UNIFLEX *Advanced* series

Light, quiet all-rounder with a wide range of applications*

Fraunhofer IPA TESTED® DEVICE
KABELSCHLEPP GmbH
1455,030,058,052
Report No. KA 1008-531

Fraunhofer IPA TESTED® DEVICE
KABELSCHLEPP GmbH
1455,030,058,052 ESDn
Report No. KA 1008-531

TSUBAKI ECO LINK

* Some features can be different for certain types for design reasons.

Subject to change.

Inner heights
20 – 44 mm

Inner widths
15 – 250 mm

Pitch
32.0 – 66.5 mm

Additional load
up to 15 kg/m

Travel length unsupported
up to 7 m

Travel length gliding
up to 150 m

Travel speed
up to 10 m/s

Travel acceleration
up to 50 m/s²

All technical data and features depend on application and type. Let us know your requirements – we are here to help!

Fon: +49 2762 4003-0 or
E-mail: technik@kabelschlepp.de

UA1555

Pitch
55.5 mm

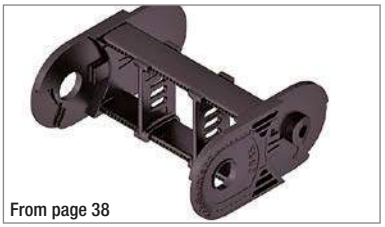
Height
38 mm

Width
50 – 150 mm

Bending radius
63 – 230 mm

Stay variants

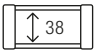
Design 020



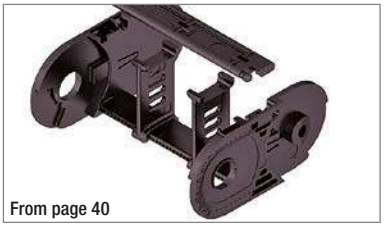
From page 38

Closed frame
- Weight-optimized, closed plastic frame with particularly high torsional rigidity.

Opening options
outside/inside: Cannot be opened.



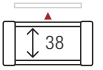
Design 030



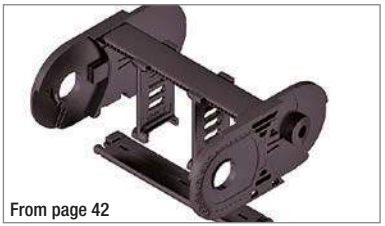
From page 40

Frame with externally detachable crossbars
- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable on both sides in any position.

Opening options
outside: Swivable and detachable.



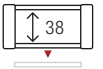
Design 040



From page 42

Frame with internally detachable crossbars
- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable on both sides in any position.

Opening options
inside: Swivable and detachable.



Technical data on p. 36

Subject to change.

Order key
on page 50

Assembly instructions on
kabelschlepp.de/assembly

Key for abbreviations
on page 72

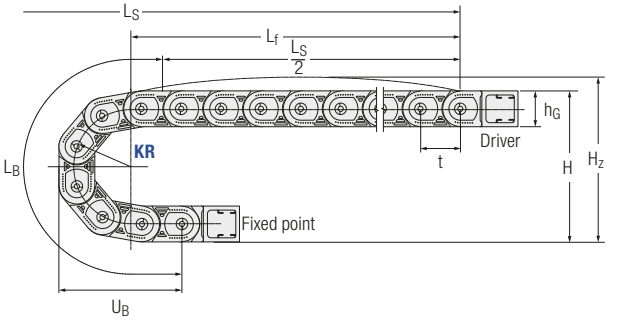
50
150
Inner widths

38
Inner heights

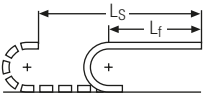
UNIFLEX
Advanced

UA1555 | Installation Dimensions | Unsupported

Unsupported arrangement



Unsupported length L_f



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

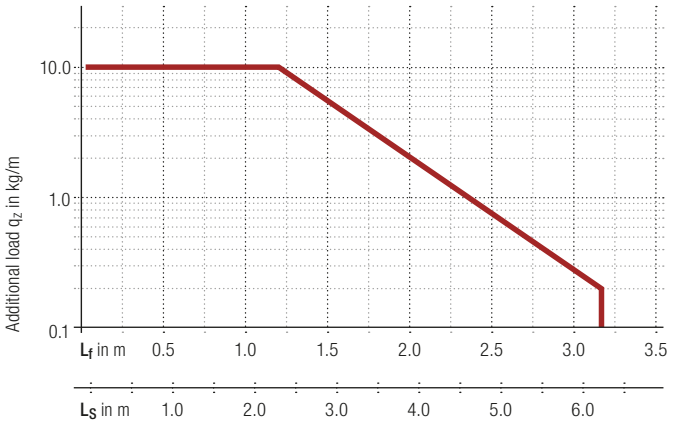
Dynamics of unsupported arrangement		t
v_{max} [m/s]	a_{max} [m/s^2]	[mm]
9	45	55.5

