

## con35

Linear In-line Actuator

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### 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 mm<sup>2</sup> (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)

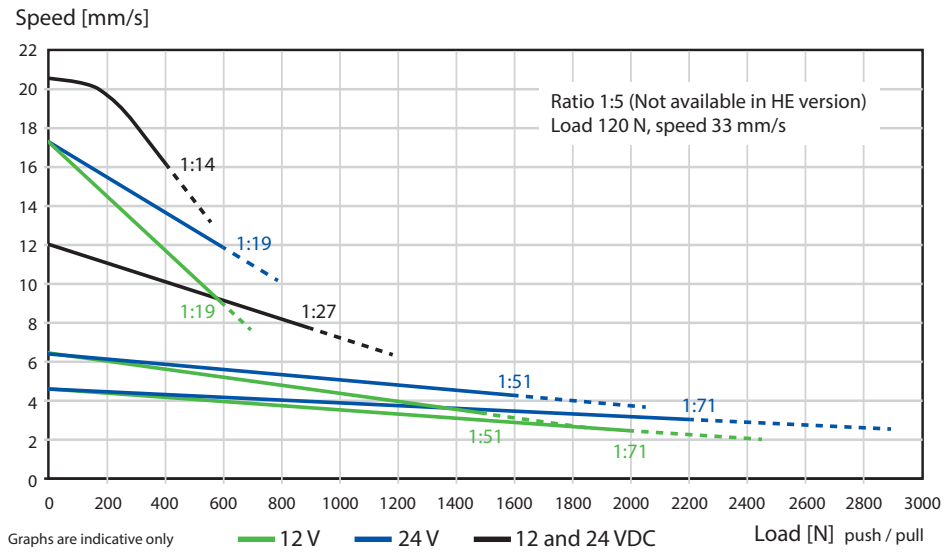
### On Request

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

**Contact Concents for any special requirements**

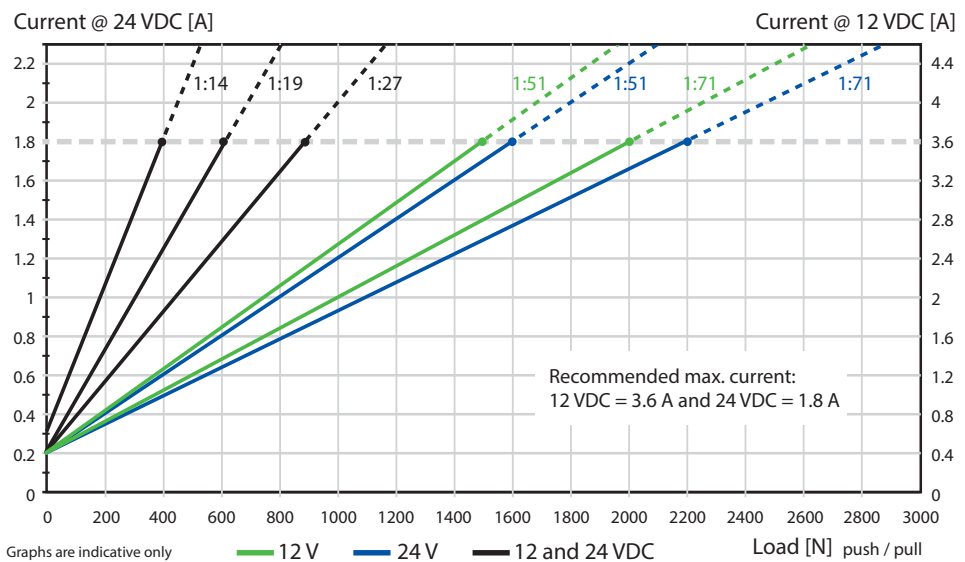
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### Speed/Force



### Force/Current

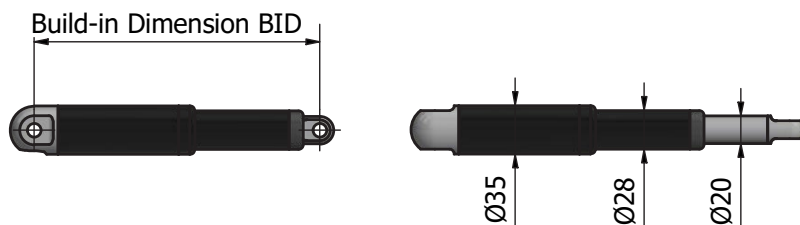
Use in the dashed area is not recommended. Please contact Concents for further information.



