Innovation in Motion
TSUBAKI

KABELSCHLEPP

UNIFLEX *Advanced* series

PLASTIC CABLE CARRIERS
UNIVERSAL AND WITH MANY VARIANTS
WITH BALL JOINT

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

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Subject to change.

UNIFLEX *Advanced* | Overview

Features

- Universal connection options
- Extensive unsupported lengths
- High torsional rigidity
- Good ratio of inner to outer width
- Low noise emissions
- Numerous custom material types for custom applications available
- Easy assembly
- Fast cable laying
- Assembly tools available
- Stays with ball joint, opening on both sides
- Strain relief integrated into the end connector
- Many possibilities for internal subdivision
- Optionally with C-rail integrated in the end connector
- Wear surfaces for gliding applications involving long travel lengths
- Fixable dividers

Fixable dividers for arrangement laying on its side and applications with high lateral Travel accelerations – no additional spacers required

Lateral wear surfaces – for long service life for applications where the carrier is rotated through 90°

Simple fixing of strain relief comb or C-Rail in the connector

Subject to change.

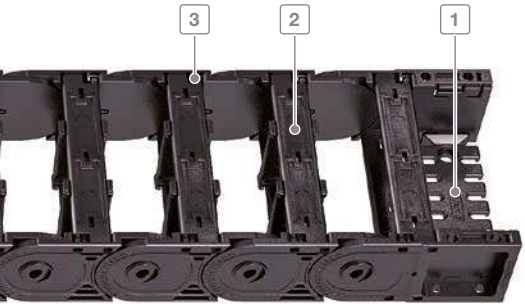
kabelschlepp.de

Configure your cable carrier: onlineengineer.de

Technical support: technik@kabelschlepp.de

OnlineEngineer.de
Cable Carrier Configurator

UNIFLEX *Advanced* | Overview

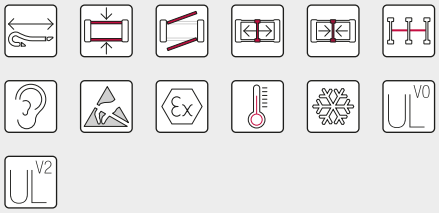


1. Universal Mounting Bracket (UMB) with integratable strain relief comb
2. Designs with inward or outward opening crossbars
3. Extremely fast and easy to open due to ball joint mechanism
4. Frame stay
5. Single-part links (design 020)
6. Favorable ratio of inner to outer width
7. Many separation options for the cables
8. Robust, double stroke system for long unsupported lengths
9. Easy divider fixing
10. Extremely low noise due to internal noise damping
11. Lateral wear surfaces
12. Single-part end connectors with integratable strain relief comb

Example of inner distribution

Selection criteria for UNIFLEX *Advanced*

- If easy, single-sided opening of the crossbars from inside or outside is required
- If cables have to be assembled quickly
- If an optional divider fixing should be available (e.g. for cable carrier laying on its side)
- If a gliding arrangement should be optionally available
- If additional loads up to 10 kg/m are required
- If a plastic crossbar is required
- If an integrated strain relief is required
- If horizontal cable partitioning is desired



- If a frame stay is required (e.g. for large hose diameters)

Type	h_i [mm]	B_i [mm]	t [mm]	Page
UA1320	20	15 – 65	32.0	6
UA1455	26	25 – 103	45.5	16
UA1555	38	50 – 200	55.5	34
UA1665	44	50 – 250	66.5	52

Subject to change.

UA1320

Pitch
32 mm

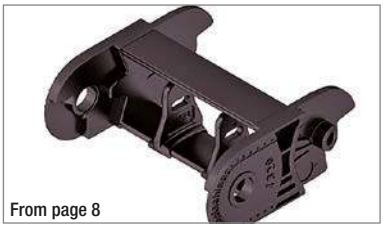
Height
20 mm

Width
15 – 65 mm

Bending radius
28 – 125 mm

Stay variants

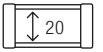
Design 020



From page 8

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

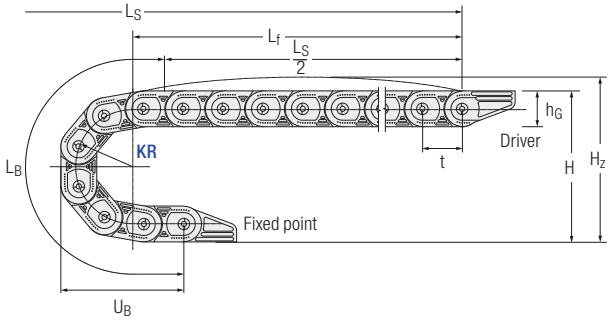
Opening options
outside/inside: Closed.



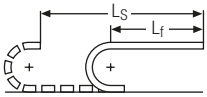
Technical data on p. 7

Subject to change.

Unsupported arrangement



Unsupported length L_f



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

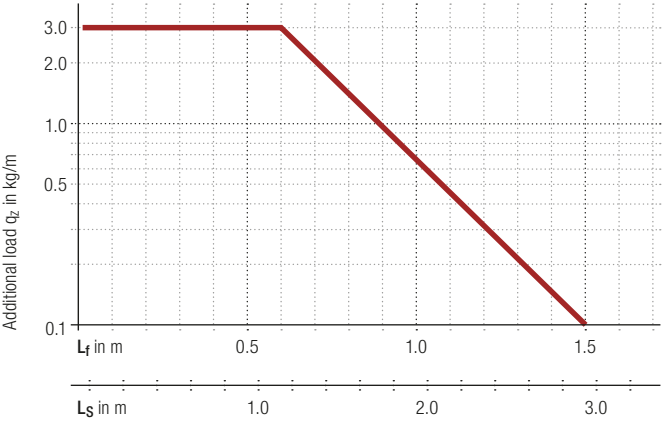
Dynamics of unsupported arrangement		t
v_{max} [m/s]	a_{max} [m/s²]	[mm]
10	50	32

Installation dimensions unsupported

KR [mm]	H [mm]	H_Z [mm]	L_B [mm]	U_B [mm]
28	81.5	98.5	152	73
38	101.5	118.5	184	83
48	121.5	138.5	215	93
75	175.5	192.5	300	120
100	225.5	242.5	379	145
125	275.5	292.5	457	170

Load diagram

for unsupported length depending on additional load



Intrinsic cable carrier weight q_k = 0.40 kg/m with B_i 50 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.

UNIFLEX Advanced
Inner heights 20
Inner widths 15 - 65
Key for abbreviations on page 72
Assembly instructions on kabelschlepp.de/assembly
Order key on page 14

Subject to change.

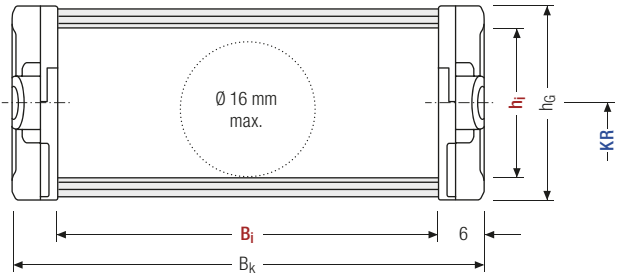
UA1320.020 | Overview

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 15 – 65 mm



Calculating the cable carrier width

Outer width B_k

$B_k = B_i + 12$ mm

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

QuickTrax® | EasyTrax®

For openable cable carriers with inner height 18 – 20 mm we recommend the series QuickTrax® 0320 or EasyTrax® 0320 **QT0320 from page 8** and **ET0320 from page 24.**

Information on the inner distribution of the cable carrier can be found on page 10 f.

kabelschlepp.de/uniflex-advanced

Configure your cable carrier: onlineengineer.de

Technical support: technik@kabelschlepp.de

online-engineer.de Cable Carrier Configurator

Subject to change.

UA1320.020 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]
32	20	25.5

Bend radii

KR [mm]					
28	38	48	75	100	125

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_k [mm]	q_k [kg/m]
15	27	0.36
25	37	0.39
38	50	0.42
50	62	0.44
65	77	0.48

Order example

UA1320	.	020	.	50	.	100	-	960
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

Key for abbreviations on page 72
Assembly instructions on kabelschlepp.de/assembly
Order key on page 14

Subject to change.

UA1320 | Inner Distribution | TS0

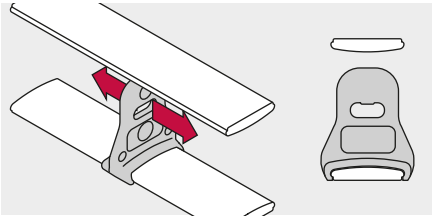
Divider systems

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).**

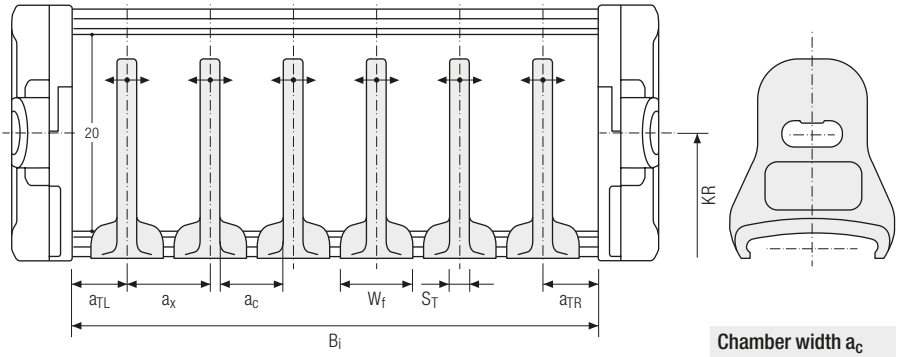
Movable divider

Version A



Divider system TS0 without height separation

Version A				
S_T [mm]	W_f [mm]	$a_{TL}/a_{TR\ min}$ [mm]	$a_{x\ min}$ [mm]	$a_{c\ min}$ [mm]
2	8	4	8	6



Chamber width a_c

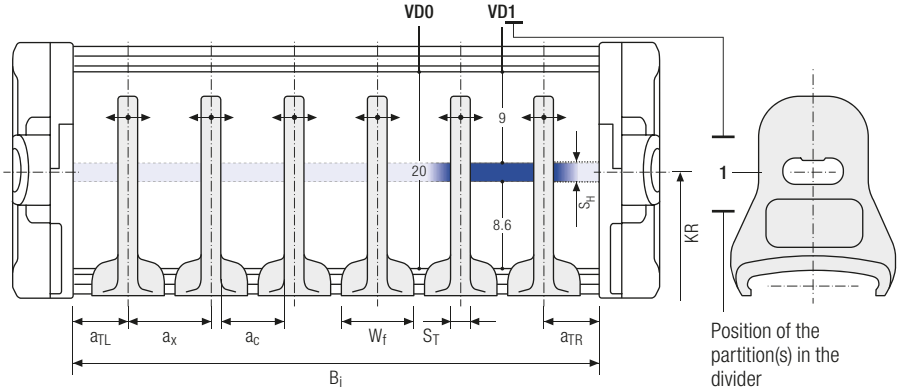
$a_c = a_x - S_T$

Information on the connection dimensions for the cable carrier can be found from page 12 f.

Subject to change.

Divider system TS1 with continuous height separation

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]	$n_{T\ min}$
2	8	2.4	4	8	6	2



Position of the partition(s) in the divider

Standard height separation with **aluminum profile 9 × 2 mm**.
The dividers can be moved in the cross section.

Chamber width a_c

$a_c = a_x - S_T$

TOTALTRAX® complete systems

Benefit from the advantages of a TOTALTRAX® complete system. Complete delivery from a single source – with a guarantee certificate on request! Learn more at **kabelschlepp.de/totaltrax**

TRAXLINE® cables in motion

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

More product information online

Assembly instructions etc.: Receive additional info via your smartphone or check online at **kabelschlepp.de/support**

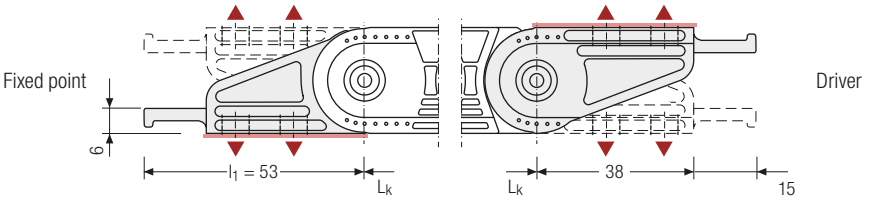
Configure your custom cable carrier: **onlineengineer.de**

Information on the connection dimensions for the cable carrier can be found from page 12.

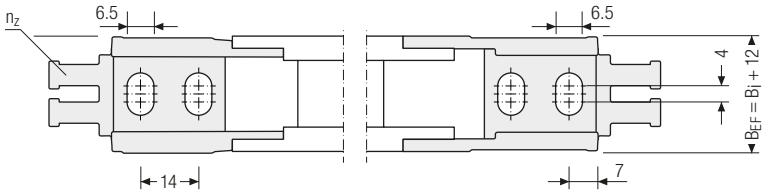
Subject to change.

UA1320 | End Connectors | End Connectors

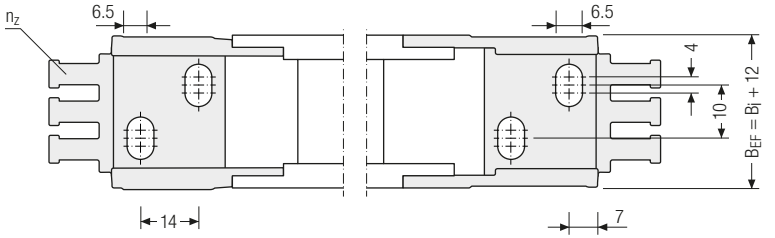
The plastic end connectors can be **connected from above or below**. The connection type can be changed by turning the end connector.



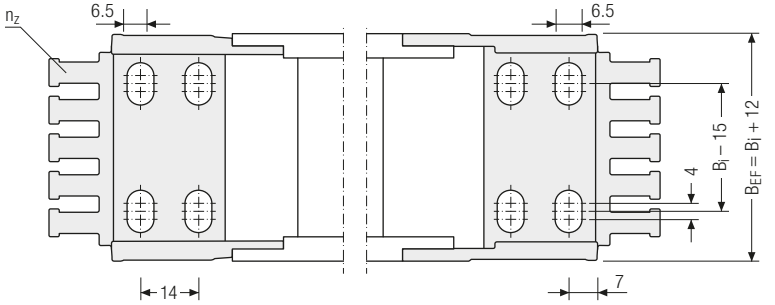
Bi: 15



Bi: 25



Bi: 38/50/65



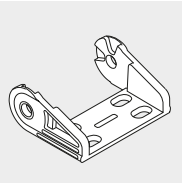
▲ Assembly options

Subject to change.