Installation dimensions unsupported

KR [mm]	H [mm]	H_Z [mm]	L_B [mm]	U_B [mm]
63	176	216	309	145
80	210	240	362	165
100	250	280	425	185
125	300	330	504	210
160	370	400	614	245
200	450	480	740	285
230	510	540	834	315

Load diagram

for unsupported length depending on additional load



Intrinsic cable carrier weight q_k = 1.32 kg/m with B_i 100 mm.
For other inner widths the maximum additional load changes.

Calculating the cable carrier length

Cable carrier length L_k

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

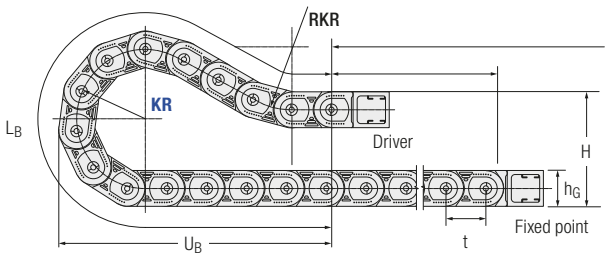
Cable carrier length L_k rounded to pitch t

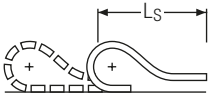
Unsupported length L_f

$$L_f = \frac{L_S}{2} + t$$

Fixed point offset L_v:
For off-center fixed point connections please contact us.

Gliding arrangement





For more information on gliding arrangement please contact us.

Only designs 020 and 030 may be used for gliding arrangements.

Dynamics of gliding arrangement		t
v_{max} [m/s]	a_{max} [m/s²]	[mm]
3	20	55.5

Installation dimensions gliding with RKR links

KR [mm]	H [mm]	n_{RKR}	L_B [mm]	U_B [mm]
63	150	2	582	280
80	150	3	709	330
100	150	3	864	388
125	150	4	1,064	465
160	150	5	1,349	565
200	150	6	1,676	685
230	150	7	1,923	775

Connection height H is standard. Please contact us if you require other connection heights H. We will be happy to advise you. Optionally, the OnlineEngineer is always available for the calculation.

The gliding cable carrier has to be routed in a channel.
Our engineers will be happy to help with project planning – 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

Fixed point offset L_v:
For off-center fixed point connections please contact us.

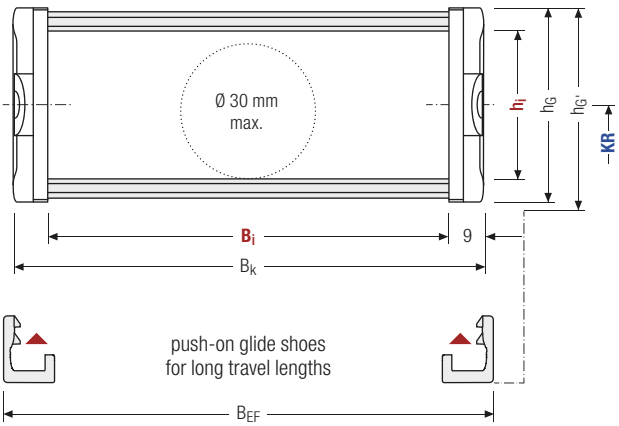
UA1555.020 | Overview

Stay variant 020 – closed frame

- Weight-optimized, closed plastic frame with particularly high torsional rigidity.
- **Opening options outside/inside**: Cannot be opened.

