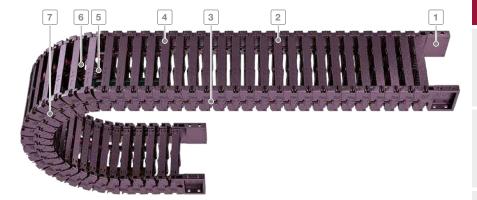
TKR series

Extremely quiet and low-vibration for highly dynamic applications*



TKR series Overview



heights

Inner

- 52
- Inner widths
- 20 200

tsubaki-kabelschlepp.com/tkr

- 1 Variable connection for quick assembly
- 2 Easy and quick to open
- 3 Extremely quiet and low-vibration operation
- 4 Can be opened at any position
- 5 Fixable dividers
- 6 Many separation options for the cables
- 7 Chain link and joint connection with captive connection

Features

- Long service life
- Ideal for highly dynamic applications
- High side stability



0000000



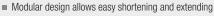














Ideal for highly dynamic applications



UMB end connector to the connection from the face side, from the top or from the bottom



Molded, captive connecting elements

TKR series | Overview

Туре	Opening variant	Stay variant	h _i [mm]	h _G [mm]	B _i [mm]	$\begin{matrix} B_{\mathbf{k}} \\ [mm] \end{matrix}$	$\begin{array}{c} B_{i^-} \\ \text{grid} \\ \text{[mm]} \\ \\ \hline \\ \end{array}$	t [mm]	KR [mm]	Additional load ≤ [kg/m]	Cable- d _{max} [mm]	
TKR0150												
		030	22	27.5	20 – 60	34 – 74	-	15	40 – 75	2	17.5	
TKR0200			:									
		030	28	37	40 – 120	56 – 136	-	20	55 – 150	2.5	22	
TKR0260												
		030	40	54	50 – 200	76 – 226	-	26	75 – 150	8	32	
TKR0280			:									
		030	52	66	50 – 200	80 – 230	-	28	75 – 200	10	41	

Cleanroom compatible and long service life

The movable connectors are directly molded on the chain links. In contrast to conventional bore-hole bolt connections, hardly any wear occurs (link abrasion), which makes the TKR type excellent for use in clean

The special design of the connecting elements additionally increases the service life of the system.

Ideal for highly dynamic applications

The TKR features extremely quiet and low-vibration operation. The so-called polygon effect is reduced to a minimum.

Ideal areas of application are in particular in handling and assembly systems, robots, metrology devices, pick-and-place machines, printing and textile machines. Due to the very quiet running, the TKR types are ideal for low-vibration applications with linear drives.

Unsuppo	rted arraı	ngement	Glidin	g arrange	ment		Inner dis	tribution	l		ation va		Page
$\begin{array}{c} \textbf{Travel} \\ \textbf{length} \\ \leq [m] \end{array}$	v _{max} ≤ [m/s]	a_{max} ≤ [m/s ²]	$\begin{array}{c} \textbf{Travel} \\ \textbf{length} \\ \leq [m] \end{array}$	v _{max} ≤ [m/s]	a_{max} ≤ [m/s ²]	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	Pa
								H		vertica	ΪĀ	arra	
1.75	5	200*	-	_	-	•	•	-	-	•	-	-	462
2.75	5	200*	-	-	-	•	•	-	-	•	-	-	468
:				:									
3.9	5	200*	-	_	-	•	•	-	•	•	-	-	474
4.9	5	200*	-	-	-	•	•	-	•	•	-	-	480

^{*} For values > 20 m/s², please contact us, we are happy to advise you.



Technical manual

Do you require additional information on the TKR type? Our technical manual at **tsubaki-kabelschlepp.com/download** provides all information for configuring your cable carrier.

TKR0150



Pitch 15 mm



Inner height 22 mm



Inner widths 20 - 60 mm



Bending radii 40 – 75 mm

Stay variants



Design 030 page **462**

Frame with outside detachable crossbar

- Low-vibration plastic frame with particularly long service life thanks to molded chain links.
- Outside: Swivable and detachable.

