

Data sheet  
**MULTILINE**

**MP18.1**  
**MP18.2**



**MP 18.1 OPEN / MP 18.2 OPEN**

**18.1**  
OPEN

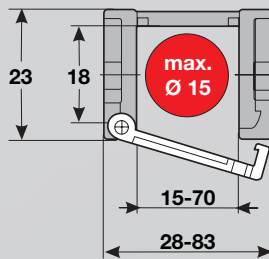


**18.2**  
OPEN

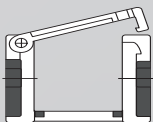


MULTILINE

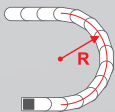
- CHAIN BRACKET WITH STRAIN RELIEF
- CAN BE EASILY SHORTENED AND LENGTHENED



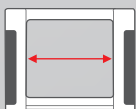
**TECHNICAL DATA**



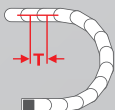
**Loading side**  
Inside or outside bend



**Available radii**  
28.0 - 78.0 mm



**Available interior widths**  
With plastic crossbar  
15.0 - 70.0 mm



**Grid**  
T = 33.0 mm





### TECHNICAL SPECIFICATIONS

Travel distance gliding $L_g$ max.	20.0 m
Travel distance self-supporting $L_T$ max.	see diagram on page 5
Travel distance vertical, hanging $L_{vh}$ max.	8.0 m
Travel distance vertical, standing $L_{vs}$ max.	3.0 m
Rotated 90°, self-supporting $L_{90}$ max.	0.5 m
Speed, gliding $V_g$ max.	2.0 m/s
Speed, self-supporting $V_T$ max.	5.0 m/s
Acceleration, gliding $a_g$ max.	5.0 m/s <sup>2</sup>
Acceleration, self-supporting $a_T$ max.	5.0 m/s <sup>2</sup>

Contact our engineering department to meet any higher requirements: [efk@murrplastik.de](mailto:efk@murrplastik.de)

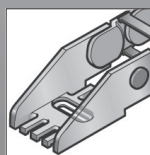
### MATERIAL PROPERTIES

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	UL 94 HB

Other material properties on request.

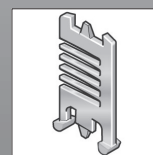
MP 18.1 OPEN / MP 18.2 OPEN

#### CHAIN BRACKET



Chain bracket U-part

#### SHELVING SYSTEM



TR separator

#### GUIDE CHANNELS



VAW aluminum

**ORDER KEY**

Dimensions in mm [US inch]

Type code	Variant	Inside width	Outside width	Inside width	Outside width	Radius	Crossbar variant	Material	Chain length
0181 01 <sup>1)</sup>	MP 18.1 open Crossbar in outside bend Crossbar in inside bend Opens on outside bend	015 <sup>3)</sup> [0.59]	028 [1.10]			028 [1.10]	0 Plastic, full-ridged with bias	0 Polyamide (PA): standard (PA/black)	
		018 [0.71]	031 [1.22]						
0182 02 <sup>2)</sup>	MP 18.2 open Crossbar in outside bend Crossbar in inside bend Opens on inside bend	025 [0.98]	038 [1.50]			038 [1.50]		1 UL94 / VO (PA/oxide red) (on request)	
		037 [1.46]	050 [1.97]						
		050 [1.97]	063 [2.48]			048 [1.89]		5 Polypropylene (PP/blue) (on request)	
		070 [2.76]	083 [3.27]						
						078 [3.07]		7 ESD (PA/light gray) (on request)	
								9 Special version (on request)	

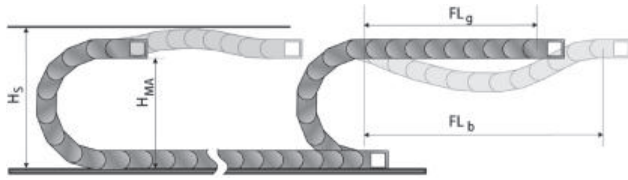


**ORDERING EXAMPLE: 0181 01 015 028 0 0 1122**

Crossbar in outside bend, crossbar in inside bend, can be opened from outside bend  
 Inside width 15 mm; radius 28 mm  
 Plastic bridge, full-ridged with bias, material black-colored polyamide  
 Chain length 1122 mm (34 links)

<sup>1)</sup> for Type 0181 only  
<sup>2)</sup> for Type 0182 only  
<sup>3)</sup> max. cable diameter 13 mm

