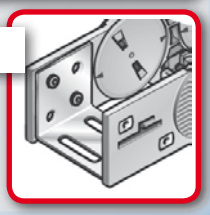
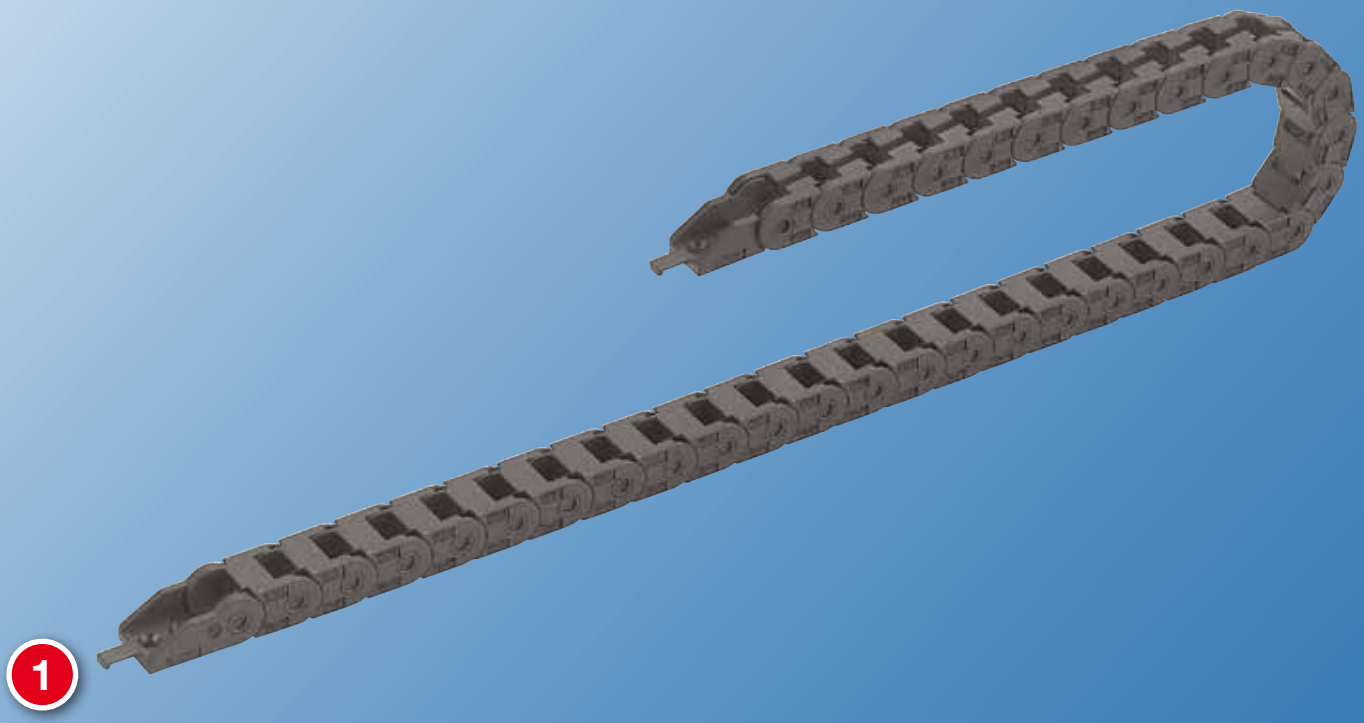
System overview

