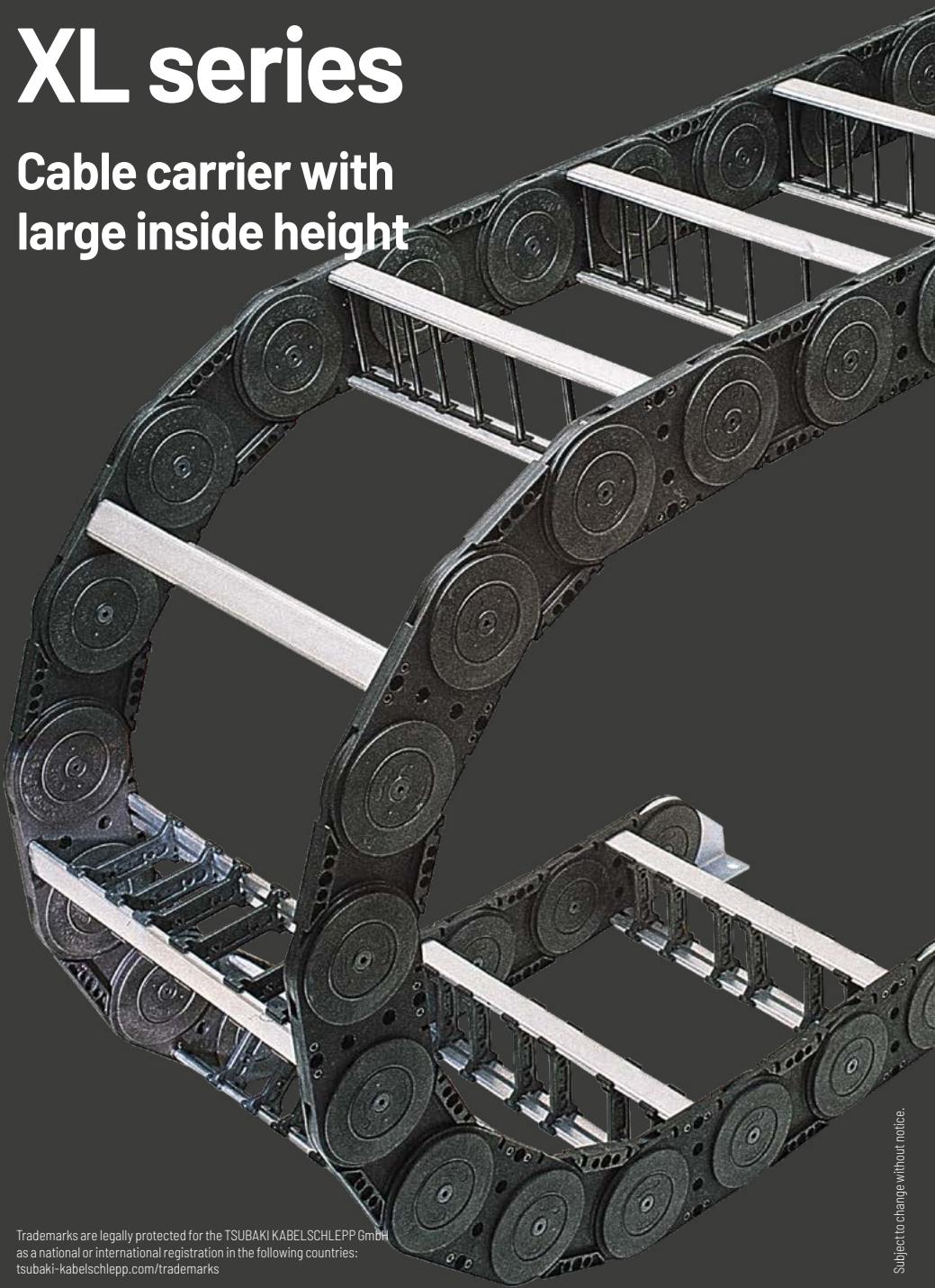


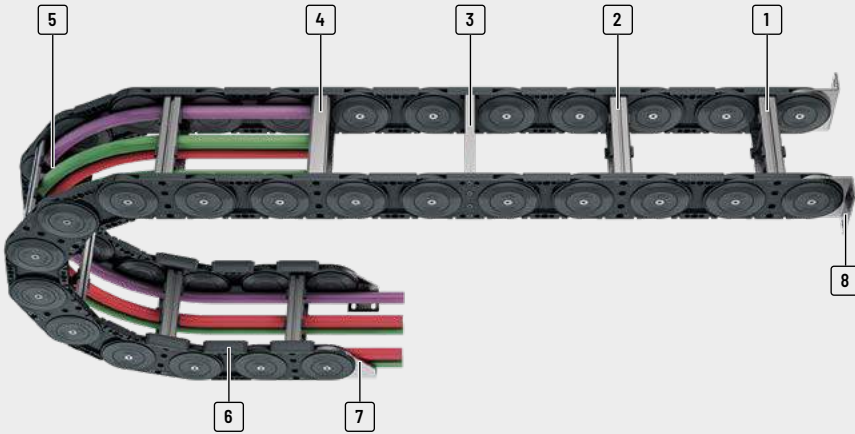
# XL series

Cable carrier with  
large inside height



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Subject to change without notice.



