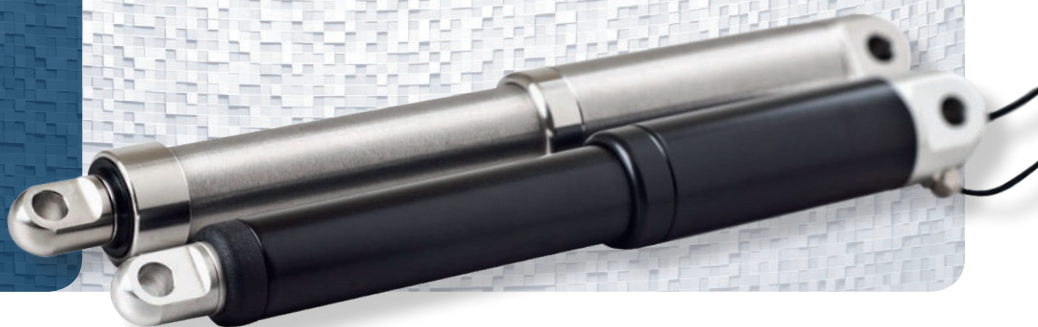


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Linear In-line Actuator

concens 
 - excellent electric actuators

Standard Specifications (Specifications for non-standard actuators, eg. HE-version, may vary)
Motor/Gear

24 VDC permanent magnet motor (max. current for ratio 4-14-17-24 is 8 A, ratio 49 is 7 A, ratio 84 is 4,5 A, absolute max. voltage is 28 VDC)

Gear ratio		4	14	17	24	49	84
Maximum load	[N]	500	1750	2200	3100	4500	4500
Speed at maximum load	[mm/s]	70	20	17	12	6	4

12 VDC permanent magnet motor (max. current for ratio 4-14-17-24 is 16 A, ratio 49 is 14 A, ratio 84 is 9 A, absolute max. voltage is 14 VDC)

Gear ratio			14	17	24	49	84
Maximum load	[N]		1400	1700	2400	4500	4500
Speed at maximum load	[mm/s]		14	10	6	3	3.5

**Max. static load/
Self locking force**

PA brackets: 4700 N Alu/Stainless steel: 16800 N
 Depending on stroke length for push-applications
 Max. Load limited to 2000 N for stroke lengths > 400 mm

Temperature

■ Operation: - 20 °C to + 70 °C ■ Storage: - 40 °C to + 70 °C

Protection class

IP66

Cable specification

1 m, 2 x 1.3 mm² (AWG16), Ø = 6.4 mm, black, Molex Mini-Fit Jr. 6 pin

Bending Radius

6 x cable diameter

Materials

Motor and actuator tube are powder coated steel
 Piston rod is stainless steel
 Front and rear brackets are PA

Duty cycle

Max. 10 % or 2 minutes in use followed by 18 minutes rest

Color

Black (RAL 9005)

Stroke length/weight

Stroke	[mm]	50	100	150	200	250	300	350	400	500	750
Weight	[kg]	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.8	4.3	5.6

Actual weight may vary depending on model and options selected

Options

- Stainless steel versions (AISI 316)
- Brackets in aluminum or stainless steel
- Brackets with clevis
- Brackets with spherical bearings
- Hall sensors for positioning and/or synchronization
- HE (Harsh Environment) version (gear ratio 1:4 not available) Tested according to IP68 and IP69 and passed the criteria for a depth of one meter for one hour. Test reports are available on request.
- Low noise version
- Spline and emergency lowering
- Other cable lengths (1 - 9 m)

