

# Electric actuator VID12A

## Advantages:

- Stainless lift rod
- Lifting tube made of aluminum
- High degree of protection and performance
- Self-locking trapezoidal screw

## Options:

- Potentiometer
- Adjustable limit switches
- External Reed switches
- Manual emergency operation

## Typical areas of application:

- Industrial and construction engineering
- Vehicle and boat construction
- Forestry and agricultural technology
- Antenna and solar technology

## Key figures:

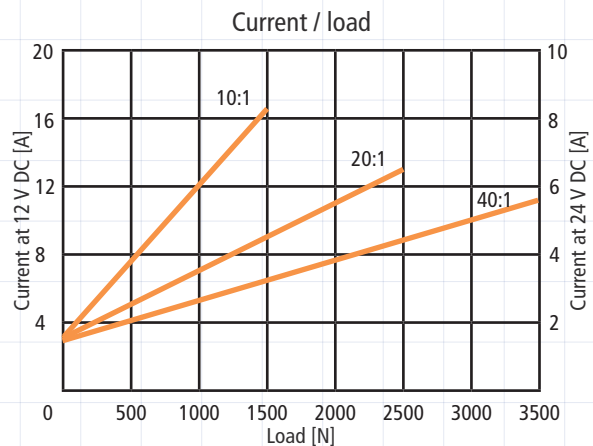
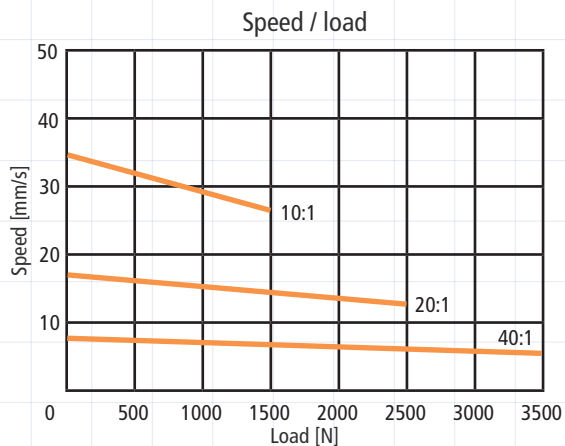
- DC motor with 12, 24 or 48 V DC
- Up to 3500 N (dynamic)
- Up to 33.5 mm/sec
- Protection class IP66, IP69K
- Ambient temperature -25 °C to +65 °C
- Duty cycle 25 %
- Overload clutch



## Drive data:

Ratio	Max. compression force dynamic [N]	Max. pulling force dynamic [N]	Speed,		Possible stroke lengths [mm]	12 V DC		24 V DC	
			no load [mm/s]	full load [mm/s]		Max. current no load [A]	Max. current full load [A]	Max. current no load [A]	Max. current full load [A]
10:1	1500	1500	33.5	26.7	102-610	2.6	17.6	1.6	8.8
20:1	2500	2500	16.8	14.3	102-610	2.6	13.2	1.6	6.6
40:1	3500	3500	8.4	7.4	102-610	2.6	11.0	1.6	5.5

