

Data sheet

MULTILINE **MP10.1**

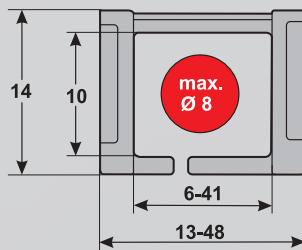


10.1 OPEN

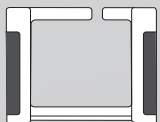


MULTILINE

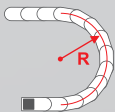
- SIMPLE FILLING WITH THE EASY MECHANISM
- CHAIN BRACKET WITH STRAIN RELIEF
- CAN BE EASILY SHORTENED AND LENGTHENED
- VERY FLEXIBLE, HIGH TORSION



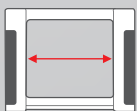
TECHNICAL DATA



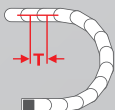
Loading side
Outside bend slitted



Available radii
18.0 – 58.0 mm



Available interior widths
With plastic crossbar
6.0 – 41.0 mm



Grid
T = 15.0 mm





TECHNICAL SPECIFICATIONS

Travel distance gliding L_g max.	10.0 m
Travel distance self-supporting L_t max.	see diagram on page 5
Travel distance vertical hanging L_{vh} max.	2.0 m
Travel distance vertical standing L_{vs} max.	1.0 m
Rotated 90°, self-supporting L_{90} max.	not recommended
Speed, gliding V_g max.	2.0 m/s
Speed, self-supporting V_t max.	4.0 m/s
Acceleration, gliding a_g max.	2.0 m/s ²
Acceleration, self-supporting a_t max.	2.0 m/s ²

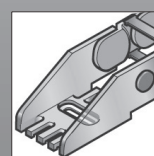
Contact our engineering department to meet any higher requirements: efk@murrplastik.de

MATERIAL PROPERTIES

Standard material	Polyamide (PA) black
Service temperature	-30.0 - 120.0 °C (-76 to 176 °F)
Gliding friction factor	0.3
Static friction factor	0.45
Fire classification	Based on UL 94 HB

Other material properties on request.

CHAIN BRACKET



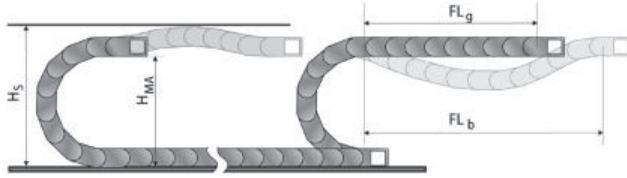
Chain bracket U-part

Dimensions in mm [US inch]

Crossbar in outside bend, crossbar in inside bend, slitted in outside bend
Inside width 6 mm; radius 18 mm
Plastic bridge, full-ridged with bias, material black-colored polyamide
Chain length 1065 mm (71 links)

¹⁾ max. cable diameter 5 mm

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 energy chain.

The maximum travel parameters (speed and acceleration) can be applied for this variant.

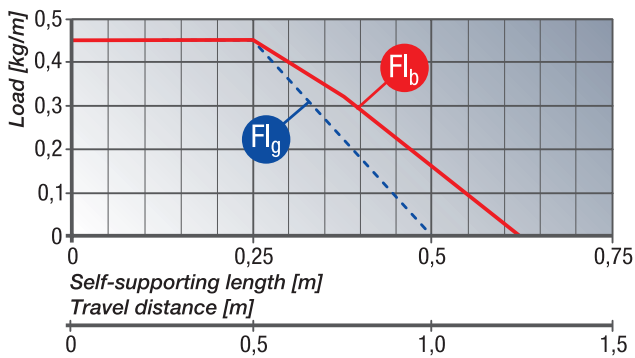
H_s = Installation height plus safety

H_{MA} = Height of moving end bracket

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

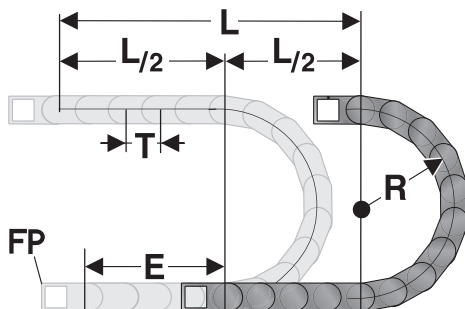
In the FL_g range, the chain upper run still has a bias, is straight or has a maximum sag of 30.0 mm.

