

con35

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 is 1.8 A, absolute max. voltage is 28 VDC)

Gear ratio		5	14	19	27	51	71
Maximum load	[N]	120	400	600	900	1600	2200
Speed at maximum load	[mm/s]	33	16	12	7.5	4	3

12 VDC permanent magnet motor (max. current is 3.6 A, absolute max. voltage is 14 VDC)

Gear ratio			14	19	27	51	71
Maximum load	[N]		400	600	900	1500	2000
Speed at maximum load	[mm/s]		16	9	7.5	3.5	2.5

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

 PA brackets: 2000 N Alu/Stainless steel: 5400 N
 Depending on stroke length for push-applications
 Max. load limited to 1000 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 0,52 mm² (AWG20), Ø = 4.8 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 aluminum
 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]	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.6	1.8	2.3

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
- Piston rod available in black
- Hall sensors for positioning and/or synchronization
- HE (Harsh Environment) version (Ratio 1:5 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
- 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)

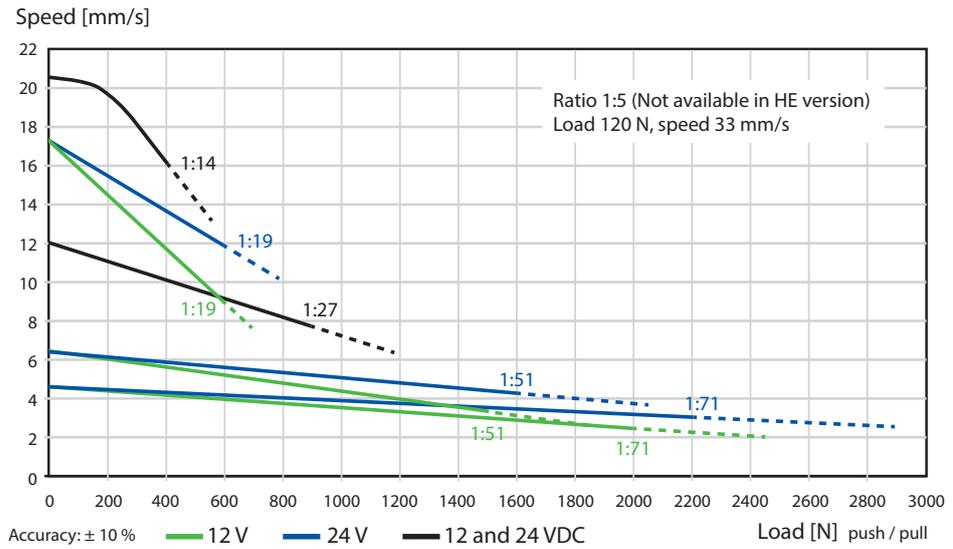
On Request

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

Contact Concens for any special requirements

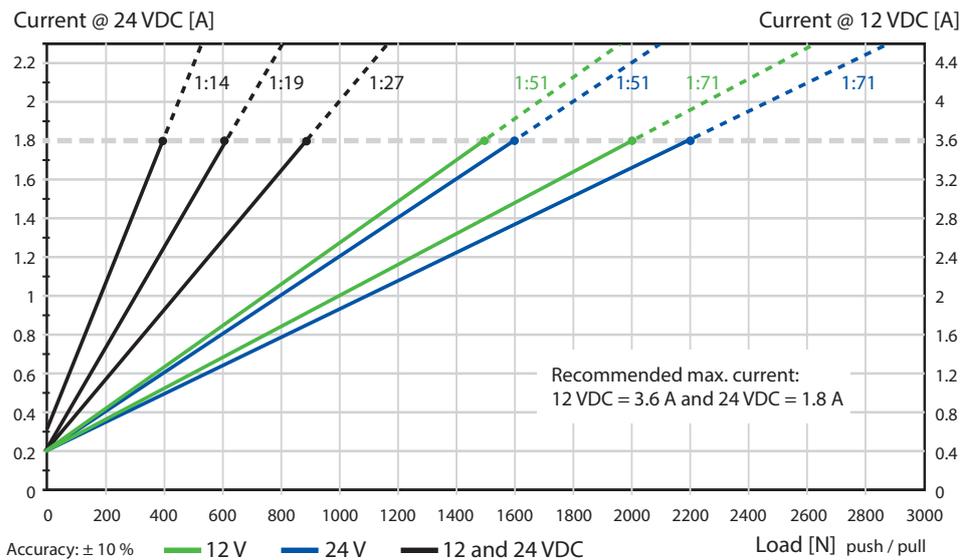
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Speed/Force



Force/Current

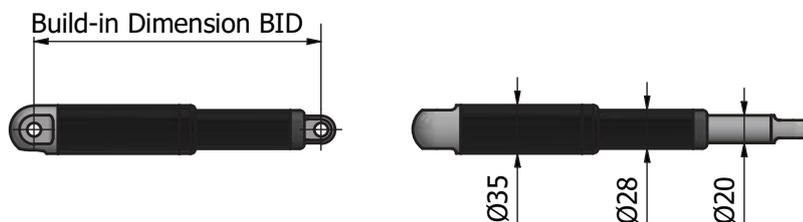
Use in the dashed area is not recommended. Please contact Concents for further information.