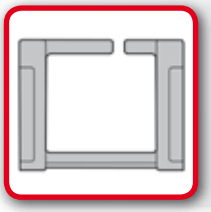
1 Chain bracket

Chain bracket U-part



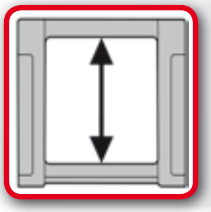


Technical data



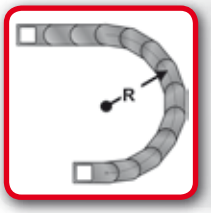
Loading side

outside flexure curve slitted



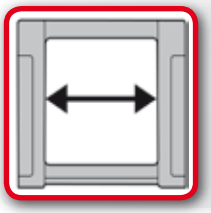
Available interior heights

10.0 mm



Available radii

18.0 – 58.0 mm



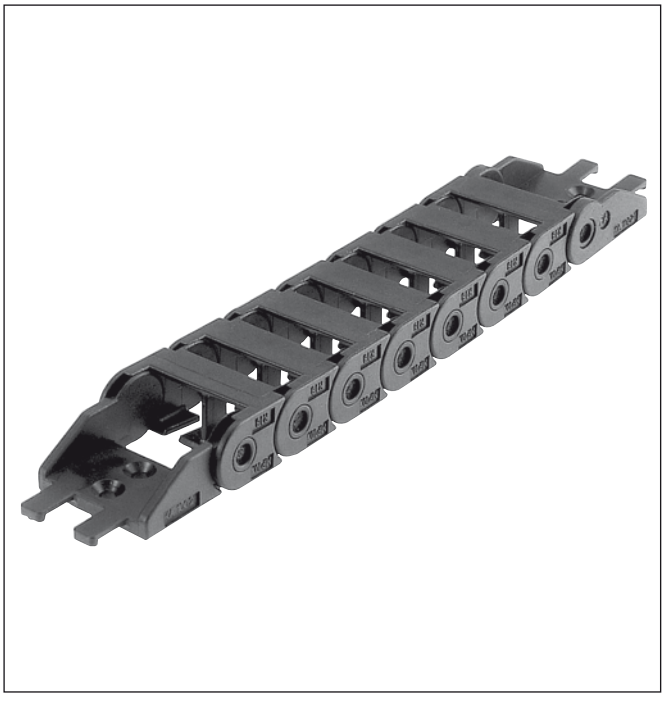
Available interior widths

6.0 – 41.0 mm

Ordering key

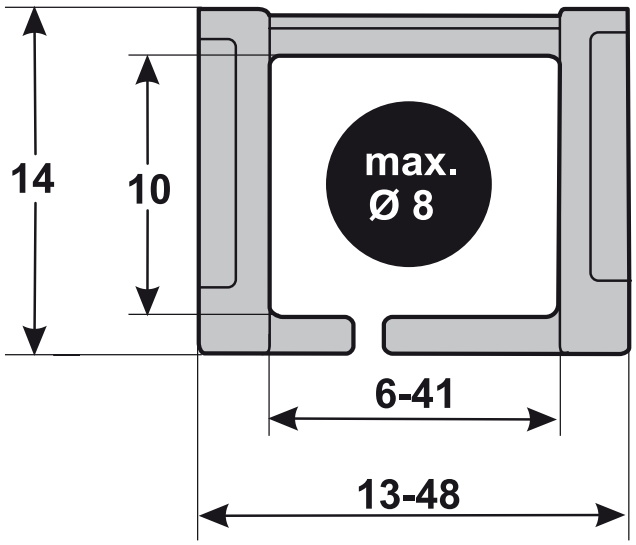
Type	Variation	Inside width mm	Outside width mm	Radius mm	Ridge version	Material	Chain length mm
0101	22	6 9 15 21 31 41	13 16 22 28 38 48	18 28 38 48 58	0	0 1 7 9	

Ordering key _



Chain link

Loading side: outside flexure curve slitted



Dimensions in mm

0	Standard (PA/black)
1	UL94/V0 (PA/oxide red)
7	EMC (PA/light grey)
9	Special version

0	PA full-ridged with bias

22	Frame bridge on outside of radius Frame bridge on inside of radius Slotted on outside of radius

Order sample: 0101 22 006 018 0 0 1065
Frame bridge in outside bend, frame bridge in inside bend, slitted in outside bend
Inside width 6 mm; radius 18 mm
Plastic bridge, full-ridged with bias, material black-coloured polyamide
Chain length 1065 mm (71 links)

