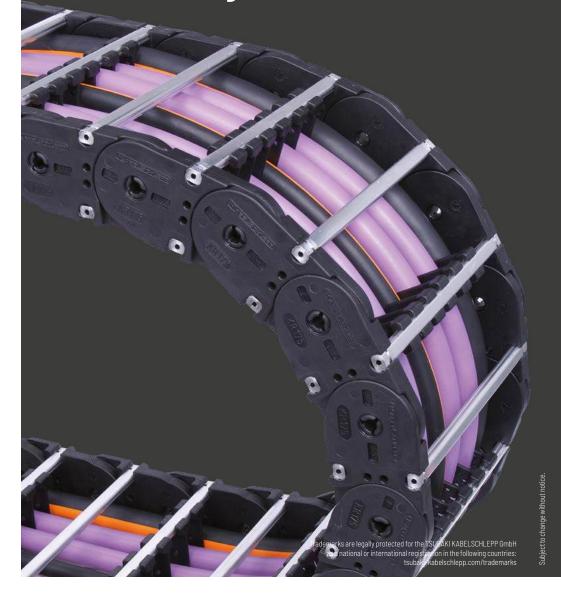
# **K** series

Cost-effective, robust cable carrier – suitable for large additional loads



3 2 1

- 1 Aluminum stays available in 1 mm width sections
- 2 Aluminum stavs in reinforced version

9

8

7

- 3 Aluminum stays with 4 screw-fixing points for extreme loads
- 4 Aluminum hole stays

13

10

6

- 5 Mounting frame stays
- 6 Plastic stays available in 8 or 16 mm width sections
- 7 Can be opened quickly on the inside and the outside for cable laying
- 8 Fixable dividers
- 9 Molded slide runners
- 10 Slide discs

11 12

- 11 C-rail for strain relief elements
- 12 Strain relief elements
- 13 Universal end connectors (UMB)

- **Features**
- » Stable sidebands through robust link plate design
- » Encapsulated, dirt-resistant stroke system
- » Long service due to minimized hinge wear owing to the "life extending 2 disc principle"
- » Versions with aluminum stavs available in 1 mm width sections up to 700 mm inner width
- » Versions with plastic stays available in 8 or 16 mm width sections
- » Large selection of vertical and horizontal stay separation options for your cables





















Minimized hinge wear owing to the "life extending 2 disc principle"



Slide discs for long service life for applications where the carrier is rotated through 90°



Molded slide runners for long service life in sliding arrangement



Many separation options for the cables

NAT	series

Туре	Opening variant	Stay variant	h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	B <sub>i</sub> [mm]	B <sub>k</sub> [mm] ←	B <sub>i</sub> - grid [mm] Xmm ₩		KR [mm]	Additional load ≤ [kg/m]	Cable- d <sub>max</sub> [mm]
K0650	<u> </u>	RS	38	57.5	75 - 400	103 - 428	1	65	75 - 300	20	30
ن النال											
		LG	36	57.5	75 - 600	103 - 628	1	65	75 – 300	20	32
	a T	RMAI	38 (200)	57,5 (224)	200 - 400	234 - 428	1	65	175 – 300	20	160
		RMAO	38 (200)	57,5 (224)	200 - 400	234 - 428	1	65	75 – 300	20	160
		RE	42	57.5	68 - 268	96 - 296	8	65	75 - 300	20	33
K0900											
		RS	58	78.5	100 - 400	131 – 431	1	90	130 - 385	30	46
		RV	58	78.5	100 - 500	131 – 531	1	90	130 - 385	30	46
		RM	54	78.5	100 - 600	131 – 631	1	90	130 - 385	30	43
		LG	50	78.5	100 - 700	131 - 731	1	90	130 - 385	30	42
		RMAI	58 (200)	78,5 (224)	200 - 500	231 - 531	1	90	150 - 385	30	160
		RMA0	58 (200)	78,5 (224)	200 - 500	231 - 531	1	90	130 - 385	30	160
		RMR	51	78.5	100 - 600	131 – 631	1	90	130 - 385	30	41
		RE	58	78.5	81 - 561	112 - 592	16	90	130 - 385	30	46

<sup>\*</sup> Further information on request.

## **K series** | Overview

Unsuppo	Unsupported arrangement			g arrange	ment	l	nner Dis	tribution	1	Movement			Page
$\begin{array}{c} \textbf{Travel} \\ \textbf{length} \\ \leq [m] \end{array}$	v <sub>max</sub> ≤[m/s]	$a_{max}$ $\leq [m/s^2]$	$\begin{array}{c} \textbf{Travel} \\ \textbf{length} \\ \leq [m] \end{array}$	v <sub>max</sub> ≤[m/s]	<b>a<sub>max</sub></b> ≤[m/s <sup>2</sup> ]	TS0	TS1	TS2	TS3	rertical hanging or standing	lying on the side	rotating arrangement	<b>&amp;</b>
			$\stackrel{\longleftrightarrow}{\blacksquare}$					H		vertica	lyingo	arre	
4.8	8	40	220	2	3	•	•	•	•	•	•	•	308
4.8	8	40	220	2	3	-	-	-	-	•	•	•	312
4.8	8	40	220	2	3	•	-	-	-	•	•	-	314
4.8	8	40	220	2	3	•	-	-	-	•	•	-	316
4.8	8	40	220	2	3	•	•	-	•	•	•	•	318
8.4	6	30	260	2	3					•	•		326
8.4	6	30	260	2	3	•	•	•	•	•	•	•	330
8.4	6	30	260	2	3	•	•	-	-	•	•	•	*
8.4	6	30	260	2	3	-	-	-	-	•	•	•	334
8.4	6	30	260	2	3	•	-	-	-	•	•	-	336
8.4	6	30	260	2	3	•	-	-	-	•	•	-	338
8.4	6	30	260	2	3	•	-			•	•	•	*
8.4	6	30	260	2	3	•	•	•	•	•	•	•	340

M series

# K0650



Pitch 65 mm



Inner heights 36 – 42 mm



Inner widths 68 - 600 mm



Bending radii 75 – 300 mm

## Stay variants



Aluminum stay RS ......page 308

#### Frame stay, narrow "The standard"

- » Aluminum profile bars for light to medium loads. Assembly without screws.
- » Outside/inside: to open by rotating 90°.



Aluminum stay LG page 312

#### Hole stay, split version

- » Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- » Outside/inside: Screw-fixing easy to release.



Aluminum stay RMAI.....page 314

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » Inside: Screw-fixing easy to release.



Aluminum stay RMAO.....page 316

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » Outside: Screw-fixing easy to release.



