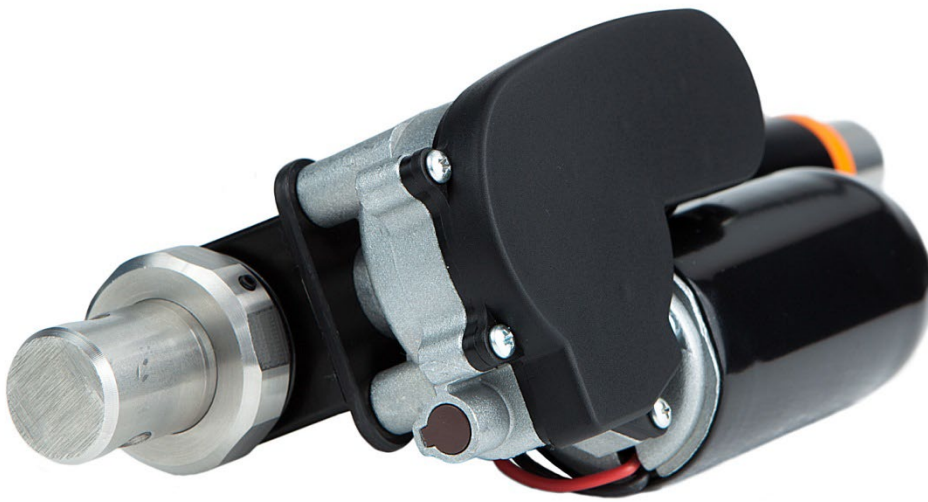


Multi Turn Potentiometer



For an absolute feedback function, the actuator will be equipped with a multi turn precision potentiometer. In order to cope with the wide range of different stroke and pitch a gearbox is connected between the actuator motor output shaft and potentiometer shaft, the gear ratio is adapted to current stroke and pitch in order to have optimal feedback resolution for the application.

Technical specification

Configurations

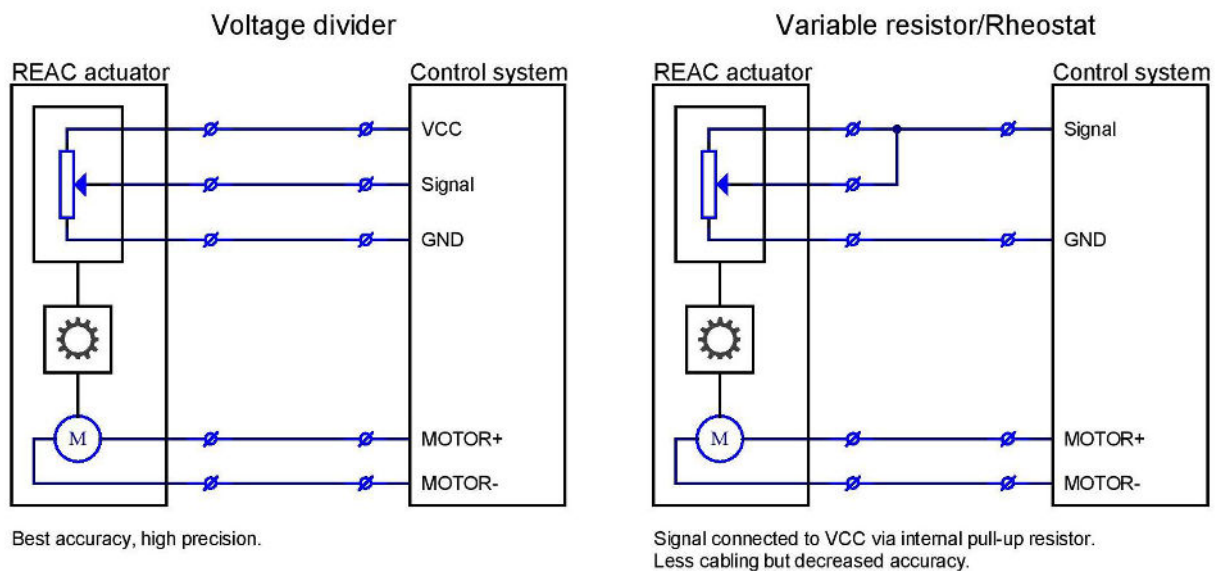
Available for RE25 and RE35

Potentiometer Electrical characteristics

Resistance	10kohm (or value upon customer request)
Total resistance tolerance	+/- 5 %
Independent linearity	+/- 0,25 %
Power rating	2 watts (at max +70dgr C)

Principle

Potentiometer multi-turn



Connection

Cable	Unshielded 6 wire; 2x0,75mm ² + 4x0,22mm ² (or other specs on customer request)
Contact	None. (or specs on customer request)

Motor encapsulation with potentiometer option.

RE25	Rubber sleeve
RE35	Plastic cover

Multi Turn Potentiometer

Resolution

Due to mechanical limitations of the gear ratio the resolution will change according to below diagram for REAC actuator standard strokes and pitch. Resolution = % of total resistance range in relation to actuator stroke.