### Dimensions

Axial backlash:  
+/- 0.5 mm

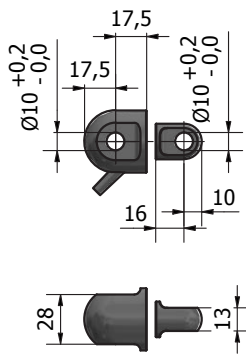
General dimensional variation:  
+/- 1 mm



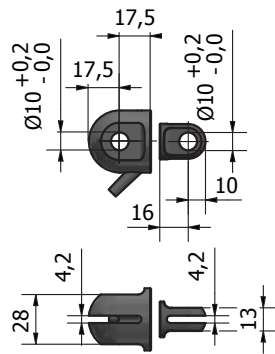
Build-in Dimension 'BID'					
Gear Ratio	Standard	Clevis Rear	Hall	IEC/ANSI/AAMI/ES/CAN/CSA-22.2 No 60601-1	Harsh Environment
5, 14, 19, 27 51, 71	160 mm + stroke 170 mm + stroke	+ 10 mm + 10 mm	+ 10 mm + 10 mm	+ 10 mm + 10 mm	+ 11 mm + 11 mm
Stroke lengths > 400 mm: + 7 mm Stroke lengths > 700 mm: +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

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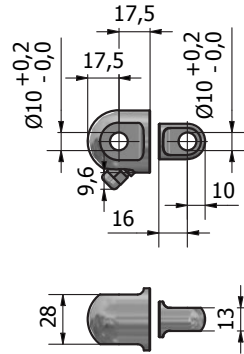
Standard Brackets



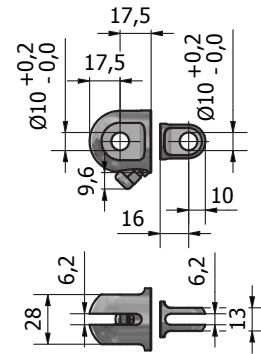
**Polyamide (PA)**  
Max. static load 2000 N  
Max. load 900 N  
(gear ratio 1:27)



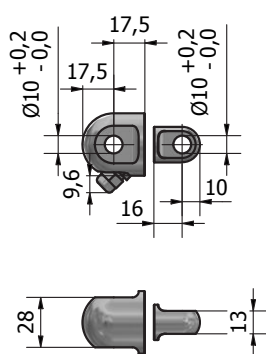
**PA with clevis**  
Max. static load 2000 N  
Max. load 900 N  
(gear ratio 1:27)