One part end connectors – plastic (with integrated strain relief)

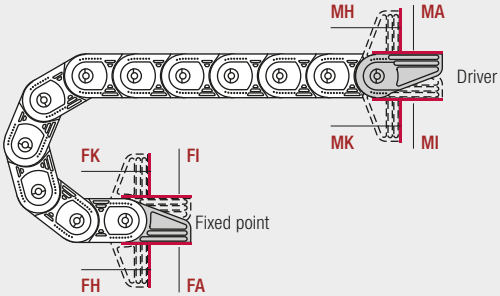
B_i [mm]	B_{EF} [mm]	n_z
15	27	2
25	37	3
38	50	4
50	62	5
65	77	6

The end connectors cannot be swiveled.



The end connectors are also available as an option **without** integrated strain relief. 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

Subject to change.

UA1320 | Order Key

Order

Cable carrier

Type	Stay variant	B_i [mm]	KR [mm]	L_K [mm]
			28	
		15	38	
		25	48	
		38	75	
		50	100	
UA1320	020	65	125	

UA1320	.	020	.	50	.	100	-	960
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	Height separation (not for TS0)
TS0		min. 2	VD0
TS1	A	…	VD1

TS1	.	A	.	2	-	VD0
						⋮
					-	VD1
Divider system		Version		n_T		Height separation

Please state the designation of the divider system **(TS0, TS1)**, 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. VD23] viewed from the left driver belt.

Connection variant

End connector	Connection point	Connection type
		A
	F	I
End connector	M	H

End connector	.	F	A
End connector	.	M	A

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

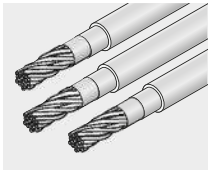
kabelschlepp.de/uniflex-advanced
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

Subject to change.

Accessories

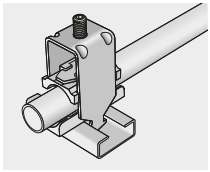
TRAXLINE® cables in motion

Hi-flex electric cables which were especially developed, optimized and tested for use in cable carriers.



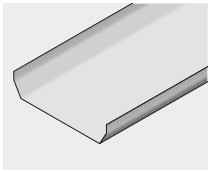
LineFix® clamps

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.



Support trays

An even surface is required for safe unrolling of the cable carrier. This is ensured by a support tray.



TOTALTRAX® complete systems

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More product information online

Assembly instructions etc.: Receive additional info via your smartphone or check online at **kabelschlepp.de/support**

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

Subject to change.

UA1455

Pitch
45.5 mm

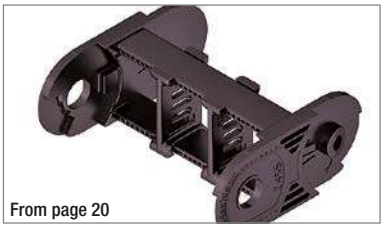
Height
26 mm

Width
25 – 130 mm

Bending radius
52 – 225 mm

Stay variants

Design 020

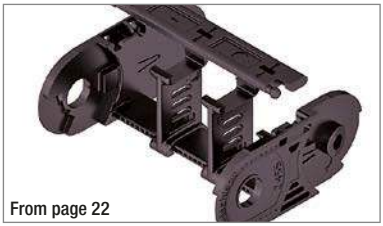


From page 20

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

Opening options
inside/outside: Cannot be opened.

Design 030

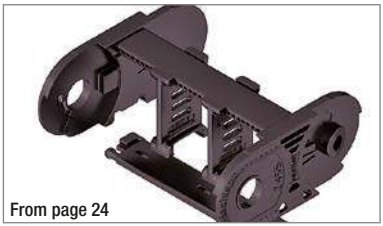


From page 22

Frame with externally detachable crossbars
- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.

Opening options
outside: Swivable and detachable.

Design 040



From page 24

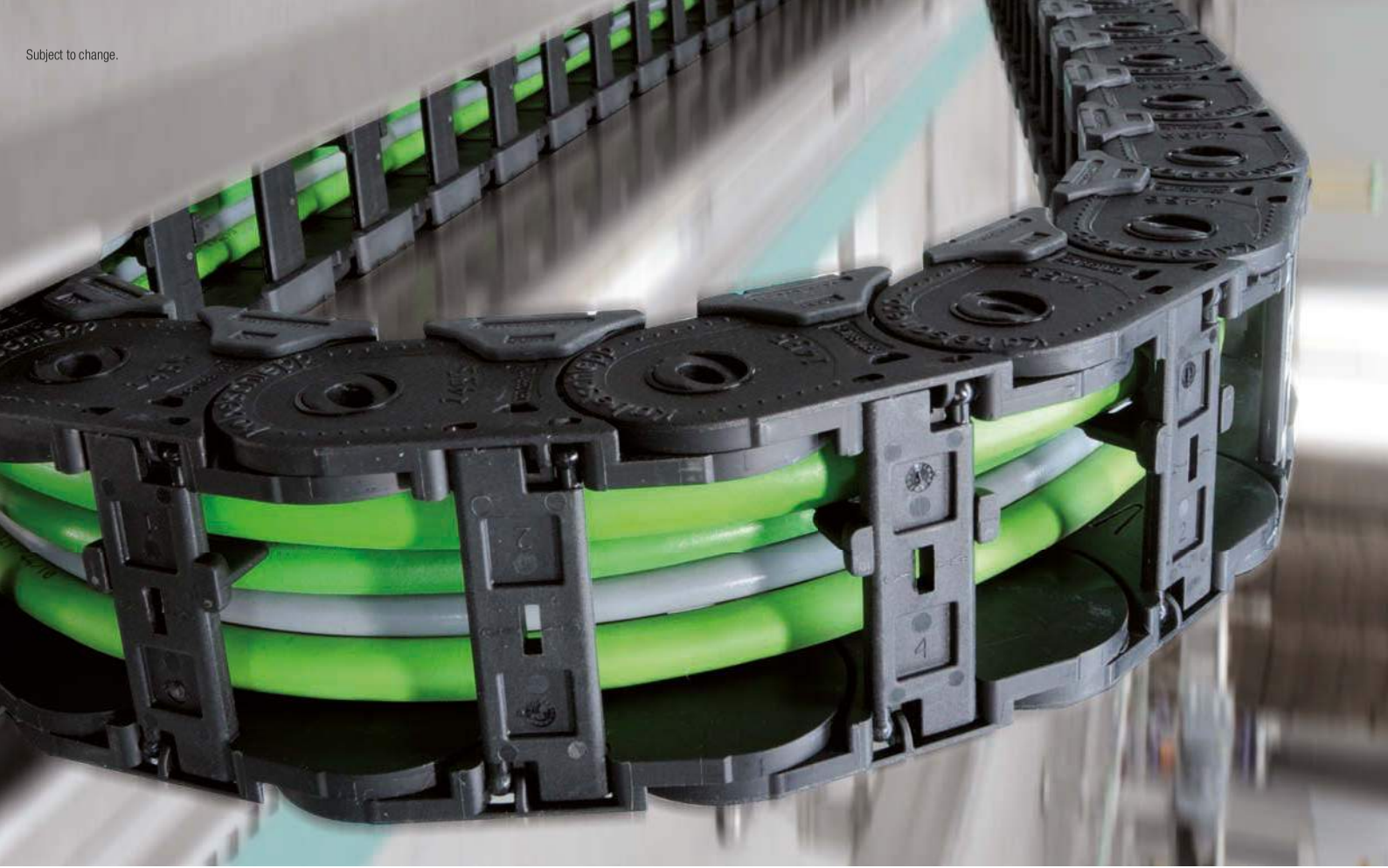
Frame with internally detachable crossbars
- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.

Opening options
inside: Swivable and detachable.

Technical data on p. 18

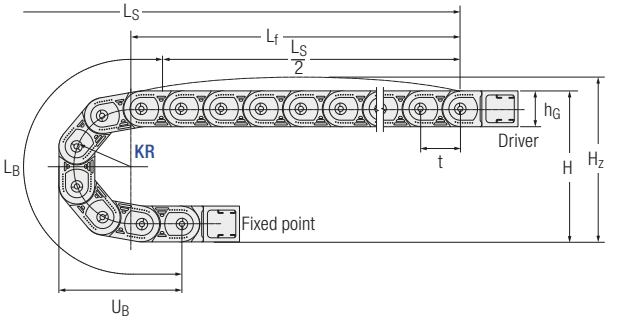
Subject to change.

Subject to change.

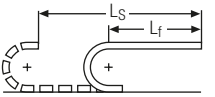


UA1455 | Installation Dimensions | Unsupported

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]
10	50	45.5

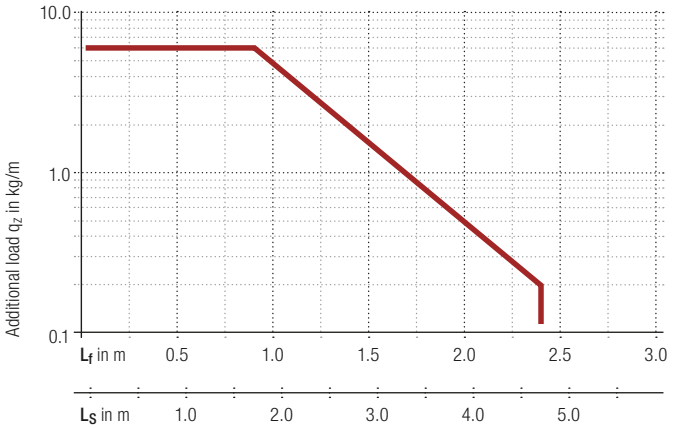
Installation dimensions unsupported

KR [mm]	H [mm]	H_Z [mm]	L_B [mm]	U_B [mm]
52	140	165	255	116
65	166	191	296	129
95	226	251	390	159
125	286	311	484	189

KR [mm]	H [mm]	H_Z [mm]	L_B [mm]	U_B [mm]
150	336	361	563	214
180	396	421	657	244
200	436	461	720	264
225	486	511	798	289

Load diagram

for unsupported length depending on additional load



Intrinsic cable carrier weight q_k = 0.75 kg/m with B_i 38 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.

Subject to change.

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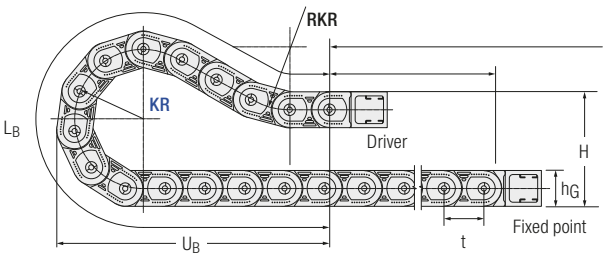
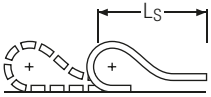
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

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]
2.5	20	45.5

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

TSUBAKI KABELSCHLEPP Technical Support

If you have any questions about determining gliding cable carriers or other technical details please contact our technical support service at technik@kabelschlepp.de. We will be happy to help you.

Subject to change.

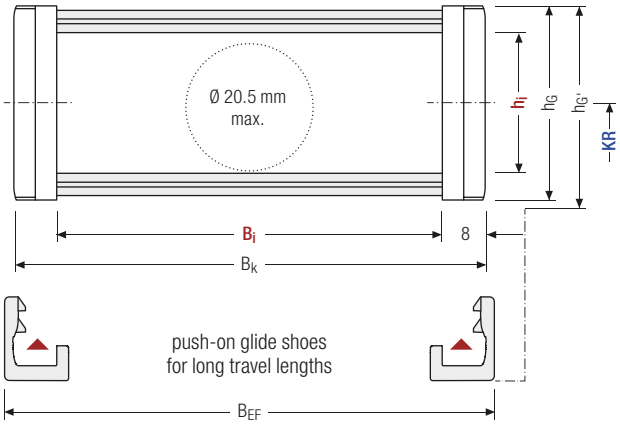
UA1455.020 | Overview

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 25 – 130 mm



Calculating the cable carrier width

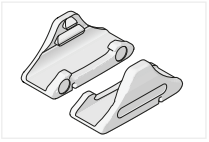
Outer width B_k

$B_k = B_i + 16$ mm

Total width B_{EF}

$B_{EF} = B_i + 19$ 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 26.

Subject to change.

kabelschlepp.de/uniflex-advanced

Configure your cable carrier: onlineengineer.de

Technical support: technik@kabelschlepp.de

online-engineer.de Cable Carrier Configurator

UA1455.020 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]	$h_{G'}$ [mm]
45.5	26	36	38.5

Bend radii

KR [mm]							
52	65	95	125	150	180	200	225*

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_k [mm]	B_{EF} [mm]	q_k [kg/m]
25	41	44	0.71
38	54	57	0.75
58	74	77	0.80
78	94	97	0.88
103	119	122	1.00
130*	146	147	1.12

Order example

UA1455	.	020	.	78	.	150	-	1,456
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

* on request

Subject to change.

Key for abbreviations on page 72

Assembly instructions on kabelschlepp.de/assembly

Order key on page 32

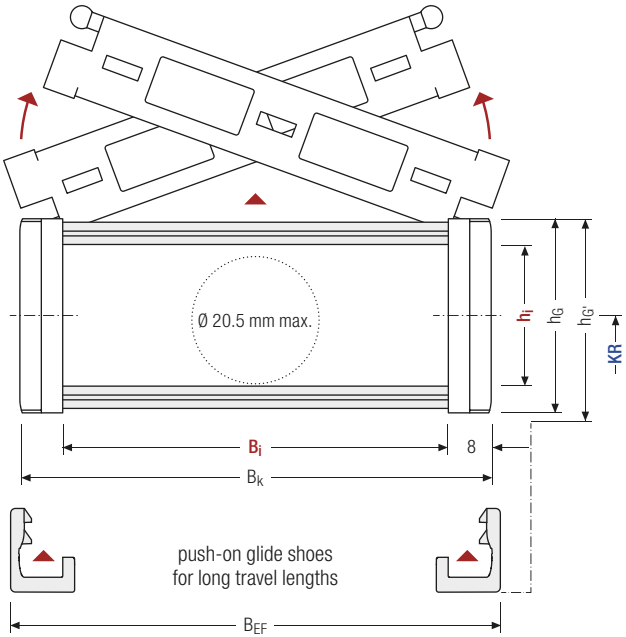
UA1455.030 | Overview

Stay variant 030 – with outside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.
- **Opening options**
  outside: Swivable and detachable.