FL_b Self-supporting length, upper run bent

In the FL_b range, the chain upper run has a sag of more than 30.0 mm, 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 energy chain.

DETERMINING THE CHAIN LENGTH



The fixed point of the energy chain should be connected in the middle of the travel distance.

This arrangement gives the shortest connection between the fixed point and the moving bracket and thus the most efficient chain length.

Chain length calculation = $L/2 + \pi \cdot R + 2 \cdot T + E$

≈ 1 m chain = 67 links, 15.0 mm each

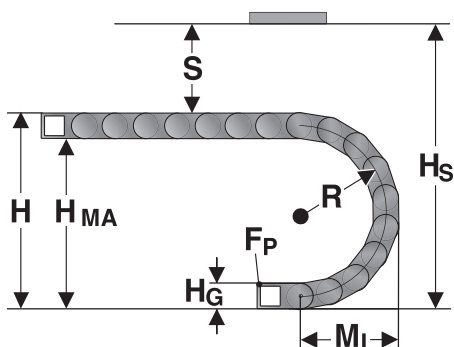
E = Distance between entry point and middle of travel distance

L = Travel distance

R = Radius

T = Grid 15.0 mm

INSTALLATION DIMENSIONS

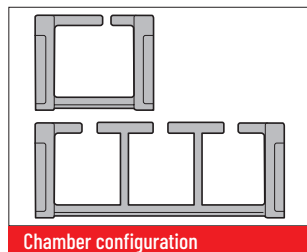


The moving end chain bracket is to be screw fixed at height H_{MA} for the respective radius.

For the installed dimension the "Installed height H_S " has to be taken into account.

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 bracket (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

MP 10.1 CHAMBER SIZE

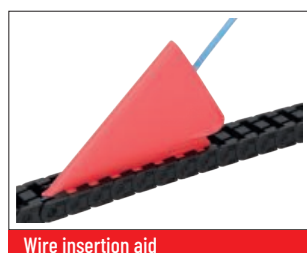


Chamber configuration

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 pcs.	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

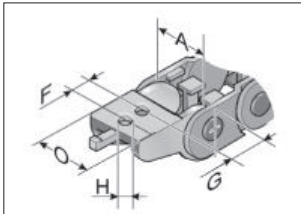


Wire insertion aid

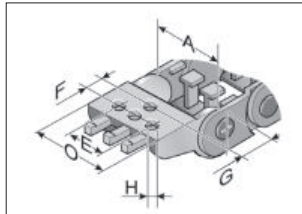
The wire insertion tool facilitates the quick and simple insertion of cables and hoses into the cable drag chain.

