




# Linear actuator "Junior"

**Our smallest model  
with a great  
performance**



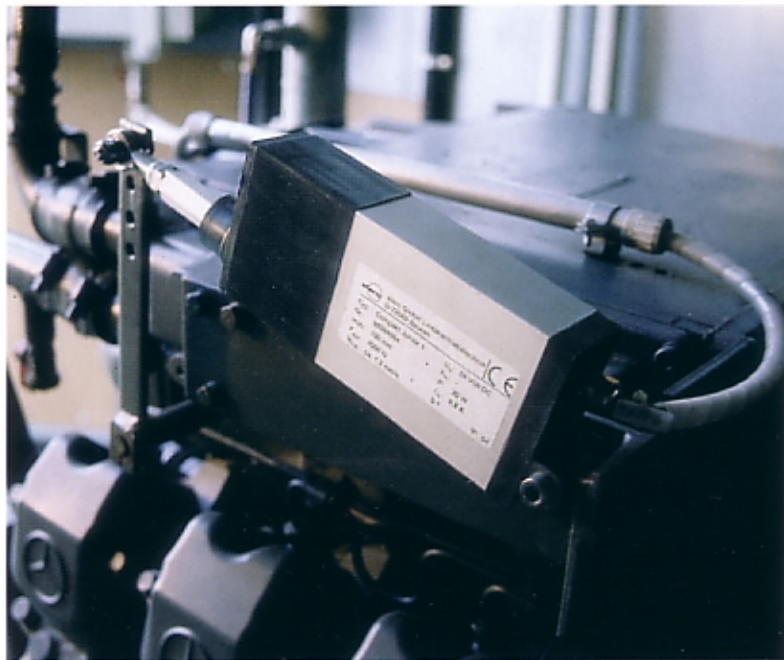
 elero GmbH Linearantriebstechnik  
D-72650 Beuren  
Junior 1  
Typ: \_\_\_\_\_  
Nr.: \_\_\_\_\_  
Hub: \_\_\_\_\_  
Fabr.: ca  
Uv: \_\_\_\_\_  
In: \_\_\_\_\_  
P: \_\_\_\_\_  
C: \_\_\_\_\_  
IP- 54

# Linear actuators "Junior"

## Technical data · Applications · Options

The linear actuators of the "Junior" series are versatile push-rod actuators used mainly for

- diesel engine gas adjustment
- metering equipment
- points switching
- tilting fixtures
- operation of shutters
- valve and slider operation
- and many other applications.



### The facts

	Junior 1	Junior 1/S	Junior 2
Load (N)	10-2000	50-4000	100-10000
Stroke speed (mm/s)	1.3-70	0.9-57	1.2-85
Standard stroke length (mm)	100	100	150 (stroke length extension at 50 mm intervals)
Operating voltage	24 V/DC		
Temperature range (°C)	-10 to +50		
Protection class	IP 54		
Double scraper ring	at piston outlet		
Piston rod	torsion-lock		
Cable length (m)	1.5		

### Options

- Potentiometer for output of a stroke-dependent resistance value
- Encoder
- Adjustable articulated lug
- Rotatable articulated lug
- Spring-action articulated lug in pressure direction
- DIN 71752 clevis end
- DIN 648 joint rod head
- Operating voltage 12 V DC or 48 V DC

#### Junior 2 only

- Brake (not in combination with potentiometer or encoder)

Other mounting types, stroke lengths, stroke speeds, special voltages, circuit variants, cable types as well as additional equipment (protective sleeve, recirculating ball spindle, plug connections, etc.) on request.



# "Our smallest models"

## Load (N) and stroke speeds (mm/s)

### elero Junior 1

**Note:**

All technical data are average values and are based on an ambient temperature of 20 °C.

Stroke speeds of direct current motors are load- and temperature-dependent. Exact characteristic curves (stroke speed - load) on request.