Dimensions

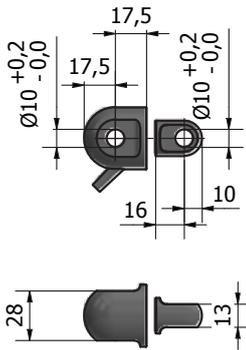
Axial backlash:
+/- 0.5 mm

General dimensional variation:
+/- 1 mm



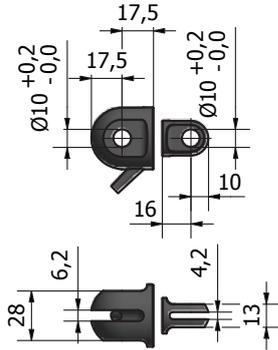
Build-in Dimension 'BID'					
Gear Ratio	Standard	Clevis Rear	Hall	IEC/ANSI/AAMI/ES/CAN/CSA-22.2 No 60601-1	Harsh Environment
5, 14, 19, 27	160 + stroke	+ 10	+ 10	+ 10	+ 11
51, 71	170 + stroke	+ 10	+ 10	+ 10	+ 11
Stroke lengths > 400 mm: + 7 mm					
Stroke lengths > 700 mm: + 42 mm					
Stroke lengths > 750 mm: + 100 mm (On request)					

Standard Brackets



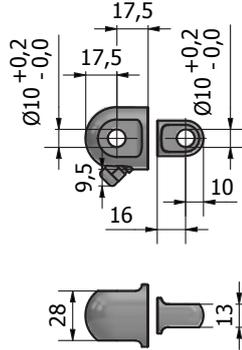
Polyamide (PA)

Max. static load 2000 N
Max. load 900 N
(gear ratio 1:27)



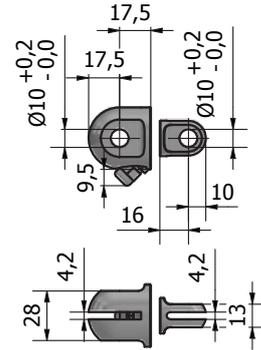
PA with clevis

Max. static load 2000 N
Max. load 900 N
(gear ratio 1:27)