Plastic stay RE page 318

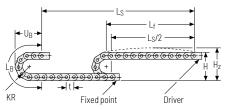
#### Frame screw-in stay

- » Plastic profile bars for light to medium loads. Assembly without screws.
- » Outside/inside: to open by rotating 90°.

20.0

# UAT

#### **Unsupported arrangement**



KR	Н	$H_z$	$L_B$	$U_B$
[mm]	[mm]	[mm]	[mm]	[mm]
75	205	245	366	168
115	285	325	492	208
145	345	385	586	238
175	405	445	680	268
220	495	535	822	313
300	655	695	1073	393

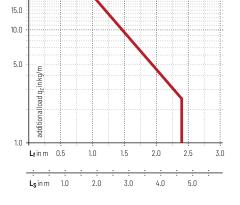
Load diagram for unsupported length depending on additional load.

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

Intrinsic cable carrier weight  $q_k = 2.5 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.









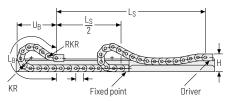
Travel length up to 4.8 m

Speed



Additional load up to 20 ka/m

## Gliding arrangement





Speed up to 2 m/s







The gliding cable carrier must be guided in a channel. See p. 866.

If the cable carrier is positioned so it is rotated by 90° (gliding on the outside of the side band), slide discs snapped onto the side optimize the friction and wear situation.

## **KC0650 RS** | Dimensions · Technical Data

PR0TUM<sup>®</sup> series

UNIFLEX Advanced series

> M series

> > series

XL series

QUANTUM® series

TKR series

TKA series **Aluminum stay RS –** frame stay narrow

- » Extremely quick to open and close
- » Aluminum profile bars for light to medium loads. Assembly without screws.
- » Available customized in 1 mm width sections.
- » Outside/inside: to open by rotating 90°.

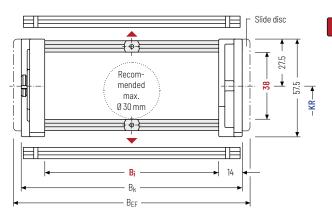




Stay arrangement on every 2nd chain link, **standard** (HS: half-stayed)







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 Lk

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

 $\begin{array}{c} \text{Cable carrier length } L_k \\ \text{rounded to pitch } t \end{array}$ 

h <sub>i</sub> [mm]	h <sub>G</sub> [mm]	<b>B</b> i [mm]*	B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]			<b>KR</b> [mm]							<b>q</b> k [kg/m]	
38	57,5	75 - 400	B <sub>i</sub> + 28	B <sub>i</sub> + 36	75	-	115	-	145	175	220	)	300	1.87 - 3.60	

<sup>\*</sup> in 1 mm width sections

#### Order example

<b>KC0650</b> Type	. 176 B <sub>i</sub> [mm]	RS Stay variant	115 KR[mm]	- 1430 L <sub>k</sub> [mm]	HS Stay arrangement

#### **Divider systems**

The divider system is mounted on each crossbar as a standard – on every  $2^{nd}$  chain link for stay mounting (HS – half-stayed).

As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section (version A).

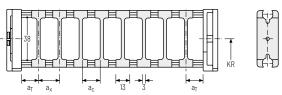
For applications with lateral acceleration and rotated by  $90^{\circ}$ , the dividers can be attached by simply clipping on a socket (available as an accessory).

This socket additionally acts as a spacer between the dividers and is available in a 1 mm grid between 3 – 50 mm. The inner height is reduced to 32 mm **(version B)**.

#### Divider system TSO without height separation

Vers.	<b>a<sub>T min</sub></b> [mm]	<b>a<sub>x min</sub></b> [mm]	a <sub>c min</sub> [mm]	n <sub>T min</sub>
Α	6.5	13	10	2

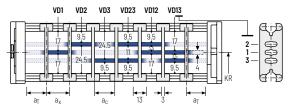
The dividers can be moved in the cross section.



#### Divider system TS1 with continuous height separation

1	Vers.		a <sub>T max</sub> [mm]			
	Α	6.5	25	13	10	2

The dividers can be moved in the cross section.



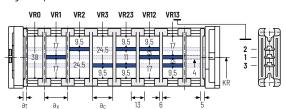
#### Divider system TS2 with partial height separation

Vers.	<b>a<sub>T min</sub></b> [mm]	a <sub>x min</sub> [mm]	a <sub>c min</sub> [mm]	n <sub>T min</sub>
Α	3.5	21	15	2

With grid distribution (1  $\rm mm$  grid).

The dividers are attached by the height separation, the grid can be moved in the cross section.

Sliding dividers are optionally available (thickness of divider = 3 mm).



## Additional product information online



Subject to change without notice

Installation instructions, etc.: Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ downloads



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

PROTUM® series

UNIFLEX Advanced series

> IKHP eries

XL eries

QUANTUM® series

TKR eries

TKA

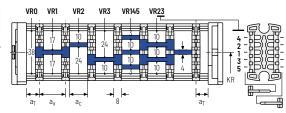
## KC0650 RS | Inner distribution | TS3

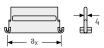
#### Divider system TS3 with height separation consisting of plastic partitions



\* For aluminum partitions

The dividers are fixed by the partitions, the complete divider system is movable in the cross section.



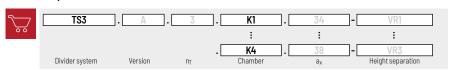


Aluminum partitions in 1 mm increments with  $\mathbf{a_x} > 42 \text{ mm}$  are also available.

	a <sub>x</sub> (center distance of dividers) [mm]													
	a <sub>c</sub> (nominal width of inner chamber) [mm]													
16	16         18         23         28         32         33         38         43         48         58         64         68													
8	10	15	20	24	25	30	35	40	50	56	60			
78	80	88	96	112	128	144	160	176	192	208				
70	72	80	88	104	120	136	152	168	184	200				

When using **plastic partitions with a\_X > 112 \text{ mm}**, we recommend an additional center support with a **twin divider** ( $S_T = 4 \text{ mm}$ ). Twin dividers are also suitable for retrofitting in the partition system.

#### Order example



Please state the designation of the divider system **(TSO, TS1,...)**, the version, and the number of dividers per cross section  $[n_{\overline{1}}]$ . In addition, please also enter the chambers [K] from left to right, as well as the assembly distances  $[a_{\overline{1}}/a_{x}]$ .

If using divider systems with height separation **(TS1 - TS3)**, please also state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.