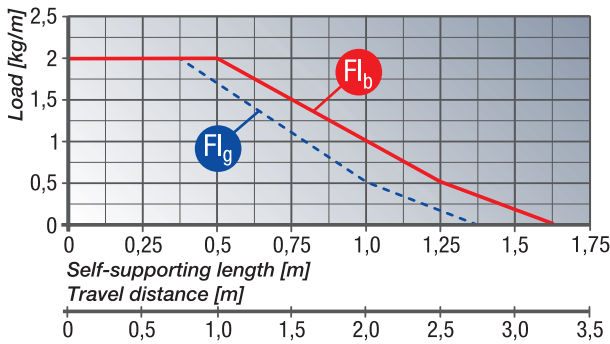
**SELF-SUPPORTING LENGTH**



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**



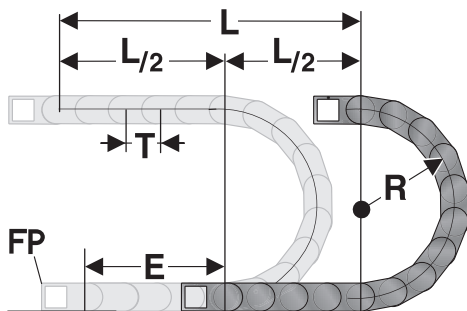
**$FL_g$  Self-supporting length, upper run straight**

In the  $FL_g$  range, the chain upper run still has a bias, is straight or has a maximum sag of 40.0 mm.

**$FL_b$  Self-supporting length, upper run bent**

In the  $FL_b$  range, the chain upper run has a sag of more than 40.0 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 =  $L/2 + \pi * R + 2 * T + E$   
 $\approx 1 \text{ m chain} = 30 \text{ links, } 33.0 \text{ mm each}$

- E = Distance between entry point and middle of travel distance
- L = Travel distance
- R = Radius
- T = Grid 33.0 mm

**VAW 248 GUIDE CHANNEL**

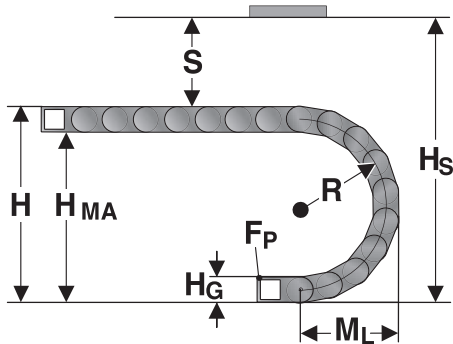


A variable guide channel system, constructed from aluminum sections, is available for this cable drag chain.  
The variable guide channel ensures that the energy chain is supported and guided securely.

MP 18.1 OPEN / MP 18.2 OPEN

**MP 18.1 OPEN / MP 18.2 OPEN**

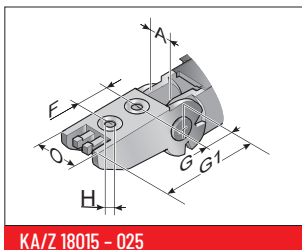
**INSTALLATION DIMENSIONS**



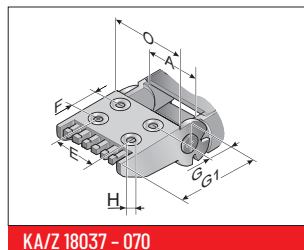
The moving end chain bracket is to be screw fixed at height  $H_{MA}$  for the respective radius.  
For the installed dimension the "Installed height  $H_S$ " has to be taken into account.

Radius R	28	38	48	78
Outside height of chain link ( $H_G$ )	23	23	23	23
Height of bend (H)	79	99	119	179
Height of moving end bracket ( $H_{MA}$ )	56	76	96	156
Safety margin (S)	30	30	30	30
Installation height ( $H_S$ )	109	129	149	209
Arc projection ( $M_L$ )	73	83	93	123