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

B_i from 25 – 130 mm



Calculating the cable carrier width

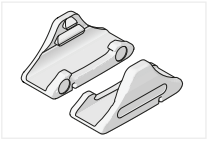
Outer width B_k

$B_k = B_i + 16$ mm

Total width B_{EF}

$B_{EF} = B_i + 19$ 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 26.

Subject to change.

kabelschlepp.de/uniflex-advanced

Configure your cable carrier: onlineengineer.de

Technical support: technik@kabelschlepp.de

online-engineer.de Cable Carrier Configurator

UA1455.020 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]	$h_{G'}$ [mm]
45.5	26	36	38.5

Bend radii

KR [mm]							
52	65	95	125	150	180	200	225*

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_K [mm]	B_{EF} [mm]	q_K [kg/m]
25	41	44	0.73
38	54	57	0.75
58	74	77	0.80
78	94	97	0.88
103	119	122	0.98
130*	146	147	1.10

Order example

UA1455	.	030	.	78	.	150	-	1,456
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

* on request

Subject to change.

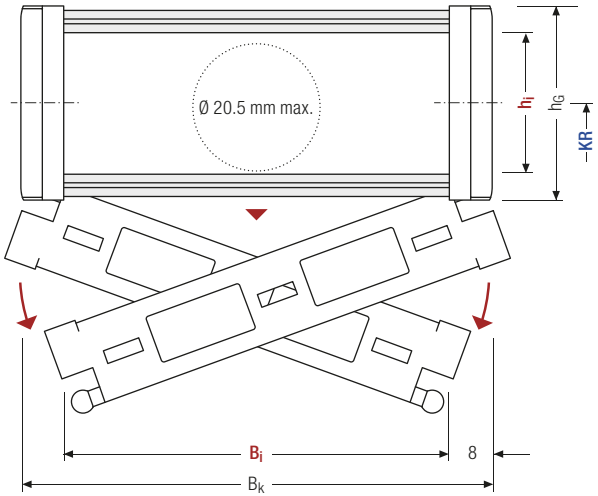
UA1455.040 | Overview

Stay variant 040 – with inside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.
- **Opening options inside:** Swivable and detachable.

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

B_i from 25 – 130 mm



Calculating the cable carrier width

Outer width B_k

$B_k = B_i + 16$ 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 26.

Subject to change.

kabelschlepp.de/uniflex-advanced
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

UA1455.040 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]
45.5	26	36

Bend radii

KR [mm]							
52	65	95	125	150	180	200	225*

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_K [mm]	q_K [kg/m]
25	41	0.73
38	54	0.75
58	74	0.80
78	94	0.88
103	119	0.98
130*	146	1.10

Order example

UA1455	.	040	.	78	.	150	-	1,456
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

* on request

Subject to change.

UA1455 | Inner Distribution | TS0

Divider systems

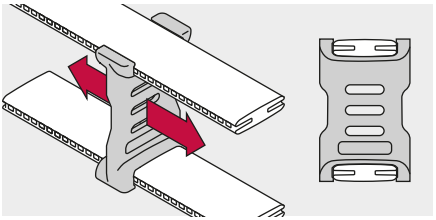
As standard, the divider system is assembled at each 2nd chain link.

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)**.

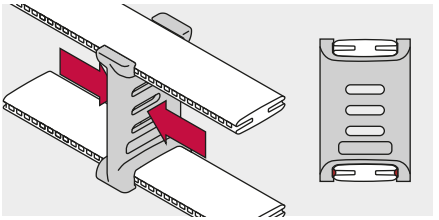
Movable divider

Version A (Standard)



Fixable divider (2.5 mm grid)

Version B

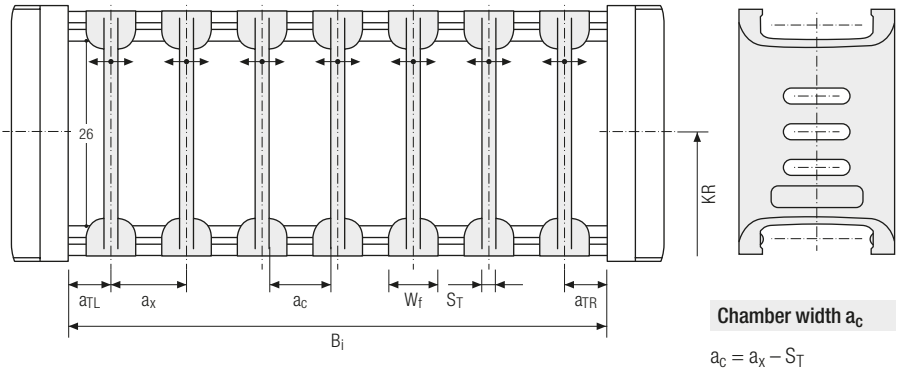


Divider system TS0 without height separation

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	7		3.5	7	5		7.5	5.5	2.5

B_i [mm]	25	38	58	78	103	130
$a_{TL}/a_{TR\,min}$ [mm]	5	4	4	4	4	5
$n_{T\,max}$ design 020	0	2	5	7	11	15

* 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 29.

kabelschlepp.de/uniflex-advanced
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator
Subject to change.

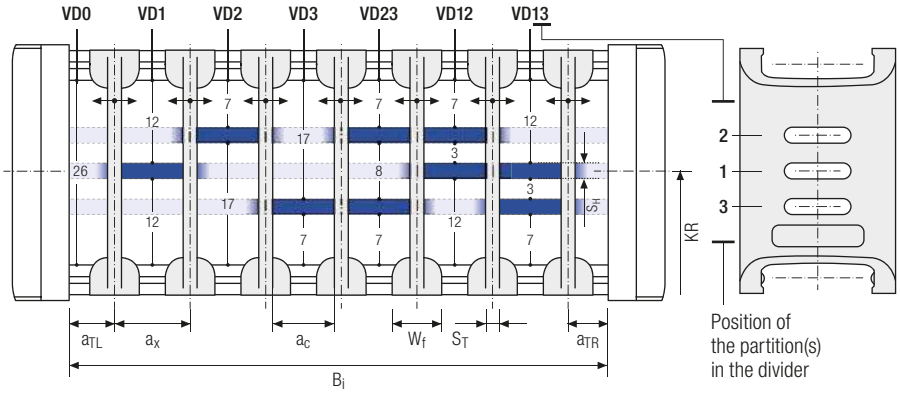
UA1455 | Inner Distribution | TS1

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	7	2	2	20	3.5	7	5		7.5	5.5	2.5

B_i [mm]	25	38	58	78	103	130
$a_{TL}/a_{TR\ min}$ [mm]	5	4	4	4	4	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

$a_c = a_x - S_T$

TRAXLINE® cables in motion

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

More product information online

Assembly instructions etc.: Receive additional info via your smartphone or check online at **kabelschlepp.de/support**

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

Information on the connection dimensions for the cable carrier can be found on page 29.

Inner heights 26
Inner widths 25 – 130
Key for abbreviations on page 72
Assembly instructions on kabelschlepp.de/assembly
Order key on page 32

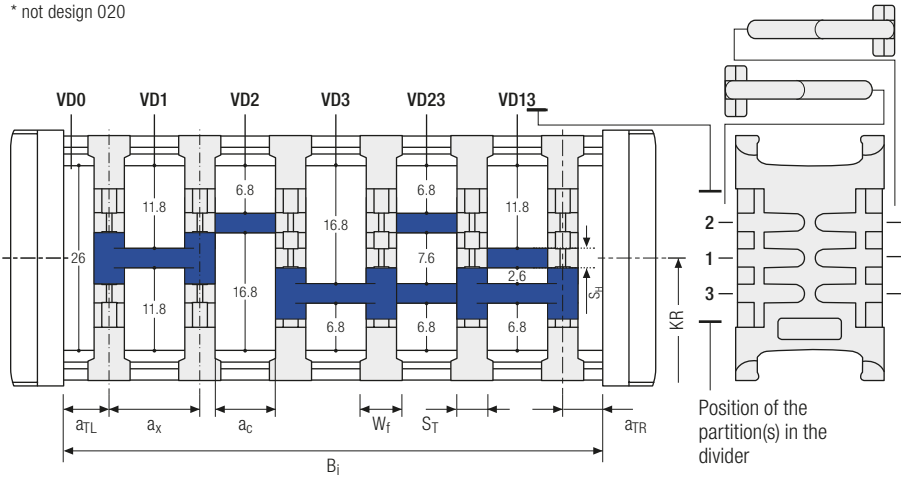
Subject to change.

UA1455 | 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	7	2.4	3.5	15	10	2

* not design 020



Position of the partition(s) in the divider

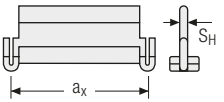
The dividers are fixed by the partitions, the complete divider system is movable in the cross section.

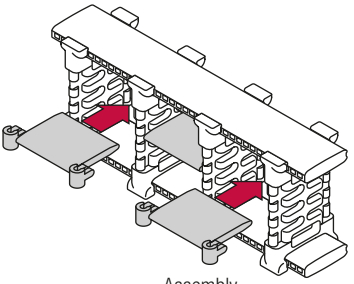
Chamber width a_c

$a_c = a_x - S_T$

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

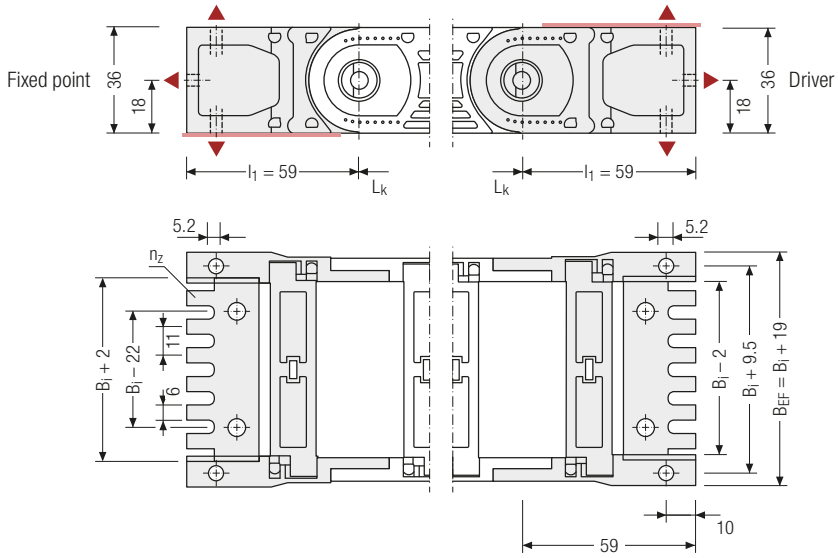
Information on the connection dimensions for the cable carrier can be found on page 29.

Configure your cable carrier: onlineengineer.de
kabelschlepp.de/uniflex-advanced
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

Subject to change.

Universal end connectors UMB – plastic (standard)

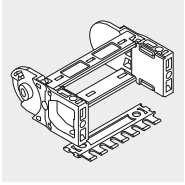
The universal mounting brackets (UMB) are made from plastic and can **be mounted from the top, from the bottom, or face on**.



▲ Assembly options

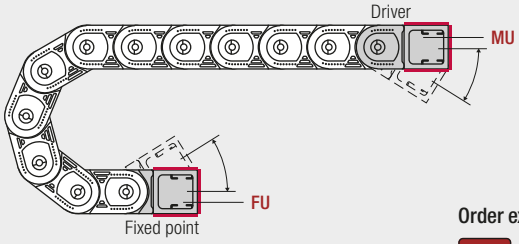
B_i [mm]	B_{EF} [mm]	n_z
25	44	2
38	57	3
58	77	5
78	97	7
103	122	9
130	149	11

Recommended tightening torque:
5 Nm for screws M5 - 8.8



The end connectors are optionally also available **without** strain relief comb (1 per side). 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

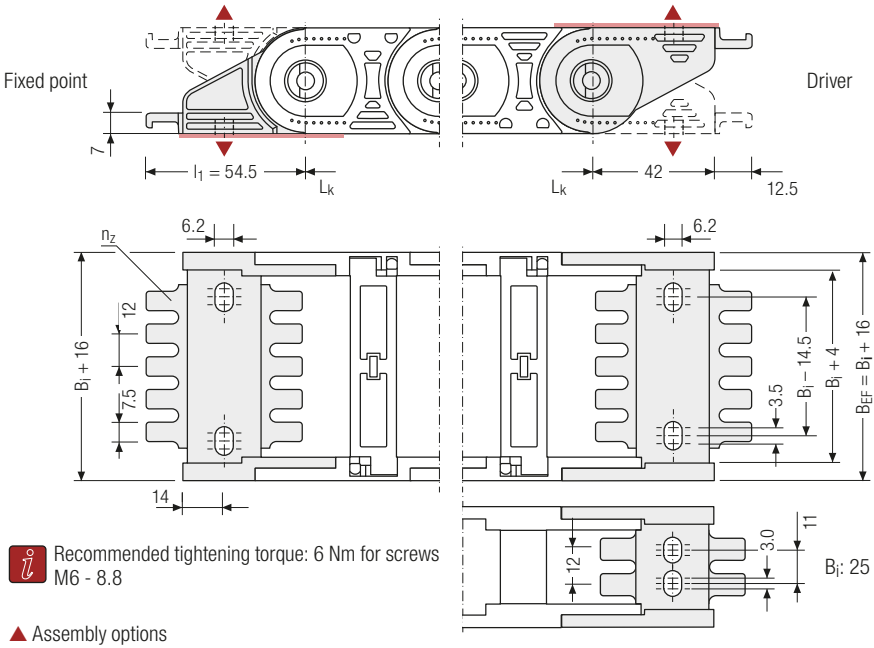
The universal end connectors UMB can be swiveled in KR direction.