#### 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/totaltrax

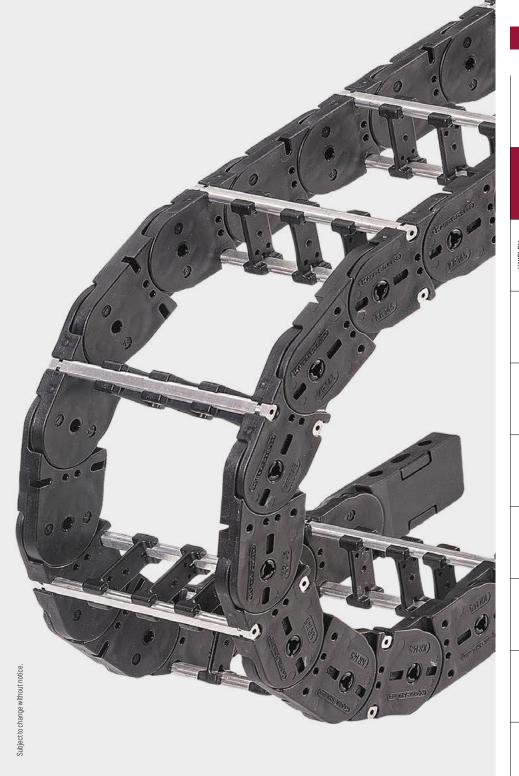


#### TRAXLINE® cables for cable carriers

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at tsubaki-kabelschlepp.com/traxline

M series

TKA series



PROTUM® series

## **KC0650 LG** | Dimensions · Technical Data

# UNIFLEX Advanced series

IKHP eries

XL eries

QUANTUM® series

TKR series

TKA

UAT

Aluminum stay LG -Hole stay, split version

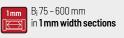
- » Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- » Available customized in 1 mm width sections.
- Outside/inside: Screw-fixing easy to release.

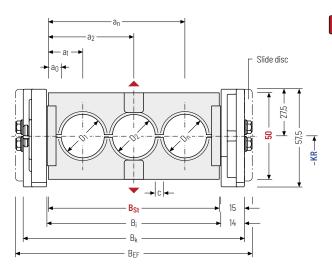




Stay arrangement on every 2nd chain link, standard (HS: half-stayed)







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

Cable carrier length Lk rounded to pitch t

#### Calculating the stay width

#### Stay width B<sub>St</sub>

$$B_{St} = \sum D + \sum c + 2a_0$$

D <sub>max</sub> [mm]	D <sub>min</sub> [mm]	h <sub>G</sub> [mm]	<b>B</b> i [mm]	B <sub>St</sub> [mm]*	<b>B<sub>k</sub></b> [mm]	B <sub>EF</sub> [mm]	[mm]	<b>a<sub>0 min</sub></b> [mm]	[mm]	<b>q<sub>k</sub> 50 %**</b> [kg/m]
36	9	57.5	75 - 600	73 - 598	B <sub>St</sub> + 30	B <sub>St</sub> + 38	4	9	75 115 145 175 220 300	2.20 - 5.15

<sup>\*</sup> in 1 mm width sections \*\* Hole ratio of the hole stay approx. 50 %

dimension BFF for stay variant LG.

The outer width of the cable carrier corresponds to

#### Order example





PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHP series

S

XL series

QUANTUM® series

---

TKR series

TKA series



## **KC0650 RMAI** | Dimensions · Technical data

# Aluminum stay RMAI -

# mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » The mounting frame stay is mounted on the inside in the bending radius.
- » Available customized in 1 mm width sections.
- » Inside: Screw-fixing easy to release.

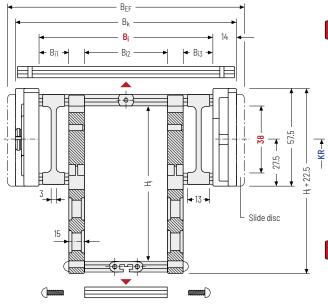




Stay arrangement on every 2nd chain link, standard (HS: half-stayed)







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 Lk

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

Cable carrier length Lk rounded to pitch t

#### Intrinsic cable carrier weiaht

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

h <sub>i</sub> [mm]	<b>H</b> [m	<b>l<sub>i</sub></b> m]	h <sub>G</sub> [mm]	<b>B</b> i [mm]	B <sub>i1min</sub> [mm]	B <sub>i3 min</sub> [mm]	<b>B</b> <sub>k</sub> [mm]	B <sub>EF</sub> [mm]		KR [mm]	
38	130 200	160	57.5	200 - 400	18	18	B <sub>i</sub> + 28	B <sub>i</sub> + 36	175	220	300

#### Order example



PROTUM® series

UNIFLEX Advanced series

M series

XL eries

QUANTUM® series

TKR series

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## **KC0650 RMAI** | Dimensions · Technical data

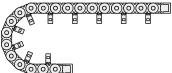
#### RMAI - assembly to the inside:

Gliding application is not possible when using assembly version RMAI.

Observe minimum KR:

 $H_i = 130 \text{ mm}$ :  $KR_{min} = 175 \text{ mm}$ 

 $H_i = 160 \text{ mm}: KR_{min} = 220 \text{ mm}$  $H_i = 200 \text{ mm}$ :  $KR_{min} = 300 \text{ mm}$ 





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UAT

## **KC0650 RMA0** | Dimensions · Technical data

# **Aluminum stay RMA0 –** mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » The mounting frame stay is mounted on the outside in the bending radius.
- » Available customized in 1 mm width sections.
- » Outside: Screw-fixing easy to release.





Stay arrangement on every 2nd chain link, standard (HS: half-stayed)

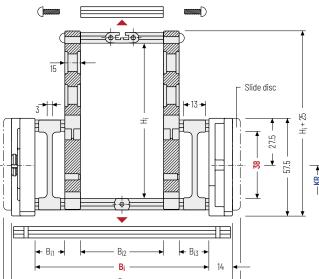


Stay arrangement on each chain link (VS: fully-stayed)



B<sub>i</sub> 200 - 400 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 Lk

$$L_{k} \approx \frac{L_{S}}{2} + L_{B}$$

 $\begin{array}{c} \text{Cable carrier length } L_k \\ \text{rounded to pitch } t \end{array}$ 

## Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

h <sub>i</sub> [mm]	H <sub>i</sub> [mm]	h <sub>G</sub> B <sub>i</sub> [mm]		B <sub>i1min</sub> [mm]	B <sub>i3 min</sub> [mm]	B <sub>k</sub> B <sub>EF</sub> [mm]		KR [mm]			
38	130 160 200	57.5	200 - 400	18	18	B <sub>i</sub> + 28	B <sub>i</sub> + 36	75 175	115 220	145 300	

#### Order example



PROTUM® series

UNIFLEX Advanced series

> M series

TKHP series

XL series

QUANTUM® series

TKR series

TKA

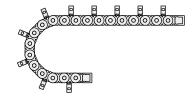
## KC0650 RMA0 | Dimensions · Technical data

#### RMAO - assembly to the outside:

The cable carrier has to rest on the side bands and not on the stays.