Type	Order No.	Color	Max. Ø cable mm	PU pcs.
KE	83729010	Red	22.00	1

KA 10.1 U-PART CHAIN BRACKET



KA 10.1 006 – 021

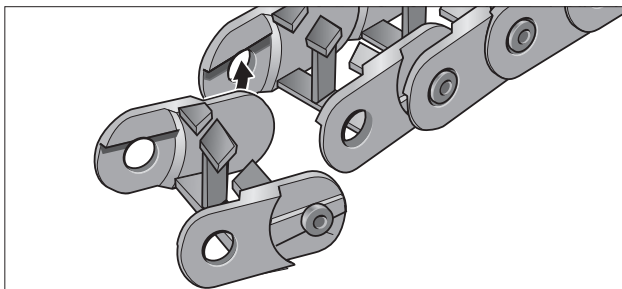


KA 10.1 031 – 041

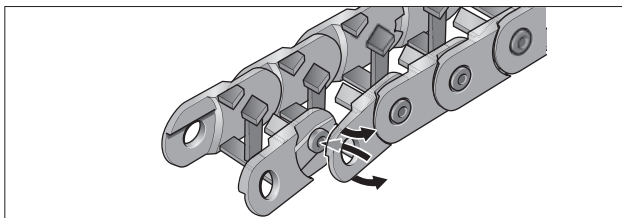
The chain bracket is an all-plastic part. The bracket is precisely adjusted to the respective chain width and only needs to be snapped in at the chain link. Please order one male and one female end bracket for each chain. The brackets should be fastened with M3 screws. The cables or conduits may be fastened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

Type	Order No.	Material	Inside width					Outside width KA	
			A mm	E mm	F mm	G mm	HØ mm	O mm	
KA 10.1 006 Female end	010100005000	Plastic	6.0		8.0	11.0	3.2	A+7.0	
KA 10.1 006 Male end	010100005100	Plastic	6.0		8.0	11.0	3.2	A+7.0	
KA 10.1 009 Female end	010100005200	Plastic	9.0		8.0	11.0	3.2	A+7.0	
KA 10.1 009 Male end	010100005300	Plastic	9.0		8.0	11.0	3.2	A+7.0	
KA 10.1 015 Female end	010100005400	Plastic	15.0		8.0	11.0	3.2	A+7.0	
KA 10.1 015 Male end	010100005500	Plastic	15.0		8.0	11.0	3.2	A+7.0	
KA 10.1 021 Female end	010100005600	Plastic	21.0		8.0	11.0	3.2	A+7.0	
KA 10.1 021 Male end	010100005700	Plastic	21.0		8.0	11.0	3.2	A+7.0	
KA 10.1 031 Female end	010100005800	Plastic	31.0	A-9,0	8.0	11.0	3.2	A+7.0	
KA 10.1 031 Male end	010100005900	Plastic	31.0	A-9,0	8.0	11.0	3.2	A+7.0	
KA 10.1 041 Female end	010100006000	Plastic	41.0	A-9,0	8.0	11.0	3.2	A+7.0	
KA 10.1 041 Male end	010100006100	Plastic	41.0	A-9,0	8.0	11.0	3.2	A+7.0	

ASSEMBLY

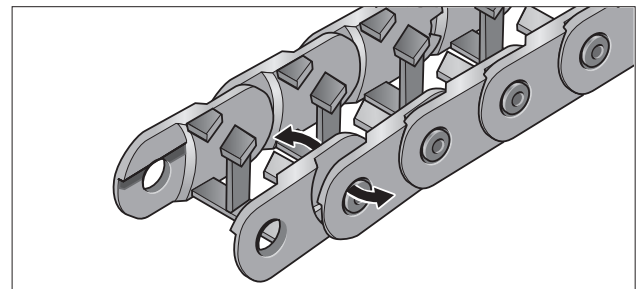


Step 1

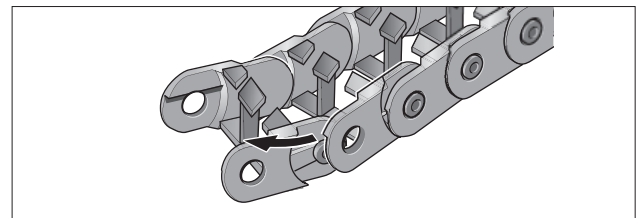


Step 2

DISASSEMBLY



Step 1



Step 2

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Murrplastik Systemtechnik GmbH

Dieselstraße 10
71570 Oppenweiler
Germany

+49 7191 482-0
info@murrplastik.de

HRB 271053
Local court Stuttgart
VAT ID: DE 144 744 122



MP8902803001

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More info at

murrplastik.de