Stay arrangement on every chain link **(VS)**

B_i from 50 – 150 mm



Calculating the cable carrier width

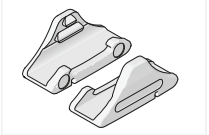
Outer width B_k

$B_k = B_i + 18$ mm

Total width B_{EF}

$B_{EF} = B_i + 22$ mm

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



Replaceable glide shoes

Information on the inner distribution of the cable carrier can be found on page 44 f.

UA1555.020 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]	$h_{G'}$ [mm]
55.5	38	50	53

Bend radii

KR [mm]						
63	80	100	125	160	200	230*

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_k [mm]	B_{EF} [mm]	q_k [kg/m]
50	68	72	1.13
75	93	97	1.23
100	118	122	1.33
125	143	147	1.42
150	168	172	1.52

Order example

UA1555	.	020	.	125	.	160	-	1,887
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

* B_i 50 and 75 on request

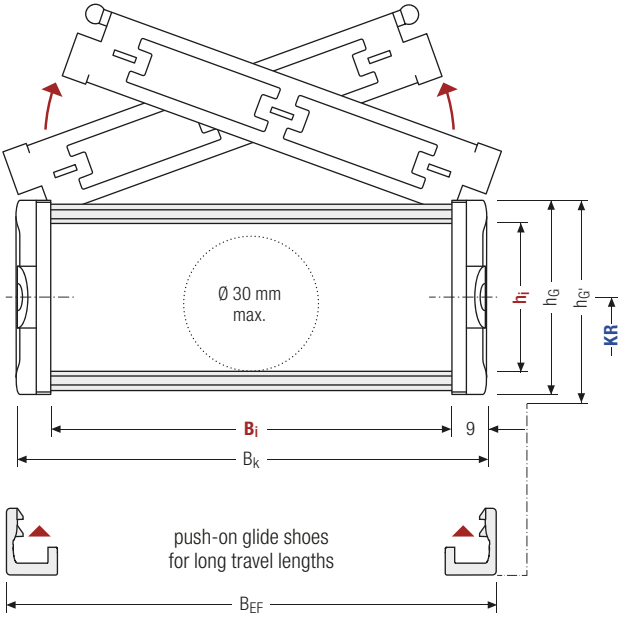
UA1555.030 | Overview

Stay variant 030 – with outside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable on one side in any position.
- **Opening options**
  outside: Swivable and detachable.

Stay arrangement on every chain link **(VS)**

B_i from 50 – 150 mm



Calculating the cable carrier width

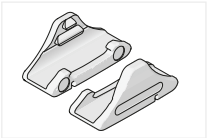
Outer width B_k

$B_k = B_i + 18$ mm

Total width B_{EF}

$B_{EF} = B_i + 22$ mm

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



Replaceable glide shoes

Information on the inner distribution of the cable carrier can be found on page 44 f.

UA1555.030 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]	$h_{G'}$ [mm]
55.5	38	50	53

Bend radii

KR [mm]						
63	80	100	125	160	200	230*

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_K [mm]	B_{EF} [mm]	q_K [kg/m]
50	68	72	1.13
75	93	97	1.23
90**	108	112	1.30
100	118	122	1.32
125	143	147	1.42
150	168	172	1.51

Order example

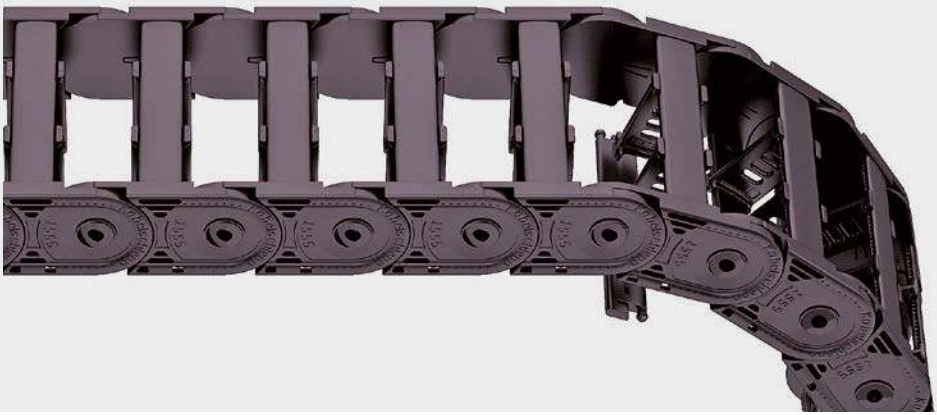
UA1555	.	030	.	125	.	160	-	1,887
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

