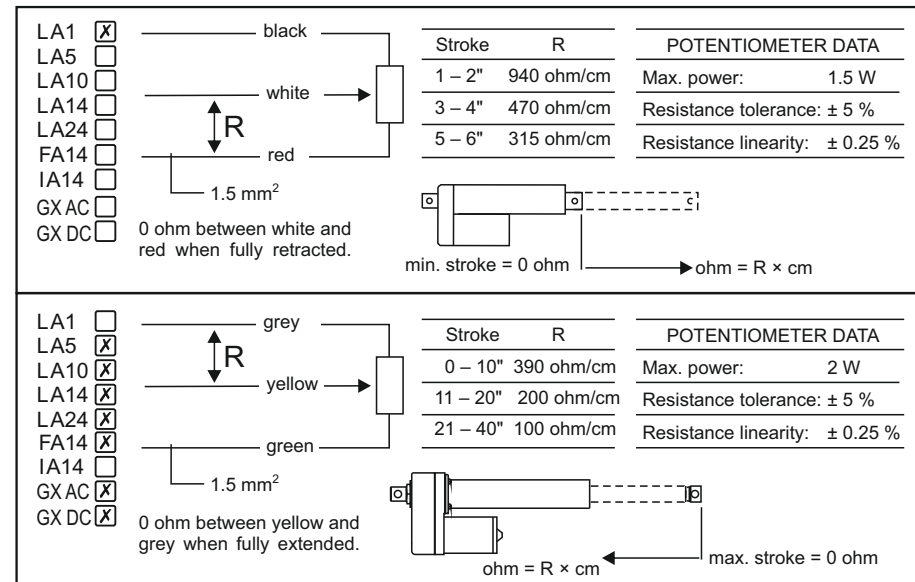
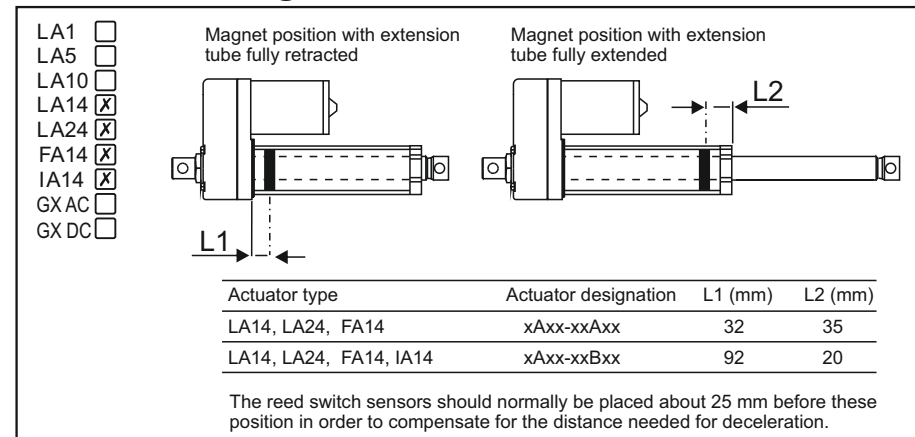


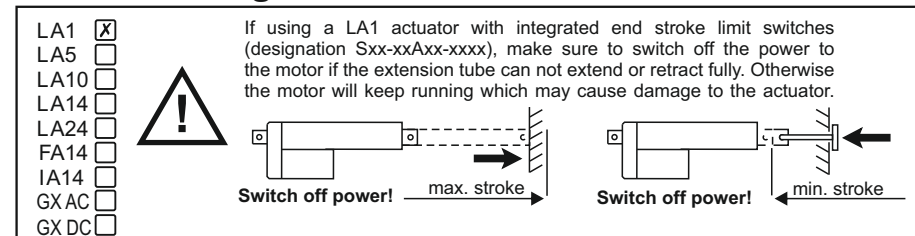
Connection of potentiometer (optional)



Position of magnet for reed switch sensors



LA1 with integrated end stroke limit switches



CAUTION!

Always turn power off before working on the actuator or the wiring.