- |  |  |   |
|--|--|---|
| <p><b>1</b> Aluminum stays available in <b>1 mm width sections</b></p> <p><b>2</b> Aluminum stays with 4 screw-fixing points for extreme loads</p> <p><b>3</b> Aluminum hole stays</p> | <p><b>4</b> Plastic rolling stays</p> <p><b>5</b> Can be opened on the inside and the outside for installation of cables and hoses</p> <p><b>6</b> Replaceable glide shoes</p> | <p><b>7</b> Sturdy end connectors made of steel</p> <p><b>8</b> Flange connection</p> |
|--|--|---|

## Features

- » Sizes/dimensions
- » Low intrinsic weight
- » Optimum force transmission via the large-surface stroke system (2 disc principle)
- » Plastic side bands in combination with aluminum stays
- » Versions with aluminum stays available in 1 mm width sections up to 1000 mm inner width
- » Can be opened on both sides
- » Large selection of stay systems and separating options for cables
- » Optionally with strain relief



**Bolted stays for maximum stability even for large cable carrier widths**



**Replaceable glide shoes for long service life for gliding applications**



**Sturdy end connectors made of steel (different connection variants)**



**Many separation options for the cables**

Type	Opening variant	Stay variant	$h_i$ [mm]	$h_G$ [mm]	$B_i$ [mm]	$B_k$ [mm]	$B_i$ - grid [mm]	t [mm]	KR [mm]	Additional load ≤ [kg/m]	Cable- $d_{max}$ [mm]
<b>XL1650</b>											
		RM	108	140	200 - 1000	268 - 1068	1	165	250 - 550	65	86
		LG	110	140	200 - 1000	268 - 1068	1	165	250 - 550	65	88
		RMR	108	140	200 - 1000	268 - 1068	1	165	250 - 550	65	84

\* Further information on request.



### XLT series

Also available as covered versions with covers system. More information can be found in chapter "XLT series" from page 656.

Unsupported arrangement			Gliding arrangement			Inner Distribution				Movement			Page
Travel length $\leq [m]$	$v_{max} \leq [m/s]$	$a_{max} \leq [m/s^2]$	Travel length $\leq [m]$	$v_{max} \leq [m/s]$	$a_{max} \leq [m/s^2]$	TS0	TS1	TS2	TS3	vertical hanging or standing	lying on the side	rotating arrangement	
11.75	4	25	350	2	2-3	•	-	-	•	•	•	•	480
11.75	4	25	350	2	2-3	-	-	-	-	•	•	•	*
11.75	4	25	350	2	2-3	•	-	-	-	•	•	•	*

PROTUM® series

K series

UNIFLEX Advanced series

M series

TKHD series

**XL series**

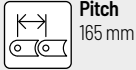
QUANTUM® series

TKR series

TKA series

UAT series

# XL1650



**Pitch**  
165 mm



**Inner height**  
108 mm



**Inner widths**  
200 - 1000 mm



**Bending radii**  
250 - 550 mm

## Stay variants



**Aluminum stay RM**..... page 480

### Frame stay, solid

- » Aluminum profile bars for heavy loads and maximum cable carrier widths. Double threaded joints on both sides "Heavy Duty".
- » **Inside/outside:** Threaded joints easy to release.

## Additional stay variants on request

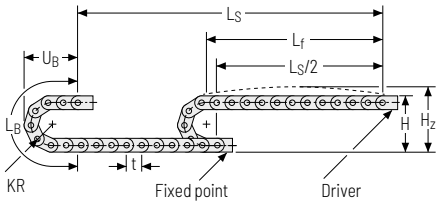


**Aluminum stay LG**  
Optimum cable routing in the neutral bending line.



**Aluminum stay RMR**  
Gentle cable guiding with rollers.

Unsupported arrangement

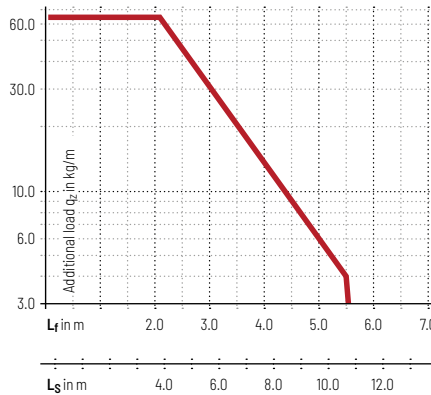


KR [mm]	H [mm]	H <sub>2</sub> [mm]	L <sub>B</sub> [mm]	U <sub>B</sub> [mm]
250	640	740	1115	485
300	740	840	1272	535
350	840	940	1430	585
400	940	1040	1587	635
450	1040	1140	1744	685
500	1140	1240	1901	735
550	1240	1340	2058	785

Load diagram for unsupported length depending on the additional load.

