



EWELLIX

EWELLIX Linear Actuator

RUNNER

Product Data Sheet

We pioneer motion

SCHAEFFLER

1 RUNNER



Benefits

- High push load and pull load
- Compact
- Back-up nut as standard
- High safety factor
- Silent operation

1 Technical data RU20 to RU25

Characteristic	Unit	RU20	RU21	RU22	RU23	RU24	RU25
Power supply	-	DC	DC	DC	DC	DC	DC
Voltage	V	24	24	24	24	24	24
Power consumption	W	-	-	-	-	-	-
Current consumption	A	7	7	7	10	10	10
Protection type	-	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S
Nominal push load	N	8000	10000	12000 ¹⁾	8000	10000	12000 ¹⁾
Nominal pull load	N	8000	8000	8000	8000	8000	8000
Speed (full load to no load)	mm/s	7 ... 10	5 ... 8	4 ... 7	8 ... 15	6 ... 12	5 ... 9
Stroke length S	mm	50 ... 700	50 ... 700	50 ... 700	50 ... 700	50 ... 700	50 ... 700
Retracted length L ²⁾	mm	S + 215 / 315	S + 215 / 315	S + 215 / 315	S + 215 / 315	S + 215 / 315	S + 215 / 315
Duty cycle	%	10	10	10	10	10	10
Ambient temperature	°C	+10 ... +40	+10 ... +40	+10 ... +40	+10 ... +40	+10 ... +40	+10 ... +40
Mass	kg	4.7	4.7	4.7	4.7	4.7	4.7
Color	-	Gray	Gray	Gray	Gray	Gray	Gray

¹⁾ The safe working load for medical applications is 10000 N in accordance with IEC 60601.