Guiding in a **channel is required** for support. Please contact our technical support at technik@kabelschlepp.de to find the corresponding guide channel.

Please note the operating and installation height.





PROTUM® series

series

UNIFLEX Advanced series

> M series

TKHP series

XL series

QUANTUM® series

TKR series

TKA series

## **KE0650 RE** | Dimensions · Technical Data

# PR0TUM® series

UNIFLEX Advanced series

M series

TKHP series

XL series

QUANTUM® series

TKR series

TKA

UAT

## Plastic stay RE -

screw-in frame stay

- » Plastic profile bars for light and medium loads. Assembly without screws.
- » Available customized in 8 mm grid.
- » Outside/inside: to open by rotating 90°.





Stay arrangement on every 2nd chain link, standard (HS: half-stayed)

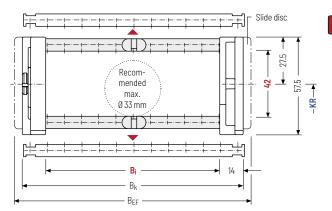


Stay arrangement on each chain link (VS: fully-stayed)



B<sub>i</sub> 68 - 260 mm

in 8 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 Lk

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

Cable carrier length Lk rounded to pitch t

Subject to change without notice.

h <sub>i</sub> [mm]	h <sub>G</sub> [mm]		<b>B<sub>i</sub></b> [mm]								B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	KR [mm]	<b>q</b> <sub>k</sub> [kg/m]
		68	76	84	92	100	108	116	124	132			75 115	1.75
42	57.5	140	148	156	164	172	180	188	196	204	B <sub>i</sub> + 28	B <sub>i</sub> + 36	145 175	-
		212	220	228	236	244	252	260					220 300	2.71

#### Order example



#### **Divider systems**

The divider system is mounted on each crossbar as a standard – on every  $2^{nd}$  chain link for stay mounting (HS – half-stayed).

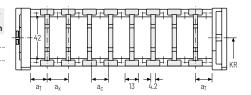
As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section (version A).

For applications with lateral accelerations and applications with the cable carrier rotated by 90°, the dividers can easily be fixed by turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbar (version B). The groove in the frame stay faces outwards.

#### Divider system TSO without height separation

Vers.	a <sub>T min</sub> [mm]	a <sub>x min</sub> [mm]	a <sub>c min</sub> [mm]	a <sub>x grid</sub> [mm]	n <sub>T</sub>
Α	6.5	13	8.8	-	2
В	13	16	11.8	8	2

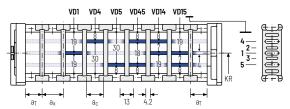
The dividers can be moved in the cross section.



### Divider system TS1 with continuous height separation

Vers.				<b>a<sub>x grid</sub></b> [mm]	
Α	6.5	13	8.8	-	2

The dividers can be moved in the cross section.



## Additional product information online



Subject to change without notice

Installation instructions, etc.: Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ downloads



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

PROTUM® series

UNIFLEX Advanced series

IKHP eries

XL eries

QUANTUM® series

TKR eries

TKA

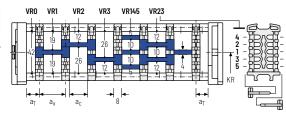
## **KE0650 RE** | Inner distribution | TS3

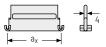
### Divider system TS3 with height separation consisting of plastic partitions



\* For aluminum partitions

The dividers are fixed with the partitions. The entire divider system can be moved in the cross section.



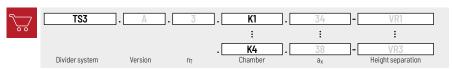


Aluminum partitions in 1mm increments with ax > 42 mm are also available.

	a <sub>x</sub> (center distance of dividers) [mm]													
a <sub>c</sub> (nominal width of inner chamber) [mm]														
16	18	23	28	32	33	38	43	48	58	64	68			
8	10	15	20	24	25	30	35	40	50	56	60			
78	80	88	96	112	128	144	160	176	192	208				
70	72	80	88	104	120	136	152	168	184	200				

When using plastic partitions with ax > 112 mm, we recommend an additional center support with a **twin divider** (S<sub>T</sub> = 4 mm). Twin dividers are also suitable for retrofitting in the partition system.

#### Order example



Please state the designation of the divider system (TS0, TS1,...), the version, and the number of dividers per cross section  $\lceil n_{\overline{1}} \rceil$ . In addition, please also enter the chambers  $\lceil K \rceil$  from left to right, as well as the assembly distances  $[a_T/a_v]$ .

If using divider systems with height separation (TS1 - TS3), please also state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.



#### 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/totaltrax



#### TRAXLINE® cables for cable carriers

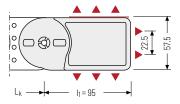
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at tsubaki-kabelschlepp.com/traxline

IKHP eries

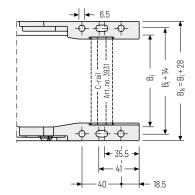
M eries

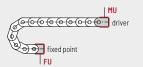
#### Universal end connectors UMB - plastic (standard)

The universal mounting brackets (UMB) are made from plastic and can be mounted **from the top, from the bottom or face on.** 



▲ Assembly options





#### Connection point

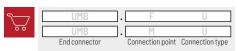
F - fixed point

M - driver

#### Connection type

U - Universal mounting bracket

#### Order example



We recommend the use of strain reliefs at the driver and fixed point. See from p. 926.

### Additional product information online



Subject to change without notice.

Installation instructions, etc.: Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ downloads



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

# K0900









## Stay variants



## Aluminum stay RS page 326

#### Frame stay, narrow "The standard"

- » Aluminum profile bars for light to medium loads. Assembly without screws.
- » Outside/inside: to open by rotating 90°.



## Aluminum stay RV ......page 330

#### Frame stay, reinforced

- » Aluminum profile bars plastic adapter for medium to high loads and large cable carrier widths. Assembly without
- » Outside/inside: to open by rotating 90°.



#### Aluminum stay LG ......page 334

## Hole stay, split version

- » Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- » Outside/inside: Screw-fixing easy to release.



