

# Matrix7

## Linear actuator



### Benefits

- Universal power supply
- Power indicator
- Plug and play with integrated control unit
- Designed for medical devices, compliant to IEC 60601-1

### Technical data

	Unit	MAX7..A..	MAX7..B..	MAX7..C..
Rated push load	N	8 000	4 000	3 000
Rated pull load	N	6 000 <sup>1)</sup>	4 000	3 000
Speed (full load to no load)	mm/s	6 to 7,5	8 to 10	13 to 18
Stroke	mm	50 to 700	50 to 700	50 to 700
Retracted length	mm	S + 215/280 <sup>2)</sup>	S + 215/280 <sup>2)</sup>	S + 215/280 <sup>2)</sup>
Voltage	V	100-240 AC 50/60 Hz	100-240 AC 50/60 Hz	100-240 AC 50/60 Hz
Power consumption	W	180	180	180
Current consumption	100 V AC	A	3,2	3,2
	240 V AC	A	1,6	1,6
Duty cycle	%	10 (1/9)	10 (1/9)	10 (1/9)
Ambient temperature	°C	0 to +40	0 to +40	0 to +40
Type of protection	IP	66S	66S	66S
Weight (at 200 mm stroke)	kg	4,8	4,5	4,2
Color	–	Grey	Grey	Grey

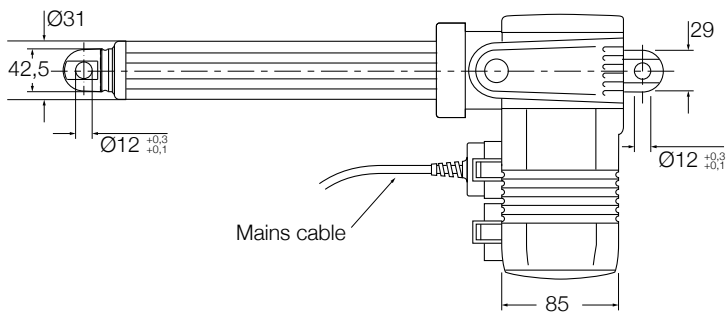
<sup>1)</sup> Max load for medical application is 5 000 N