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

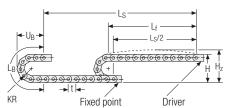


TRAXLINE® cables for cable carriers

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

TKR0150 I Installation dim. I Unsupported

Unsupported arrangement



KR	Н	H_z	L_B	U_B
[mm]	[mm]	[mm]	[mm]	[mm]
40	110	140	156	70
50	130	160	187	80
75	180	210	266	105

Inner heights

Inner widths

20 60

tsubaki-kabelschlepp.com/tkr

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 $q_k = 0.3 \text{ kg/m}$ at B_i 20 mm. For other inner widths, the maximum additional load changes.



Speed up to 5 m/s

Travel length

up to 1.75 m

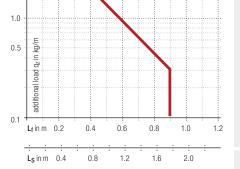


Acceleration up to 200 m/s2* 3.0

2.0



Additional load up to 2.0 kg/m



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: online-engineer.de

^{*} For values > 20 m/s2, please contact us, we are happy to advise you!

Stay variant 030 – with outside opening and detachable crossbars

- Low-vibration plastic frame with particularly long service life thanks to molded chain links.
- Swivable and detachable on one side in any position.
- **Outside:** Swivable and detachable.





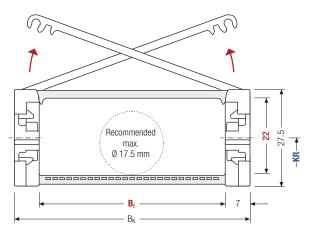
Stay arrangement on each chain link (VS: fully-stayed)



B_i 20 – 60 mm

Design guidelines from page 62

Technical support: technik@kabelschlepp.de



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 for odd number of chain links

j.de
ěr.
Jine
SUG
der o
e Car
P S S
8

h _i [mm]	h _G [mm]			B _i [mm]		B _k [mm]			i [n	KR nm]		q_k [kg/m]
22	27.5	<u>.</u>	20	40	60	B _i + 14	4()		50	 75	0.3 - 0.5

Order example



TKR0150	
Type	









TKR0150.030 | Inner distribution | TS0 · TS1

Divider systems

As standard, the divider system is mounted on every 2nd chain link

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

The dividers are easily attached to the stay for applications with transverse accelerations and for applications laying on the side by simply turning them.

The arresting cams click into place in the locking grids in the crossbars (version B).

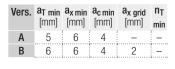
Inner heights

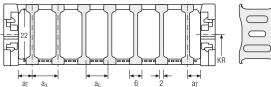


Inner widths



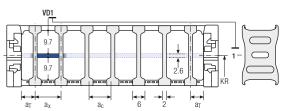
Divider system TS0 without height separation





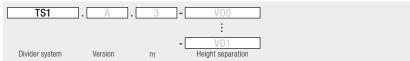
Divider system TS1 with continuous height separation

Vers.				a _{x grid} [mm]	n _T min
Α	5	6	4	-	2
В	6	6	4	2	2



Order example





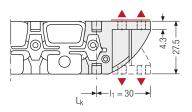
Please state the designation of the divider system (TS0, TS1 \dots), version and number of dividers per cross section $\lceil n_T \rceil$.

If using divider systems with height separation (TS1) please also state the positions [e.g. VD1] viewed from the left driver belt. You are welcome to add a sketch to your order.

TKR0150 | End connectors

One-part end connectors - plastic

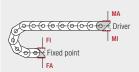
The plastic end connectors can be connected from above or from below. The connection type can be changed by changing the orientation of the end connector.



Ber = 1

Assembly options

Recommended tightening torque: 0.6 Nm for screws M4



Connection point

F - fixed point M - driver

Connection type

A – threaded joint outside (standard)

threaded joint inside

Order example



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

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



Key for abbreviations on page 16

Key for ab

TKR0200



Pitch 20 mm



Inner height 28 mm



Inner widths 40 - 120 mm



Bending radii 55 – 150 mm

Stay variants



Design 030 page **468**

Frame with outside detachable crossbar

 Low-vibration plastic frame with particularly long service life thanks to molded chain links.