Version	Rating: S3 40%			Rating: S3 60%			Rating: S 1			Additional planetary gear stage	Max. stroke length
	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A		
A	50	55	1.2								200
B	70	30	1.2								100
C	300	15	1.2	250	17	1.1	150	20	0.8		200
D	450	8	1.2	400	9	1.1	250	10	0.8		100
E	500	10	1.2	400	13	1.1	300	15	0.8		200
F	800	5	1.2	700	6	1.1	400	7.5	0.8		100
G	1100	4	1.2	1000	4.5	1.1	700	5.5	0.8	x	200
H	1600	2	1.2	1400	2.5	1.1	1000	2.7	0.8	x	100
I	1400	3	1.2	1200	3.5	1.1	900	4	0.8	x	200
J	1700	1.5	1.2	1400	1.7	1.1	1200	2	0.8	x	100
K	2000	2	1.2	2000	2	1.1	1500	2.6	0.8	x	200
L							2000	1.3	0.8	x	100

### elero Junior 1/S

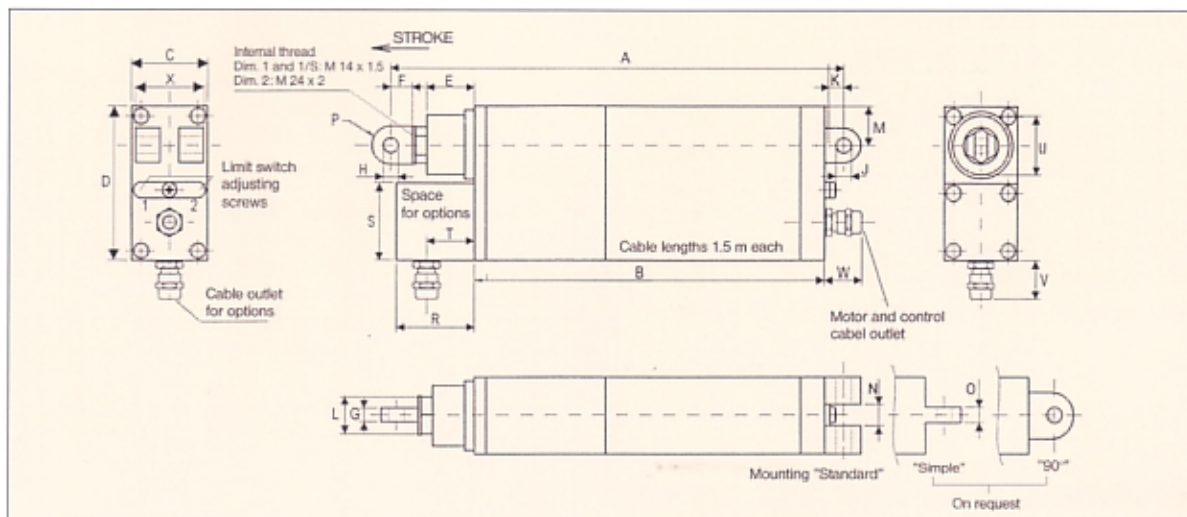
Version	Rating: S3 15%			Rating: S3 40%			Rating: S3 60%			Rating: S 1			Additional planetary gear stage	Max. stroke length
	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A		
A	150	50	2.5											200
B	280	22	2.5											100
C	1000	11	2.5	850	12	2.0	700	13	1.8	450	14.5	1.3		200
D	1250	5.5	2.5	1050	6.2	2.0	900	6.5	1.8	600	7.5	1.3		100
E	1350	7.5	2.5	1100	9	2.0	950	9.5	1.8	700	10	1.3		200
F	1800	3.5	2.5	1500	4.5	2.0	1300	4.7	1.8	800	5.3	1.3		100
G	3500	2.5	2.5	3200	3	2.0	2800	3.2	1.8	2000	3.5	1.3	x	200
H	4000	1.5	2.5	3700	1.5	2.0	3500	1.6	1.8	2500	1.8	1.3	x	100
I	4000	2.1	1.8	4000	2.1	1.8	4000	2.1	1.8	2900	2.5	1.3	x	150
J										4000	1.2	1.3	x	100
K										4000	1.6	1.2	x	150
L										4000	0.9	1.1	x	100