Subject to change.

UA1455 | End Connectors | End Connectors

One part end connectors – plastic

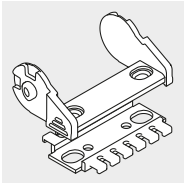
The plastic end connectors can be **connected from above and below**. The connection type can be changed by reconnecting the end connector.



Recommended tightening torque: 6 Nm for screws M6 - 8.8

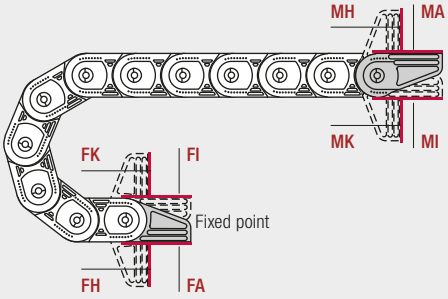
▲ Assembly options

B_i [mm]	B_{EF} [mm]	n_z
25	41	2 x 2
38	54	2 x 3
58	74	2 x 4
78	94	2 x 6
103	117	2 x 8
130	146	2 x 10



The end connectors are optionally also available **without** strain relief comb (except B_i 25). Please state when ordering.

Connection variants



Driver

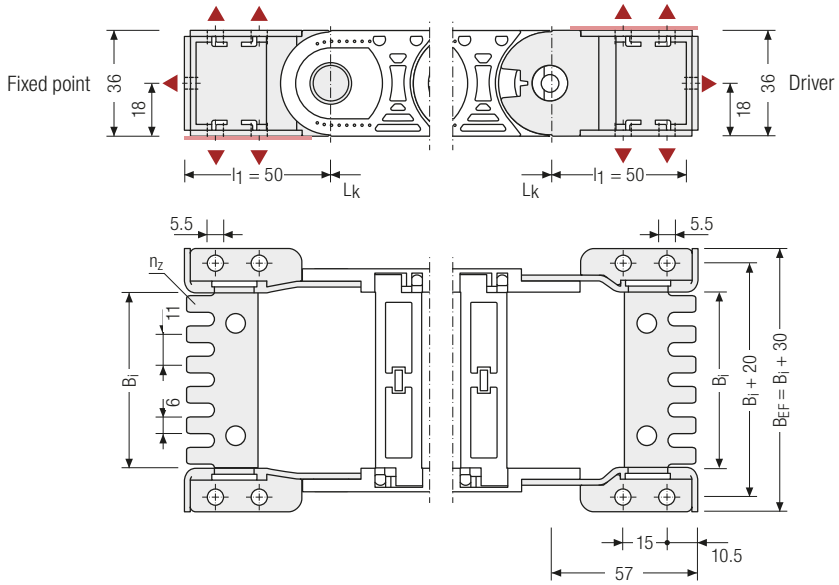
Connection point
- **F** – fixed point
- **M** – driver

Connection type
- **A** – threaded joint outside (standard)
- **I** – threaded joint inside
- **H** – threaded joint outside rotated by 90°
- **K** – threaded joint inside rotated by 90°

Subject to change.

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

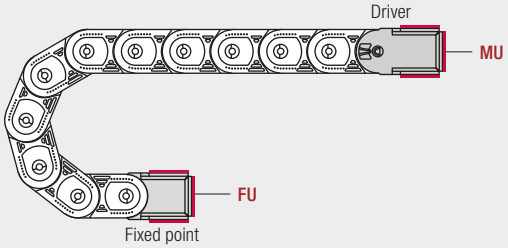
B_i [mm]	B_{EF} [mm]	n_z
25	55	2
38	68	3
58	88	5
78	108	7
103	133	9
130	160	11

The end connectors are also available as an option **without** strain relief comb. 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 0455.

Subject to change.

UA1455 | Order Key

Order

Cable carrier

Type	Stay variant	B_i [mm]	KR [mm]	L_K [mm]
			52	
			65	
		25	95	
		38	125	
		58	150	
	020	78	180	
	030	103	200	
UA1455	040	130	225	

UA1455	.	030	.	78	.	150	-	1,456
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	.	35	-	VD1
						⋮		⋮		⋮
					.	K5	.	40	-	VD3
Divider system		Version		n_T		Chamber		Assembly distance		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.

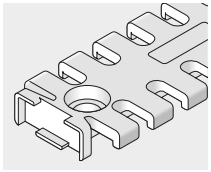
kabelschlepp.de/uniflex-advanced
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

Subject to change.

Accessories

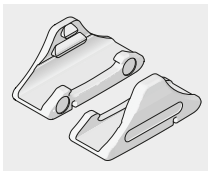
Single-sided strain relief combs

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



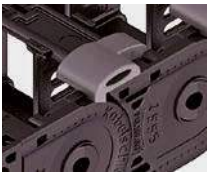
Gliding elements

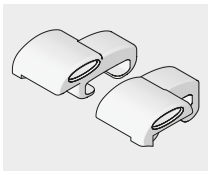
The optional glide shoes ensure a substantially longer service life of the cable carrier in gliding operation.



Outer dampers

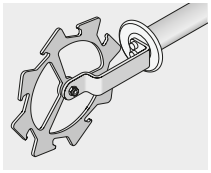
The use of outer dampers effectively reduces uncoiling noise. Particularly recommended for support trays and guide channels.





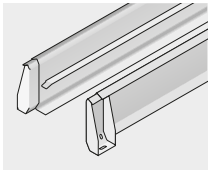
Quick opening tool

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



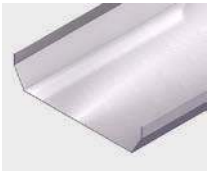
Guide channels

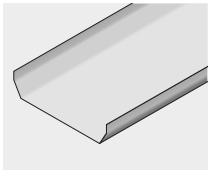
The cable carrier always has to be guided in a channel for gliding applications. This prevents the upper and lower run from slipping.



Support trays

An even surface is required for safe unrolling of the cable carrier. This is ensured by a support tray.





Subject to change.

UA1555

Pitch
55.5 mm

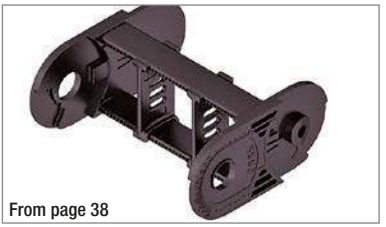
Height
38 mm

Width
50 – 150 mm

Bending radius
63 – 230 mm

Stay variants

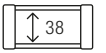
Design 020



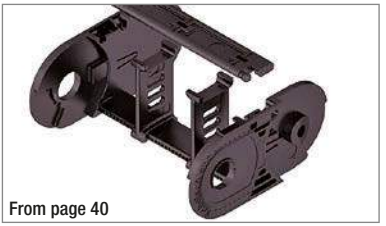
From page 38

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

Opening options
outside/inside: Cannot be opened.



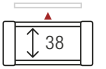
Design 030



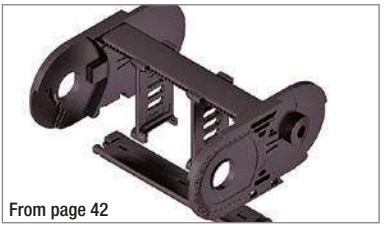
From page 40

Frame with externally detachable crossbars
- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.

Opening options
outside: Swivable and detachable.



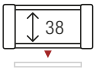
Design 040



From page 42

Frame with internally detachable crossbars
- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.

Opening options
inside: Swivable and detachable.



Technical data on p. 36

Subject to change.

Subject to change.

Order key
on page 50

Assembly instructions on
kabelschlepp.de/assembly

Key for abbreviations
on page 72

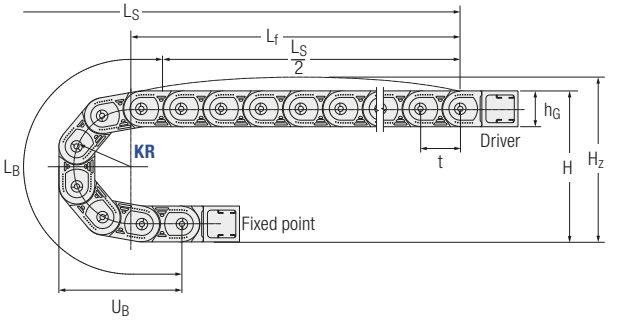
50
150
Inner widths

38
Inner heights

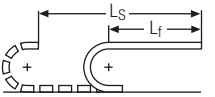
UNIFLEX
Advanced

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.

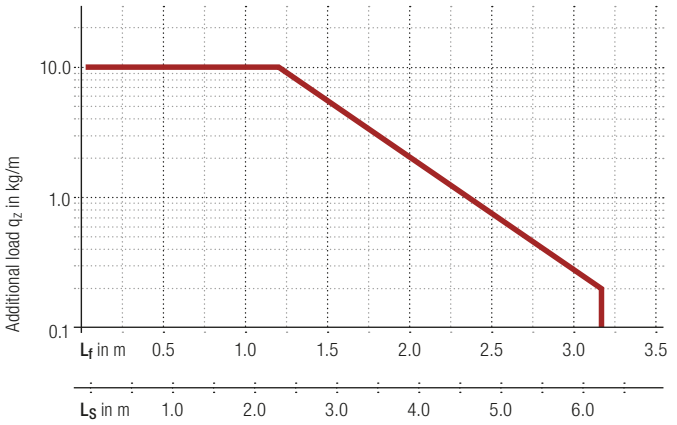
Dynamics of unsupported arrangement		t
v_{max} [m/s]	a_{max} [m/s^2]	[mm]
9	45	55.5

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.

Subject to change.

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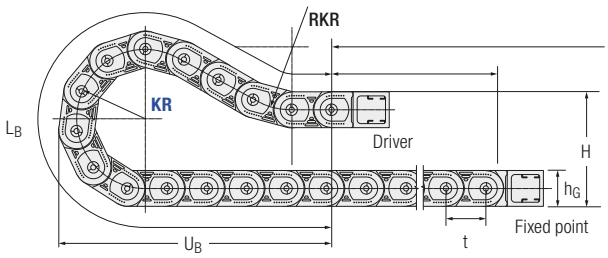
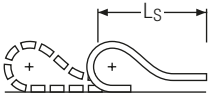
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

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.

Subject to change.

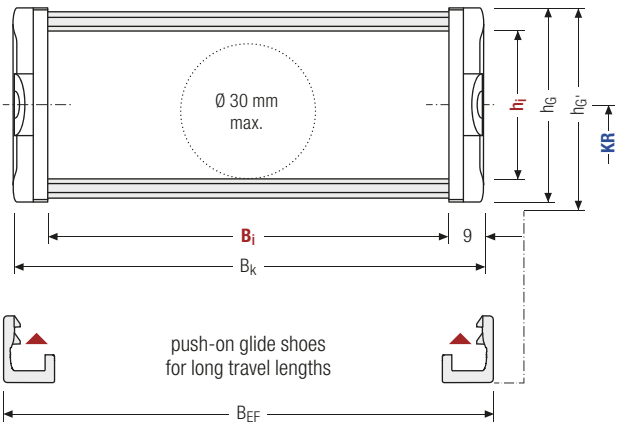
UA1555.020 | Overview

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

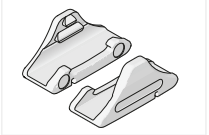
Outer width B_k

$B_k = B_i + 18$ 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.

Subject to change.

kabelschlepp.de/
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Configure your cable carrier:
onlineengineer.de

Technical support:
technik@kabelschlepp.de

online-engineer.de
Cable Carrier Configurator

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

Subject to change.

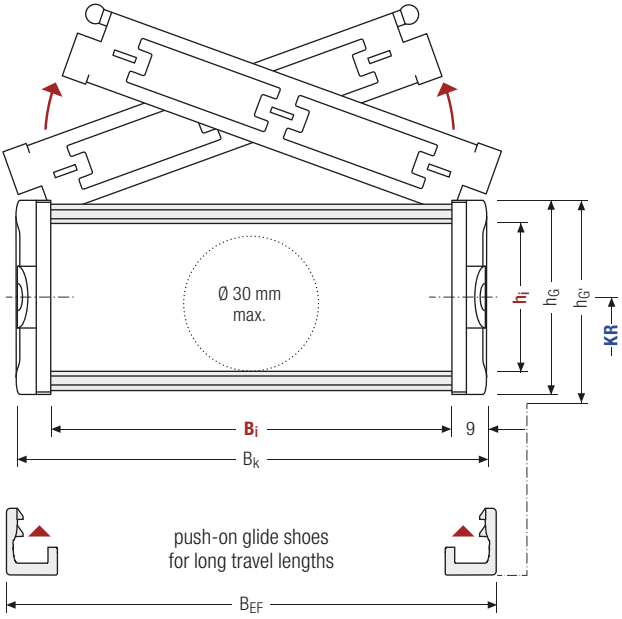
UA1555.030 | Overview

Stay variant 030 – with outside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right 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

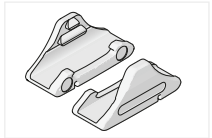
Outer width B_k

$B_k = B_i + 18$ 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.

Subject to change.

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online-engineer.de
Cable Carrier Configurator

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

Inner heights
38
Inner widths
50 - 150
Key for abbreviations on page 72
Assembly instructions on kabelschlepp.de/assembly
Order key on page 50

Subject to change.