#### Aluminum stay RMAI page 336

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » Inside: Screw-fixing easy to release.



### Aluminum stay RMA0.....page 338

#### Mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » Outside: Screw-fixing easy to release.

## Stay variants



### Plastic stay RE page 340

#### Frame screw-in stay

- » Plastic profile bars for light to medium loads. Assembly without screws.
- » Outside/inside: to open by rotating 90°.

#### Additional stay variants on request

Aluminum stay RM

Aluminum profile bars for high loads.

Aluminum stay RMR

Gentle cable guiding with rollers.



#### 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/totaltrax

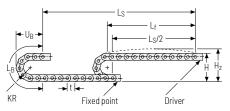


#### TRAXLINE® cables for cable carriers

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



#### **Unsupported arrangement**



KR	Н	$H_z$	$L_B$	$U_B$
[mm]	[mm]	[mm]	[mm]	[mm]
130	336	386	589	258
150	376	426	652	278
190	456	506	777	318
245	566	616	950	373
300	676	726	1123	428
385	846	896	1390	513

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 applica-

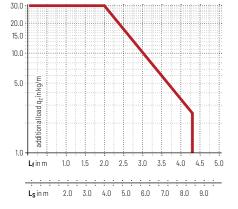
Intrinsic cable carrier weight  $q_k = 4.05 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.





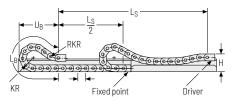
Acceleration up to  $30 \,\mathrm{m/s^2}$ 





### Gliding arrangement

up to 8.4 m





Speed up to 2 m/s





Additional load up to 30 kg/m

The gliding cable carrier must be guided in a channel. See p. 866.

If the cable carrier is positioned so it is rotated by 90° (gliding on the outside of the side band), slide discs snapped onto the side optimize the friction and wear situation.

Subject to change without notice.

PR0TUM® series

UNIFLEX Advanced series

M series

## **KC0900 RS** | Dimensions · Technical Data

## Aluminum stay RS -

frame stay narrow

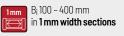
- » Extremely quick to open and close
- » Aluminum profile bars for light to medium loads. Assembly without screws.
- » Available customized in 1 mm width sections.
- **Outside/inside:** to open by rotating 90°.

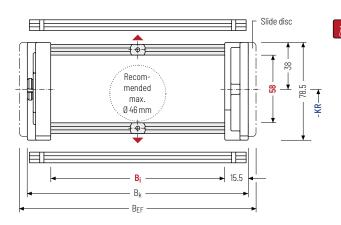




Stay arrangement on every 2nd chain link, standard (HS: half-stayed)







 $B_k$ 

[mm]

Bi + 31

BEF

[mm]

B<sub>i</sub> + 45

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 Lk

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

Cable carrier length Lk rounded to pitch t

[kg/m]

2.8 - 5.8

XL eries

ΤĶΒ	series
-----	--------

A	es
¥	ĕ

UAT





hi

[mm]

hg

[mm]

78.5

\* in 1 mm width sections

[mm]\*

100 - 400



130

150

KR

[mm]

245

300

385

190

## **KC0900 RS** | Inner distribution | TS0 · TS1 · TS2

#### **Divider systems**

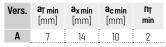
The divider system is mounted on each crossbar as a standard – on every 2<sup>nd</sup> chain link for stay mounting (HS – half-stayed).

As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section (version A).

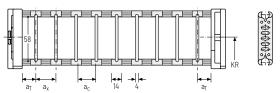
For applications with lateral acceleration and rotated by 90°, the dividers can be attached by simply clipping on a socket (available as an accessory).

The socket additionally serves as a spacer between the dividers and is available in 1 mm sections between 3 – 50 mm. The inner height is reduced to 54 mm (version B)

#### Divider system TSO without height separation



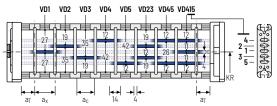
The dividers can be moved in the cross section.



#### Divider system TS1 with continuous height separation



The dividers can be moved in the cross section.



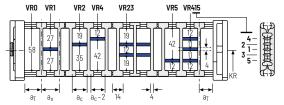
#### Divider system TS2 with partial height separation

Vers.	<b>a<sub>T min</sub></b>	a <sub>x min</sub>	a <sub>c min</sub>	<b>n</b> T
	[mm]	[mm]	[mm]	min
Α	7	23	19	2

With grid distribution (1 mm grid).

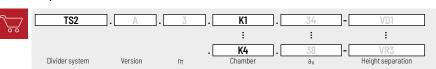
The dividers are attached by the height separation, the grid can be moved in the cross section.

Sliding dividers are optionally available (thickness of divider = 4 mm).



Please note that the real dimensions may deviate slightly from the values indicated here.

### Order example



UAT

PROTUM® series

## **KC0900 RS** | Inner distribution | TS3

### Divider system TS3 with height separation consisting of plastic partitions

As a standard, the divider **version A** is used for vertical partitioning within the cable carrier. The complete divider system can be moved within the cross section.

K series

UNIFLEX Advanced series

> M series

TKHP series

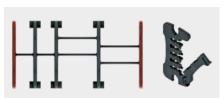
XL series

QUANTUM® series

TKR series

TKA series

#### End divider

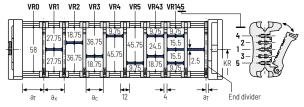


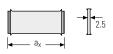
Vers.	at min [mm]	a <sub>x min</sub> [mm]	a <sub>c min</sub> [mm]	n <sub>T</sub>
Α	6/2*	14	10	2

\* For End divider

Divider version A

The dividers are fixed by the partitions, the complete divider system is movable in the cross section.





	<b>a<sub>x</sub> (center distance of dividers)</b> [mm]															
	a <sub>c</sub> (nominal width of inner chamber) [mm]															
14	16	19	23	24	28	29	32	33	34	38	39	43	44	48	49	54
10	12	15	19	20	24	25	28	29	30	34	35	39	40	44	45	50
58	59	64	68	69	74	78	79	80	84	88	89	94	96	99	112	
54	55	60	64	65	70	74	75	76	80	84	85	90	92	95	108	

When using partitions with  $a_x > 49 \ mm$  we recommended an additional preferential central support.

#### Order example



Please state the designation of the divider system **(TS0, TS1,...)**, version and number of dividers per cross section  $[n_{\overline{1}}]$ . In addition, please also enter the chambers [K] from left to right, as well as the assembly distances  $[a_{\overline{1}}/a_{\chi}]$  (as seen from the driver).

