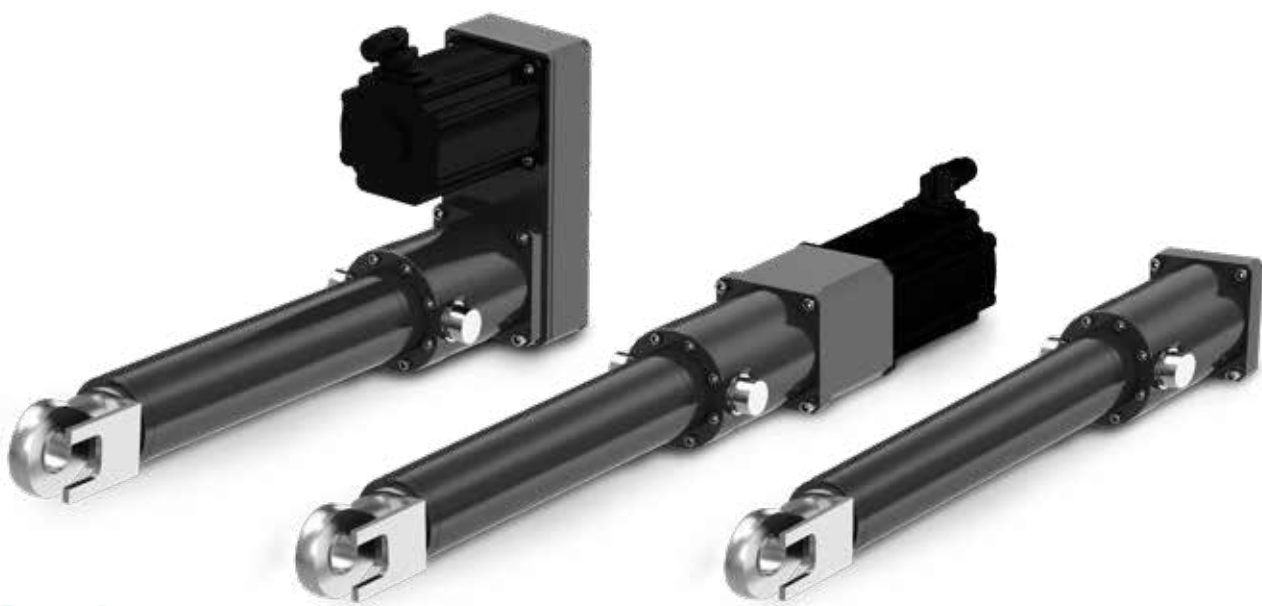


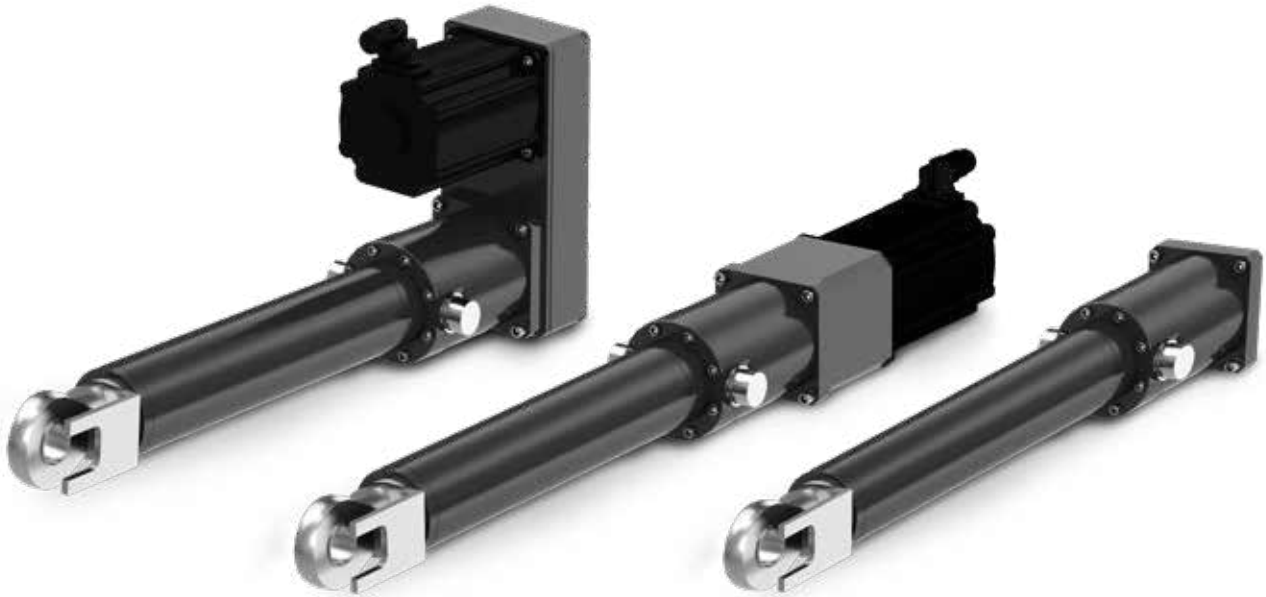
EWELLIX

MAKERS IN MOTION

Electric cylinder SRSA and SVSA



Electric cylinders SRSA and SVSA



Features

- High performance roller screw
- Steel push tube and protection tube
- Modular concept
- Anti-rotation with profile rail guide
- Possibility to re-lubricate the roller screw nut with direct access
- Optional low lead roller screw or high-lead ball screw available.
- Brushless servo motors and customized motor adapters

Benefits

- High load with long life capacity as well as high acceleration and speed capabilities
- High stiffness and robustness
- Multiple combinations to fit a wide range of applications
- Extreme push tube torque resistance
- Low maintenance requirements
- Optimal solution for a wide range of applications where high load, high positioning accuracy or high speed is needed.

Product description

Electric cylinders SRSA are a straight forward combination of Ewellix's high quality planetary roller screws, SKF's angular contact ball bearings that will hold load and servomotors so