²⁾ S ≤ 500 mm: L = S + 215
 S > 500 mm: L = S + 315

2 Technical data RU30 to RU35

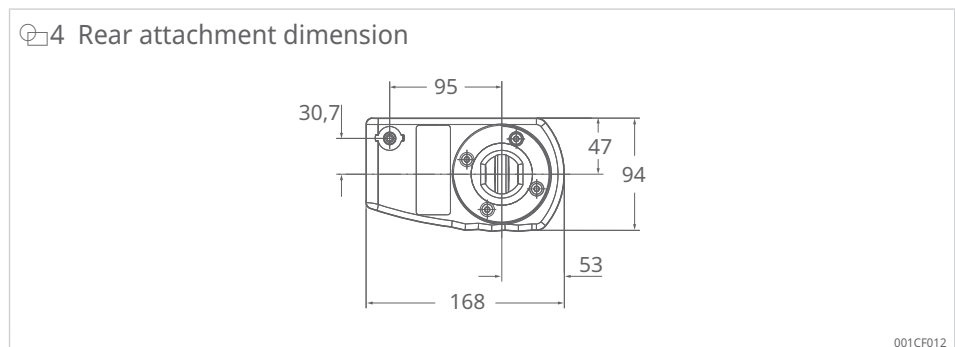
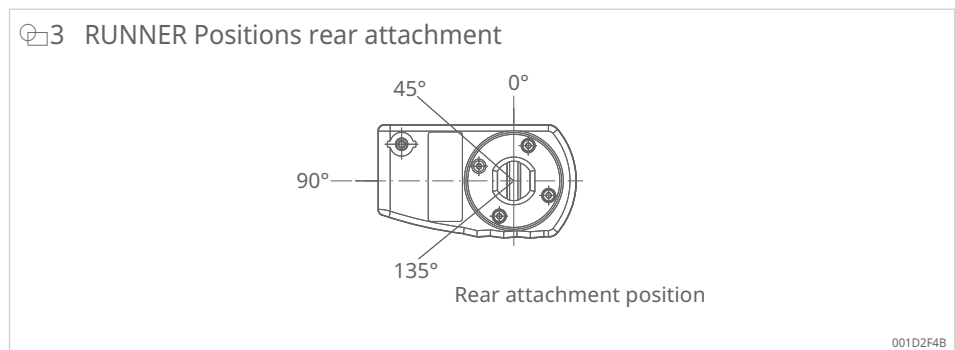
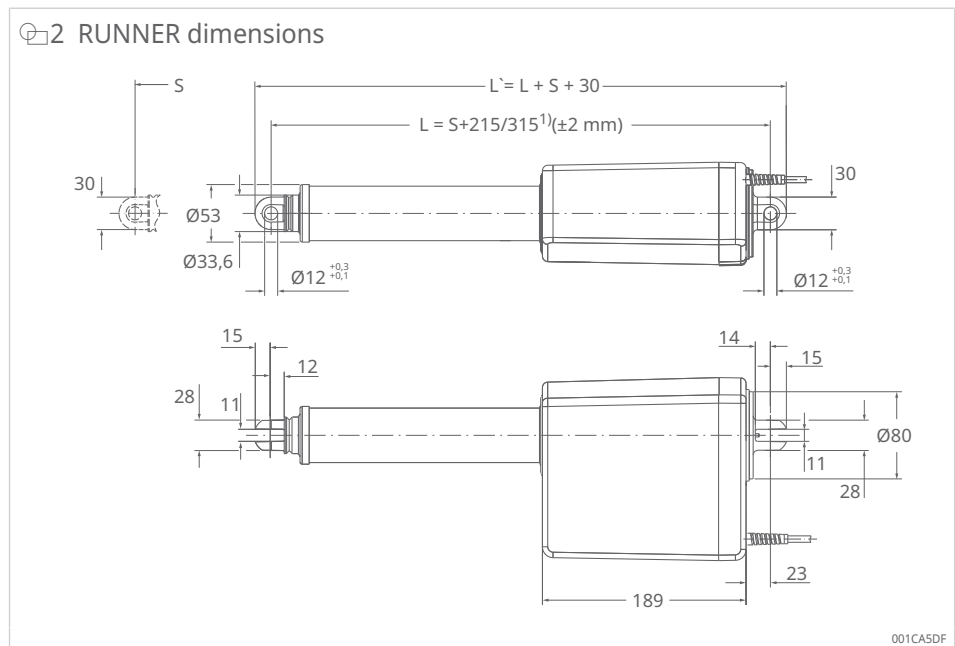
Characteristic	Unit	RU30	RU31	RU32	RU33	RU34	RU35
Power supply	-	DC	DC	DC	DC	DC	DC
Voltage	V	24	24	24	24	24	24
Power consumption	W	-	-	-	-	-	-
Current consumption	A	7	7	7	10	10	10
Protection type	-	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S	IPX4S, IPX6S
Nominal push load	N	8000	10000	12000 ³⁾	8000	10000	12000 ³⁾

Characteristic	Unit	RU30	RU31	RU32	RU33	RU34	RU35
Nominal pull load	N	8000	8000	8000	8000	8000	8000
Speed (full load to no load)	mm/s	14 ... 15	11 ... 13	9 ... 10	17 ... 24	14 ... 20	11 ... 15
Stroke length S	mm	50 ... 700	50 ... 700	50 ... 700	50 ... 700	50 ... 700	50 ... 700
Retracted length L ⁴⁾	mm	S + 215 / 315	S + 215 / 315	S + 215 / 315	S + 215 / 315	S + 215 / 315	S + 215 / 315
Duty cycle	%	10	10	10	10	10	10
Ambient temperature	°C	+10 ... +40	+10 ... +40	+10 ... +40	+10 ... +40	+10 ... +40	+10 ... +40
Mass	kg	4.7	4.7	4.7	4.7	4.7	4.7
Color	-	Gray	Gray	Gray	Gray	Gray	Gray

3) The safe working load for medical applications is 10000 N in accordance with IEC 60601.