## Load diagrams:

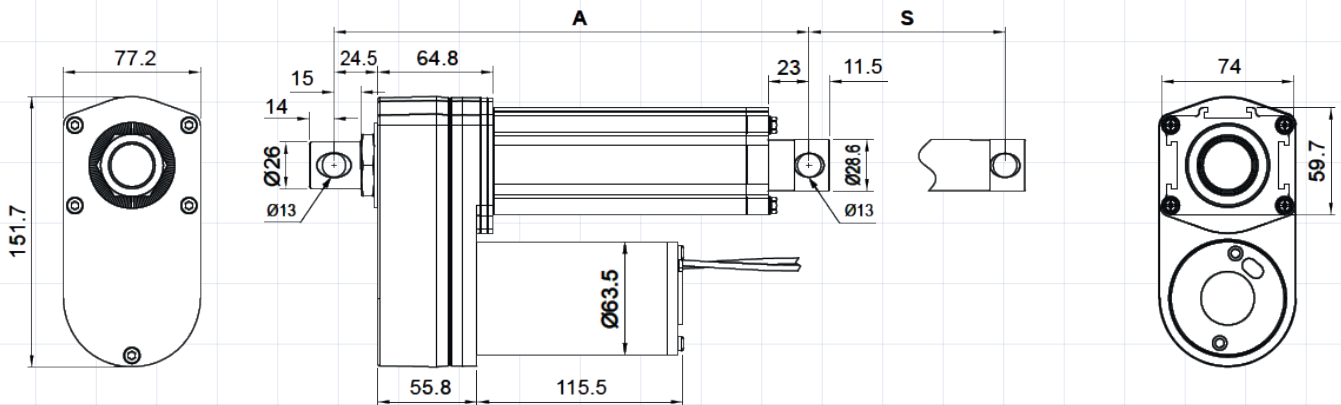


## Type code:

VID12A - 24 - 20 - A - 100 - ES.MH... - C1

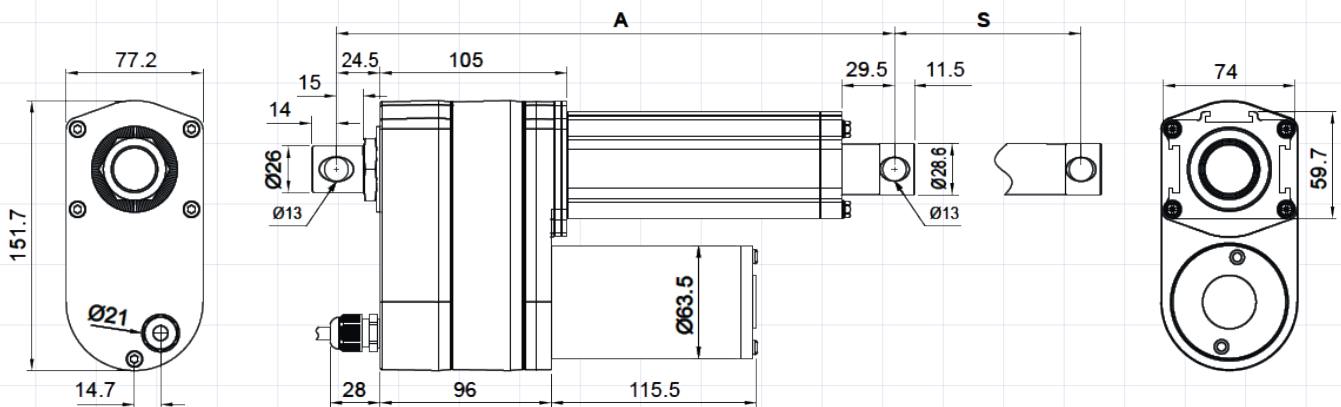
Type	Voltage	Ratio	Trapezoidal screw	Stroke length	Options	Connection angle
	12 - 12 V DC	10 - 10:1		100 - 102 mm	<b>POT:</b> Potentiometer	<b>Blank:</b> 0° (Standard)
	24 - 24 V DC	20 - 20:1		150 - 153 mm	<b>HS:</b> Hall sensor x 1	<b>C1:</b> 30° CCW
	48 - 48 V DC	40 - 40:1		200 - 203 mm	<b>LT:</b> Limit switches	<b>C2:</b> 60° CCW
				300 - 305 mm	<b>ER1:</b> 1 external, adjustable Reed switch	<b>C3:</b> 90° CCW
				450 - 457 mm	<b>ER2:</b> 2 external, adjustable Reed switches	<b>C4:</b> 30° CW
				600 - 610 mm		<b>C5:</b> 60° CW (s. page 4)

## Dimensions (standard):



Stroke length (+/- 2.5 mm)	102 mm	153 mm	203 mm	305 mm	457 mm	610 mm
Installation length A (+/- 3.8 mm)	266 mm	316 mm	366 mm	466 mm	666 mm	816 mm

## Dimensions (with limit switches or potentiometer):



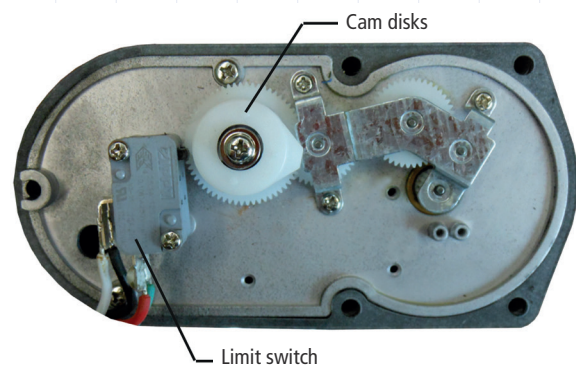
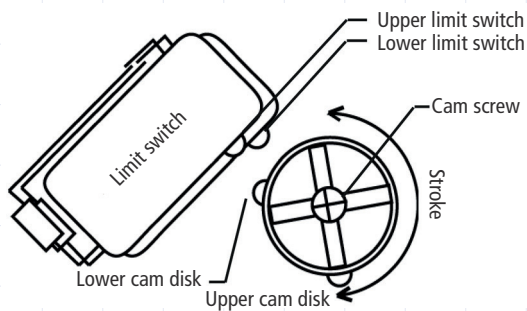
Stroke length (+/- 2.5 mm)	102 mm	153 mm	203 mm	305 mm	457 mm	610 mm
Installation length A (+/- 3.8 mm) Pot	306 mm	356 mm	406 mm	506 mm	706 mm	856 mm
Installation length A (+/- 3.8 mm) ES	362 mm	412 mm	462 mm	612 mm	762 mm	912 mm

## Setting the limit switches:

The extended end position is set via the upper cam disk, the retracted end position via the lower cam disk. If necessary, the end positions can be adjusted according to the following points.