<sup>2)</sup> S < 350 mm; L = S + 215

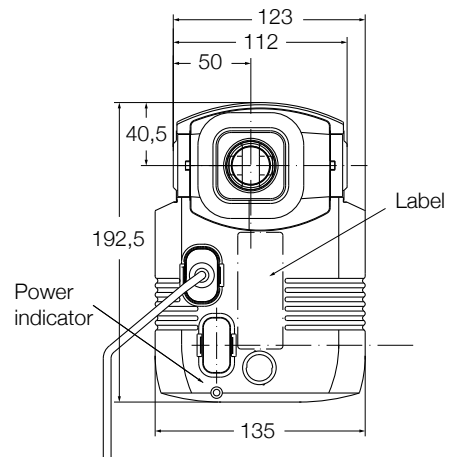
S > 350 mm; L = S + 280

## Dimensional drawing

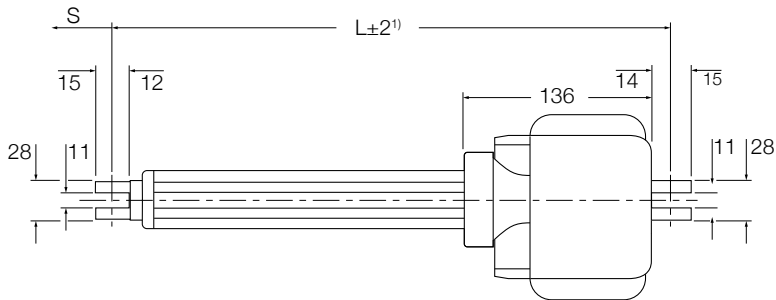
### Side view



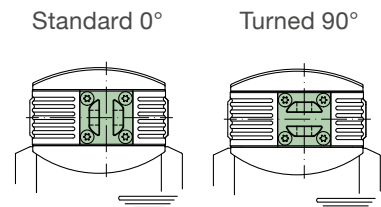
### Front view



### Top view

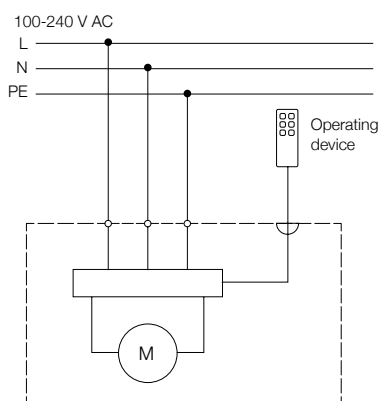


### Rear view












¹¹ S < 350 mm; L = 215 + S  
S > 350 mm; L = 280 + S

## Connecting diagrams



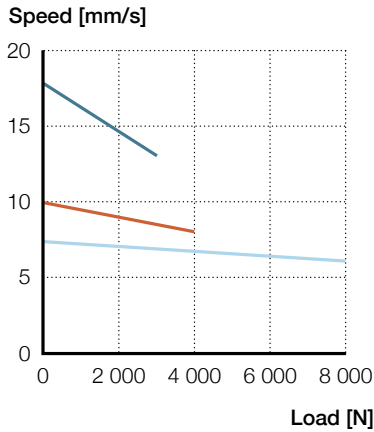
## Suitable operating switches

	Operating switches					
	 EHA1	 PHC	 STF	 PFP	 STA	 PAM
MAX70		•		•		•
MAX72/74	•		•		•	

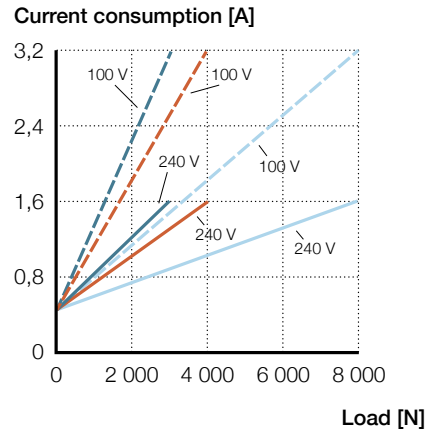
 Hand switch     
  Foot switch     
  Desk switch

## Performance diagrams

Speed-load diagram



Current-load diagram

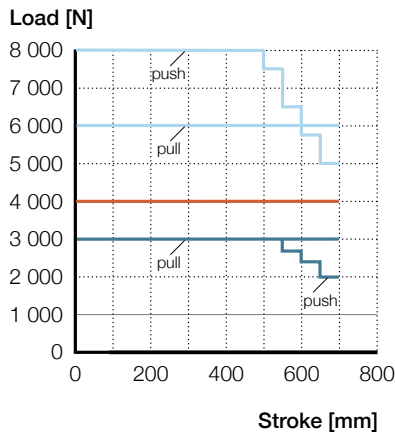


— Rated push force 3 000

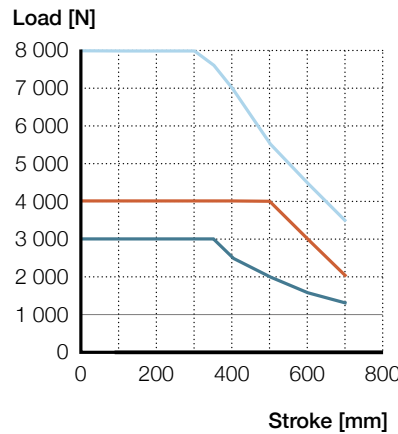
— Rated push force 4 000

— Rated push force 8 000

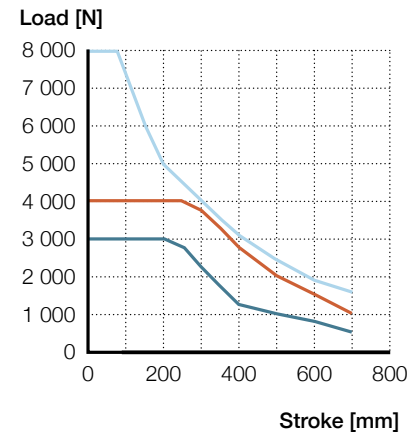
## Safety factor load conditions



Push load reduction static  
 Safety factor S=1



Push load reduction static  
 Safety factor S=2



Push load reduction static  
 Safety factor S=4 (EN60601)