■ Outside: Swivable and detachable

■ Inside: detachable



Technical support: technik@kabelschlepp.de

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

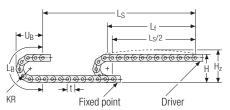


TRAXLINE® cables for cable carriers

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

TKR0200 | Installation dim. | Unsupported

Unsupported arrangement



KR [mm]	H [mm]	H _z [mm]	L _B [mm]	U _B [mm]
55	182	252	213	96
75	222	292	276	116
95	262	332	339	136
150	372	442	512	191

Inner heights

28

Inner

40 120

widths

tsubaki-kabelschlepp.com/tkr

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 $q_k = 0.6 \text{ kg/m}$ at B_i 40 mm. For other inner widths, the maximum additional load changes.



Speed up to 5 m/s

Travel length

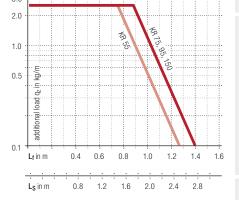
up to 2.75 m



Acceleration up to 200 m/s2*



Additional load up to 2.5 kg/m



^{*} For values > 20 m/s2, please contact us, we are happy to advise you!

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: online-engineer.de

Stay variant 030 – with outside opening and detachable crossbars

- Low-vibration plastic frame with particularly long service life thanks to molded chain links.
- Swivable and detachable on one side in any position.
- Outside: Swivable and detachable
- Inside: detachable





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



B_i 40 - 120 mm

Design guidelines from page 62

Technical support: technik@kabelschlepp.de

Recommended max. 0 22 mm

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

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

Cable carrier length L_k rounded to pitch t for odd number of chain links

h _i	h _G	B _i	B _k	KR	q_k
[mm]	[mm]	[mm]	[mm]	[mm]	[kg/m]
28		40 50 60 80 100 120			

Order example



TKR0200	
Туре	









online-engineer.de

Inner widths

TKR0200.030 | Inner distribution | TS0 · TS1

Divider systems

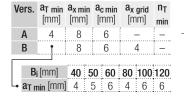
As standard, the divider system is mounted on every $2^{\rm nd}$ chain link.

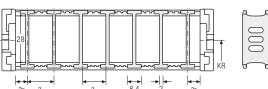
As a standard, dividers and the complete divider system (dividers with height separations) can be moved in the cross section (version A).

Fixable dividers are available for applications with lateral accelerations and for applications lying on the side.

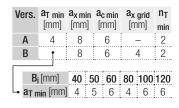
The arresting cams click into place in the locking grids in the crossbars (version B).

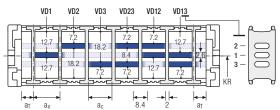
Divider system TS0 without height separation



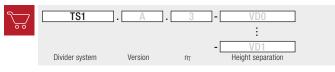


Divider system TS1 with continuous height separation





Order example



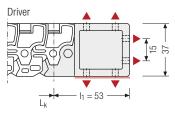
Please state the designation of the divider system (TS0, TS1 \dots), version and number of dividers per cross section [n_T].

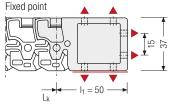
If using divider systems with height separation (TS1) please also state the positions [e.g. VD1] viewed from the left driver belt. You are welcome to add a sketch to your order.

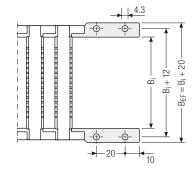
TKR0200 | End connectors | UMB

UMB end connectors UMB - plastic

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







Recommended tightening torque: 0,6 Nm for screws M4



Assembly options

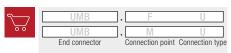
Connection point

F - fixed point M - driver

Connection type

U – universal mounting bracket

Order example



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

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



Inner heights



Inner widths



tsubaki-kabelschlepp.com/tkr

TKR0260



Pitch 26 mm



Inner height 40 mm



Inner widths 50 - 200 mm



Bend radii 75 – 150 mm

Stay variants



Design 030 page 474

Frame with outside detachable crossbar

- Low-vibration plastic frame with particularly long service life thanks to molded chain links.
- Outside: Swivable and detachable
- Inside: detachable



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

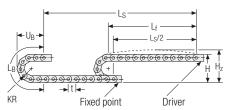


TRAXLINE® cables for cable carriers

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

TKR0260 | Installation dim | Unsupported

Unsupported arrangement



KR	Н	Hz	L _B	U_{B}
[mm]	[mm]	[mm]	[mm]	[mm]
75	238	308	340	156
100	288	358	418	181
125	338	408	497	206
150	388	458	575	231

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 $q_k=1.5\ kg/m$ at B_i 50 mm. For other inner widths, the maximum additional load changes.