If using divider systems with height separation **(TS1, TS3)** please also state the positions [e.g. VD23] viewed from the left driver belt. You are welcome to add a sketch to your order.



PR0TUM® series

UNIFLEX Advanced series

> M series

TKHP eries

## **KC0900 RV** | Dimensions · Technical Data

## Aluminum stay RV -

frame stay reinforced

- » Aluminum profile bars plastic adapter for medium to high loads and large cable carrier widths. Assembly without screws.
- » Available customized in 1 mm grid.
- » Outside/inside: to open by rotating 90°.

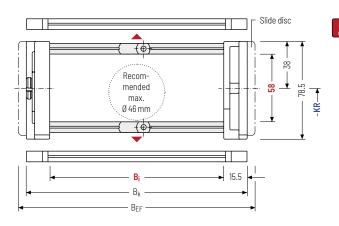




Stay arrangement on every 2nd chain link, **standard** (HS: half-stayed)







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 Lk

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

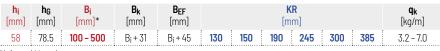
Cable carrier length L<sub>k</sub> rounded to pitch t

QUANTUM® series

XL series

TKR series

TKA



<sup>\*</sup> in 1 mm width sections

#### Order example



#### **Divider systems**

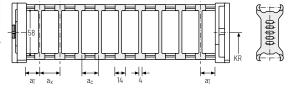
The divider system is mounted on each crossbar as a standard – on every  $2^{nd}$  chain link for stay mounting (HS – half-stayed).

As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section (version A).

#### Divider system TSO without height separation

Vers.	<b>a<sub>T min</sub></b>	a <sub>x min</sub>	a <sub>c min</sub>	n <sub>T</sub>
	[mm]	[mm]	[mm]	min
Α	7	14	10	-

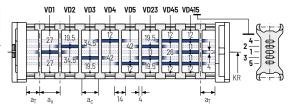
The dividers can be moved in the cross section.



### Divider system TS1 with continuous height separation

Vers.		a <sub>T max</sub> [mm]			
Α	7	25	14	10	2

The dividers can be moved in the cross section.

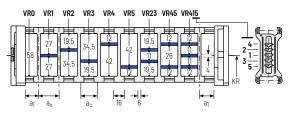


#### Divider system TS2 with partial height separation

Vers.	<b>a<sub>T min</sub></b>	a <sub>x min</sub>	a <sub>c min</sub>	<b>n</b> T
	[mm]	[mm]	[mm]	min
Α	8	21	15	2

With grid distribution (1 mm grid).
The dividers are attached by the height separation, the grid can be moved in the cross section.

Sliding dividers are optionally available (thickness of divider = 4 mm).



## Additional product information online



Subject to change without notice

Installation instructions, etc.: Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ downloads



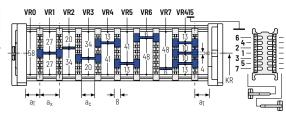
Configure your cable carrier here: **online-engineer.de** 

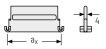
Divider system TS3 with height separation consisting of plastic partitions



\* For aluminum partitions

The dividers are fixed by the partitions, the complete divider system is movable in the cross section.



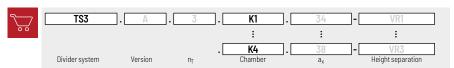


Aluminum partitions in 1 mm increments with  $a_x > 42$  mm are also available.

	<b>a<sub>x</sub> (center distance of dividers)</b> [mm]											
	a <sub>c</sub> (nominal width of inner chamber) [mm]											
16	16         18         23         28         32         33         38         43         48         58         64         68											
8	10	15	20	24	25	30	35	40	50	56	60	
78	78 80 88 96 112 128 144 160 176 192 208											
70	72	80	88	104	120	136	152	168	184	200		

When using **plastic partitions with a\_X > 112 \text{ mm}**, we recommend an additional center support with a **twin divider** ( $S_T = 4 \text{ mm}$ ). Twin dividers are also suitable for retrofitting in the partition system.

#### Order example



Please state the designation of the divider system **(TSO, TSI,...)**, the version, and the number of dividers per cross section  $[n_{\overline{1}}]$ . In addition, please also enter the chambers [K] from left to right, as well as the assembly distances  $[a_{\overline{1}}/a_{\gamma}]$ .

If using divider systems with height separation **(TS1 - TS3)**, please also state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.

#### Additional product information online

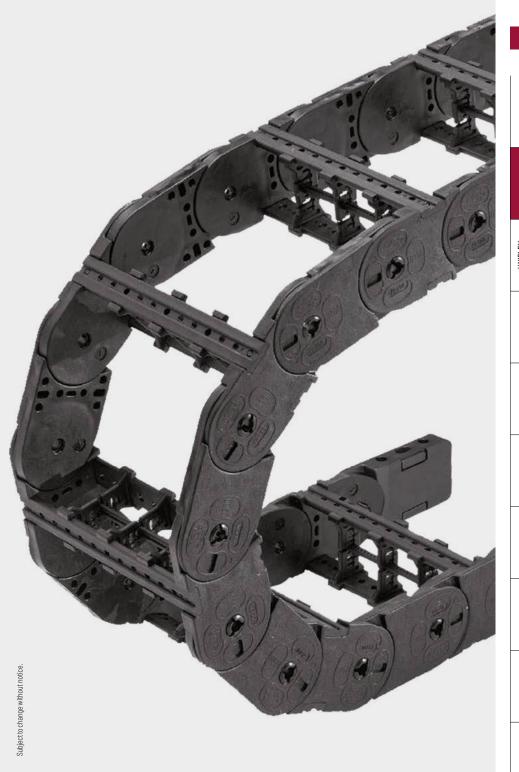


Installation instructions, etc.: Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ downloads



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



## **KC0900 LG** | Dimensions · Technical Data

PROTUM® series

UNIFLEX Advanced series

IKHP eries

XL eries

QUANTUM® series

TKR series

TKA

Aluminum stay LG -Hole stay, split version

- » Optimum cable routing in the neutral bending line. Split version for easy cable routing. Stays also available unsplit.
- » Available customized in 1 mm width sections.
- Outside/inside: Screw-fixing easy to release.



