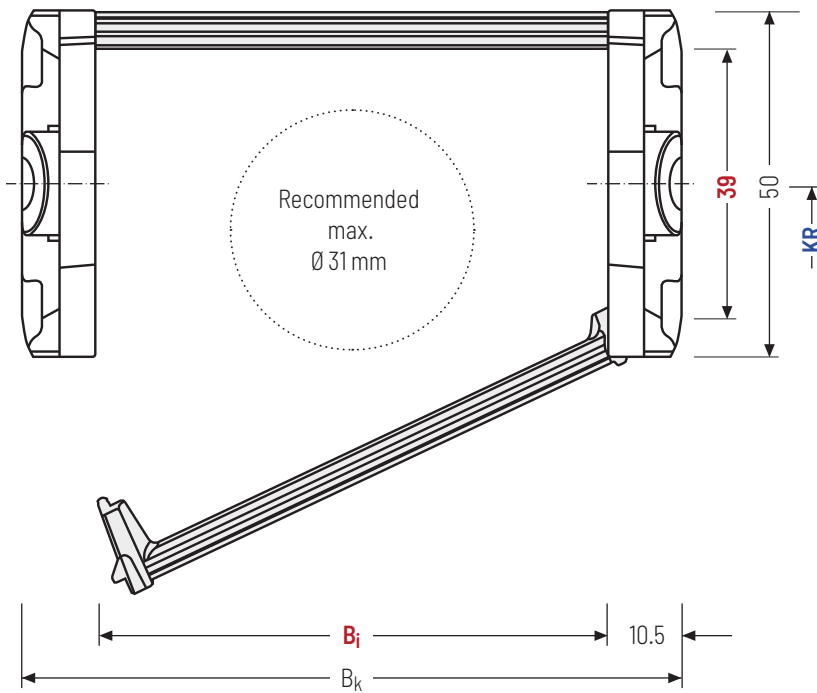
Calculating the cable carrier length

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]	B$_i$ [mm]				B$_k$ [mm]	KR [mm]				q$_k$ [kg/m]
39	50	39	59	74	99	B$_i$ + 21	46	58	70	95	1.29 – 1.72

Order example

TKK39	040	74	70	1950	VS
Type	Stay variant	B$_i$ [mm]	KR [mm]	L$_k$ [mm]	Stay arrangement

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Divider systems

The divider system is mounted on every 2nd chain link as a standard.

Dividers, and the complete divider system (dividers with height separations) comes as diameter adjustable as standard **(version A)**.

For applications with lateral accelerations and applications with the cable carrier rotated by 90°, the dividers can easily be fixed on the stay.
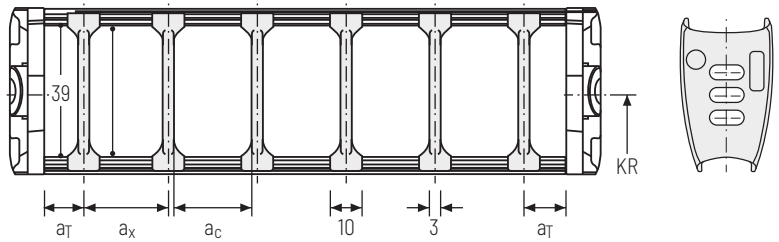The arresting cams snap into the catch profiles in the crossbars **(version B)**.

Divider system TS0 without height separation

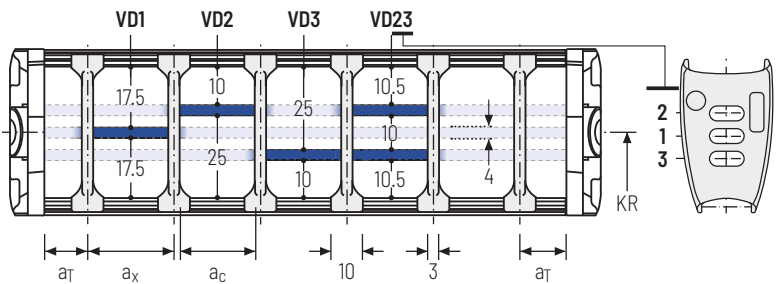| Vers.	$a_{T\ min}$ [mm]	$a_{x\ min}$ [mm]	$a_{c\ min}$ [mm]	$a_{x\ grid}$ [mm]	n_T min
A	5	10	7	–	–
B*	9.5	10	7	2	–

* not for design 020

The dividers can be moved in the cross section.