— Rated push force 3 000

— Rated push force 4 000

— Rated push force 8 000

## Accessories

	Plug	Country	Designation	Order number
Straight cable 3,5 m	Schuko	DE	ZKA-140306-3500	0121723
Straight cable 3,5 m	SEV	CH	ZKA-140316-3500	0121737
Straight cable 3,5 m	UL	USA	ZKA-140355-3500	0121724
Straight cable 3,5 m	Hospital grade	USA	ZKA-140360-3500	0121732
Straight cable 3,5 m	British standard	UK	ZKA-140350-3500	0121743
Coiled cable 1,2 m / 2,2 m	Schuko	DE	ZKA-140342-1500	0121728
Coiled cable 1,2 m / 2,2 m	SEV	CH	ZKA-140378-1200	0121738
Straight polyurethane cable 3,5 m	Schuko	DE	ZKA-140422-3500	0121739
Straight polyurethane cable 3,5 m	SEV	CH	ZKA-140426-3500	0121740
Strain relief for mains cable			ZUB-952253	0102848
Tool for plugs (Jack/D-Sub/Mains)			ZWS-140375	0125322

## Ordering key

Parameter	Options
Type	MAX7 -
Voltage	<ul style="list-style-type: none"> <li>0 100-240 V AC/50-60 Hz, integrated pneumatic control</li> <li>2 100-240 V AC/50-60 Hz, integrated low voltage control with additional 24 V output</li> <li>4 100-240 V AC/50-60 Hz, integrated low voltage control</li> </ul>
Load	<ul style="list-style-type: none"> <li>A 8 000 N</li> <li>B 4 000 N</li> <li>C 3 000 N</li> </ul>
Stroke (S)	<ul style="list-style-type: none"> <li>050 265 50 mm</li> <li>100 315 100 mm</li> <li>150 365 150 mm</li> <li>200 415 200 mm</li> <li>250 465 250 mm</li> <li>300 515 300 mm</li> <li>350 565 350 mm</li> <li>400 680 400 mm</li> <li>450 730 450 mm</li> <li>500 780 500 mm</li> <li>550 830 550 mm</li> <li>600 880 600 mm</li> <li>650 930 650 mm</li> <li>700 980 700 mm</li> </ul> <p>--- Other stroke lengths; 50&lt;S&lt;700 mm</p>
Cable / Connecting plug	<ul style="list-style-type: none"> <li>0 No cable</li> </ul>
Orientation of rear attachment	<ul style="list-style-type: none"> <li>0 No fork head (customized option)</li> <li>1 Standard (as drawing)</li> <li>2 Turned 90°</li> </ul>
Option 1	<ul style="list-style-type: none"> <li>0 No option, only valid for actuator "A" (push and pull)</li> <li>E Quick-release +EKZm, push, fork head bore parallel to button (for actuator design "C" is L= +115 mm)<sup>1)</sup></li> <li>F Quick-release +EKZm, push, fork head bore 90° to button (for actuator design "C" is L= +115 mm)<sup>1)</sup></li> <li>I Mechanical anti-pinching, motor direction pull, no fixing in term. position (for load "A", L= +45 mm; "B" and "C", L= +30 mm)</li> <li>J Mechanical anti-pinching, motor direction push, no fixing in term. position (for load "A", L= +45 mm; "B" and "C", L= +30 mm)</li> <li>K Electrical anti-pinching protection, motor direction pull</li> <li>L Electrical anti-pinching protection, motor direction push</li> <li>M Push load, for actuator version "B" and "C"</li> <li>N Pull load, for actuator version "B" and "C"</li> </ul>
Option 2	<ul style="list-style-type: none"> <li>0 No option</li> </ul>
Option 3	<ul style="list-style-type: none"> <li>- No option</li> <li>V Emergency lowering, fork head bore parallel to clamping lever (for actuator design "A", L+30 mm)</li> <li>W Emergency lowering, fork head bore 90° to clamping lever (for actuator design "A", L+30 mm)</li> </ul>
Customized	

<sup>1)</sup> EKZm: mechanical anti-pinching min. stroke 150 mm up to 300 mm

■ Options shown in red are only available on request. Contact Ewellix for more information on minimum quantities and additional costs.