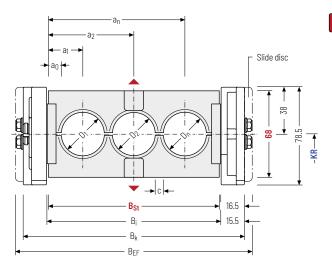


Stay arrangement on every 2nd chain link, standard (HS: half-stayed)



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





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 Lk

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

Cable carrier length Lk rounded to pitch t

#### Calculating the stay width

#### Stay width B<sub>St</sub>

$$B_{St} = \sum D + \sum c + 2 a_0$$

D <sub>max</sub>	D <sub>min</sub>	h <sub>G</sub>	B <sub>i</sub>	B <sub>St</sub>	<b>B<sub>k</sub></b>	B <sub>EF</sub>	C <sub>min</sub>	<b>a<sub>0 min</sub></b>	KR	<b>q<sub>k</sub> 50 %**</b>
[mm]	[mm]	[mm]	[mm]	[mm]*	[mm]	[mm]	[mm]	[mm]	[mm]	[kg/m]
50	10	78.5	100 - 700	98 - 698	B <sub>St</sub> + 33	B <sub>St</sub> + 45	4	11	130 150 190 245 300 385	4.79 - 9.83

<sup>\*</sup> in 1 mm width sections \*\* Hole ratio of the hole stay approx. 50 %

dimension BFF for stay variant LG.

The outer width of the cable carrier corresponds to

#### Order example





PROTUM® series

K series

UNIFLEX Advanced series

\_\_\_\_

M series

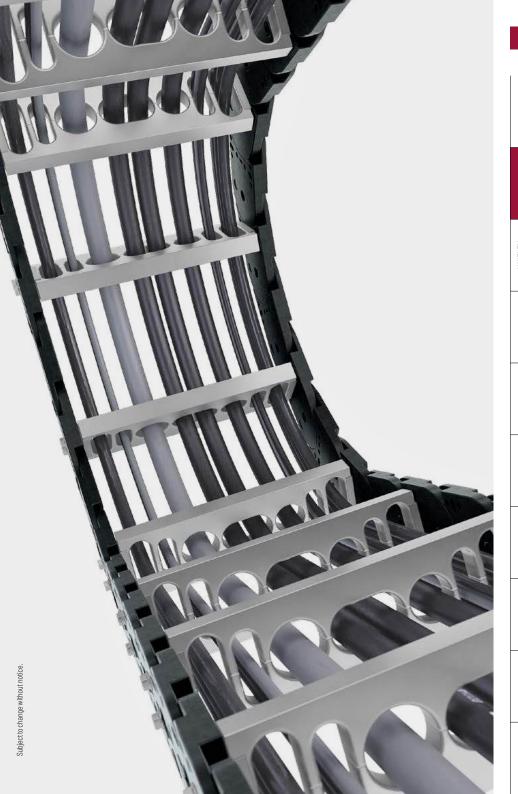
TKHP series

XL series

QUANTUM® series

TKR series

TKA series



## **KC0900 RMAI** | Dimensions · Technical Data

# **Aluminum stay RMAI –** mounting frame stay

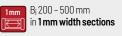
- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » The mounting frame stay is mounted on the inside in the bending radius.
- » Available customized in 1 mm width sections.
- » Inside: Screw-fixing easy to release.

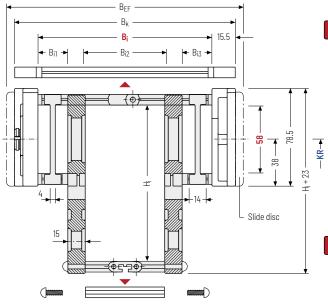




Stay arrangement on every 2nd chain link, **standard** (HS: half-stayed)







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<sub>k</sub>

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

Cable carrier length L<sub>k</sub> rounded to pitch t

# Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

h <sub>i</sub> [mm]	H [m	l <sub>i</sub> m]	h <sub>G</sub> [mm]	B <sub>i</sub> [mm]	B <sub>i1min</sub> [mm]	B <sub>i3 min</sub> [mm]	B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]		KR [mm]	
58	130	160	78.5	200 500	40	40	D 71	D. 1 /.E	150	190	245
00	200		70.0	200 - 500	40	40	Dj+31	B <sub>i</sub> + 45	300	385	

#### Order example



PROTUM® series

UNIFLEX Advanced series

> M series

TKHP series

XL series

QUANTUM® series

TKR

TKA

## **KC0900 RMAI** | Dimensions · Technical Data

#### RMAI - assembly to the inside:

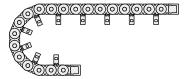
Gliding application is not possible when using assembly version RMAI.

Observe minimum KR:

 $H_i = 130 \text{ mm}$ :  $KR_{min} = 150 \text{ mm}$ 

 $H_i = 160 \text{ mm}$ :  $KR_{min} = 190 \text{ mm}$ 

H<sub>i</sub> = 200 mm: KR<sub>min</sub> = 245 mm





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#### TRAXLINE® cables for cable carriers

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## **KC0900 RMA0** | Dimensions · Technical Data

## Aluminum stay RMAO mounting frame stay

- » Aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- » The mounting frame stay is mounted on the outside in the bending radius.
- » Available customized in 1 mm width sections.
- » Outside: Screw-fixing easy to release.





Stay arrangement on every 2nd chain link, standard (HS: half-stayed)



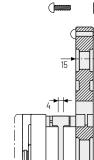
Stay arrangement on each

Slide disc



B<sub>i</sub> 200 - 500 mm

in 1 mm width sections





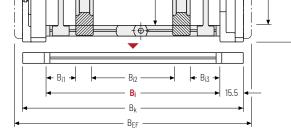
The maximum cable diameter strongly depends on the bending radius and the desired cable type. Please contact us.

#### Calculating the cable carrier length

#### Cable carrier length Lk

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

Cable carrier length Lk rounded to pitch t



茔

#### Intrinsic cable carrier weight

Determining the intrinsic cable carrier weight strongly depends on the selected stay arrangement. Please contact us.

h <sub>i</sub> [mm]	H <sub>i</sub> [mm]		h <sub>G</sub> [mm]	<b>B</b> i [mm]	B <sub>i1 min</sub> [mm]	B <sub>i3 min</sub> [mm]	<b>B<sub>k</sub></b> [mm]	B <sub>EF</sub> [mm]		KR [mm]	
EQ	130	160	78.5	200 - 500	7.∩	40	D. ± 71	D. ± /.E	130	150	190
58	200		70.5	200 - 500	40	40	B <sub>i</sub> + 31	B <sub>i</sub> + 45	245	300	385

#### Order example



PROTUM® series

UNIFLEX Advanced series

TKHP series

XL eries

QUANTUM® series

TKR

TKA

UAT

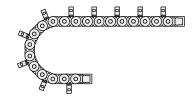
## KC0900 RMAO | Dimensions · Technical Data

#### RMAO - assembly to the outside:

The cable carrier has to rest on the side bands and not on the stays.