* B_i 50 and 75 on request ** only KR 63 and 100

UA1555.040 | Overview

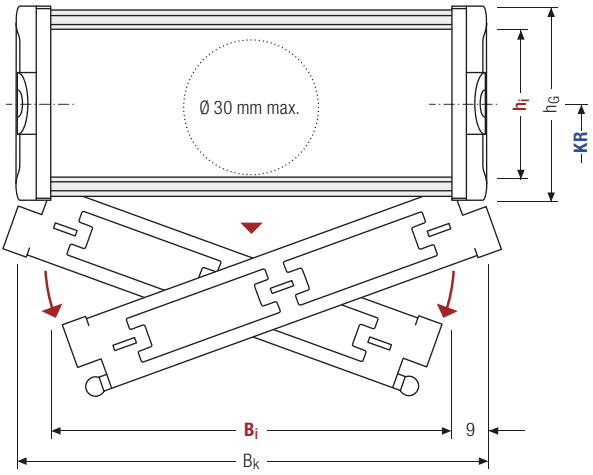
Stay variant 040 – with inside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable on one side in any position.
- **Opening options inside:** Swivable and detachable.



Stay arrangement on every chain link **(VS)**

B_i from 50 – 150 mm



Calculating the cable carrier width

Outer width B_k

$B_k = B_i + 18$ mm

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

Design 040 is not suitable for gliding arrangement.

Information on the inner distribution of the cable carrier can be found on page 44 f.

UA1555.040 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]
55.5	38	50

Bend radii

KR [mm]						
63	80	100	125	160	200	230*

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_K [mm]	q_K [kg/m]
50	68	1.13
75	93	1.23
100	118	1.32
125	143	1.42
150	168	1.52

Order example

UA1555	.	040	.	125	.	160	-	1,887
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

* B_i 50 and 75 on request

UA1555 | Inner Distribution | TS0

Divider systems

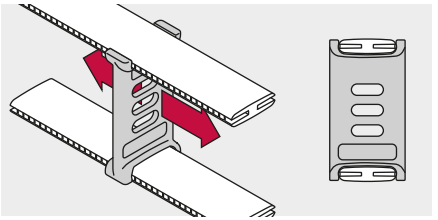
As standard, the divider system is assembled at each 2nd chain link.

As 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 acceleration and for laterally recumbent applications by simply turning them. The locking cams click into place in the locking grids in the crossbars **(version B)**.

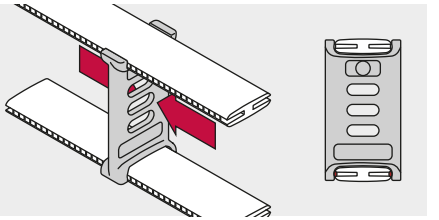
Movable divider

Version A (Standard)



Fixable divider (2.5 mm grid)

Version B

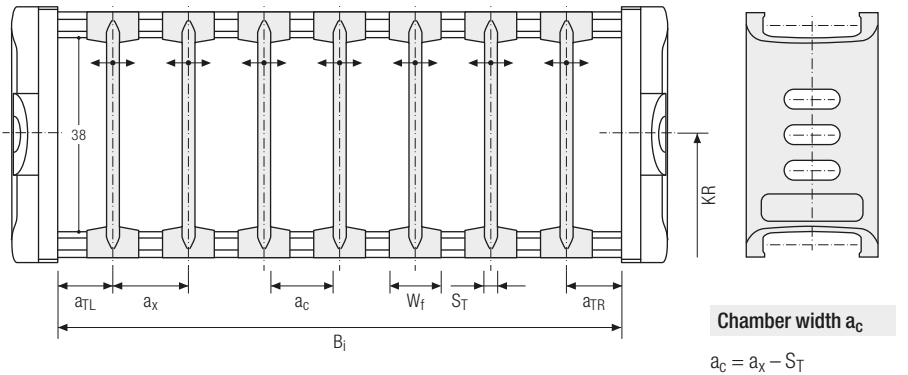


Divider system TS0 without height separation

S_T [mm]	W_f [mm]	$n_{T\,max}$ design 020	Version A: $a_{TL}/a_{TR\,min}$ [mm]	Version A: $a_{x\,min}$ [mm]	Version A: $a_{c\,min}$ [mm]	Version B*: $a_{TL}/a_{TR\,min}$ [mm]	Version B*: $a_{x\,min}$ [mm]	Version B*: $a_{c\,min}$ [mm]	Version B*: $a_{x\,grid}$ [mm]
2.5	10		5	10	7.5	5	10	7.5	2.5