Feedback resolution for RE25

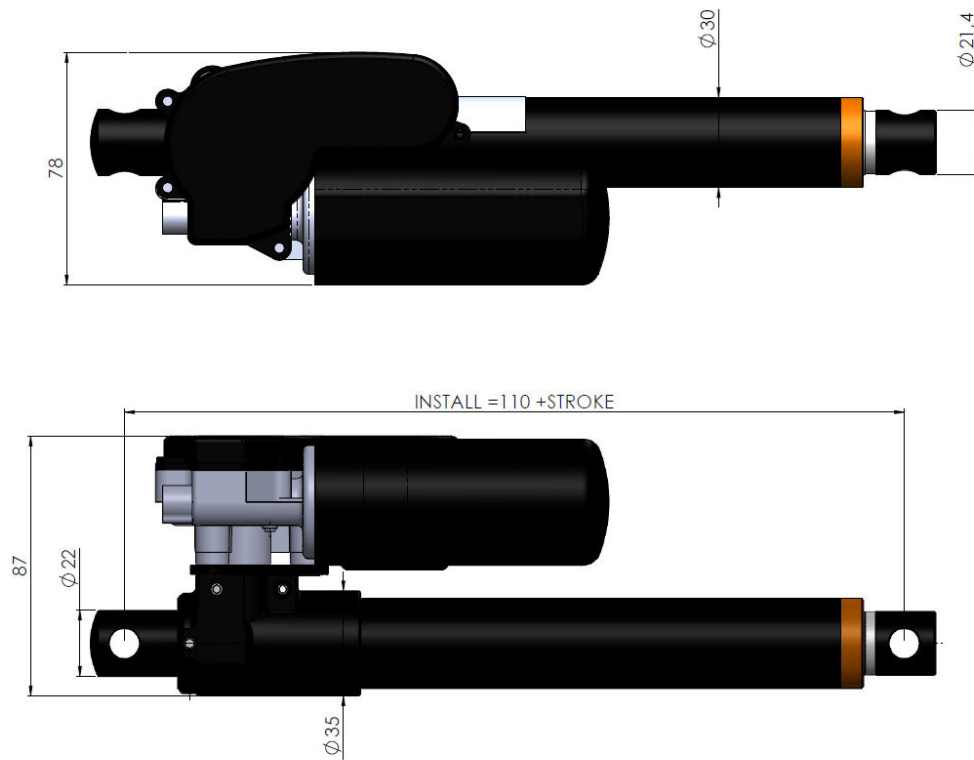
Stroke [mm]	Pitch 3mm	Pitch 4mm	Pitch 6mm	Pitch 9mm
50	66,0%	100,0%	66,0%	50,0%
100	66,0%	100,0%	66,0%	100,0%
150	100,0%	75,0%	100,0%	75,0%
200	66,0%	100,0%	66,0%	100,0%
250	83,3%	62,5%	83,3%	62,5%
300	100,0%	75,0%	100,0%	75,0%

Feedback resolution for RE35

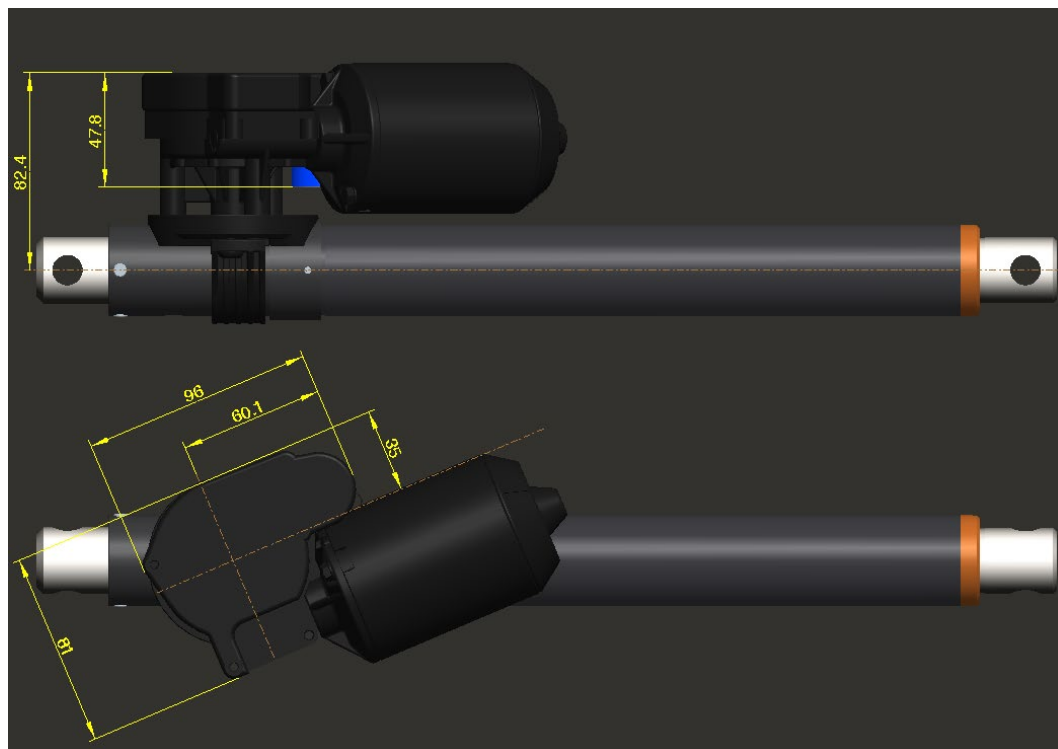
Stroke [mm]	Pitch 3mm	Pitch 4mm	Pitch 6mm	Pitch 9mm
50	63,4%	95,2%	63,4%	42,3%
100	76,0%	95,2%	63,4%	84,6%
150	98,6%	100,0%	95,2%	63,4%
200	88,9%	98,7%	97,8%	84,6%
250	81,4%	95,8%	94,6%	93,0%
300	97,7%	100,0%	98,7%	97,8%

Dimensions

Overall dimensions for RE25 with potentiometer



Overall dimensions for RE35 with potentiometer



Multi Turn Potentiometer

Note. Potentiometer option is available for REAC actuators RE25 and RE35 outside standard stroke and pitch, please contact REAC for consultation.

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