**KA 18.1 / 18.2 U-PART CHAIN BRACKET**



KA/Z 18015 - 025

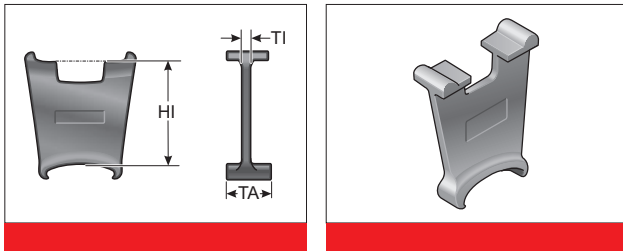


KA/Z 18037 - 070

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 M5 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	G1 mm	HØ mm	O mm
KA/Z 18015 Female end	018100004800	Plastic	15.4		19.0	10.5	53.0	5.5	A+13.0
KA/Z 18015 Male end	018100004900	Plastic	15.4		19.0	8.5	53.0	5.5	A+13.0
KA/Z 18018 Female end	018100005000	Plastic	18.4		19.0	10.5	53.0	5.5	A+13.0
KA/Z 18018 Male end	018100005100	Plastic	18.4		19.0	8.5	53.0	5.5	A+13.0
KA/Z 18025 Female end	018100005200	Plastic	25.4		19.0	10.5	53.0	5.5	A+13.0
KA/Z 18025 Male end	018100005300	Plastic	25.4		19.0	8.5	53.0	5.5	A+13.0
KA/Z 18037 Female end	018100005400	Plastic	37.4	A-17,4	19.0	10.5	53.0	5.5	A+13.0
KA/Z 18037 Male end	018100005500	Plastic	37.4	A-17,4	19.0	8.5	53.0	5.5	A+13.0
KA/Z 18050 Female end	018100005600	Plastic	50.4	A-16,4	19.0	10.5	53.0	5.5	A+13.0
KA/Z 18050 Male end	018100005700	Plastic	50.4	A-16,4	19.0	8.5	53.0	5.5	A+13.0
KA/Z 18070 Female end	018100005800	Plastic	70.4	A-22,4	19.0	10.5	53.0	5.5	A+13.0
KA/Z 18070 Male end	018100005900	Plastic	70.4	A-22,4	19.0	8.5	53.0	5.5	A+13.0

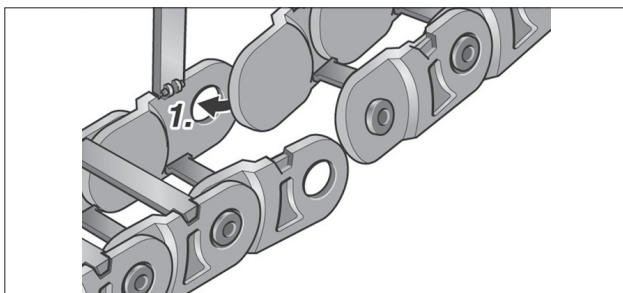
**TR 18.1/2 SEPARATOR**



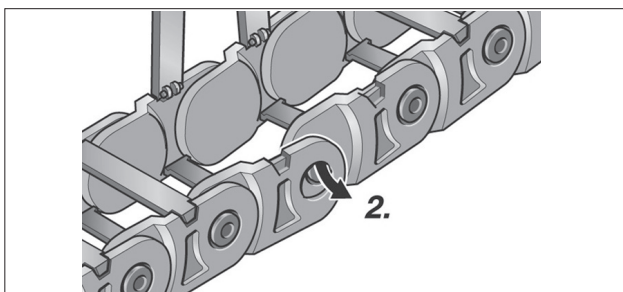
We recommend that separators be used if multiple round cables or conduits with differing diameters are to be installed.

Type	Order No.	Description	TI mm	TA mm	HI mm
TR 14 18	018200009000	Separator	1.4	7.4	18.0

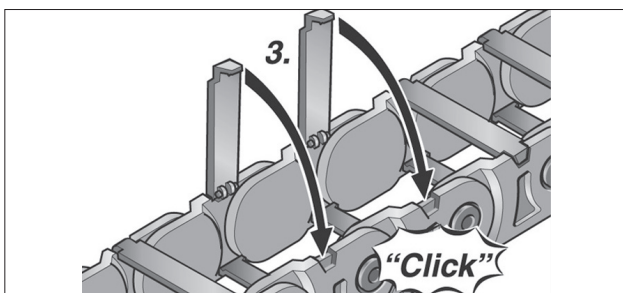
**ASSEMBLY**



Step 1

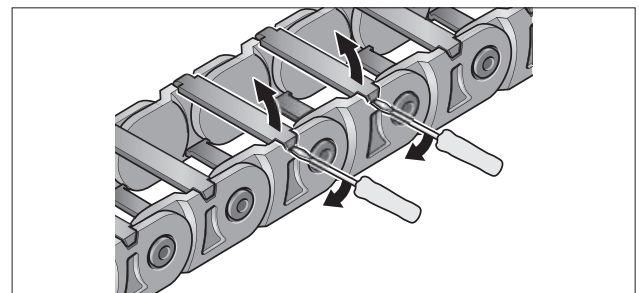


Step 2

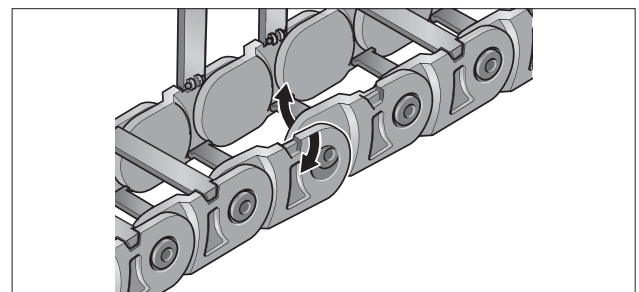


Step 3

**DISASSEMBLY**



Step 1



Step 2

All details given in our sales brochures and catalogs, as well as the information available online, are based on our current knowledge of the products described.  
The electronic data and files made available by murrplastik, particularly CAD files are based on our current knowledge of the products described.

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