B_i [mm]	50	75	90	100	125	150
$n_{T\,max}$ design 020	2	4	6	7	9	12

* not design 020



Chamber width a_c

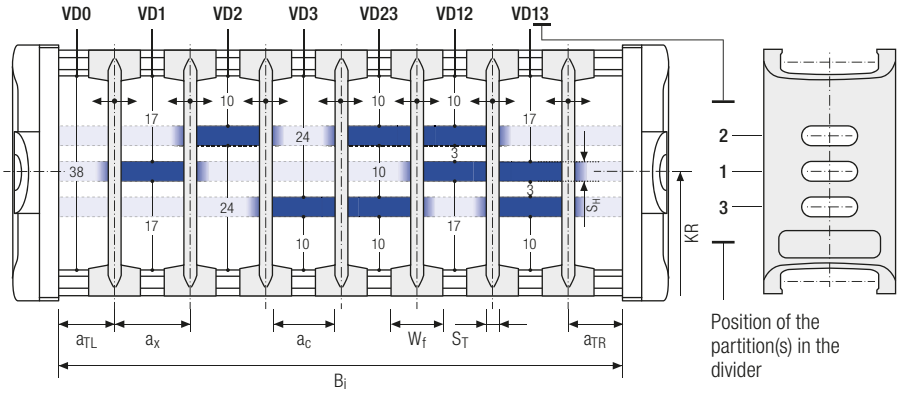
$a_c = a_x - S_T$

Information on the connection dimensions for the cable carrier can be found on page 47.

Divider system TS1 with continuous height separation*

S_T [mm]	W_f [mm]	S_H [mm]	$n_{T\,min}$	$a_{T\,max}$ [mm]	Version A: $a_{T\,min}$ [mm]	Version A: $a_{x\,min}$ [mm]	Version A: $a_{c\,min}$ [mm]	Version B: $a_{T\,min}$ [mm]	Version B: $a_{x\,min}$ [mm]	Version B: $a_{c\,min}$ [mm]	Version B: $a_{x\,grid}$ [mm]
2	10	4	2	20	5	10	8	5	10	8	2.5

* not design 020



Position of the partition(s) in the divider

Standard height separation with **aluminum profile 9 × 2 mm**.

Chamber width a_c

$a_c = a_x - S_T$

TOTALTRAX® complete systems

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Configure your custom cable carrier: **onlineengineer.de**

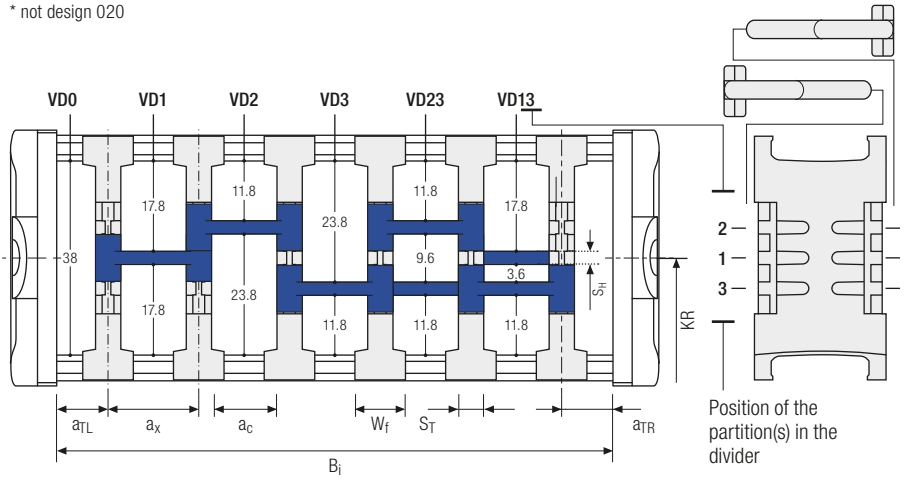
Information on the connection dimensions for the cable carrier can be found on page 47