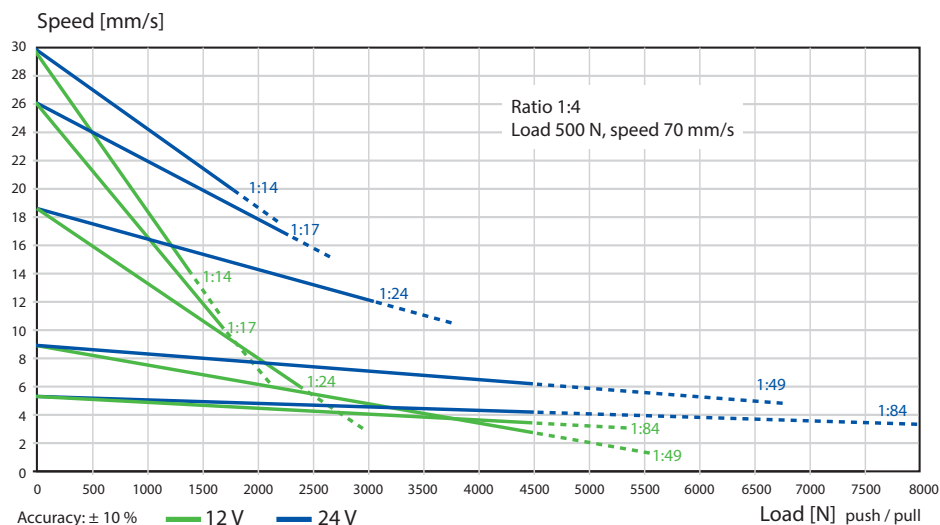
- Version certified according to IEC60601-1, ANSI/AAMI/ES60601-1, CAN/CSA-22.2 No60601-1 available (24 VDC only)

On Request

- Available in all RAL colors
- Other stroke lengths available
- Customized front and rear brackets
- Customized build-in-dimensions

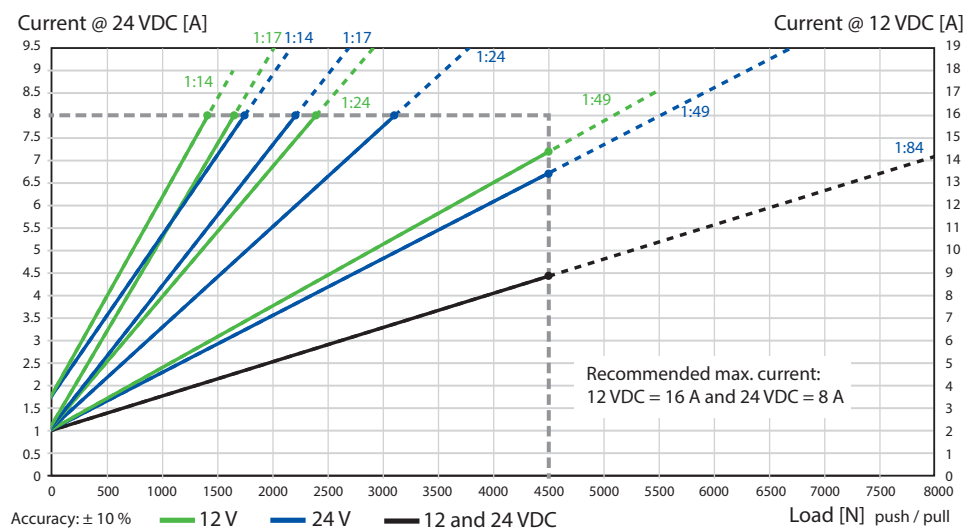
Contact Concens for any special requirements

Speed/Force



Force/Current

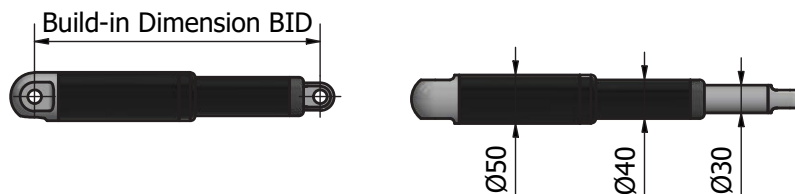
Use in the dashed area is not recommended. Please contact Concens for further information.



Dimensions

Axial backlash:
+/- 0.5 mm

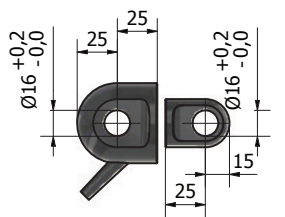
General
dimensional
variation:
+/- 1 mm



Build-in Dimension BID						
Gear Ratio	Standard	Clevis Rear	Hall	IEC/ANSI/AAMI/ES/CAN/CSA-22.2 No 60601-1	Harsh Environment	Emergency lowering/spline
4, 14, 17, 24	240 + stroke	-	+ 15	+ 15	+ 14	
49, 84	255 + stroke	-	+ 15	+ 15	+ 14	+ 23/+ 6