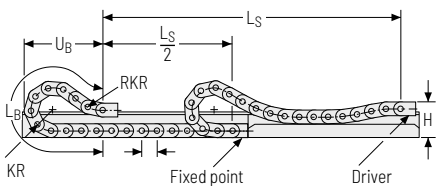
Sagging of the cable carrier is technically permitted for extended travel lengths, depending on the specific application.

Intrinsic cable carrier weight  $q_k = 13 \text{ kg/m}$ . For other inner widths, the maximum additional load changes.



- Speed**  
up to 4 m/s
- Acceleration**  
up to 25 m/s<sup>2</sup>
- Travel length**  
up to 11.75 m
- Additional load**  
up to 65 kg/m

Gliding arrangement



- Speed**  
up to 2 m/s
- Acceleration**  
up to 2 - 3 m/s<sup>2</sup>
- Travel length**  
up to 350 m
- Additional load**  
up to 65 kg/m

The gliding cable carrier must be guided in a channel. See p. 842.

We recommend the use of glide shoes for gliding applications.

Our technical support can provide help for gliding arrangements: [technik@kabelschlepp.de](mailto:technik@kabelschlepp.de)

PROTUM® series
K series
UNIFLEX Advanced series
M series
TKHD series
<b>XL series</b>
QUANTUM® series
TKR series
TKA series
UAT series

## Aluminum stay RM – Frame stay, solid

- » Aluminum profile bars for heavy loads and maximum cable carrier widths. Double threaded joints on both sides “**Heavy Duty**”.
- » Available customized in **1 mm grid**.
- » **Inside/outside:** Threaded joints easy to release.

**HEAVY DUTY**  
TSUBAKI KABELSCHLEPP



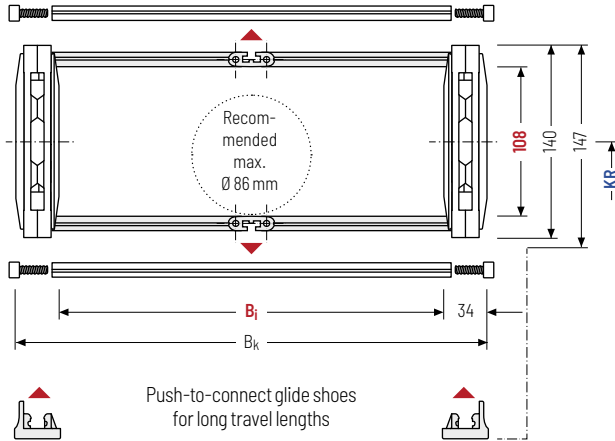
Stay arrangement on every 2nd chain link, **standard** (HS: half-stayed)



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



**1mm** B<sub>i</sub> 200 – 1000 mm  
in 1 mm width sections



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

### Calculating the cable carrier length

**Cable carrier length  $L_k$**

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

Cable carrier length  $L_k$   
rounded to pitch  $t$

$h_i$ [mm]	$h_G$ [mm]	$h_G'$ [mm]	$B_i$ [mm]*	$B_k$ [mm]	KR [mm]					$q_k$ [kg/m]		
108	140	147	200 – 1000	$B_i + 68$	250	300	350	400	450	500	550	10.5 – 15.3

\* in 1 mm width sections

### Order example



**XLC1650**

Type

**600**

$B_i$  [mm]

**RM**

Stay variant

**350**

KR [mm]

**4125**

$L_k$  [mm]

**HS**

Stay arrangement

## Divider systems

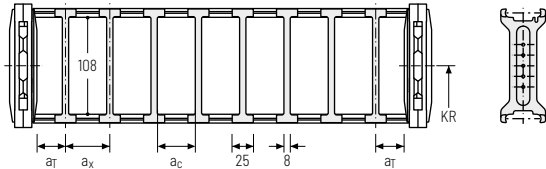
The divider system is mounted on each crossbar as a standard – on every 2<sup>nd</sup> chain link for stay mounting (HS).

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.	a <sub>T</sub> min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	n <sub>T</sub> min
A	6	25	17	-

The dividers can be moved in the cross section.