UA1555 | Inner Distribution | TS3

Divider system TS3 with height separation made of plastic section subdivisions*

Version A						
S_T [mm]	W_f [mm]	S_H [mm]	$a_{TL}/a_{TR\ min}$ [mm]	$a_{x\ min}$ [mm]	$a_{c\ min}$ [mm]	$n_{T\ min}$
5	10	2.4	3.5	15	10	2

* not design 020



Position of the partition(s) in the divider

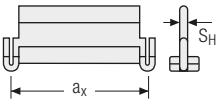
The dividers are fixed by the partitions, the complete divider system is movable in the cross section.

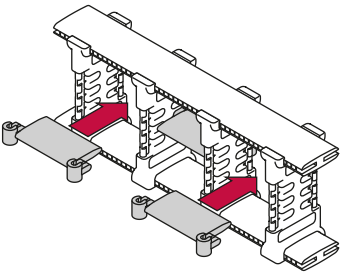
Chamber width a_c

$a_c = a_x - S_T$

a_x (center distance of dividers) [mm]									
a_c (nominal width of inner chamber) [mm]									
15	**20**	**25**	**30**	**35**	**40**	**45**	**55**	**65**	**75**
10	15	20	25	30	35	40	50	60	70

Plastic section subdivisions in a_x increments



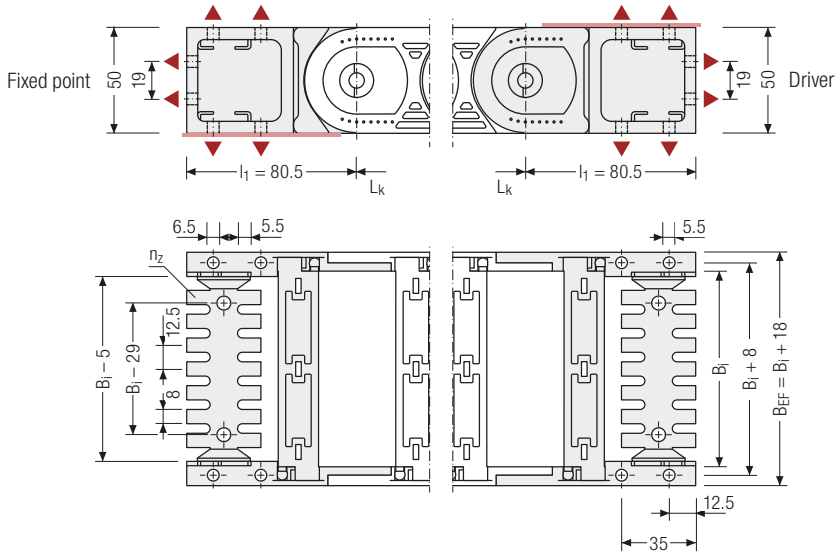


Assembly section subdivision

Information on the connection dimensions for the cable carrier can be found on page 47.

Universal end connectors UMB – plastic (standard)

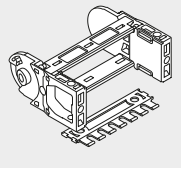
The universal mounting brackets (UMB) are made from plastic and can **be mounted from the top, from the bottom, or face on**.



▲ Assembly options

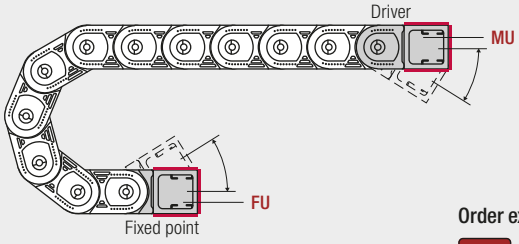
B_i [mm]	B_{EF} [mm]	n_z
50	68	2 × 3
75	93	2 × 5
90	108	2 × 6
100	118	2 × 7
125	143	2 × 9
150	168	2 × 11

Recommended tightening torque:
5 Nm for screws M5 - 8.8



The end connectors are optionally also available **without** strain relief comb or **with** C-rail (1 per side) for clamps. Please state when ordering.