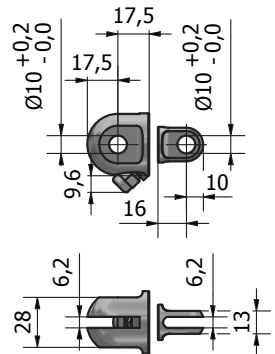
**Alu**  
Max. static load 5400 N



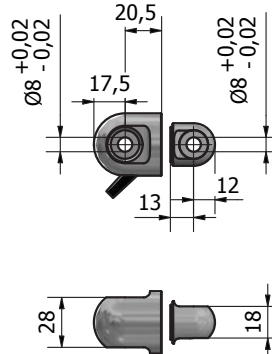
**Alu with clevis**  
Max. load 5400 N



**Stainless steel**  
Max. static load 5400 N

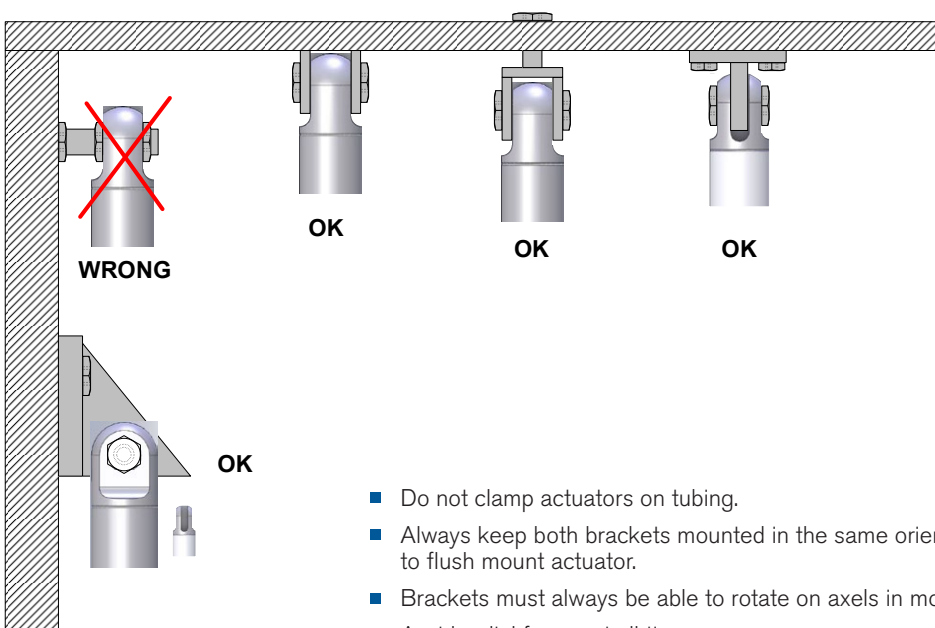


**Stainless steel with clevis**  
Max. static load 5400 N



**Alu with spherical bearings**  
Max. static load 5400 N

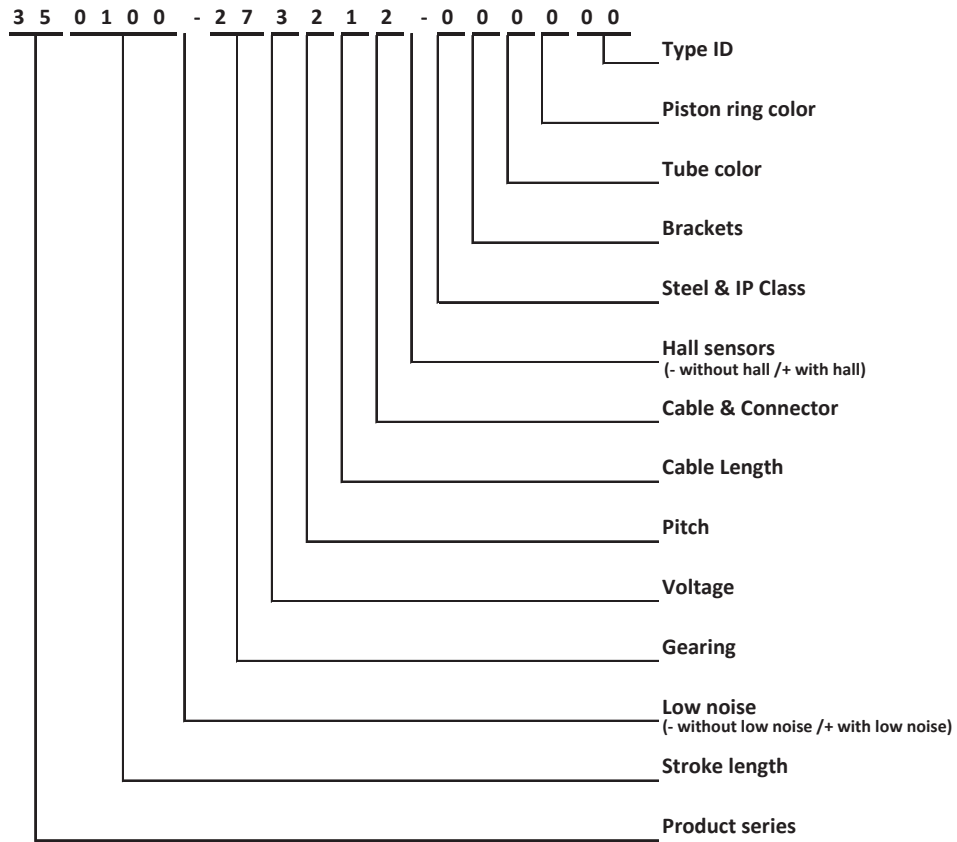
Recommended Mounting Methods



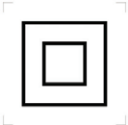
- Do not clamp actuators on tubing.
- Always keep both brackets mounted in the same orientation and ensure to flush mount actuator.
- Brackets must always be able to rotate on axels in mountings.
- Avoid radial forces at all times.

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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. Concents products must not be used in safety critical applications.
- 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.

For more information, please visit our website at [www.concents.com](http://www.concents.com)