### elero Junior 2

Version	Rating: S3 15%			Rating: S3 40%			Rating: S3 60%			Rating: S 1			Available with brake only	Additional planetary gear stage	Max. stroke length
	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A	Load N	Stroke speed mm/s	Nominal current A			
A	400	70	6.0										x		350
B	400	38	6.0										x		200
C	1000	19	6.0	700	21	4.7	450	24	4.2	200	26	3.0	x		350
D	1400	12	6.0	800	13	4.7	500	13.5	4.2	250	14	3.0	x		200
E	1800	14	6.0	1300	15	4.7	1000	16	4.2	600	17	3.0	x		350
F	2600	6.5	6.0	1700	7.5	4.7	1500	8	4.2	800	8.5	3.0			200
G	3000	5	6.0	2000	6	4.7	1800	6.2	4.2	1000	7	3.0		x	350
H	5000	3	6.0	4500	3.3	4.7	3800	3.5	4.2	2500	3.8	3.0		x	200
I	5300	3	6.0	4000	3.6	4.7	3500	3.7	4.2	2200	4.3	3.0		x	350
J	9000	1.8	6.0	8000	2	4.7	7000	2.1	4.2	4500	2.2	3.0		x	200
K	7500	2	6.0	6200	2.2	4.7	5700	2.3	4.2	3800	2.7	3.0		x	350
L	10000	1.2	6.0	8000	1.4	4.7	7000	1.4	4.2	5000	1.5	3.0		x	200

# Technical data and dimensions

## Linear actuators "Junior"



### Dimension chart

Model	Stroke length	B**	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U	V	W	X
Junior 1	100	172	40	80	25	12	7	8	8	8	17	20	11	8	10	41	40	25	31	17	17	40
	150	172	40	80	69	12	7	8	8	8	17	20	11	8	10	41	40	25	31	17	17	40
	200	172	40	80	117	12	7	8	8	8	17	20	11	8	10	41	40	25	31	17	17	40
Junior 1/S	100	175	47	94	22	12	7	8	8	9	17	23,5	12	12	10	41	47	23	31	17	17	40
	150	175	47	94	69	12	7	8	8	9	17	23,5	12	12	10	41	47	23	31	17	17	40
	200	175	47	94	117	12	7	8	8	9	17	23,5	12	12	10	41	47	23	31	17	17	40
Junior 2	150	211	56	112	40	18	16	12	10	11	26	28	19	15	14	43	56	29	44	17	26	56
	200	211	56	112	90	18	16	12	10	11	26	28	19	15	14	43	56	29	44	17	26	56
	250	211	56	112	140	18	16	12	10	11	26	28	19	15	14	43	56	29	44	17	26	56
	300	211	56	112	190	18	16	12	10	11	26	28	19	15	14	43	56	29	44	17	26	56
	350	211	56	112	240	18	16	12	10	11	26	28	19	15	14	43	56	29	44	17	26	56

### Stroke lengths / adjustment range

Model	Stroke length	A*		Adjustment range A*	
		min.	max.	min.	max.
Junior 1	100	235	335	235-245	325-335
	150	285	435	285-295	425-435
	200	335	535	335-345	525-535
Junior 1/S	100	235	335	235-245	325-335
	150	285	435	285-295	425-435
	200	335	535	335-345	525-535
Junior 2	150	305	455	305-315	445-455
	200	355	555	355-365	545-555
	250	405	655	405-415	645-655
	300	455	755	455-465	745-755
	350	505	855	505-515	845-855

\* With an adjustable articulated lug attached, dimension "A" increases by:

10 mm (for Junior 1 / Junior 1/S)  
15 mm (Junior 2)

with a rotatable articulated lug by:  
5 mm (all the models)

with a spring-action articulated lug by:  
26 mm (Junior 1 / Junior 1/S)  
29 mm (Junior 2)

with a clevis end by:  
24 mm (clevis end G8 x 16 for Junior 1 / Junior 1/S)  
34 mm (clevis end G12 x 24 for Junior 2)

with a DIN 648 joint rod head by:  
28 mm (GISW 8 for Junior 1 / Junior 1/S)  
36 mm (GISW 12 for Junior 2)

\*\* With an additional planetary gear stage fitted, dimension "B" increases by:

13 mm (Junior 1)  
15 mm (Junior 1/S / Junior 2)



# Linear actuator Junior 2 (230 V)

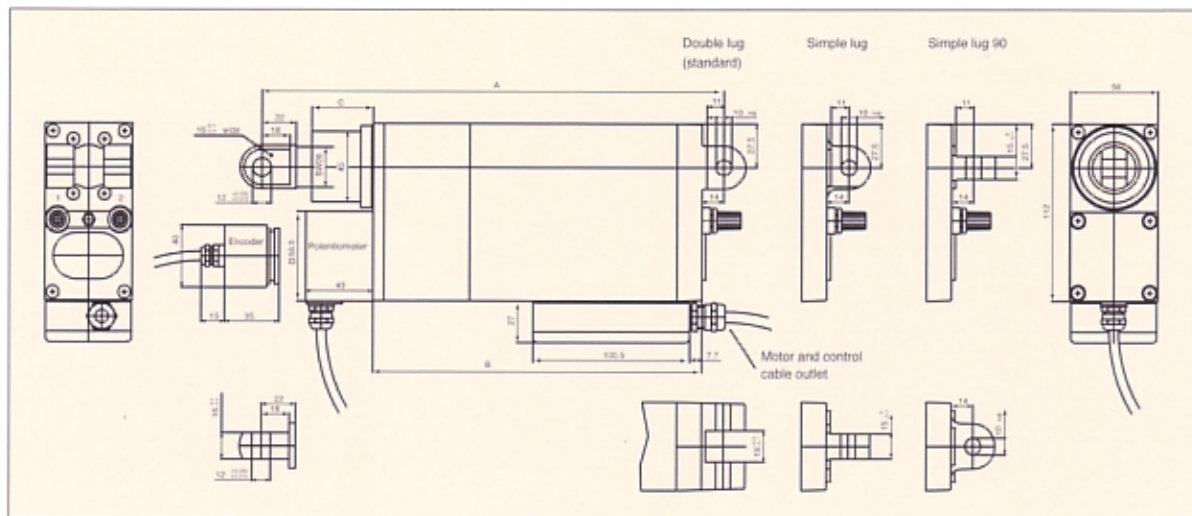
## Load (N) and stroke speeds (mm/s)

### elero Junior (230 V)

Version	Load N	Stroke speed mm/s	Nominal current A
A	50	70	0.9
C	400	23	0.9
E	700	14	0.9
G	1400	6.5	0.9
I	2500	4	0.9
K	5000	2.5	0.9

All the models are operated with a short-time duty of 5 minutes.

## Technical data and dimensions



### Stroke lengths / adjustment range

Model	Stroke length	A*		Adjustment range A*		B**
		min.	max.	min.	max.	
Junior 2	150	305	455	305-315	445-455	211
	200	355	555	355-365	545-555	211
	250	405	655	405-415	645-655	211
	300	455	755	455-465	745-755	211
	350	505	855	505-515	845-855	211

\*With an adjustable articulated lug attached, dimension "A" increases by:  
15 mm (Junior 2)

with a rotatable articulated lug by:  
5 mm

with a spring-action articulated lug by:  
29 mm (Junior 2)

with a clevis end by:  
34 mm (clevis end G12 x 24 for Junior 2)

with a DIN 648 joint rod head by:  
36 mm (GISW 12 for Junior 2)

\*\*With an additional planetary gear stage fitted, dimension "B" increases by:

15 mm (Junior 2)