Connection variants



Connection point
F – fixed point
M – driver

Connection type
U – universal mounting bracket

Order example

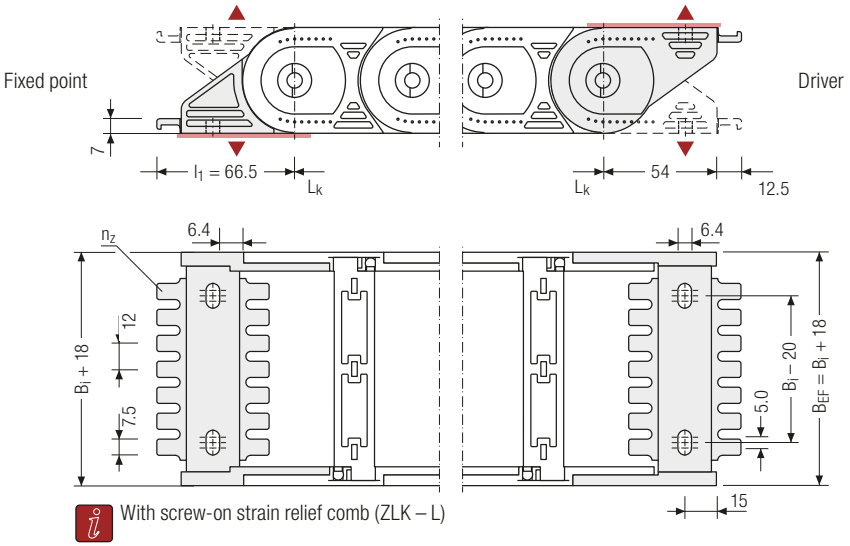
UMB	.	F	U
UMB	.	M	U

The universal end connectors UMB can be swiveled in KR direction.

Subject to change.

One part end connectors – plastic

The plastic end connectors can be **connected from above and below**. The connection type can be changed by reconnecting the end connector.

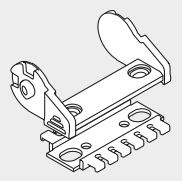


With screw-on strain relief comb (ZLK – L)

▲ Assembly options

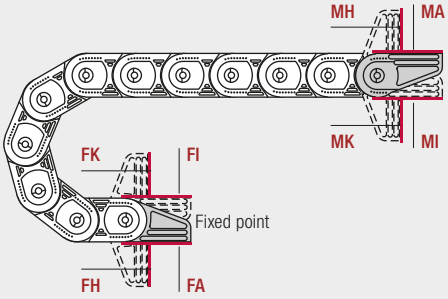
B_i [mm]	B_{EF} [mm]	n_z
50	68	2 x 4
75	93	2 x 6
100	118	2 x 8
125	143	2 x 10
150	168	2 x 12

Recommended tightening torque: 6 Nm for screws M6 - 8.8



The end connectors are also available as an option **without** strain relief comb. Please state when ordering.

Connection variants

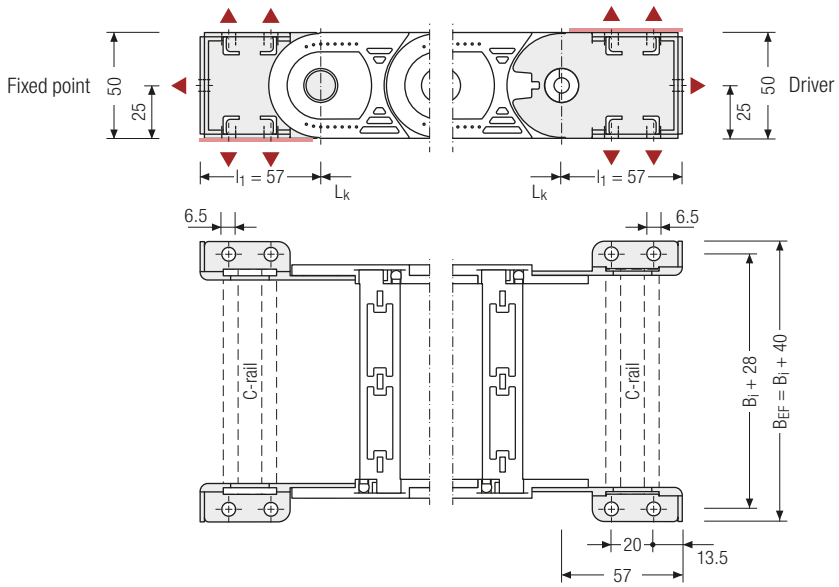


Connection point
- **F** – fixed point
- **M** – driver

Connection type
- **A** – threaded joint outside (standard)
- **I** – threaded joint inside
- **H** – threaded joint, rotated through 90° to the outside
- **K** – threaded joint, rotated through 90° to the inside