Speed up to 5 m/s

Travel length

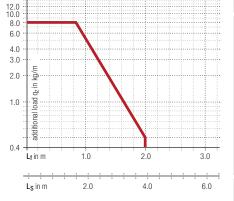
up to 3.9 m



Acceleration up to 200 m/s2*



Additional load up to 8.0 kg/m



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

online-engineer.de

^{*} For values > 20 m/s², please contact us, we are happy to advise you!

TKR0260.030 | Dimensions · Technical data

Stay variant 030 - with outside opening and detachable crossbars

- Low-vibration plastic frame with particularly long service life thanks to molded chain links.
- Swivable and detachable on one side in any position.
- Outside: Swivable and detachable
- Inside: detachable





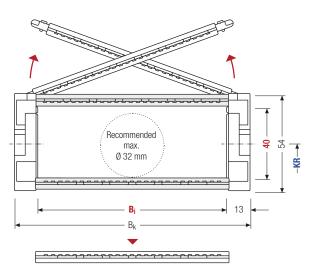
Stay arrangement on each chain link (VS: fully-stayed)



 $B_i 50 - 200 \text{ mm}$

Design guidelines

technik@kabelschlepp.de Technical support:



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 for odd number of chain links

neer.de
-engir
online Cable Carrie
8

h _i	h _G	B _i	B _k	KR	q_k
[mm]	[mm]	[mm]	[mm]	[mm]	[kg/m]
40	54			75 100 125 150	

Order example



TKR0260].	100].	030
Type		B _i [mm]		Stay varia

030	.	125	-	800
ay variant		KR [mm]		L _k [mm]
ay variant		KR [mm]		L _k [mm]

VS	\neg
Stay arrangement	

TKR0260.030 | Inner distribution | TS0 · TS1 · TS3

Divider systems

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

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

Fixable dividers are available for applications with lateral accelerations and for applications lying on the side.

The arresting cams click into place in the locking grids in the crossbars (version B).

Inner heights

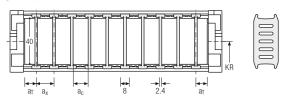


Inner widths

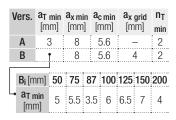


Divider system TS0 without height separation

A 3 8 5.6 B 8 5.6 4 -	Vers. a _{T min} [mm]	
	A 3	
P. [mm] 50 75 97 100 125 150 20	В	
D. [mm] EO: 7E: 07:100:10E:1E0:00		
B _i [mm] 50 75 87 100 125 150 20	B _i [n	
a_{T min} 5 5.5 3.5 6 6.5 7 4 [mm]	⊸ a⊤ր	

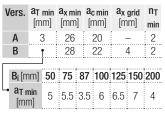


Divider system TS1 with continuous height separation

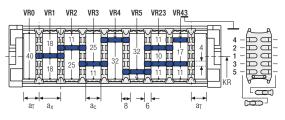




Divider system TS3 with height separation made of aluminum partitions



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



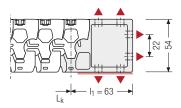


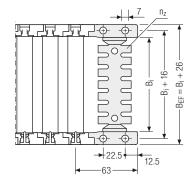
Aluminum section subdivisions are only available with $a_x > 26 \text{ mm}$.

TKR0260 | End connectors | UMB

UMB end connectors UMB - plastic

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





Assembly options

B _i [mm]	B EF [mm]	n _z		
50	76	2 x 3		
75	101	2 x 5		
100	126	2 x 7		
125	151	2 x 9		
150	176	2 x 11		
200	226	-		

Recommended tightening torque: 0,6 Nm for screws M4

(o (o (o (o (o - - Driver Fixed point FU

Connection point

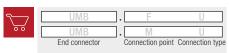
F - fixed point

M - driver

Connection type

U – universal mounting bracket

Order example





tsubaki-kabelschlepp.com/tkr



technik@kabelschlepp.de Technical support:

TKR0280



Pitch 28 mm



Inner height 52 mm



Inner widths 50 - 200 mm



Bending radii 75 - 200 mm

Stay variants



Design 030 page **480**

Frame with outside detachable crossbar

- Low-vibration plastic frame with particularly long service life thanks to molded chain links.
- Outside: Swivable and detachable
- Inside: detachable