they can perform highly efficient linear movements with full controllability. The SRSA housing is made of steel for high stiffness and robustness. The wide range consists of cylinders with screw sizes from 39 mm up to 75 mm. This enables the use of electric SRSA cylinders in applications with peak forces up to 500 kN, where – in the past – only hydraulic cylinders were an option.

For long strokes, the free end of the screw shaft is supported and guided inside the push-tube to prevent any vibration.

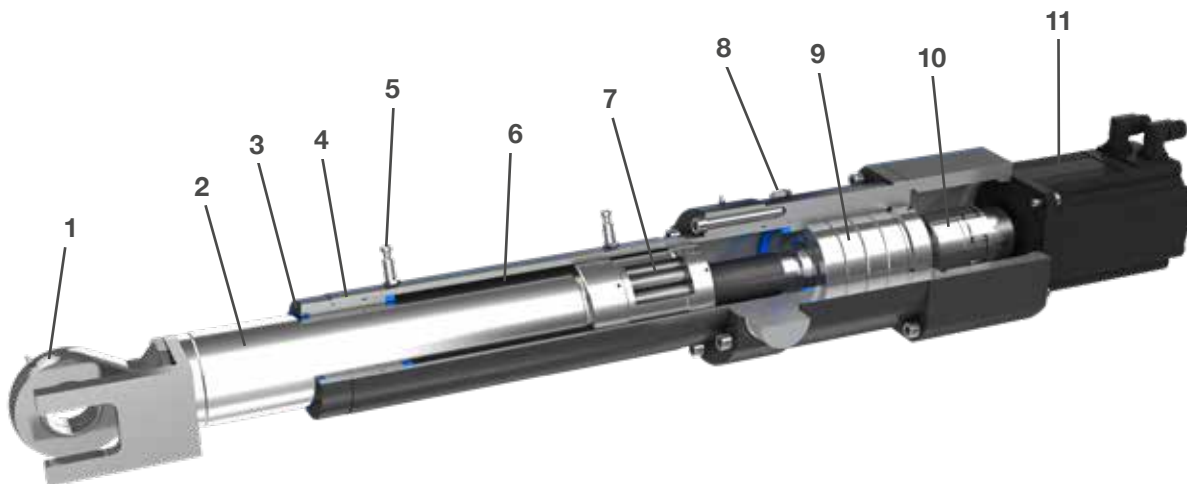
The optional anti-rotation device is made of profile rail guides. This pre-loaded design provides very high torsional stiffness and durability.

Two internal bumpers secure the mechanism during the adjustment phase, protecting the screw nut from damage due to impact with the mechanical end stops.

For very high positioning accuracy, Ewellix offers the slow moving SVSA range with high precision recirculating roller-screws. Thanks to the very short screw lead of 1 mm only, it is easier to control the actuator while doing fine positioning adjustments.