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Configure your cable carrier:
onlineengineer.de

Technical support:
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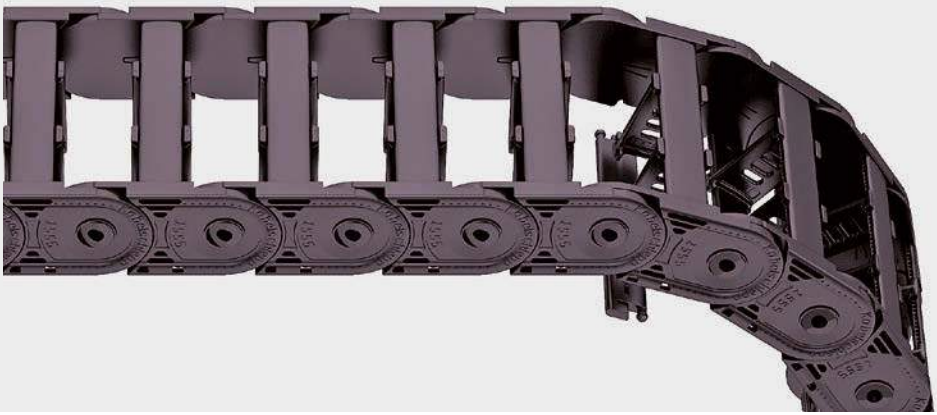
online-engineer.de
Cable Carrier Configurator

UA1555.040 | Overview

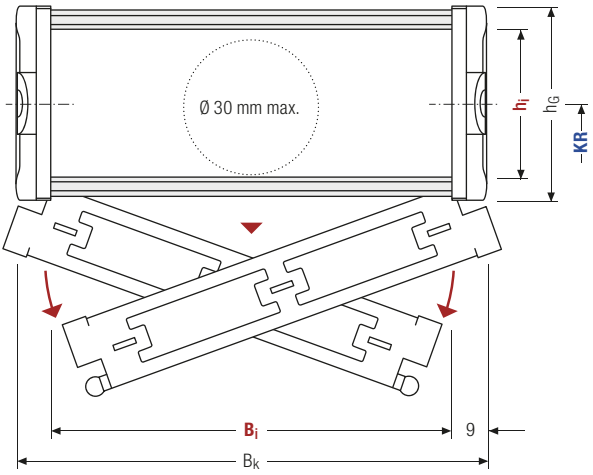
Stay variant 040 – with inside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right 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.

Subject to change.

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

Subject to change.

UA1555 | Inner Distribution | TS0

Divider systems

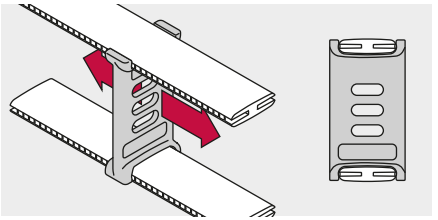
As standard, the divider system is assembled at each 2nd chain link.

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)**.

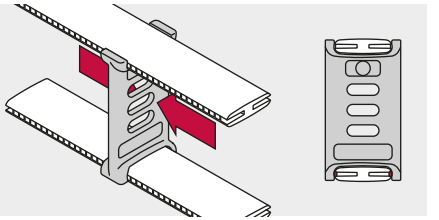
Movable divider

Version A (Standard)



Fixable divider (2.5 mm grid)

Version B

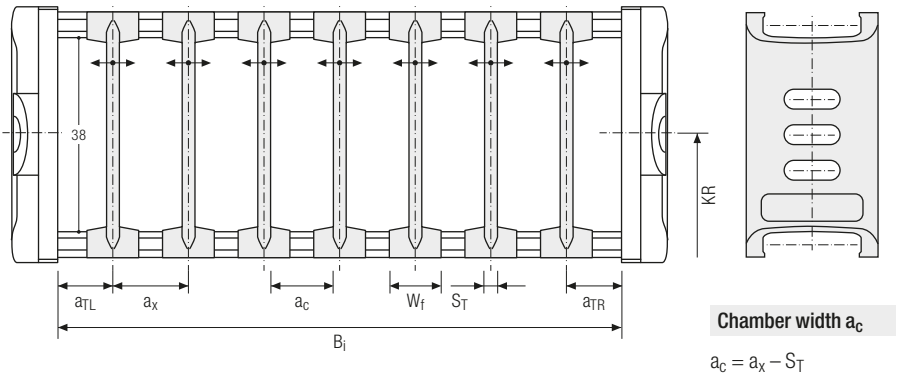


Divider system TS0 without height separation

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.

Subject to change.

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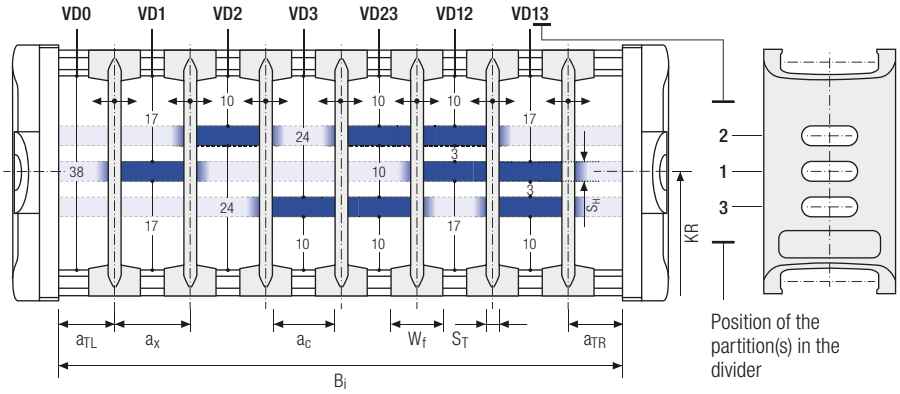
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

UA1555 | Inner Distribution | TS1

Divider system TS1 with continuous height separation*

					Version A			Version B			
S_T [mm]	W_f [mm]	S_H [mm]	$n_{T\,min}$	$a_{T\,max}$ [mm]	$a_{T\,min}$ [mm]	$a_{x\,min}$ [mm]	$a_{c\,min}$ [mm]	$a_{T\,min}$ [mm]	$a_{x\,min}$ [mm]	$a_{c\,min}$ [mm]	$a_{x\,grid}$ [mm]
2.5	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 11 × 4 mm**.

Chamber width a_c

$a_c = a_x - S_T$

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Assembly instructions etc.: Receive additional info via your smartphone or check online at **kabelschlepp.de/support**

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

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

Inner heights 38
Inner widths 50 – 150
Key for abbreviations on page 72
Assembly instructions on kabelschlepp.de/assembly
Order key on page 50

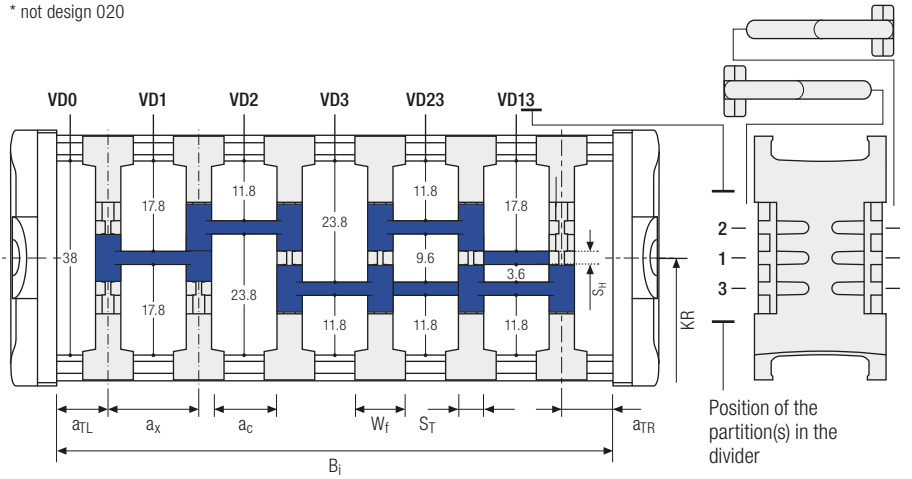
Subject to change.

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

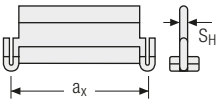
The dividers are fixed by the partitions, the complete divider system is movable in the cross section.

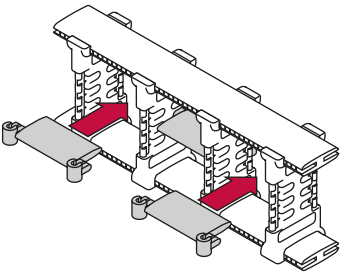
Chamber width a_c

$a_c = a_x - S_T$

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

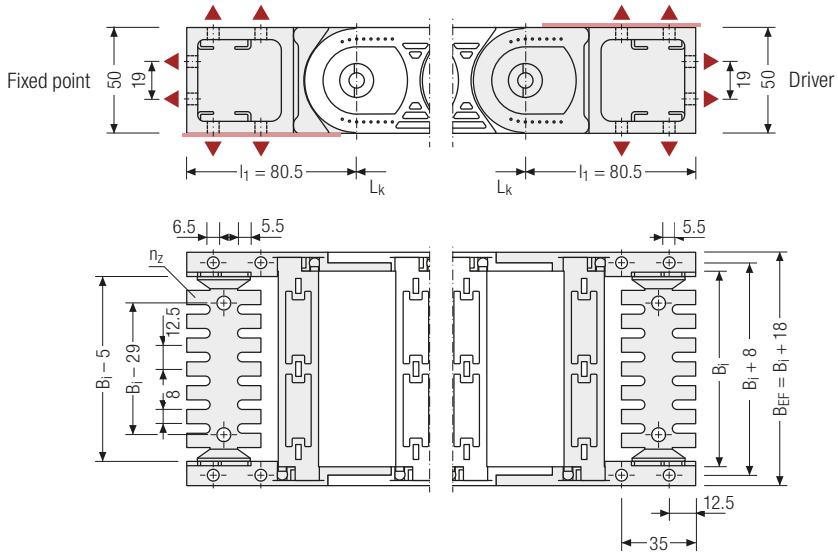
Information on the connection dimensions for the cable carrier can be found on page 47.

Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
kabelschlepp.de/uniflex-advanced
online-engineer.de Cable Carrier Configurator

Subject to change.

Universal end connectors UMB – plastic (standard)

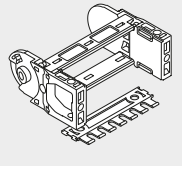
The universal mounting brackets (UMB) are made from plastic and can **be mounted from the top, from the bottom, or face on**.



▲ Assembly options

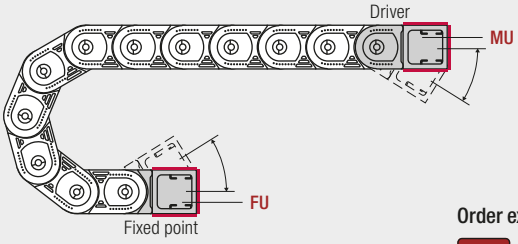
B_i [mm]	B_{EF} [mm]	n_z
50	68	2 × 3
75	93	2 × 5
90	108	2 × 6
100	118	2 × 7
125	143	2 × 9
150	168	2 × 11

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

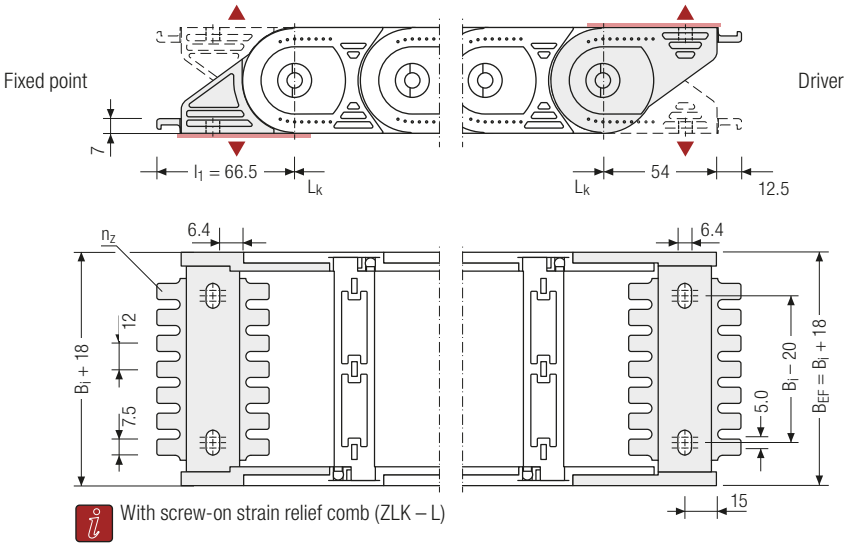
UMB	.	F U
UMB	.	M U

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.

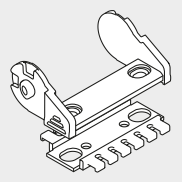


With screw-on strain relief comb (ZLK – L)

▲ Assembly options

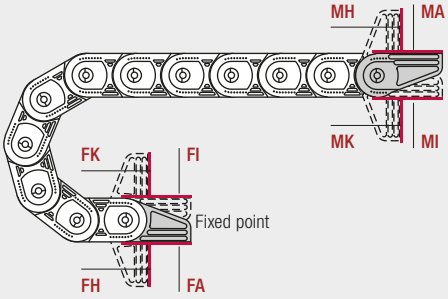
B_i [mm]	B_{EF} [mm]	n_z
50	68	2 x 4
75	93	2 x 6
100	118	2 x 8
125	143	2 x 10
150	168	2 x 12

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



Driver

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

Subject to change.

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Technical support: technik@kabelschlepp.de

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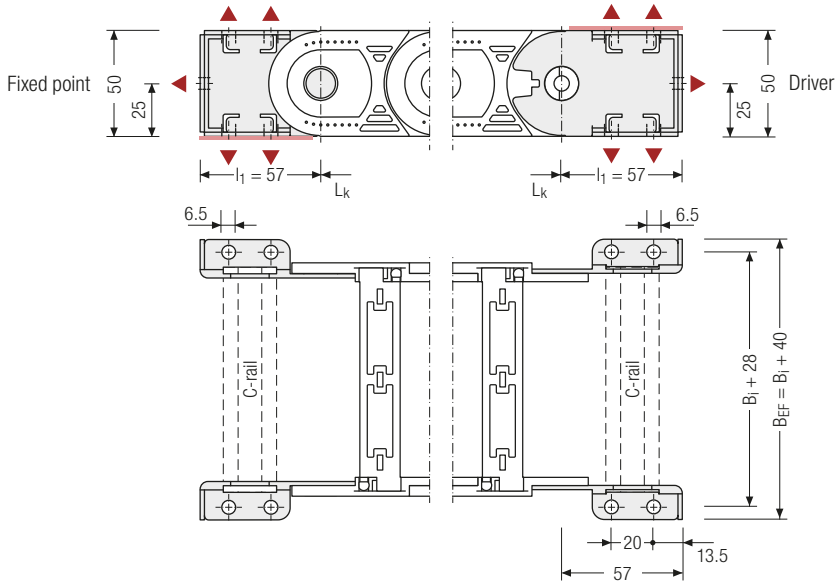
Universal end connectors UMB-St – steel

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



▲ Assembly options

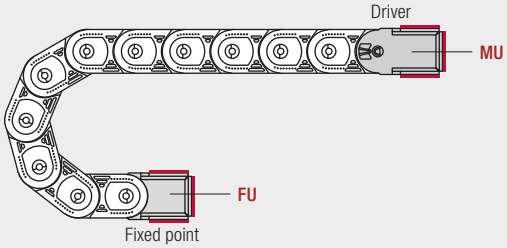
B_i [mm]	B_{EF} [mm]
50	90
75	115
90	130
100	140
125	165
150	190
200	240

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.