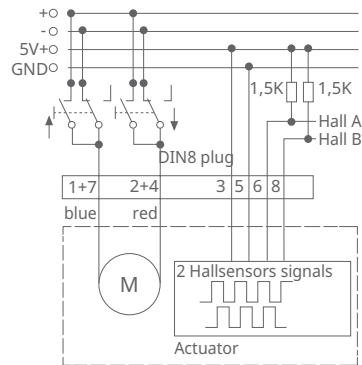
4) $S \leq 500$ mm: $L = S + 215$
 $S > 500$ mm: $L = S + 315$

Dimensional drawings



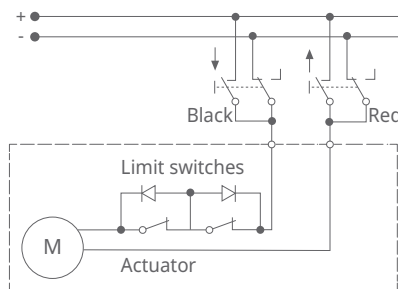
Wiring diagrams

5 DIN plug DC 24 V and DC 36 V



001DBD55

6 Jack plug DC 24 V



001DBD85

Suitable control units and accessories

3 Suitable control units

Linear actuator	Control unit			
	SCU	VCU	BCU	MCU
RU20, RU21, RU22	✓	✓	✓	✓
RU23, RU24, RU25	✓	✓	-	✓

- ✓ suitable
- not suitable

4 Suitable operating elements

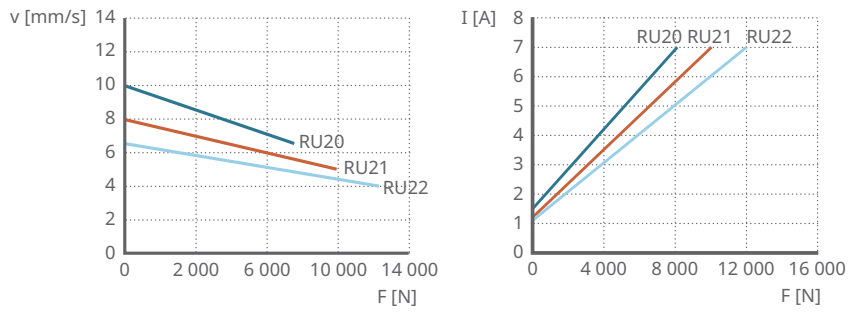
Operating element		Control unit			
Designation	Switches	SCU	VCU	BCU	MCU
EHA1	M	-	-	-	✓
EHA3	M	✓	✓	✓	-
STJ	F	✓	✓	✓	-
STF	F	-	-	-	✓
STA	T	-	-	-	✓
STE	T	✓	✓	✓	-

- M Hand switch
- F Foot switch
- T Desk switch
- ✓ suitable
- not suitable

Performance diagrams

1

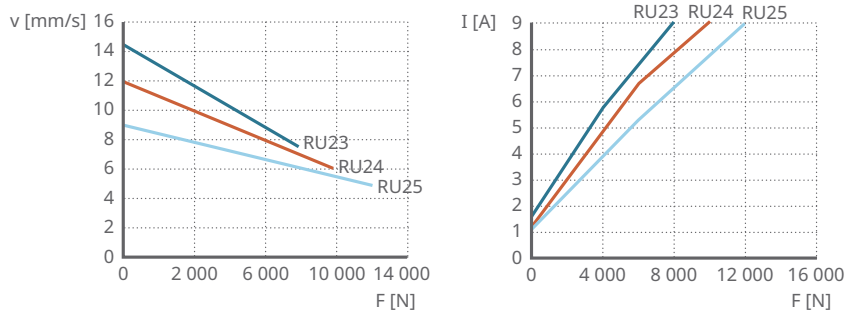
7 Performance diagram RU20, RU21, RU22



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v	Speed	F	Load
I	Current consumption		