Technical specifications

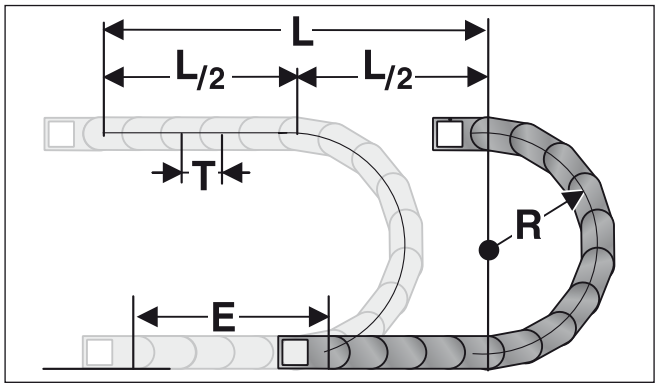
Travel distance gliding L_g max.:	10.0 m
Travel distance self-supporting L_f max.:	see diagram
Travel distance vertical, hanging L_{vh} max.:	2.0 m
Travel distance vertical, upright L_{vs} max.:	1.0 m
Rotated 90°, unsupported L_{90f} max.:	not recommended
Speed, gliding V_g max.:	2.0 m/s
Speed, self-supporting V_f max.:	4.0 m/s
Acceleration, gliding a_g max.:	2.0 m/s²
Acceleration, self-supporting a_f max.:	2.0 m/s²

Material properties

Standard material:	Polyamide (PA) black
Service temperature:	-30.0 – 120.0 °C
Gliding friction factor:	0.3
Static friction factor:	0.45
Fire classification:	Based on UL 94 HB

Other material properties on request.

Determining the chain length

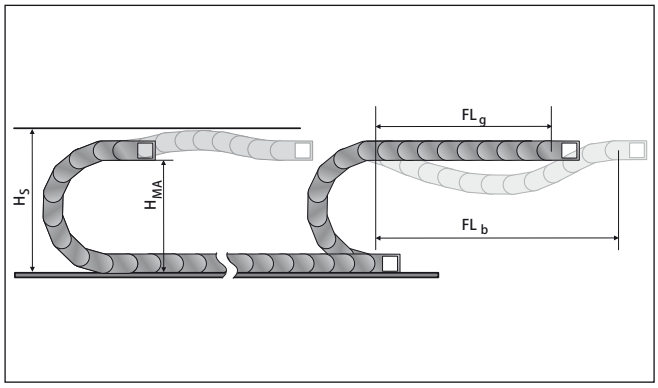


The fixed point of the cable drag chain should be connected in the middle of the travel distance.
This arrangement gives the shortest connection between the fixed point and the moving consumer and thus the most efficient chain length.

Chain length calculation = L/2 + π * R + 2 * T + E
≈ 1 m chain = x 15.0 mm links.

E = distance between entry point and middle of travel distance
L = travel distance
R = radius
P = Pitch

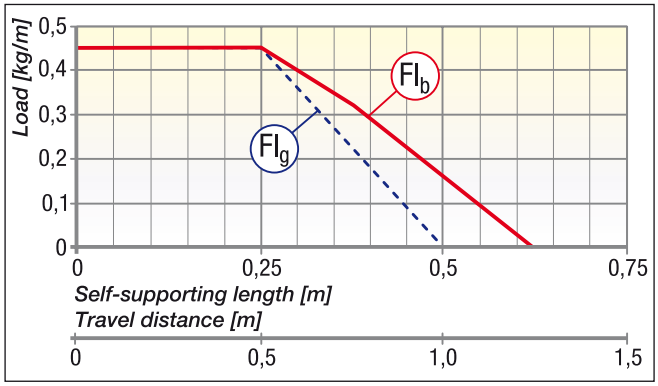
Self-supporting length



The self-supporting length is the distance between the chain bracket on the moving end and the start of the chain arch.
The installation variant FL_g offers the lowest load and wear for the cable drag chain.
The maximum travel parameters (speed and acceleration) can be applied for this variant.