Subject to change.

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.

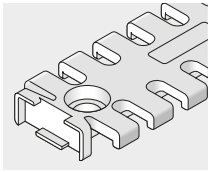
kabelschlepp.de/uniflex-advanced
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

Subject to change.

Accessories

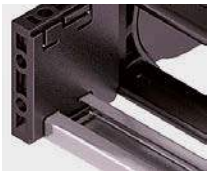
Single-sided strain relief combs

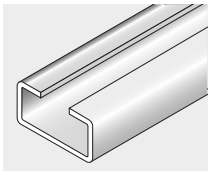
The optional plastic strain relief combs are assembled between the UMB end connectors and require no separate screw fixing.



C-rails for strain relief elements

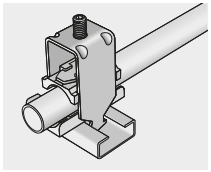
The optional C-rails are secured by the UMB end connectors and do not require separate screw connections.





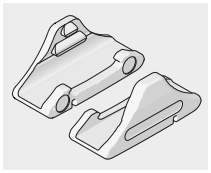
LineFix® clamps

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.



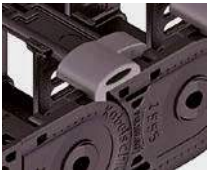
Gliding elements

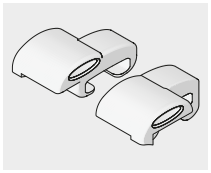
The optional glide shoes ensure a substantially longer service life of the cable carrier in gliding operation.



Outer dampers

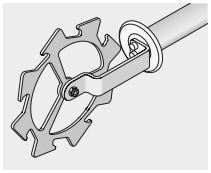
The use of outer dampers effectively reduces uncoiling noise. Particularly recommended for support trays and guide channels.





Quick opening tool

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

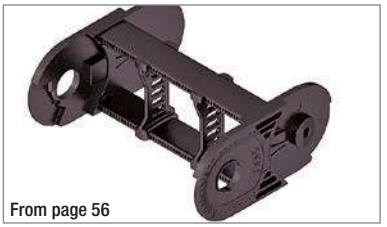


Subject to change.

UA1665

Stay variants

Design 020

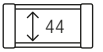


From page 56

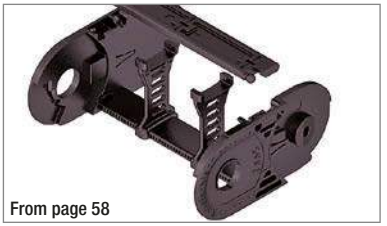
Closed frame

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

Opening options
inside/outside: Cannot be opened.



Design 030

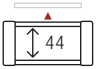


From page 58

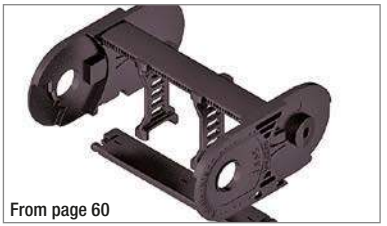
Frame with externally detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.

Opening options
outside: Swivable and detachable.



Design 040

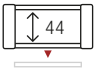


From page 60

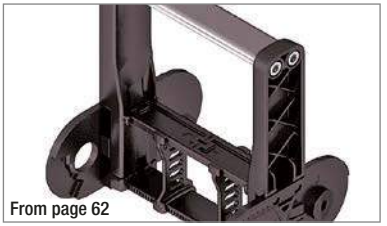
Frame with internally detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.

Opening options
inside: Swivable and detachable.



Design RMA

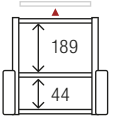


From page 62

Mounting frame stay

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Plastic crossbars and aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.

Opening options
outside or inside: Screw connection of the aluminum profile bars is easy to release.



Technical data on p. 54

Subject to change.

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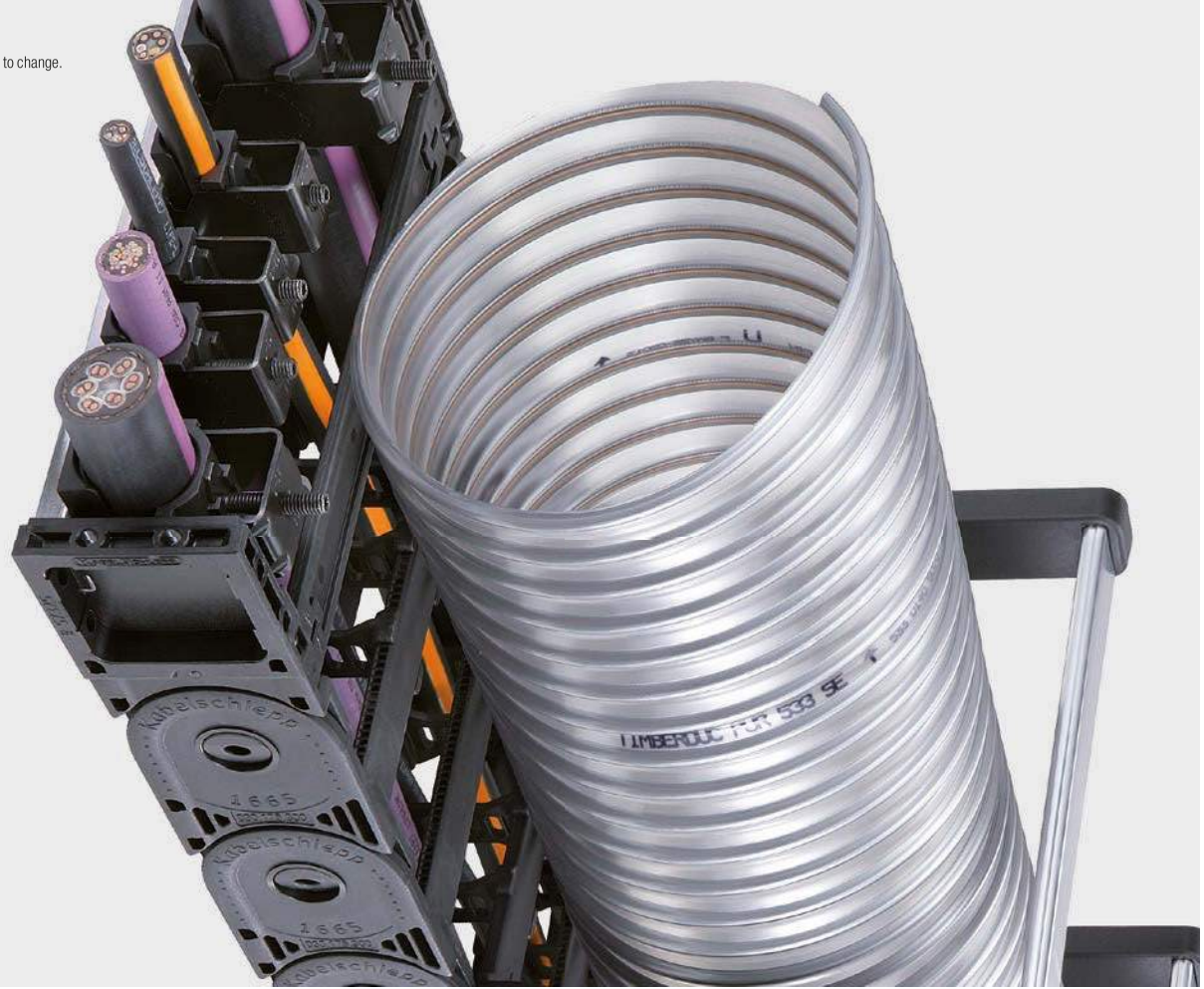
Configure your cable carrier: onlineengineer.de

Technical support: technik@kabelschlepp.de

online-engineer.de Cable Carrier Configurator

Subject to change.



Pitch
66.5 mm

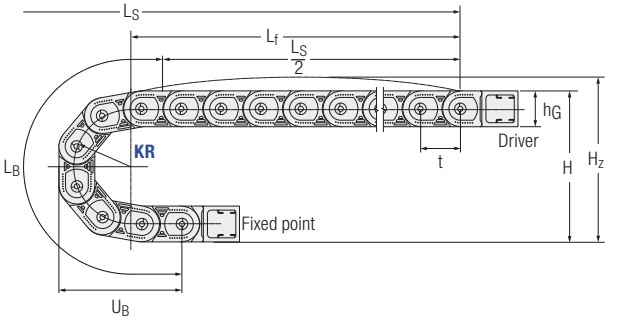
Height
44 mm

Width
50 – 250 mm

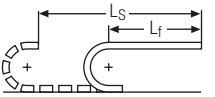
Bending radius
75 – 300 mm

UA1665 | 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.

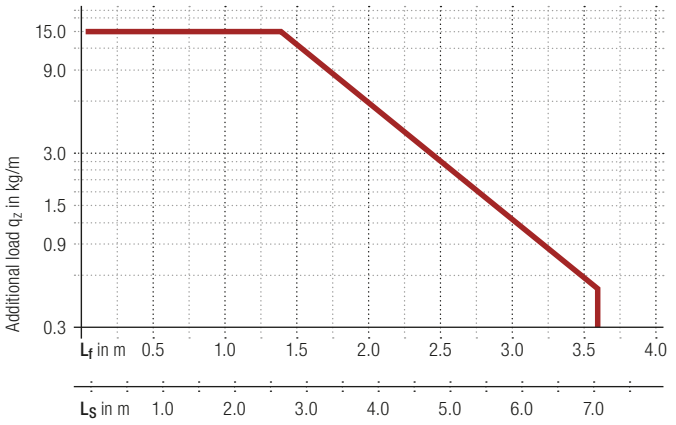
Dynamics of unsupported arrangement		t
v_{max} [m/s]	a_{max} [m/s^2]	[mm]
8	40	66.5

Installation dimensions unsupported

KR [mm]	H [mm]	H_Z [mm]	L_B [mm]	U_B [mm]
75	210	245	369	172
100	260	295	448	197
120	300	335	511	217
140	340	375	574	237
200	460	495	762	297
250	560	595	919	347
300	660	695	1,076	397

Load diagram

for unsupported length depending on additional load



Intrinsic cable carrier weight q_k = 2.43 kg/m with B_i 200 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.

Subject to change.

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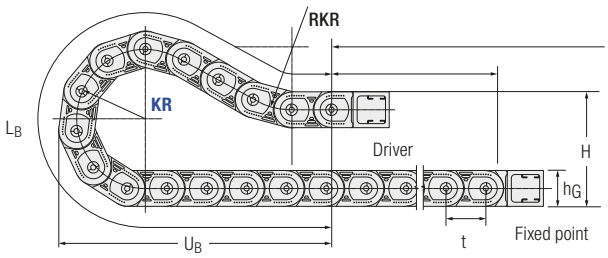
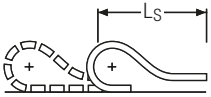
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

Gliding arrangement





For more information on gliding arrangement please contact us.

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

Dynamics of gliding arrangement		t
v_{max} [m/s]	a_{max} [m/s²]	[mm]
3	15	66.5

Installation dimensions gliding with RKR links

KR [mm]	H [mm]	n_{RKR}	L_B [mm]	U_B [mm]
75	180	2	694	333
100	180	2	881	405
120	180	3	1,038	464
140	180	3	1,197	523
200	180	4	1,684	701
250	180	6	2,094	850
300	180	7	2,506	1,000

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.

Subject to change.

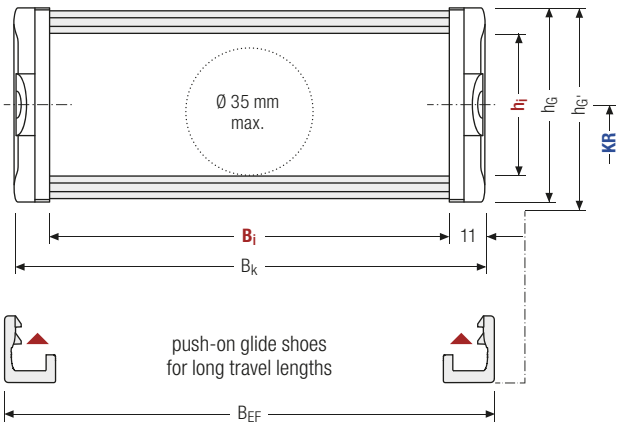
UA1665.020 | Overview

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 – 250 mm



Calculating the cable carrier width

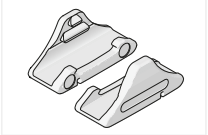
Outer width B_k

$B_k = B_i + 22$ mm

Total width B_{EF}

$B_{EF} = B_i + 27$ 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 64 f.

Subject to change.

kabelschlepp.de/
uniflex-advanced

Configure your cable carrier:
onlineengineer.de

Technical support:
technik@kabelschlepp.de

online-engineer.de
Cable Carrier Configurator

UA1665.020 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]	$h_{G'}$ [mm]
66.5	44	60	63

Bend radii

KR [mm]						
75	100	120	140	200	250	300

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_k [mm]	B_{EF} [mm]	q_k [kg/m]
50	72	77	1.67
75	97	102	1.82
100	122	127	1.95
125	147	152	2.09
150	172	177	2.22
175	197	202	2.36
200	222	227	2.49
225	247	252	2.63
250	272	277	2.76

Order example

UA1665 .	020 .	125 .	140 -	2,660
Type	Stay variant	B_i [mm]	KR [mm]	L_K [mm]

Key for abbreviations on page 72
Assembly instructions on kabelschlepp.de/assembly
Order key on page 70

Subject to change.