To cover the high speed applications as well, Ewellix equipped the SLSA versions with high lead ball screws. Those cylinders provide fast acceleration and speeds up to 1,5 m/s thanks to the long screw lead of up to 40 mm (see customization solutions).

The full range of SRSA and SVSA is available in inline configurations as well as in parallel configurations to fit most applications.



1. Rod end
2. Steel push tube
3. Scraper seal to protect against contaminants
4. Guiding bushing
5. Home and limit switches
6. Steel protection tube
7. High quality Ewellix planetary roller screw for highest axial loads with low play and high efficiency
8. Sinter filter for high airflow
9. High quality SKF angular contact ball bearings
10. Coupling
11. Servomotor

Motors and gearboxes

Servo motors

The SRSA can be ordered with a servo motor. In this case, Ewellix has selected a series of Lenze motors and drives that best matches the performance of the actuator to the end-user application. To complete the design, several options can be selected such as absolute encoder (EnDat, Hyperface), safety brake or associated servodrive. It is also possible to equip the SRSA with your preferred brand of servo motor so that it integrates best into your system. Please contact Ewellix to check the feasibility of your configuration. For more information, please visit the following sites:

Motors:

<http://www.lenze.com/en-us/products/motors/>

Drives:

<http://www.lenze.com/en-us/products/inverters/>

Drive options

The performance attributes shown in the table on the previous page are the result of specific Lenze servo motor and drive combinations. The SRSA can be offered with or without the servodrive. The servodrive can be in the recommended configuration or any other configuration that fits your installation.

In the case of a different combination, please contact Ewellix to determine what effect the different configuration will have on the performance of the actuator.

Performance overview of linear units

Linear unit	F_{max}	F_{max0}	V_{max}
SRSA-U-3905	150	150	342
SRSA-U-3910	150	150	683
SRSA-U-3915	150	150	1 025
SRSA-U-4805	260	260	278
SRSA-U-4810	260	260	556
SRSA-U-4815	260	260	833
SRSA-U-4820	260	260	1 111
SRSA-U-6010	370	370	444
SRSA-U-6015	370	370	667
SRSA-U-6020	370	370	889
SRSA-U-7510	500	500	356
SRSA-U-7515	500	500	533
SRSA-U-7520	500	500	711
SVSA-U-3201	60	60	10,4
SVSA-U-4001	80	80	8,3
SVSA-U-5001	175	175	6,7