Universal end connectors UMB-St – steel

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



▲ Assembly options

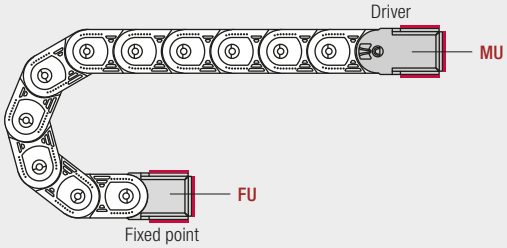
B_i [mm]	B_{EF} [mm]
50	90
75	115
90	130
100	140
125	165
150	190
200	240

The end connectors are also available as an option **with** C-rail for clamps.
Please state when ordering.

Order example

UMB-St	.	F	U
UMB-St	.	M	U

Connection variants



Connection point
F – fixed point
M – driver

Connection type
U – universal mounting bracket

Note: The end connectors UMB-St offer the same connection dimensions as the previous universal end connectors UMB from UNIFLEX 0555.

UA1555 | Order Key

Order

Cable carrier

Type	Stay variant	B_i [mm]	KR [mm]	L_K [mm]
			63	
		50	80	
		75	100	
		90	125	
	020	100	160	
	030	125	200	
UA1555	040	150	230	

UA1555	.	030	.	125	.	160	-	1,887
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

International order specification INTOK:
Information about the International Order Key can be found in the chapter “International Order Key” from page 1.

Divider system

Divider system	Version	n_T	Chamber	a_x [mm]	Height separation (not for TS0)
TS0			K1		VD0
TS1	A	min. 2	K2	min. 7.0	VD1
TS3	B	…	…	…	…

TS3	.	A	.	3	.	K1	.	34	-	VD1
						⋮		⋮		⋮
					.	K5	.	38	-	VD3
Divider system		Version		n_T		Chamber		a_x		Height separation

Please state the designation of the divider system **(TS0, TS1 …)**, version and number of dividers per cross section [n_T]. Additionally, please enter the chambers [K] from left to right (driver view).

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

Connection variant

End connector	Connection point	Connection type
		U
		A
UMB		I
End connector	F	H
UMB-St	M	K

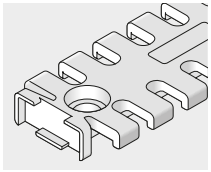
UMB	.	F	U
UMB	.	M	U

Please state the desired connection variant as well as the desired strain relief type for the fixed point and for the driver.

Accessories

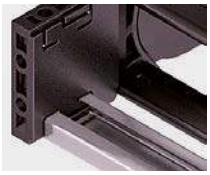
Single-sided strain relief combs

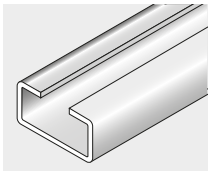
The optional plastic strain relief combs are assembled between the UMB end connectors and require no separate screw fixing.



C-rails for strain relief elements

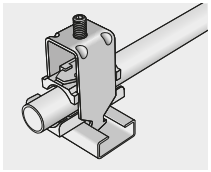
The optional C-rails are secured by the UMB end connectors and do not require separate screw connections.





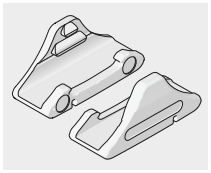
LineFix® clamps

LineFix® clamps are fixed to the C-rail. The serve as a separate strain relief or separate attachment of the cables outside the cable carrier.



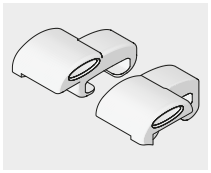
Gliding elements

The optional glide shoes ensure a substantially longer service life of the cable carrier in gliding operation.



Outer dampers

The use of outer dampers effectively reduces uncoiling noise. Particularly recommended for support trays and guide channels.



Quick opening tool

Opening tools can be used to open cable carriers quickly and gently for installation and inspection of cables and hoses.