H_S = Installation height plus safety
H_{MA} = Height of moving end connection
FL_g = Self-supporting length, upper run straight
FL_b = Self-supporting length, upper run bent

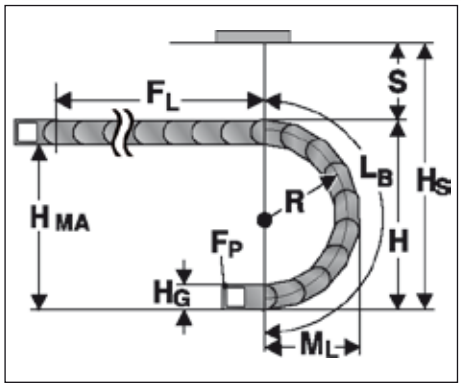
Load diagram for self-supporting applications



FL_g Self-supporting Length, upper run straight
In the FL_g range, the chain upper run still has a bias, is straight or has a maximum sag of

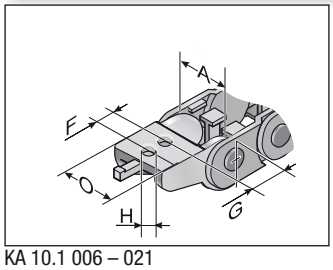
FL_b Self-supporting Length, upper run bent
In the FL_b range, the chain upper run has a sag of more than , but this is still less than the maximum sag.
Where the sag is greater than that permitted in the FL_b range, the application is critical and should be avoided. The self-supporting length can be optimized by using a support for the upper run or a more stable cable drag chain.

Installation dimensions

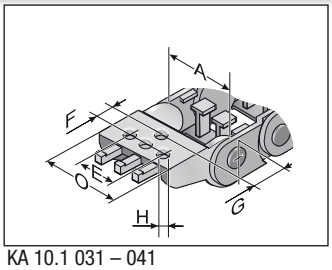


Radius R	18	28	38	48	58
Outside height of chain link (H_G)	14	14	14	14	14
Height of bend (H)	50	70	90	110	130
Height of moving end connection (H_{MA})	36	56	76	96	116
Safety margin (S)	10	10	10	10	10
Installation height (H_S)	60	80	100	120	140
Arc projection (M_L)	40	50	60	70	80
Bend length (L_B)	94	125	156	188	219

Chain bracket U-part



KA 10.1 006 – 021

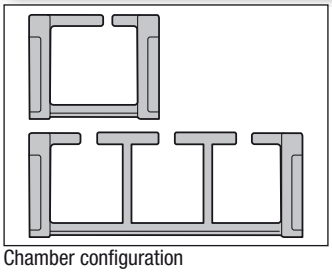


KA 10.1 031 – 041

The chain bracket is a fully plastic part. The bracket is precisely adjusted to the respective chain width and only needs to be snapped in at the chain link. Please order one male and one female end bracket for each chain. The brackets should be fastened with M3 screws. The cables or conduits may be fastened with cable ties on the integrated strain relief of the chain bracket.