Guiding in a **channel is required** for support. Please contact our technical support at technik@kabelschlepp.de to find the corresponding guide channel.

Please note the operating and installation height.





PROTUM® series

> K Series

UNIFLEX Advanced series

> M series

TKHP series

XL series

QUANTUM® series

TKR series

TKA series

## **KE0900 RE** | Dimensions · Technical Data

## PROTUM® series

#### K series

#### UNIFLEX Advanced series



series

XL series

QUANTUM® series

TKR series

TKA series

V Se

Plastic stay RE -

frame screw-in stay

- » Plastic profile bars for light to medium loads. Assembly without screws.
- » Available customized in 16 mm grid.
- » Outside/inside: to open by rotating 90°.

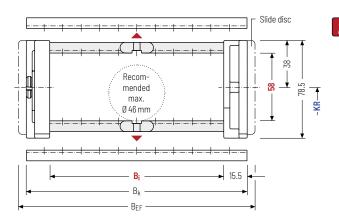


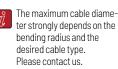


Stay arrangement on every 2nd chain link, **standard (HS: half-stayed)** 









## Calculating the cable carrier length

#### Cable carrier length Lk

$$L_{k} \approx \frac{L_{S}}{2} + L_{B}$$

Cable carrier length L<sub>k</sub> rounded to pitch t

h <sub>i</sub> [mm]	h <sub>G</sub> [mm]		B <sub>i</sub> [mm]						B <sub>k</sub> [mm]	B <sub>EF</sub> [mm]	<b>K</b> [m	<b>R</b> m]	<b>q<sub>k</sub></b> [kg/m]			
		81	97	113	129	145	161	177	193	209	225			130	150	2.95
58	78.5	241	257	273	289	305	321	337	353	369	385	B <sub>i</sub> + 31	B <sub>i</sub> + 45	190	245	-
		401	417	433	449	465	481	497	513	545	561			300	385	5.95

#### Order example



#### **Divider systems**

The divider system is mounted on each crossbar as a standard - on every 2<sup>nd</sup> chain link for stay mounting (HS - halfstayed).

As a standard, dividers or the complete divider system (dividers with height separations) are movable in the cross section (version A).

For applications with lateral accelerations and applications with the cable carrier rotated by 90°, the dividers can easily be fixed by turning the frame stay by 180°. The arresting cams click into place in the locking grids in the crossbar

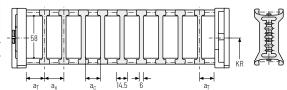
#### (version B).

The groove in the frame stay faces outwards.

#### **Divider system TS0** without height separation

Vers.				a <sub>x grid</sub> [mm]	<b>n</b> T min
Α	7.5	14.5	8.5	-	-
В	8.5	16	10	16	-

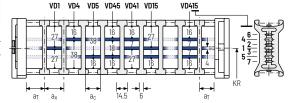
The dividers can be moved within the cross section (version A) or fixed (version B).



#### Divider system TS1 with continuous height separation

Vers.				<b>a<sub>x grid</sub></b> [mm]	<b>n</b> T min
Α	7.5	14.5	8.5	-	2
В	8.5	16	10	16	2

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

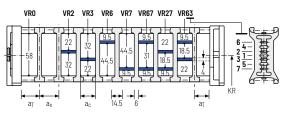


#### Divider system TS2 with partial height separation

Vers.	[mm]	[mm]	[mm]	F	<b>n</b> T min
Α	7.5	14.5*/21	8.5*/15	-	2
В	8.5	16*/32	10*/26	16	2

\* for VRO

With grid distribution (16 mm grid). The dividers are attached by the height separation, the grid can be moved in the cross section (version A) or fixed (version B).



## Additional product information online



Subject to change without notice

Installation instructions, etc.: Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ downloads



Configure your cable carrier here: online-engineer.de

## U

PR0TUM<sup>®</sup> series

xeries

UNIFLEX Advanced series

> M series

TKHP series

XL eries

QUANTUM® series

TKR series

TKA series

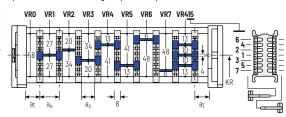
UAT series

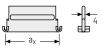
#### Divider system TS3 with height separation consisting of plastic partitions



\* For aluminum partitions

The dividers are fixed by the partitions, the complete divider system is movable in the cross section.



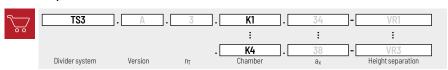


Aluminum partitions in 1 mm increments with  $a_x > 42$  mm are also available.

	a <sub>x</sub> (center distance of dividers) [mm]											
	a <sub>c</sub> (nominal width of inner chamber) [mm]											
16	18	23	28	32	33	38	43	48	58	64	68	
8	8 10 15 20 24 25 30 35 40 50 56 60											
78	80	88	96	112	128	144	160	176	192	208		
70	72	80	88	104	120	136	152	168	184	200		

When using **plastic partitions with a\_X > 112 \text{ mm}**, we recommend an additional center support with a **twin divider** ( $S_T = 4 \text{ mm}$ ). Twin dividers are also suitable for retrofitting in the partition system.

#### Order example



Please state the designation of the divider system **(TSO, TS1,...)**, the version, and the number of dividers per cross section  $[n_T]$ . In addition, please also enter the chambers [K] from left to right, as well as the assembly distances  $[a_T/a_X]$ .

If using divider systems with height separation **(TS1 - TS3)**, please also state the positions (e.g. VD23) viewed from the left driver belt. You are welcome to add a sketch to your order.



#### 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/totaltrax

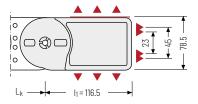


#### TRAXLINE® cables for cable carriers

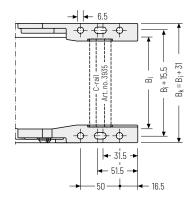
Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers can be found at **tsubaki-ka-belschlepp.com/traxline** 

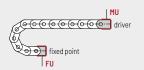
#### Universal end connectors UMB - plastic (standard)

The universal mounting brackets (UMB) are made from plastic and can be mounted **from the top, from the bottom, face on or from the side**.



▲ Assembly options





#### Connection point

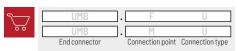
F - fixed point

M - driver

#### Connection type

U - Universal mounting bracket

#### Order example



We recommend the use of strain reliefs at the driver and fixed point. See from p. 926.

## Additional product information online



Subject to change without notice.

Installation instructions, etc.: Additional info via your smartphone or check online at

tsubaki-kabelschlepp.com/ downloads



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