Technical data

	LA1	LA5/GX AC	LA10/GX DC	LA14	LA24	FA14	IA14
DC-motor with automatic reset thermal switch *							
12 VDC (10 – 16 V) **	yes	–	yes	yes	–	–	–
24 VDC (20 – 32 V) **	yes	–	yes	yes	–	–	–
36 VDC (30 – 40 V) **	yes	–	yes	yes	–	–	–
48 VDC **	–	–	yes	–	–	–	–
90 VDC ***	–	–	yes	–	–	–	–
Only accepts battery or full wave smoothed rectified voltage	yes	–	–	–	–	–	–
Accepts battery, full wave smoothed or unsmoothed rectified voltage	–	yes	yes	yes	–	–	–
AC-motor with automatic reset thermal switch *							
1 115 VAC (102 – 130 V) **	–	yes	–	–	yes	–	–
1 230 VAC (212 – 240 V) **	–	yes	–	–	yes	–	–
3 400 VAC (360 – 420 V) **	–	–	–	–	yes	–	–
Capacitor necessary	–	yes	–	–	yes	–	–
Max. current (A)	see actuator label					–	–
Duty cycle @ full load 25°C (%)	25	25	25	25	25	–	–
Max. on time (s)	****	45	****	****	45	–	–
Restraining torque (Nm)	2.3	11.3	11.3	0	0	0	0
End play max. (mm)	0.9	1	1	1	1	1	1
Ambient temperature (°C)	- 25 – + 65						
Lubrication	for life						
Anti backdriving mechanism	yes						
Slip clutch	–	yes (set to 1.2 – 1.5 × max. dynamic load					–
Protection class	IP65	–	IP65	IP65	–	–	–
End stroke limit switches	yes	–	–	–	–	–	–
Options							
Feedback potentiometer	yes						–
Electrically released brake	–	yes	–	–	yes	–	–
Reed switch sensors	–	–	–	yes			
Pins	yes						
Pin holders	–	–	–	yes			
Trunnion	–	–	–	yes			
Trunnion holders		–	–	yes			

* Do not use the thermal switch as overload protection

** CE complaint model

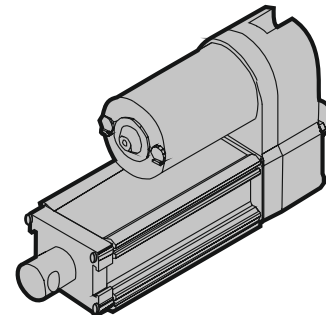
*** Non CE compliant model

**** One full cycle at full load

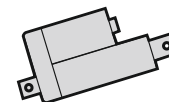
We recommend to always install fuse or thermal breaker between motor and power supply to protect actuator, wiring and other items.

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Installation manual for LA1, LA5, LA10, LA14, LA24, GX DC, GX AC, FA14 and IA14 actuators

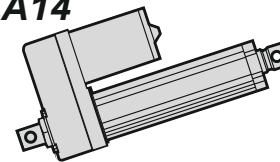


LA1



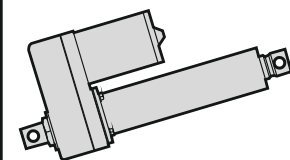
12 VDC
24 VDC
36 VDC

LA14



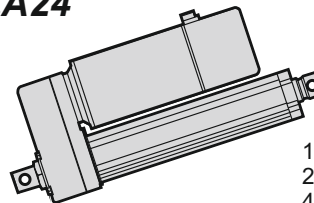
12 VDC
24 VDC
36 VDC

LA10, GX DC



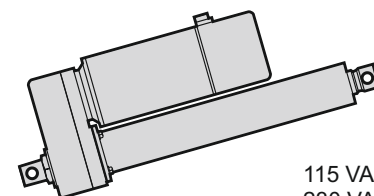
12 VDC
24 VDC
36 VDC
48 VDC
90 VDC

LA24



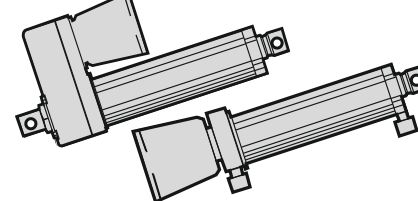
115 VAC
230 VAC
400 VAC

LA5, GX AC



115 VAC
230 VAC

FA14, IA14



Basic mounting rules

LA1 ☒
LA5 ☒
LA10 ☒
LA14 ☒ **OK**
LA24 ☒
FA14 ☒
IA14 ☒
GX AC ☒
GX DC ☒

LA1 ☒
LA5 ☒
LA10 ☒
LA14 ☐
LA24 ☐
FA14 ☐
IA14 ☐
GX AC ☒ **OK**
GX DC ☒

LA1 ☒
LA5 ☒ **Only mount actuator in these points!**
LA10 ☒
LA14 ☐
LA24 ☐
FA14 ☐
IA14 ☐
GX AC ☒
GX DC ☒

LA1 ☐
LA5 ☐
LA10 ☐
LA14 ☒
LA24 ☒
FA14 ☒
IA14 ☒
GX AC ☐
GX DC ☐

Only mount actuator in these points!
*Trunnion (option),
p/n. D603 022 (2×)
Correct tightening torque = 44 Nm.