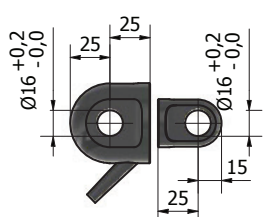
Stroke lengths > 750 mm + 100 mm (On request)

Standard Brackets



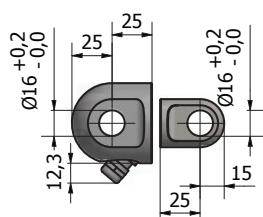
Polyamide (PA)

Max. static load 4700 N
Max. load 3100 N
(gear ratio 1:24)



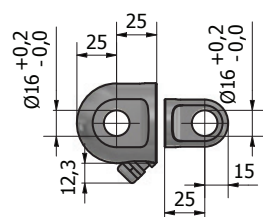
PA with clevis

Max. static load 4700 N
Max. load 3100 N
(gear ratio 1:24)



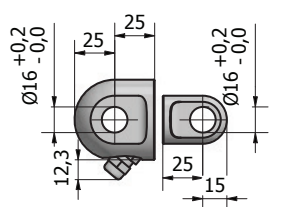
Alu

Max. static load 16800 N



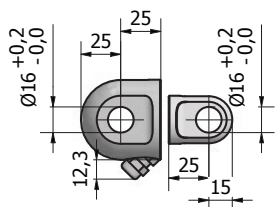
Alu with clevis

Max. static load 16800 N



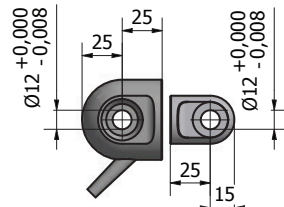
Stainless steel

Max. static load 16800 N



Stainless steel with clevis

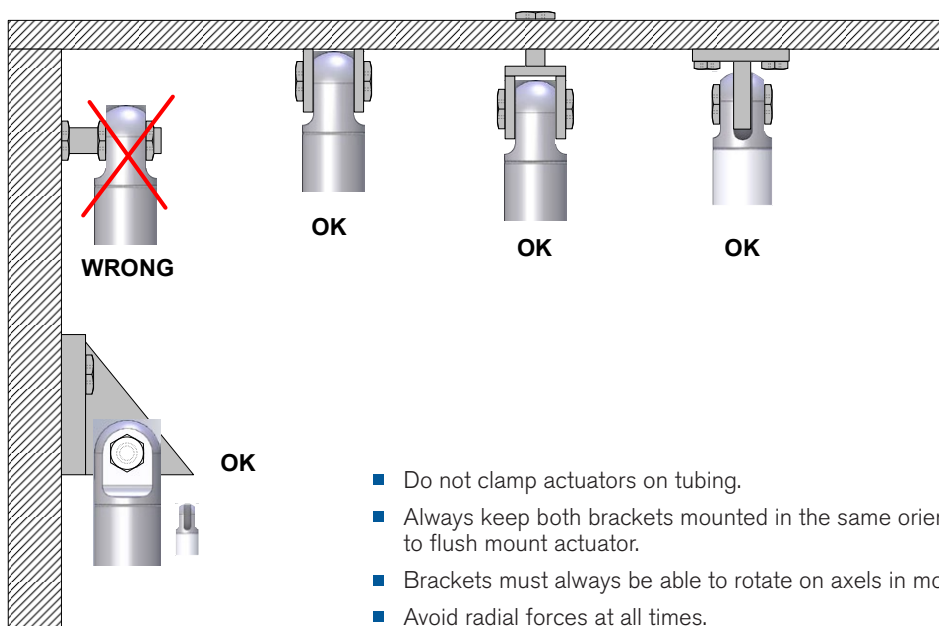
Max. static load 16800 N



Alu with spherical bearings

Max. static load 11000 N

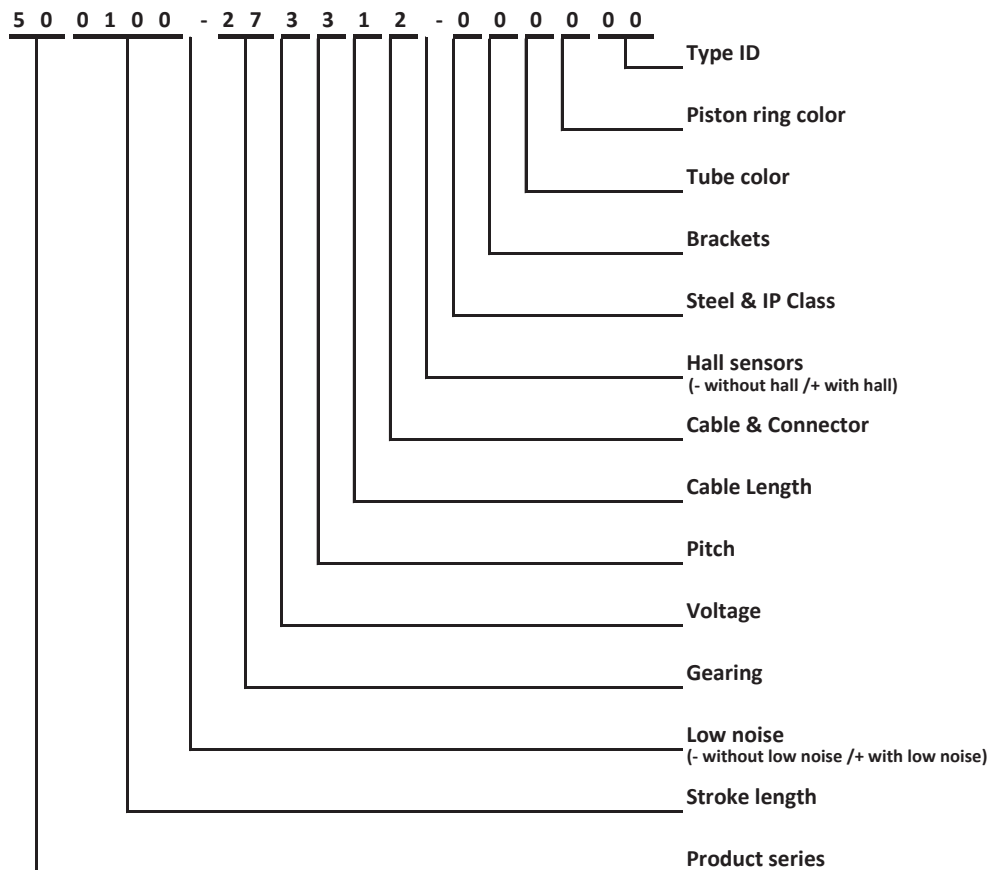
Recommended Mounting Methods



- Do not clamp actuators on tubing.
- Always keep both brackets mounted in the same orientation and ensure to flush mount actuator.
- Brackets must always be able to rotate on axels in mountings.
- Avoid radial forces at all times.

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Con50 Item Number Combination



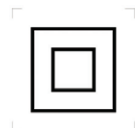
Recommendations and warnings

- Never expose the actuator to hammer strike during installation or in other situations.
- Retrofitted bushings should be pressed into the bracket-borings. No hammering.
- Power supply without over-current protection can cause serious damage to the actuator at mechanical end-stop or when actuator is overloaded in another way.
- Keep piston tube clean.