Performance overview of actuators with servomotors

Linear unit	Interface and gear ratio	Motor	F _c kN	F _{co} kN	F _p kN	F _{pd} kN	V _{max} mm/s
SRSA3905	L10/ P10	LC9	16,2	25,8 / 25	29,2	47,2 / 45,7	269
SRSA3905	L30/ P30	LA6	30,1	41,1 / 39,9	63,3	88,5 / 85,8	113
SRSA3905	L40/ P40	LA6	40,2	54,8 / 53,1	84,4	118 / 114,4	84
SRSA3910	L30/ P30	LC1	20,3	29,8 / 28,9	29,8	62,4 / 60,6	179
SRSA3910	L50/ P50	LC1	33,9	49,6 / 48,1	47,9	104,1 / 100,9	108
SRSA3910	L70/ P70	LC1	47,4	69,5 / 67,4	67,1	145,7 / 141,3	77
SRSA3915	L10/ P10	LB6	7,1	12 / 11,7	9,1	20,1 / 19,5	806
SRSA3915	L30/ P30	LD3	32,3	42,6 / 41,3	38,2	68,7 / 66,7	219
SRSA3915	L50/ P50	LD3	53,8	71 / 68,9	63,6	114,6 / 111,1	131
SRSA4805	L10/ P10	LD3	30,3	40 / 38,8	35,8	64,5 / 62,6	219
SRSA4805	L30/ P30	LD1	54,8	61,2 / 59,4	63,4	117,6 / 114,1	77
SRSA4805	L40/ P40	LD1	73,1	81,6 / 79,2	84,5	156,8 / 152,1	58
SRSA4810	L30/ P30	LD2	36,6	49,5 / 48	48,4	87 / 84,4	167
SRSA4810	L40/ P40	LD2	48,8	66 / 64,1	64,5	116 / 112,5	125
SRSA4810	L50/ P50	LD2	61	82,5 / 80,1	80,6	145 / 140,6	100
SRSA4815	L10/ P10	LD6	17,8	28,9 / 28,1	29,3	51,8 / 50,3	713
SRSA4815	L50/ P50	LD5	47,3	83,2 / 80,7	100,4	137,8 / 133,6	150
SRSA4815	L70/ P70	LD5	66,3	116,5 / 113	140,5	192,9 / 187,1	107
SRSA4820	L10/ P10	LD6	13,4	21,7 / 21,1	20,2	38,9 / 37,7	950
SRSA4820	L50/ P50	LD7	39,2	78,3 / 76	83,8	185,4 / 179,9	200
SRSA4820	L70/ P70	LD7	54,8	109,7 / 106,4	117,4	259,6 / 251,8	143
SRSA6010	L30/ P30	LD2	36,2	49 / 47,5	47,8	86 / 83,4	167
SRSA6010	L40/ P40	LD5	54,9	96,5 / 93,6	116,4	159,8 / 155	125
SRSA6010	L50/ P50	LD5	68,6	120,6 / 117	145,5	199,7 / 193,7	100
SRSA6015	L30/ P30	LD6	51,3	83,3 / 80,8	84,2	149,2 / 144,7	238
SRSA6015	L50/ P50	LD7	51,6	103,3 / 100,2	110,5	244,4 / 237,1	150
SRSA6015	L70/ P70	LD7	72,3	144,6 / 140,2	154,7	342,2 / 331,9	107
SRSA6020	L10/ P10	LD6	13,4	21,7 / 21,1	22	38,9 / 37,7	889
SRSA6020	L70/ P70	LD7	54,8	109,7 / 106,4	117,4	259,6 / 251,8	143
SRSA6020	L100/ P100	LD7	78,3	156,7 / 152	167,7	370,8 / 359,7	100
SRSA7510	L30/ P30	LD7	44,4	88,7 / 86,1	94,9	210 / 203,7	167
SRSA7510	L50/ P50	LD7	73,9	147,9 / 143,4	158,2	350 / 339,5	100
SRSA7510	L70/ P70	LD7	103,5	207 / 200,8	221,5	490 / 475,3	71
SRSA7515	L30/ P30	LD6	50,7	82,3 / 79,8	83,3	147,5 / 143,1	238
SRSA7515	L50/ P50	LD6	84,5	137,2 / 133,1	138,8	245,8 / 238,4	143
SRSA7515	L70/ P70	LD6	118,4	192,1 / 186,3	194,3	344,1 / 333,8	102
SRSA7520	L10/ P10	LD6	13,2	21,5 / 20,8	21,7	38,4 / 37,3	711
SRSA7520	L70/ P70	LD6	89,8	145,7 / 141,3	147,4	261,1 / 253,2	136
SRSA7520	L100/ P100	LD6	128,3	208,1 / 201,9	210,6	373 / 361,8	95
SVSA3201	L10/ P10	LC7	10,2	13,8 / 13,4	18,7	42,8 / 41,5	10
SVSA3201	L10/ P10	LD9	14,8	24,7 / 23,9	38,8	57,8 / 56,1	10
SVSA4001	L10/ P10	LA1	16,5	19,2 / 18,7	18,3	54,1 / 52,5	8
SVSA4001	L10/ P10	LA3	30,1	34,3 / 33,2	43,6	79,1 / 79,1	8
SVSA5001	L10/ P10	LA5	36	40 / 38,8	45,3	93 / 90,2	7
SVSA5001	L10/ P10	LE3	61,3	74,6 / 72,4	79,2	174,2 / 169,6	7

Standard motor types

Motor	Lenze servo motor	Lenze 9400 Highline servoamplifier
LA1	MCS12D20	E94ASHE0044
LA3	MCS12H15	E94ASHE0074
LA4	MCS12H35	E94ASHE0134
LA5	MCS12L20	E94ASHE0074
LA6	MCS12L41	E94ASHE0134
LB6	MCS14P32	E94ASHE0244
LC1	MCS14H32	E94ASHE0174
LC7	MCS09F38	E94ASHE0044
LC9	MCS14L32	E94ASHE0244
LD1	MCS14H28	E94ASHE0174
LD2	MCS14L30	E94ASHE0324
LD3	MCS14P26	E94ASHE0324
LD5	MCS19J30	E94ASHE0324
LD6	MCS19P29	E94ASHE0474
LD7	MCS19P30	E94ASHE0474
LD9	MCS09L41	E94ASHE0074
LE3	MCS14L15	E94ASHE0134