Type	Order no.	Material	Inside width A mm	E mm	F mm	G mm	HØ mm	Outside width KA O mm
KA 10.1 006 male	010100005000	Plastic	6.0		8.0	11.0	3.2	A+7.0
KA 10.1 006 female	010100005100	Plastic	6.0		8.0	11.0	3.2	A+7.0
KA 10.1 009 male	010100005200	Plastic	9.0		8.0	11.0	3.2	A+7.0
KA 10.1 009 female	010100005300	Plastic	9.0		8.0	11.0	3.2	A+7.0
KA 10.1 015 male	010100005400	Plastic	15.0		8.0	11.0	3.2	A+7.0
KA 10.1 015 female	010100005500	Plastic	15.0		8.0	11.0	3.2	A+7.0
KA 10.1 021 male	010100005600	Plastic	21.0		8.0	11.0	3.2	A+7.0
KA 10.1 021 female	010100005700	Plastic	21.0		8.0	11.0	3.2	A+7.0
KA 10.1 031 male	010100005800	Plastic	31.0	A-9.0	8.0	11.0	3.2	A+7.0
KA 10.1 031 female	010100005900	Plastic	31.0	A-9.0	8.0	11.0	3.2	A+7.0
KA 10.1 041 male	010100006000	Plastic	41.0	A-9.0	8.0	11.0	3.2	A+7.0
KA 10.1 041 female	010100006100	Plastic	41.0	A-9.0	8.0	11.0	3.2	A+7.0

Chamber size

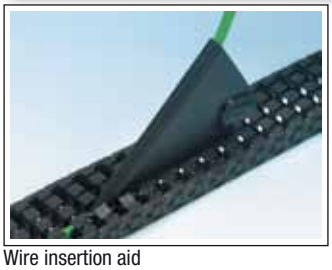


Chamber configuration

Depending on chain width, the MP10.1 is fitted with one, two, three or four chambers. This system of chambers enables cabling to be laid separately.

Type	Number of chambers qty.	Chamber width mm
10.1 006	1	6.5
10.1 009	1	9.5
10.1 015	1	15.5
10.1 021	2	9.5
10.1 031	3	9.5
10.1 041	4	9.0

Wire insertion aid

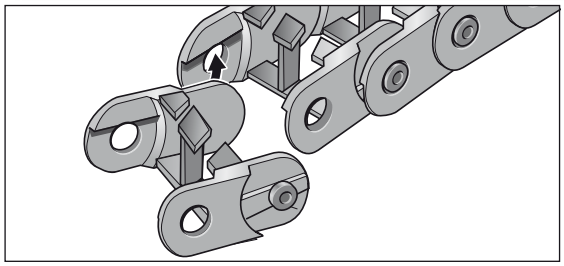


Wire insertion aid

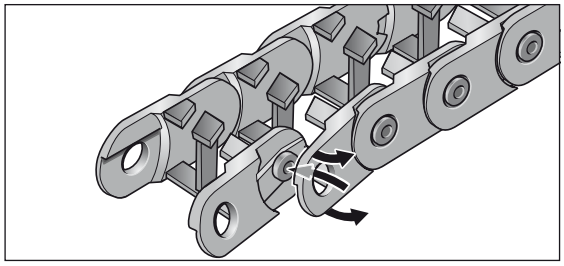
The wire insertion tool allows for quick and simple installation of cables and hoses into the cable drag chain.

Type	Order no.
KE	83729010

Assembly

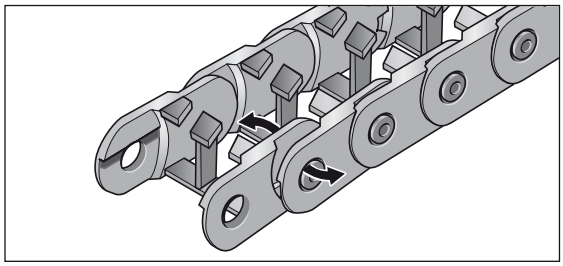


Step 1

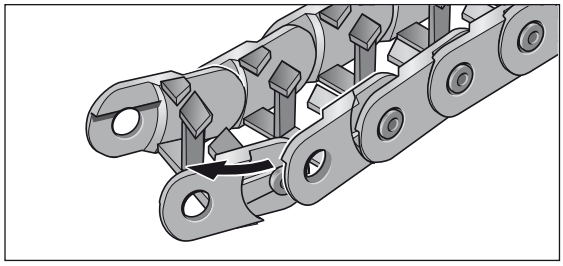


Step 2

Disassembly



Step 1



Step 2