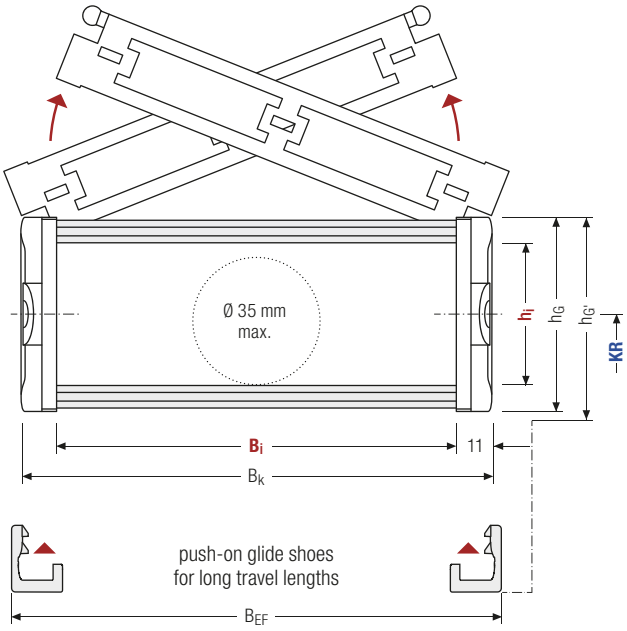
UA1665.030 | Overview

Stay variant 030 – with outside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.
- **Opening options outside:** Swivable and detachable.

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

B_i from 50 – 250 mm



Calculating the cable carrier width

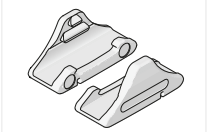
Outer width B_k

$B_k = B_i + 22$ mm

Total width B_{EF}

$B_{EF} = B_i + 27$ 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 64 f.

Subject to change.

kabelschlepp.de/
uniflex-advanced

Configure your cable carrier:
onlineengineer.de

Technical support:
technik@kabelschlepp.de

online-engineer.de
Cable Carrier Configurator

UA1665.030 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]	$h_{G'}$ [mm]
66.5	44	60	63

Bend radii

KR [mm]						
75	100	120	140	200	250	300

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_K [mm]	B_{EF} [mm]	q_K [kg/m]
50	72	77	1.67
75	97	102	1.80
100	122	127	1.92
125	147	152	2.06
150	172	177	2.18
175	197	202	2.31
200	222	227	2.43
225	247	252	2.57
250	272	277	2.70

Order example

UA1665 . 030 . 125 . 140 - 2,660
Type · Stay variant · B_i [mm] · KR [mm] · L_K [mm]

Subject to change.

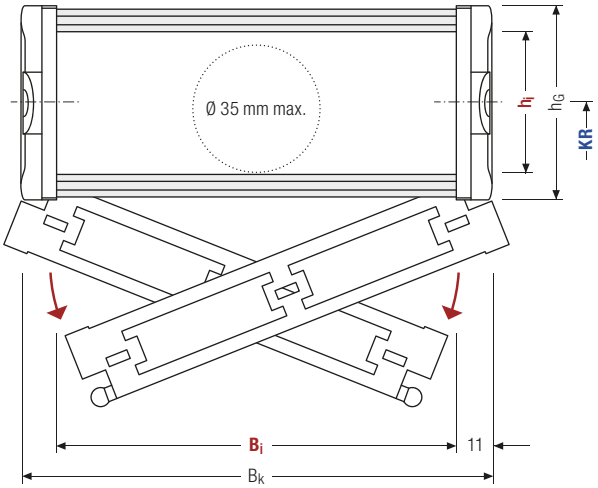
UA1665.040 | Overview

Stay variant 040 – with inside opening and detachable crossbars

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Swivable and detachable left or right in any position.
- **Opening options inside:** Swivable and detachable.

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

B_i from 50 – 250 mm



Calculating the cable carrier width

Outer width B_k

$B_k = B_i + 22$ 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 64 f.

Subject to change.

UA1665.040 | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]
66.5	44	60

Bend radii

KR [mm]						
75	100	120	140	200	250	300

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_K [mm]	q_k [kg/m]
50	72	1.67
75	97	1.80
100	122	1.92
125	147	2.06
150	172	2.18
175	197	2.31
200	222	2.43
225	247	2.57
250	272	2.70

Order example

UA1665	.	040	.	125	.	140	-	2,660
Type		Stay variant		B_i [mm]		KR [mm]		L_K [mm]

Subject to change.

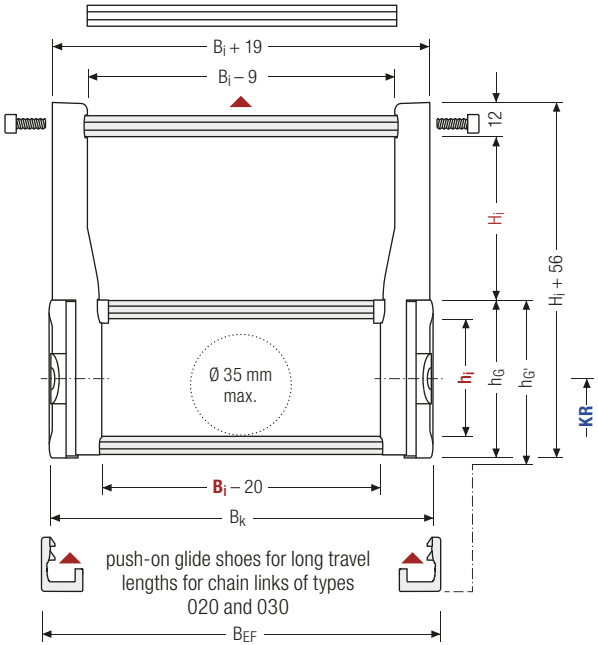
UA1665.RMA | Overview

Stay variant RMA – mounting frame stay

- Weight-optimized plastic frame with particularly high torsional rigidity.
- Plastic crossbars and aluminum profile bars with plastic mounting frame stays for guiding very large cable diameters.
- **Opening options outside or inside:** Screw connection of the aluminum profile bars is easy to release.

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

B_i from 125 – 200 mm



Calculating the cable carrier width

Outer width B_k

$B_k = B_i + 22$ mm

Total width B_{EF}

$B_{EF} = B_i + 27$ 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 64 f.

Subject to change.

kabelschlepp.de/uniflex-advanced
Configure your cable carrier: onlineengineer.de
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

UA1665.RMA | Dimensions · Technical Data

Pitch, inner height and chain link height

t [mm]	h_i [mm]	h_G [mm]	$h_{G'}$ [mm]
66.5	44	60	63

Bend radii

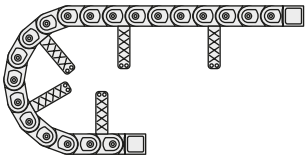
KR [mm]						
75	100	120	140	200	250	300

Inner/outer width and intrinsic cable carrier weight

B_i [mm]	B_K [mm]	B_{EF} [mm]	Locking bar [mm]	H_i [mm]	q_K (RVAI)* [kg/m]	q_K (RVAO)* [kg/m]
125	147	152	100	114	3.10	3.58
150	172	177	125	139	3.38	3.94
175	197	202	150	164	3.67	4.30
200	222	227	???	189	3.95	4.66

* indicated according to standard pitch

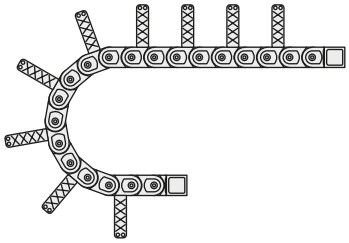
Assembly variants



RVAI – assembly to the inside:
standard pitch, mounting frame stay on every 4th stay, no screw fixing.

Gliding application is not possible when using assembly version RVAI.

Observe minimum KR:
H_i = 114 mm: KR_{min} = 200 mm
H_i = 139 mm: KR_{min} = 250 mm
H_i = 164 mm: KR_{min} = 300 mm
H_i = 189 mm: KR_{min} = 300 mm



RVAO – assembly to the outside:
standard pitch, mounting frame stay on every 2nd stay, no screw fixing.

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.

Subject to change.

UA1665 | Inner Distribution | TS0

Divider systems

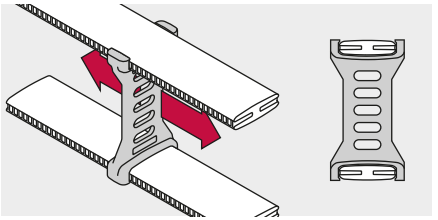
As standard, the divider system is assembled at every 2nd chain link.

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)**.

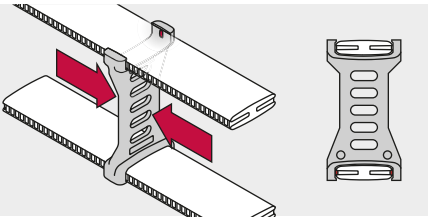
Movable divider

Version A (Standard)



Fixable divider (2.5 mm grid)

Version B

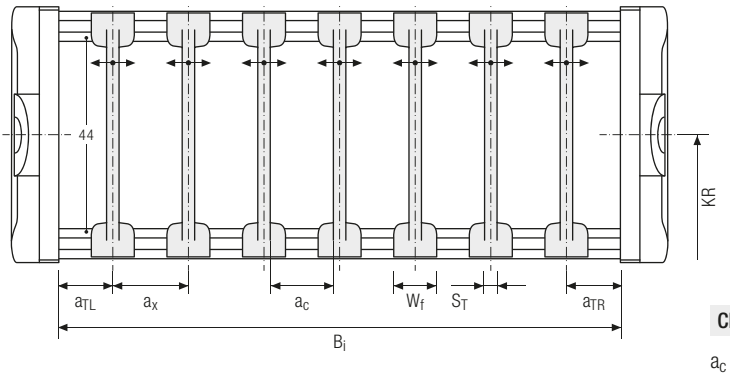


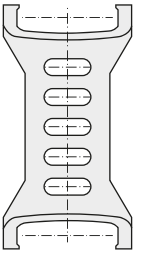
Divider system TS0 without height separation

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]
3	10		5	10	7	5	10	7	2.5

B_i [mm]	50	75	100	125	150	175	200	225	250
$n_{T\ max}$ design 020	0	4	6	9	11	14	16	19	21

** 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 67 f.

Subject to change.

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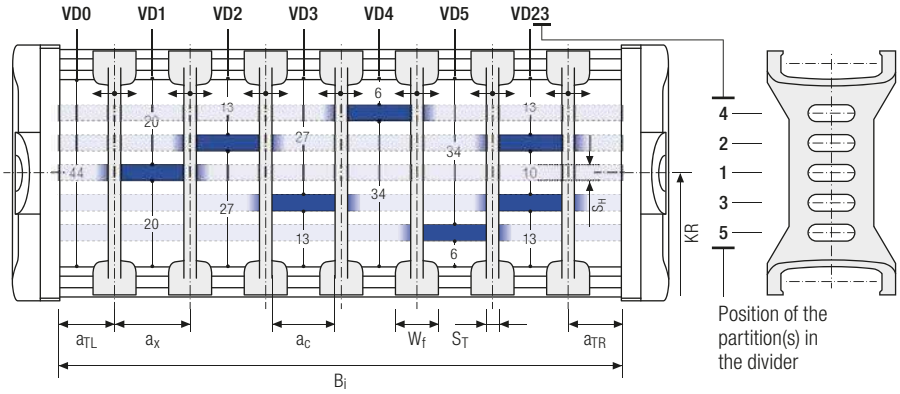
online-engineer.de Cable Carrier Configurator

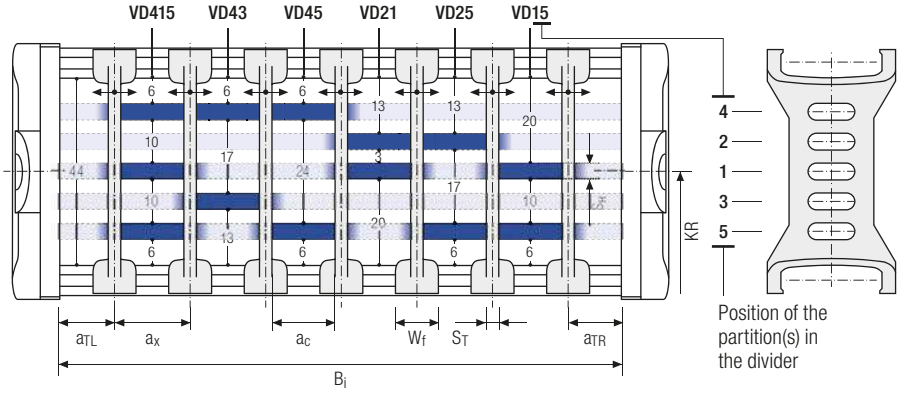
UA1665 | Inner Distribution | TS1

Divider system TS1 with continuous height separation*

					Version A			Version B			
S_T [mm]	W_f [mm]	S_H [mm]	$n_{T\ min}$	$a_{T\ max}$ [mm]	$a_{T\ min}$ [mm]	$a_{x\ min}$ [mm]	$a_{C\ min}$ [mm]	$a_{T\ min}$ [mm]	$a_{x\ min}$ [mm]	$a_{C\ min}$ [mm]	$a_{x\ grid}$ [mm]
3	10	4	2	20	5	10	10	5	10	7	2.5

* not design 020





Standard height separation with **aluminum profile 11 × 4 mm**.

Chamber width a_C

$a_C = a_x - S_T$

Information on the connection dimensions for the cable carrier can be found on page 67 f.

Inner heights 44
Inner widths 50 – 250
Key for abbreviations on page 72
Assembly instructions on kabelschlepp.de/assembly
Order key on page 70

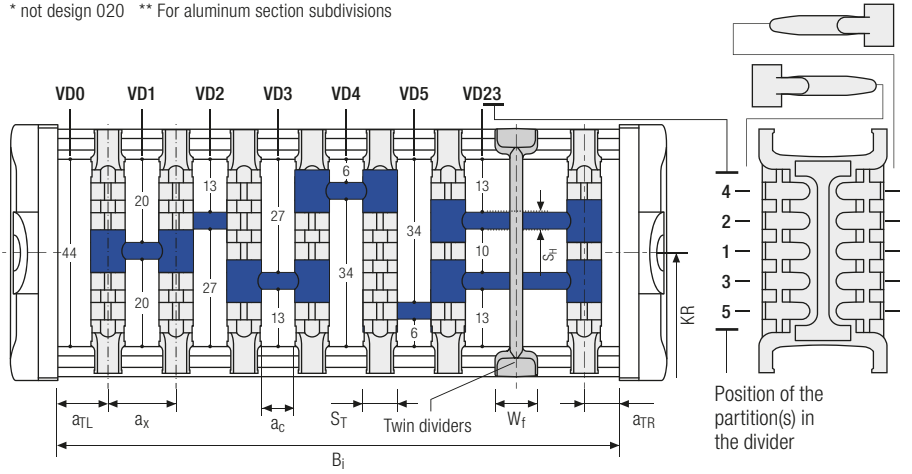
Subject to change.

