Matrix1

Linear actuator



Benefits

- Silent operation
- Full system with control unit, switch and accessories
- Synchronization possible
- Compact and aesthetic
- Back-up nut as standard

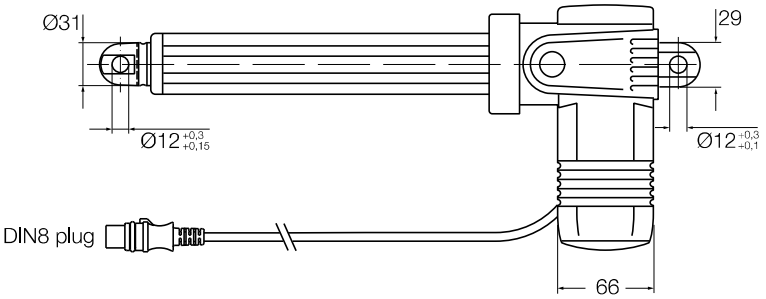
Technical data

	Unit	MAX1..A..	MAX1..B..	MAX1..C..
Rated push load	N	4 000	2 000	1 500
Rated pull load	N	4 000	2 000	1 500
Speed (full load to no load)	mm/s	5 to 7	6 to 9	13 to 18
Stroke	mm	50 to 700	50 to 700	50 to 700
Retracted length	mm	S + 195/260[1)]	S + 195/260[1)]	S + 195/260[1)]
Voltage	V DC	24	24	24
Power consumption	W	120	120	120
Current consumption	A	5	5	5
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	3,7	3,6
Color	–	Grey	Grey	Grey

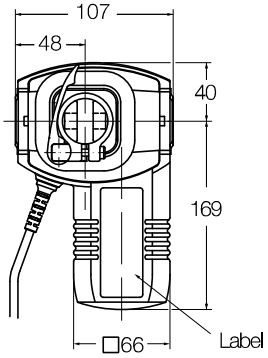
[1)] S < 350 mm, L = 195 + S
S > 350 mm, L = 260 + S

Dimensional drawing

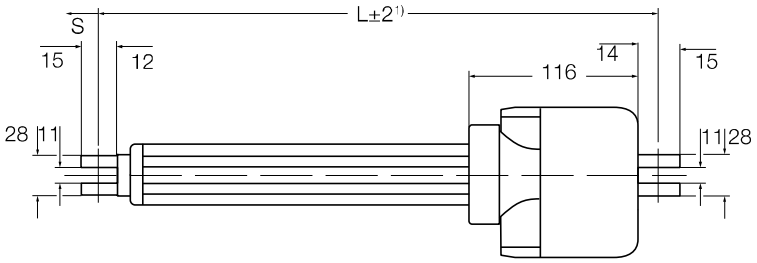
Side view



Front view

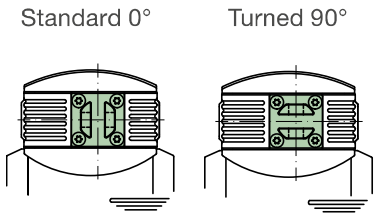


Top view

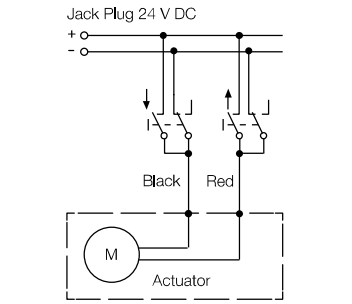


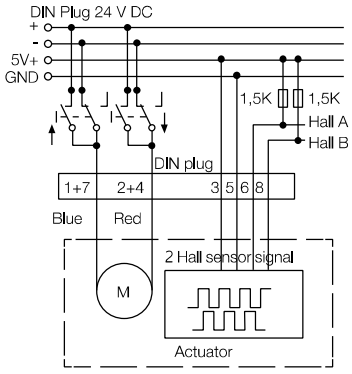
1) S < 350 mm; L = 195 + S
S > 350 mm; L = 260 + S

Rear view



Connecting diagrams





Suitable control units and accessories

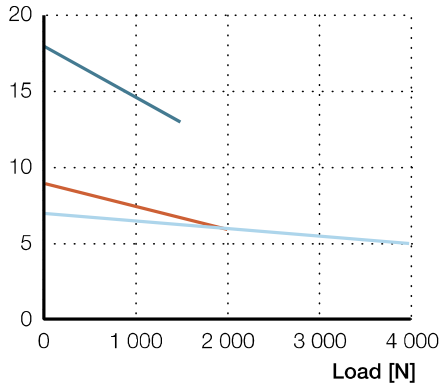
	Control units			
	SCU	VCU	BCU	MCU
MAX 1	•	•	•	•
Operating switches				
EHA 1				•
EHA 3	•	•	•	
STJ	•	•	•	
STF				•
STE	•	•	•	
STA				•