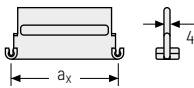
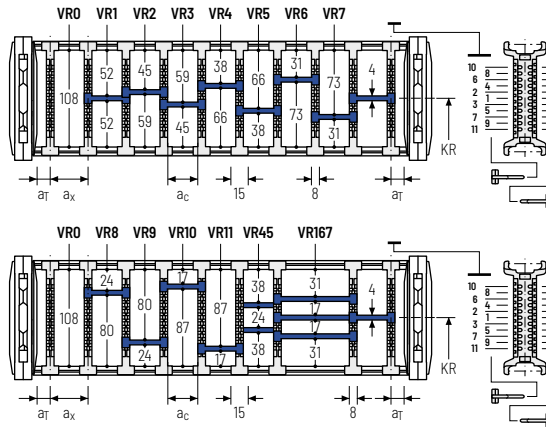


### Divider system TS3 with height separation consisting of plastic partitions

Vers.	a <sub>T</sub> min [mm]	a <sub>x</sub> min [mm]	a <sub>c</sub> min [mm]	n <sub>T</sub> min
A	1	16 / 42*	8	2

\* For aluminum partitions

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



Aluminum partitions in 1 mm increments with a<sub>x</sub> > 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 a<sub>x</sub> > 112 mm, we recommend an additional center support with a twin divider (S<sub>T</sub> = 5 mm). Twin dividers are also suitable for retrofitting in the partition system.

### Order example

TS3

A

3

K1

34

VR1

⋮

K4

38

VR3

Divider system
Version
n<sub>T</sub>
Chamber
a<sub>x</sub>
Height separation

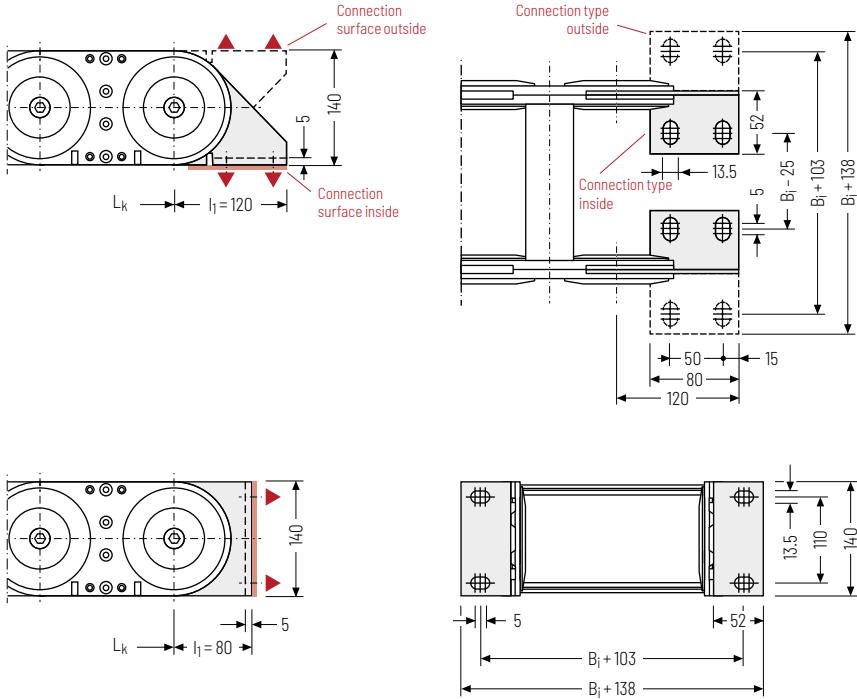
Please state the designation of the divider system (**TS0, TS3**), the version, and the number of dividers per cross section [n<sub>T</sub>]. In addition, please also enter the chambers [K] from left to right, as well as the assembly distances [a<sub>T</sub>/a<sub>x</sub>].

- PROTUM® series
- K series
- UNIFLEX Advanced series
- M series
- TKHD series
- XL series**
- QUANTUM® series
- TKR series
- TKA series
- UAT series

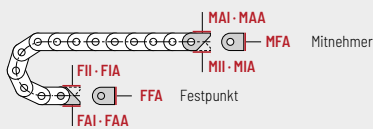


## End connectors - steel

End connectors made of steel. The connection variants on the fixed point and on the driver can be combined and changed later on, if necessary.



### ▲ Assembly options



### Connection point

- F - fixed point
- M - driver

### Connecting surface

- A - connecting surface outside
- I - connecting surface inside

### Connection type

- A - threaded joint outside (standard)
- I - threaded joint inside
- F - flange connection

### Order example



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



We recommend the use of strain reliefs at the driver and fixed point. See from p. 902.

PROTUM®  
seriesK  
seriesUNIFLEX  
Advanced  
seriesM  
seriesTKHD  
series**XL  
series**QUANTUM®  
seriesTKR  
seriesTKA  
seriesUAT  
series