- Longer cable lengths may cause voltage drop which affects the performance of the actuator.
- For medical applications (IEC60601-1, ANSI/AAMI/ES60601-1, CAN/CSA-C22.2 No60601-1):
Operating temperature + 5 °C to + 48 °C, , Relative humidity 20 % - 70 % atmospheric pressure = 1atm.
Connect to medically approved supply source only and according to guidelines provided with the source.
- Function of the actuator is subject to the settings of the controller. If using your own controller please contact Concens.
- The dust and water sealing of HE (Harsh Environment) actuators might affect their performance.
- All specifications are for 25 °C ambient – low temperature might affect performance.
- Depending on load and application, nominal and actual stroke length may differ due to internal disc springs not being fully compressed.
- The combination of gearing and stroke can cause limitations in the use of "End limit FW" when using the C2-30 control.
See more in the datasheet for C2-30.

Disclaimer

- Concens products are continuously developed, built and tested for highest requirements and reliability but it is always the responsibility of the customer to validate and test the suitability of our products in a given application and environment.
- We do our utmost to provide accurate and up-to-date information at all times. In spite of that, Concens cannot be held responsible for any errors in the documentation. Specifications are subject to change without prior notice.

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IEC 60417-5172
Class II equipment



ISO 7010-M002
Refer to instruction
manual/booklet