Hand switch Foot switch Desk switch

Performance diagrams

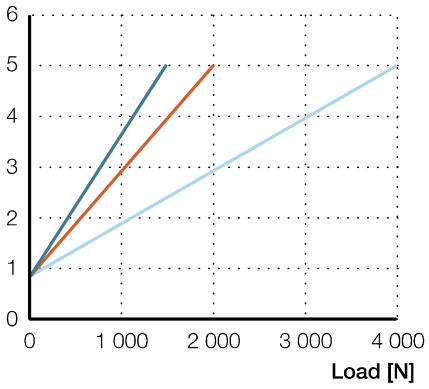
Speed-load diagram

Speed [mm/s]



Current-load diagram

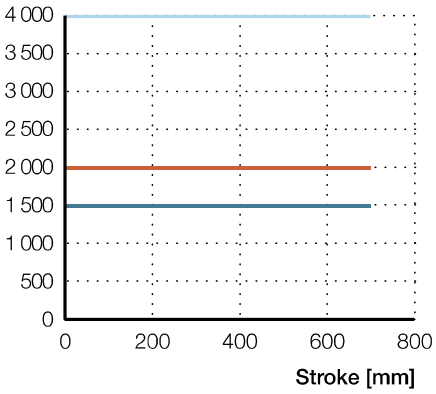
Current consumption [A]



Rated push force 1 500 — Rated push force 2 000 — Rated push force 4 000

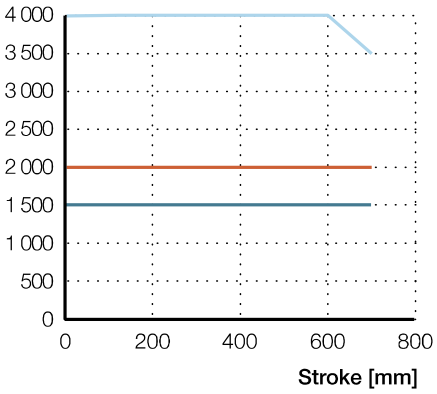
Safety factor load conditions

Load [N]



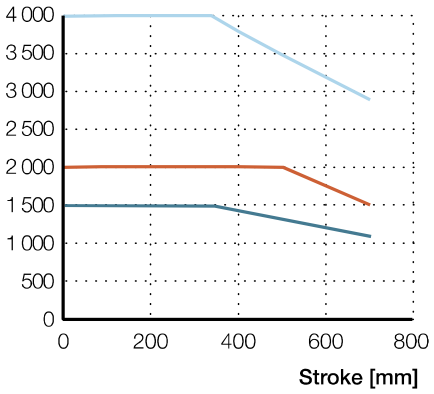
Push load reduction static
Safety factor S=1

Load [N]



Push load reduction static
Safety factor S=2

Load [N]



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

Rated push force 1 500 — Rated push force 2 000 — Rated push force 4 000

Ordering key



Type

Voltage

0	24 V DC
1	24 V DC with integrated current cut-off

Load

A	4 000 N
B	2 000 N
C	1 500 N

Stroke (S)

050 245	50 mm
100 295	100 mm
150 345	150 mm
200 395	200 mm
250 445	250 mm
300 495	300 mm
350 545	350 mm
400 660	400 mm
450 710	450 mm
500 760	500 mm
550 810	550 mm
600 860	600 mm
650 910	650 mm
700 960	700 mm
– – – – – –	Other stroke lengths; 50<S<700 mm

Cable / Connecting plug

0 B	Coiled, 0,75 m (not stretched) / DIN8 plug
C 5	Straight, 2,5 m / DIN8 plug
0 A	Coiled, 0,75 m (not stretched) / Jack plug
2 5	Straight, 2,5 m / Jack plug
– –	Special cable length on request

Orientation of rear attachment

0	No fork head (customized option)
1	Standard (as drawing)
2	Turned 90°

Option 1

0	No option, only valid for actuator “A” (push and pull)
E	Quick-release +EKZm, push, fork head bore parallel to button (for actuator design “C” is L= +115 mm)[1)]
F	Quick-release +EKZm, push, fork head bore 90° to button (for actuator design “C” is L= +115 mm)[1)]
I	Mechanical anti-pinching, motor direction pull, no fixing in term. position (for load “A”, L= +45 mm; “B”and “C”, L= +30 mm)
J	Mechanical anti-pinching, motor direction push, no fixing in term. position (for load “A”, L= +45 mm; “B”and “C”, L= +30 mm)
M	Push load, for actuator version “B” and “C”
N	Pull load, for actuator version “B” and “C”

Option 2

0	No option
F	2-Hall encoder, DIN8 plug
M	Lifetime monitoring
P	Lifetime monitoring, 2-Hall encoder, DIN8 plug

Option 3

0	No option
V	Emergency lowering, fork head bore parallel to clamping lever (for actuator design "A", L+30 mm)
W	Emergency lowering, fork head bore 90° to clamping lever (for actuator design "A", L+30 mm)

Customized

[1)] 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.