Divider system TS1 with continuous height separation*

Vers.	$a_{T\ min}$ [mm]	$a_{x\ min}$ [mm]	$a_{c\ min}$ [mm]	$a_{x\ grid}$ [mm]	n_T min
A	5	10	7	–	2
B	9.5	10	7	2	2

* not for design 020

The dividers can be moved in the cross section.

Order example

| TS1	.	A	.	3	-	VD1
					⋮	
					-	VD3
Divider system		Version		n_T		Height separation

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

The steel end connectors can be connected **from above or below**. The connection type can be changed by altering the position of the end connector.
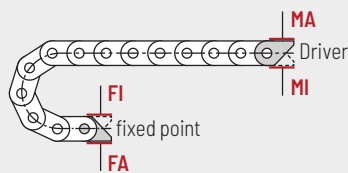
Driver

Lk — 48

Fixed point

Lk — 35
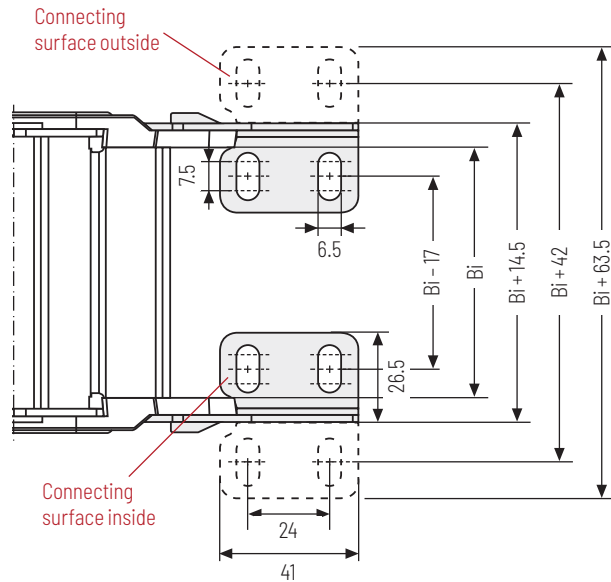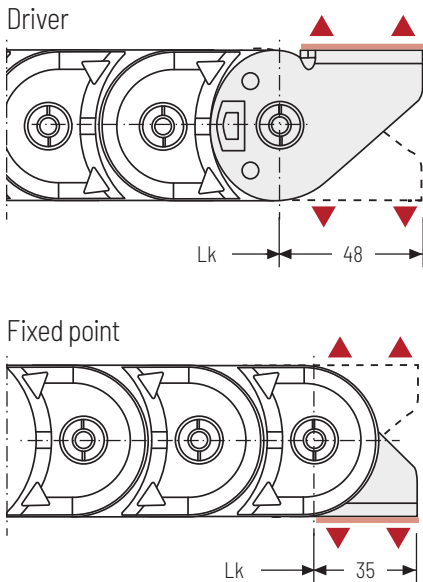
▲ Assembly options

Connecting surface outside

Connecting surface inside

7.5
6.5
$Bi - 17$
Bi
$Bi + 14.5$
$Bi + 42$
$Bi + 63.5$
26.5
24
41

Connection point	Connection type	Connecting surface
F – fixed point	**A** – connecting surface outside	**A** – threaded joint outside (standard)
M – driver	**I** – connecting surface inside	**I** – threaded joint inside

MA
Driver
MI
FI
fixed point
FA

Order example

🛒

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

ℹ️ We recommend the use of strain reliefs at the driver and fixed point.

Additional product information online

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