LA1 ☐
LA5 ☐
LA10 ☐
LA14 ☒
LA24 ☒
FA14 ☒
IA14 ☒
GX AC ☐
GX DC ☐

LA1 ☒
LA5 ☒
LA10 ☒
LA14 ☒
LA24 ☒
FA14 ☒
IA14 ☒
GX AC ☒
GX DC ☒

Only use solid pins!

LA 1 $\phi = 6.35$ mm p/n. D603 034 (2×)	LA5, LA10, GX $\phi = 12.7$ mm p/n. D603 028 (2×)
LA14, LA24, FA14, IA14 $\phi = 12$ mm p/n. D603 023 (2×)	

LA1 ☐
LA5 ☐
LA10 ☐
LA14 ☒
LA24 ☒
FA14 ☒
IA14 ☒
GX AC ☐
GX DC ☐

Trunnion holders (option)
p/n. D603 030 (2×)

LA1 ☐
LA5 ☐
LA10 ☐
LA14 ☒
LA24 ☒
FA14 ☒
IA14 ☒
GX AC ☐
GX DC ☐

Pin holders (option)
p/n. D603 029 (2×)

Basic mounting rules

Only mount actuator in these points!

- LA1 ☐
- LA5 ☐
- LA10 ☐
- LA14 ☒ *Trunnion (option) p/no: D603 022 (2x)
- LA24 ☐
- FA14 ☐
- IA14 ☒
- GX AC ☐
- GX DC ☐

Dimensions:

- Top view: $\phi 16$, 16, $\phi 7 \text{ (} 4\times \text{)}$, 101.6, 57.5
- Side view: * (pointing to trunnion), $\phi 7 \text{ (} 4\times \text{)}$

Wire cross section

LA1 ☒
 LA5 ☐
 LA10 ☐
 LA14 ☐
 LA24 ☐
 FA14 ☐
 IA14 ☐
 GX AC ☐
 GX DC ☐

L(m)	mm²
0 – 10	1.5
11 – 20	2.5

LA1 ☐
 LA5 ☒
 LA10 ☐
 LA14 ☐
 LA24 ☒
 FA14 ☐
 IA14 ☐
 GX AC ☒
 GX DC ☐

L(m)	mm²
0 – 20	1.5

LA1 ☐
 LA5 ☐
 LA10 ☒
 LA14 ☒
 LA24 ☐
 FA14 ☐
 IA14 ☐
 GX AC ☐
 GX DC ☒

12 VDC			
Current (A)	mm²		
	L = 3 m	L = 6 m	L = 10 m
0 – 15	1.5	2.5	4
16 – 20	2.5	4	6
21 – 28	4	6	10
29 – 34	6	6	10

24 VDC		
Current (A)	mm²	
	L = 6 m	L = 10 m
0 – 10	1.5	1.5
11 – 15	2.5	2.5

36 VDC	
Current (A)	mm²
	L = 10 m
0 – 12	1.5

The tables are based on ambient temperature = 30°C or less.

Connection of motor

LA1 ☒ LA5 ☐ LA10 ☐ LA14 ☐ LA24 ☐ FA14 ☐ IA14 ☐ GX AC ☐ GX DC ☐

230 and 115 Vac supply without brake (A22-xxxx-xxxxNxxxx, AA22-xxxxMxxxxNxxxx)

A = S12, S24, S36 B = SP12 C = SP24, SP36

LA1 ☐ LA5 ☐ LA10 ☒ LA14 ☒ LA24 ☐ FA14 ☐ IA14 ☐ GX AC ☐ GX DC ☒

230 and 115 Vac supply with brake (A22-xxxx-xxxxBxxxx, AA22-xxxxMxxxxBxxxx)

LA1 ☐ LA5 ☒ LA10 ☐ LA14 ☐ LA24 ☒ FA14 ☐ IA14 ☐ GX AC ☒ GX DC ☐

3 x 400 Vac supply without brake (A42-xxxxMxxxxNxxxx, AA42-xxxxMxxxxNxxxx)

3 x 400 Vac supply with brake (A42-xxxxMxxxxBxxxx, AA42-xxxxMxxxxBxxxx)

* Capacitor: 115 VAC = 35 microF, p/n. D900-448-002 / 230 VAC = 10 microF, p/n. D900-448-003