UA1665 | Inner Distribution | TS3

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

Version A								
S_T [mm]	S_T twin divider [mm]	W_f [mm]	W_f twin divider [mm]	S_H [mm]	a_{TL}/a_{TR} min [mm]	a_x min [mm]	a_c min [mm]	n_T min
8	3	8	10	4	4	16 / 40*	8	2

* not design 020 ** For aluminum section subdivisions



Position of the partition(s) in the divider

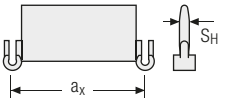
The dividers are fixed by the partitions, the complete divider system is movable in the cross section. Movable twin dividers are optionally available. Twin dividers are also suitable for retrofitting in the section subdivision system.

Chamber width a_c

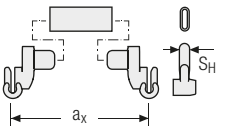
$a_c = a_x - S_T$

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

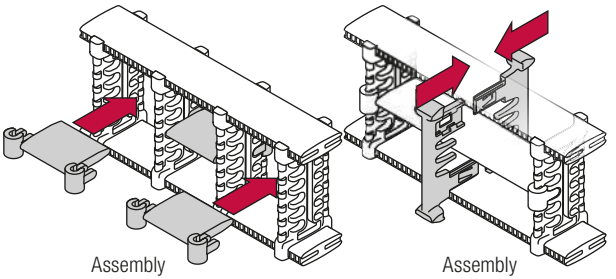
Plastic section subdivisions in a_x increments



Aluminum section subdivisions with plastic adapters in 1 mm increments



When using **section subdivisions with a_x > 112 mm** we recommend an additional center support with a **twin divider.**
When using twin dividers, the height separations VD4 and VD5 are not possible. Aluminum section subdivisions are only available with **a_x > 40 mm**.



Assembly section subdivision

Assembly twin divider

Subject to change.

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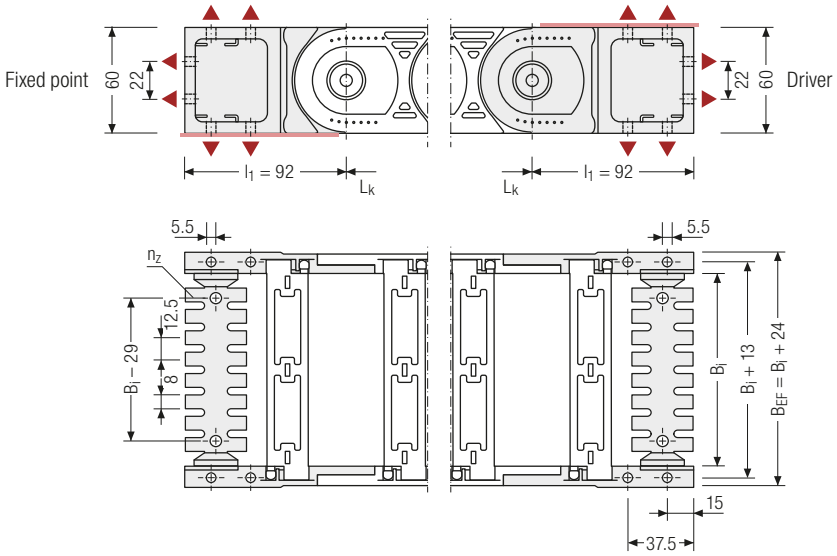
Technical support: technik@kabelschlepp.de
online-engineer.de Cable Carrier Configurator

Universal end connectors UMB – plastic (standard)

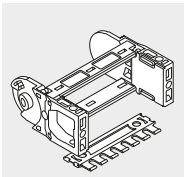
The universal mounting brackets (UMB) are made from plastic and can **be mounted from the top, from the bottom, or face on**.



▲ Assembly options

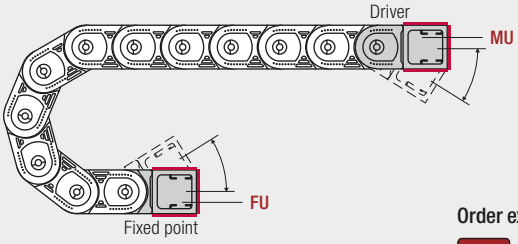
B_i [mm]	B_{EF} [mm]	n_z
50	74	2 x 3
75	99	2 x 5
100	124	2 x 7
125	149	2 x 9
150	174	2 x 11
175	199	2 x 13

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

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

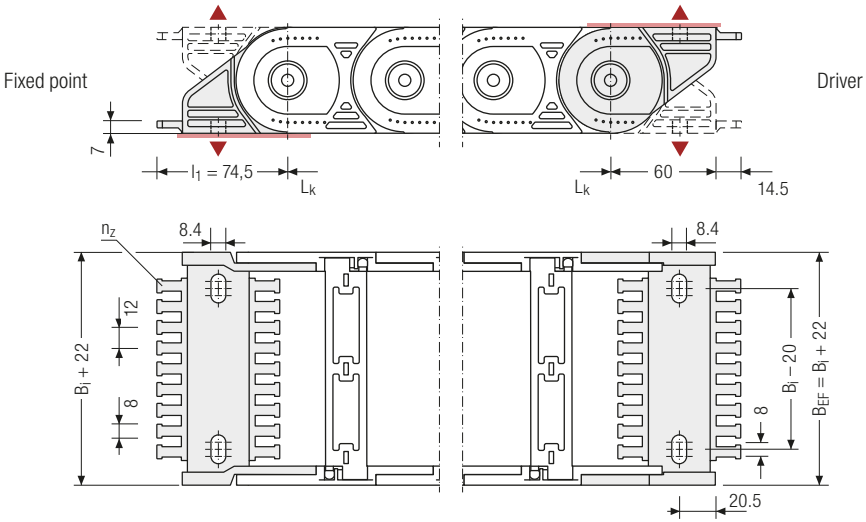
Order example

UMB	.	F U
UMB	.	M U

Subject to change.

One part end connectors – plastic

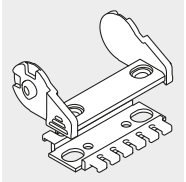
The plastic end connectors can be **connected from above and below**. The connection type can be changed by reconnecting the end connector.



▲ Assembly options

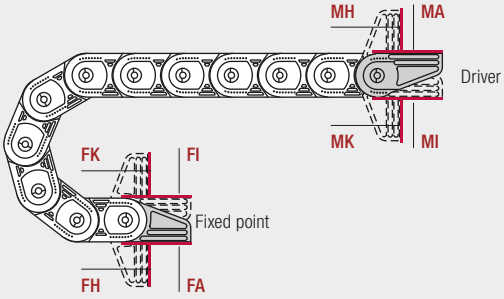
B_i [mm]	B_{EF} [mm]	n_z
50	72	2 x 4
75	97	2 x 6
100	122	2 x 8
125	147	2 x 10
150	172	2 x 12
175	197	2 x 14
200	222	2 x 16
225	247	2 x 18
250	272	2 x 20

Recommended tightening torque:
15 Nm for screws M8 - 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 outside rotated by 90°
- **K** – threaded joint inside rotated by 90°

Subject to change.

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Configure your cable carrier:
onlineengineer.de

Technical support:
technik@kabelschlepp.de

online-engineer.de
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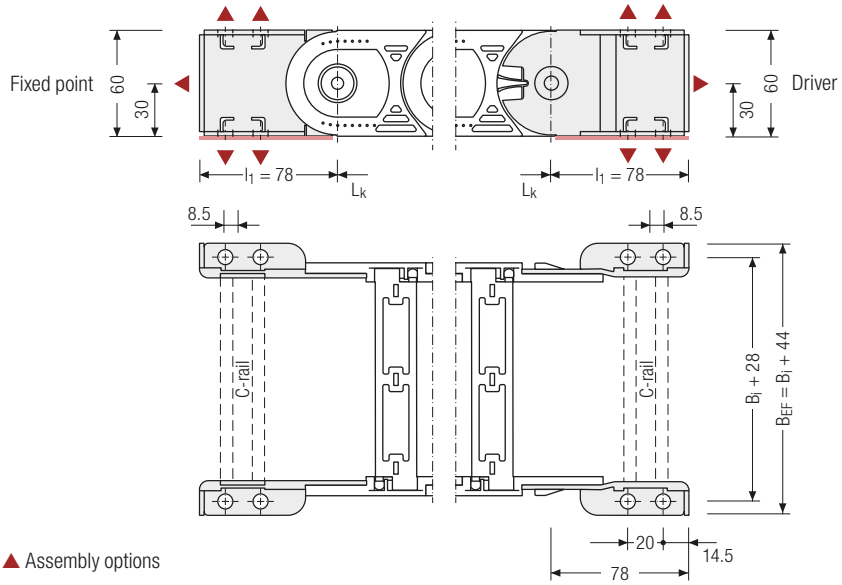
Universal end connectors UMB-St – steel

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



▲ Assembly options

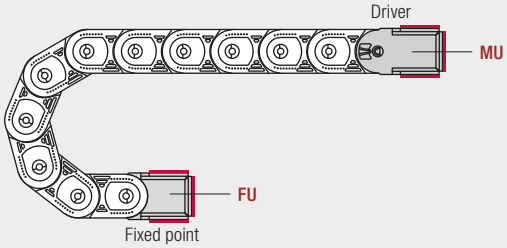
B_i [mm]	B_{EF} [mm]
50	94
75	119
100	144
125	169
150	194
175	219
200	244
225	269
250	294

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 0665.

Subject to change.

UA1665 | Order Key

Order

Cable carrier

Type	Stay variant	B_i [mm]	KR [mm]	L_K [mm]
		50		
		75		
		100	75	
		125	100	
		150	120	
	020	175	140	
	030	200	200	
	030	225	250	
UA1665	RMA	250	300	

UA1665	.	030	.	150	.	200	-	3,990
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. If using the divider system **TS3**, please also state the required twin dividers. 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.

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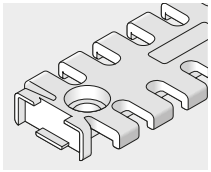
Subject to change.

Accessories

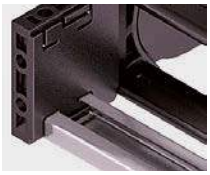
Single-sided strain relief combs

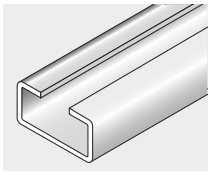
The optional plastic strain relief combs are assembled between the UMB end connectors and require no separate screw fixing.



C-rails for strain relief elements

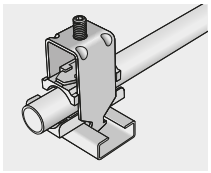
The optional C-rails are secured by the UMB end connectors and do not require separate screw connections.





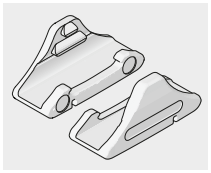
LineFix® clamps

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.



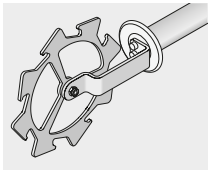
Gliding elements

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



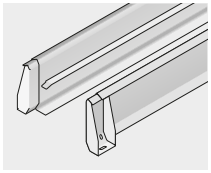
Quick opening tool

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



Guide channels

The cable carrier always has to be guided in a channel for gliding applications. This prevents the upper and lower run from slipping.



Subject to change.

UNIFLEX *Advanced* | General abbreviations

General abbreviations

a_c = nominal width inner chamber
a_{max} = max. travel acceleration
a_{TL} = distance lateral tabs inside to center of first divider
a_{TR} = distance lateral tabs inside to center of last divider
a_x = divider center to center distance
b_1 = inner width of guide channel
b_A = distance between connection boreholes
B_{EF} = overall width of cable carrier incl. attachments
B_i = inner width
B_k = outer width
B_{KA} = outer width of guide channel
B_p = width of hole stay inserts
B_{St} = stay width
c = distance between hole stay bores
d = diameter
D = bore diameter
d_R = pipe diameter
H = connection height
H' = reduced connection height
h_G = chain link height
$h_{G'}$ = chain link height incl. glide shoe
h_i = inner height
H_i = inner height of frame stay assembly
h_{KA} = outer height of guide channel
HS = half-stayed
H_z = installation height
KR = bending radius
l_1 = connection length
l_{2-5} = connection dimensions
l_A = length of end connector
L_B = length of carrier in bend
L_D = length of permitted sag
L_f = unsupported length
L_{ES} = length of energy conduit
L_k = cable carrier length without connection
L_S = travel length
L_V = fixed point offset
n_p = number of hole stay inserts
n_{RKR} = number of RKR links
n_T = number of dividers
n_Z = number of comb teeth for strain relief
q_k = intrinsic cable carrier weight
q_z = additional load
RKR = reverse bending radius
s = sheet metal thickness
S_H = thickness of height separation
S_T = thickness of divider
t = pitch
U_B = loop overhang
VD = position of continuous height separations in divider
VR = position of partial height separations in divider
v_{max} = max. travel speed
VS = fully-stayed
W_f = base width of divider
z = pretension

Definitions

Driver view = view into the driver connection

Subject to change.

Pictographs

- inner height
- inner width
- inner width (B_i) in x mm increments
- pitch
- bending radius
- long travel length
- travel length unsupported
- travel length gliding
- high additional load
- high travel acceleration
- high travel velocity
- stay arrangement on every 2nd chain link
- stay arrangement on every chain link
- cannot be opened
- opens outward
- opens inward
- opens inward/outward
- covered cable carrier
- sliding dividers
- fixable dividers
- fixable dividers in x mm grid
- height separation possible
- height separation in 1 mm increments
- hole stay available
- guide channel required
- strain relief
- clean room suitable
- quiet running/low noise
- sold by the meter
- ESD material
- suitable for explosive atmospheres
- heat-resistant
- cold-resistant
- resistant to hot chips
- flame-resistant V0 (UL94)
- flame-resistant V2 (UL94)
- order code
- important information

Subject to change.