

Servo actuator RPM+ – the actuator option for the system

The expansion with the integrated motor gearbox unit of WITTENSTEIN motion control sets new standards.

RP+ as servo actuator RPM+

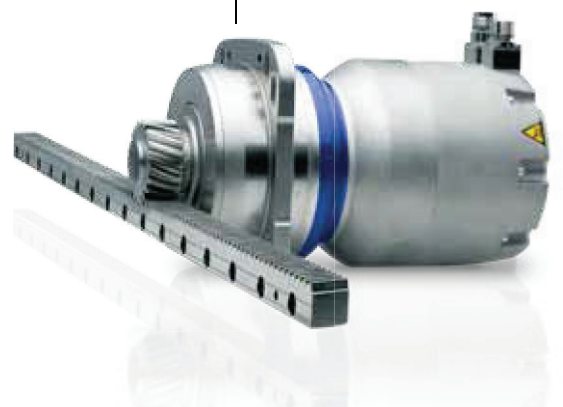
The RPM+ actuator is extremely dynamic, extremely compact and perfectly adapted to linear applications with a pinion and rack. It combines superior power density and a functional design in one unit – leading to effective length savings and a more compact design than ever! The integrated motor guarantees extra performance while the unique architecture of the permanently excited synchronous motor results in unprecedented power density.

High Performance Linear System with servo actuator RPM+

The RPM+ actuator helps you maximize the synergy effects for your High Performance Linear System. The integrated motor gives you twice the power in a smaller space envelope. The four optimally interacting components provide maximum dynamics, compactness and precision.



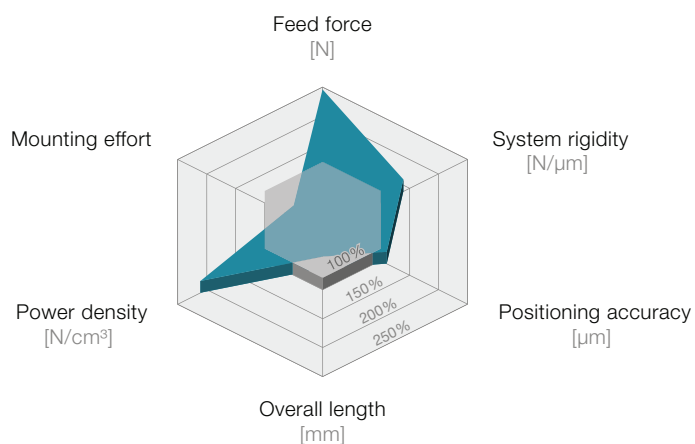
High Performance Linear System
with servo actuator RPM+



Comparison of rack and pinion systems industry standard and High Performance Linear System with servo actuator RPM+

The new system delivers substantial **benefits** compared to the industry standard:

- 150% more feeding forces
- 100% higher power density
- 50% higher system rigidity
- 50% lower mounting effort
- 15% more accurate positioning
- 40% less mounting space required**



Technical data: High Performance Linear System with servo actuator RPM+

Size High Performance Linear System			4.3	4	5.4	5	6	8
Size RPM+ ^{a)}			040	040	050	050	060	080
Module rack & pinion	m_N	mm	3	4	4	5	6	8
Number of teeth output pinion	z		20	20	24	23	23	21
Torsional backlash	j_t	arcmin	≤ 3	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
Max. feed force up to	F_{2T}	N	19000	22000	35000	47200	75100	112400
Max. speed up to ^{b)}	V_{max}	m/min	200	83	90	108	73	89
Ratio	i		4 - 10	16 - 220	16 - 220	16 - 220	22 - 220	22 - 220
Overall length ^{c)}	L	mm	354	354	474	484	614	629
Max. motor power up to	P_{max}	W	44,4	18,4	44,4	44,4	120,1	183,5
Motor options			Water cooling, holding brake, EnDat and Hiperface multi-turn encoder					

Dimensions of the output stage are shown on page 14-15.
Dimension sheets on request.

^{a)} No series production, customized projects, please contact us

^{b)} Calculation with smallest ratio and max. input speed

^{c)} Length depends on ratio, dimensions without connectors/screws,
incl. pinion, motor with resolver without break