To prevent damage to the plastic gear unit, the cam disks must be held in place while loosening or tightening the cam screw.

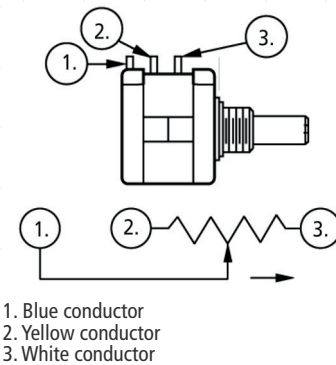
1. If the electric cylinder is attached, loosen the connections. Open the gearbox cover by loosening the 5 hexagon socket screws.
2. Make sure that the lifting tube does not rotate during motorized adjustment. Retract the electric cylinder electrically until the lower cam disk triggers the limit switch and the motor switches off. Turn the lifting rod manually to the desired retracted position.
3. Make sure that the lifting tube does not rotate during motorized adjustment. Extend the cylinder electrically until the desired position is reached. Adjust the upper cam disk until it triggers the limit switch.



## Potentiometer:

The resistance of the tapping of the potentiometer changes as a function of the stroke length and the actuating position of the electric cylinder according to the table below:

Resistance between blue and white conductor	
Stroke [mm]	Resistance (kΩ)
102	0.3 - 8.1
153	0.3 - 8.7
203	0.3 - 9.2
305	0.3 - 8.8
457	0.3 - 9.4
610	0.3 - 9.8
<b>Tolerance: ± 0.3 (kΩ)</b>	



## One Hall sensor:

Resolution: 20ppi, 1.27 mm/pulse (0.787 pulses/mm)



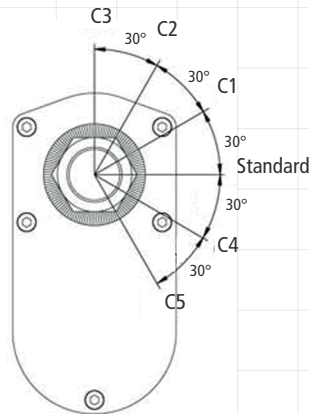
Signal		
White	Yellow	Blue
VCC	Data	GND

## Attachment:

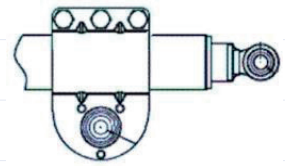
The lower fixing eye is fixed at an angle of 90° as standard.

It is possible to choose other angles (see left graphic) when ordering. Then add the corresponding designation C1 to C5 to the type code.

Furthermore, it is possible to order mounting clamps for pipe installation.



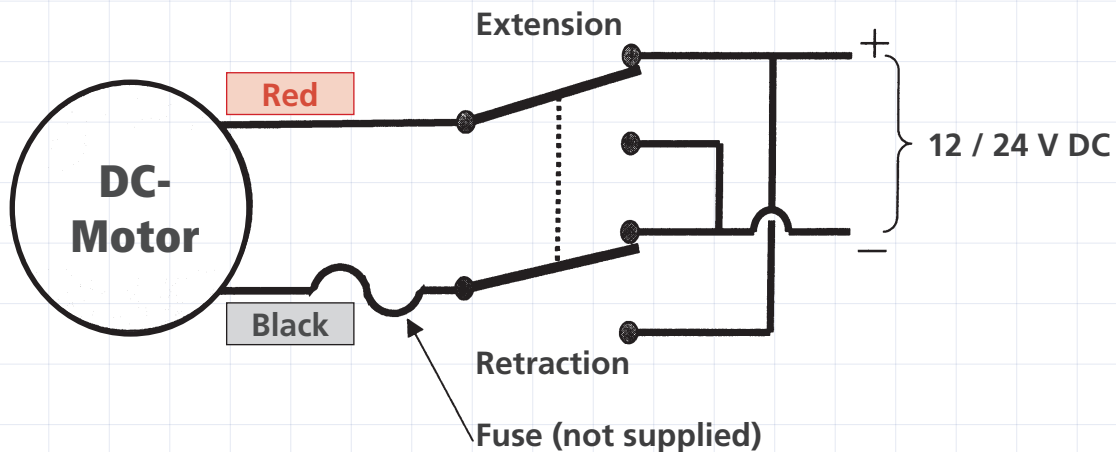
Attachment with mounting clamp:



## Installation note:

The piston rod extends or retracts according to the pin assignment. If limit switches are integrated in the cylinder, the motor stops automatically in the respective end position.

If no limit switches are integrated, it must be ensured that the motor is switched off before reaching the respective mechanical end position. The motor must be protected against overcurrent by a fuse.



The load should always be centered in the direction of movement. Lateral forces should be avoided. They always shorten the service life and in extreme cases can interfere with the function or even destroy the device.

Ensure that the permissible load is not exceeded.