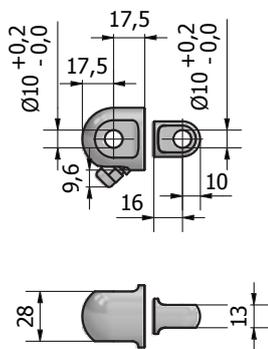
Alu

Max. static load 5400 N



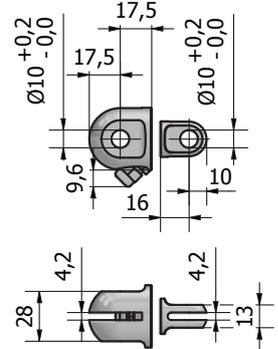
Alu with clevis

Max. load 5400 N



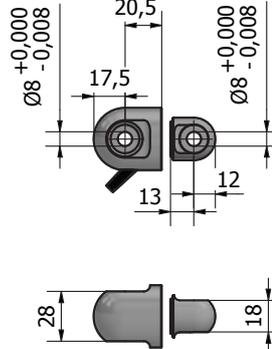
Stainless steel

Max. static load 5400 N



Stainless steel with clevis

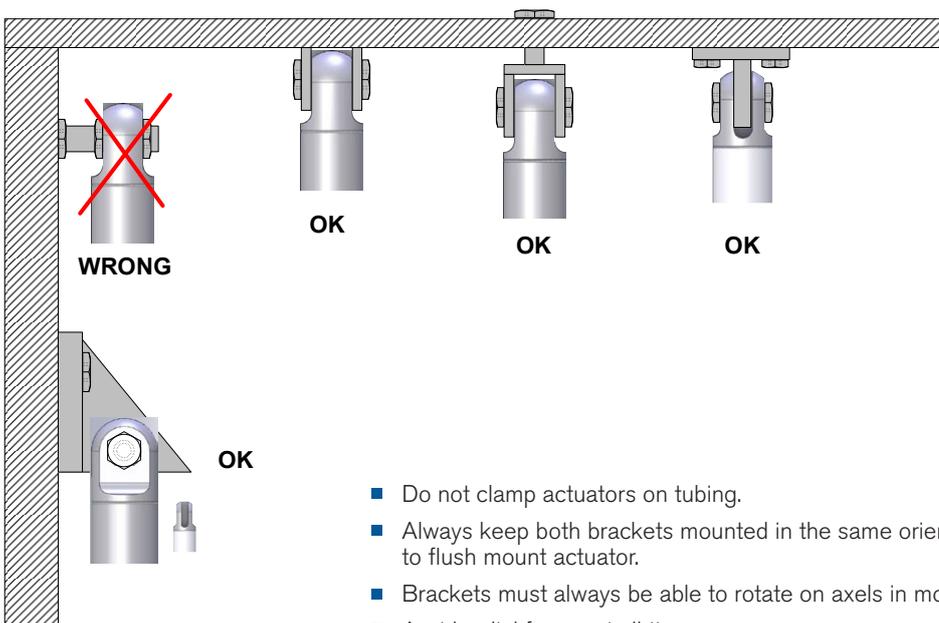
Max. static load 5400 N



Alu with spherical bearings

Max. static load 5400 N

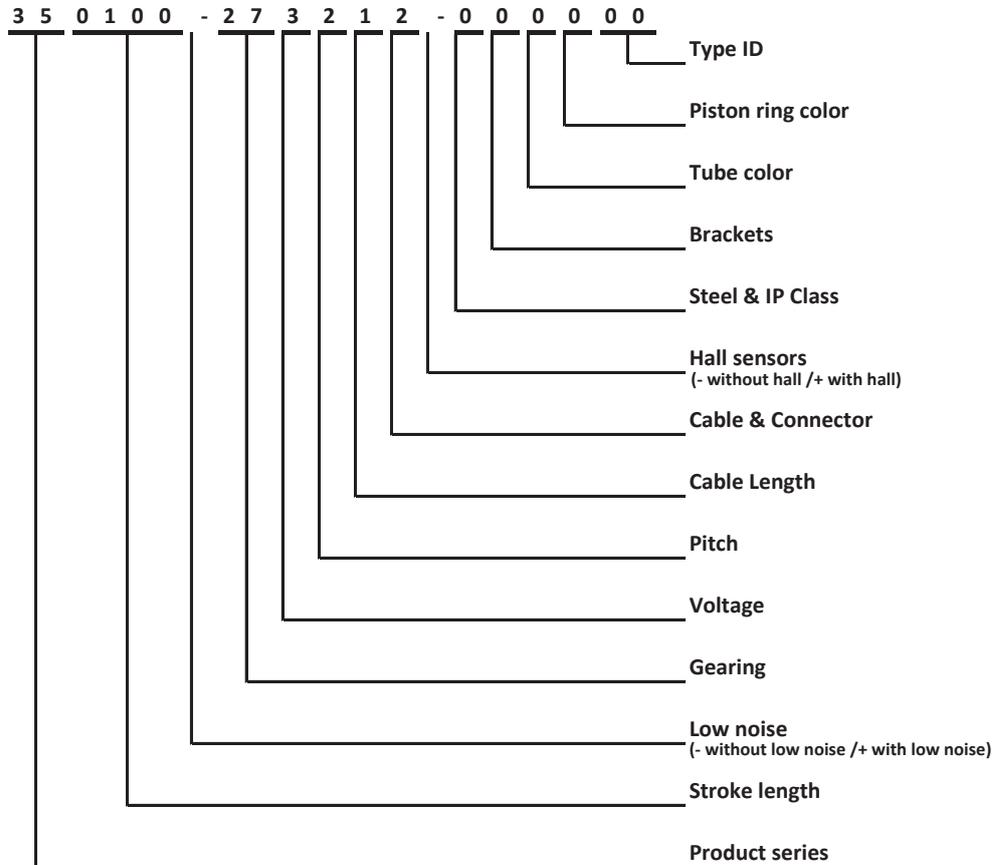
Recommended Mounting Methods



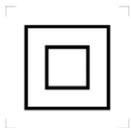
- Do not clamp actuators on tubing.
- Always keep both brackets mounted in the same orientation and ensure to flush mount actuator.
- Brackets must always be able to rotate on axels in mountings.
- Avoid radial forces at all times.

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Con35 Item Number Combination



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IEC 60417-5172
Class II equipment



ISO 7010-M002
Refer to instruction
manual/booklet

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 = 1 atm.
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 Concents.
- 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

- Concents 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, Concents cannot be held responsible for any errors in the documentation. Specifications are subject to change without prior notice.