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

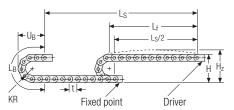


TRAXLINE® cables for cable carriers

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

TKR0280 | Installation dim. | Unsupported

Unsupported arrangement



KR	Н	Hz	L_B	U_{B}
[mm]	[mm]	[mm]	[mm]	[mm]
75	252	322	292	139
100	302	372	370	164
150	402	472	527	214
200	502	572	684	264

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 $q_k = 2.0 \text{ kg/m}$ at B_i 50 mm. For other inner widths, the maximum additional load changes.



Speed up to 5 m/s

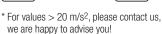


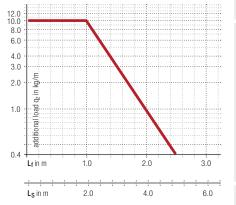
Acceleration up to 200 m/s2*

Additional load

up to 10.0 kg/m







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: online-engineer.de

Stay variant 030 – with outside opening and detachable crossbars

- Low-vibration plastic frame with particularly long service life thanks to molded chain links.
- Swivable and detachable on one side in any position.
- Outside: Swivable and detachable
- Inside: detachable





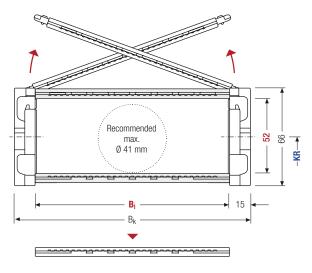
Stay arrangement on each chain link (VS: fully-stayed)



B_i 50 – 200 mm

Design guidelines from page 62

Technical support: technik@kabelschlepp.de



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 for odd number of chain links

<u>ö</u> .
ē
De to
Onligu
d je
Cabl
0
0

h _i	h _G	B _i	B _k	KR	q_k
[mm]	[mm]	[mm]	[mm]	[mm]	[kg/m]
52	66	50 75 87 100 125 150 200	B _i + 30	75 100 150 200	2.0 - 3.2

Order example



00 . 030	
mm] Stay var	iai



	VS	\neg
S	tay arrangement	

TKR0280.030 | Inner distribution | TS0 · TS1 · TS3

Divider systems

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

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

Fixable dividers are available for applications with lateral accelerations and for applications lying on the side.

The arresting cams click into place in the locking grids in the crossbars (version B).

Inner heights

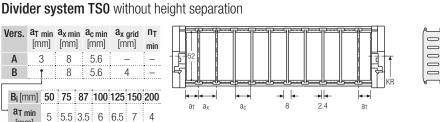


Inner

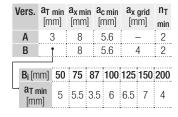


widths

vers		min im]	a _{x m} [mm		min mm]		grid im]	min
Α	A 3		8 5.6		-		_	
В		•	8		5.6	4	4	_
∟ a _T	mm] min nm]		75 5.5					20 0

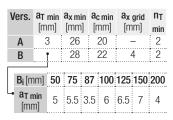


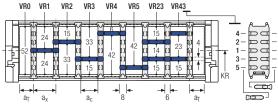
Divider system TS1 with continuous height separation





Divider system TS3 with height separation made of aluminum partitions





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

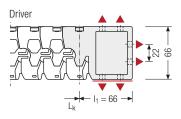


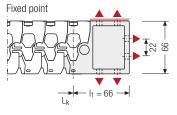
Aluminum section subdivisions are only available with $a_x > 26 \text{ mm}$.

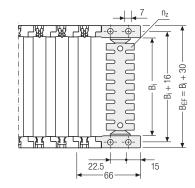
TKR0280 | End connectors | UMB

UMB end connectors UMB - plastic

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







Assembly options

B i [mm]	B EF [mm]	n _z
50	80	2 x 3
75	105	2 x 5
100	130	2 x 7
125	155	2 x 9
150	180	2 x 11
200	230	-

Recommended tightening torque: 0,6 Nm for screws M4



Connection point

F - fixed point M - driver

Connection type

U – universal mounting bracket

Order example



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

tsubaki-kabelschlepp.com/tkr