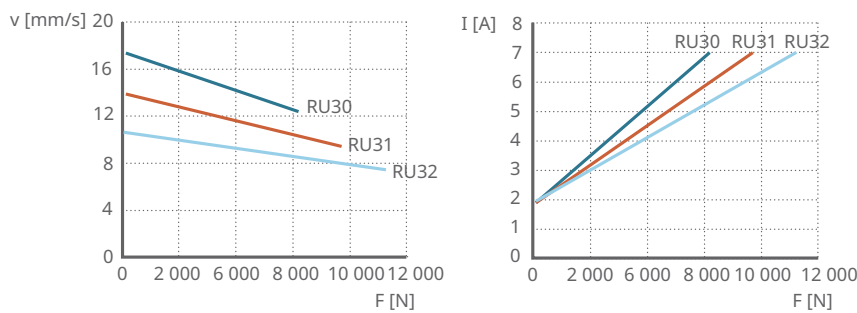
8 Performance diagram RU23, RU24, RU25



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v	Speed	F	Load
I	Current consumption		

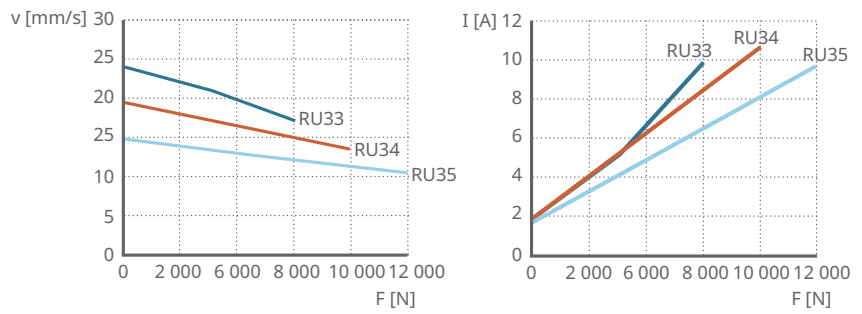
9 Performance diagram RU30, RU31, RU32



001CA4CD

v	Speed	F	Load
I	Current consumption		

10 Performance diagram RU33, RU34, RU35

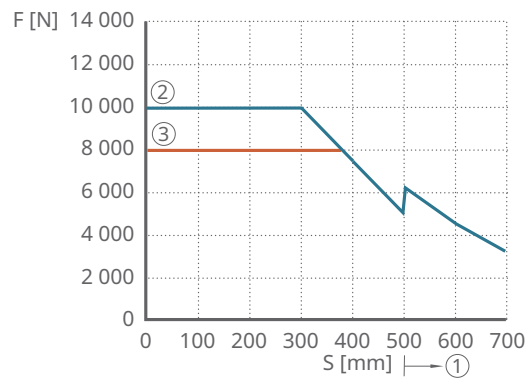


001CA4CF

v	Speed	F	Load
I	Current consumption		

Load limit

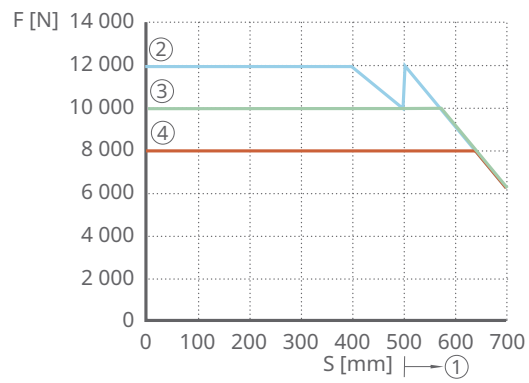
11 Push load limit, safety factor S = 4 in accordance with IEC 60601, emergency lowering optional S = 2.5



001CA60F

1	Extended retracted length at S > 500 mm	2	RU21, RU22, RU24, RU25, RU31, RU32, RU34, RU35
3	RU20, RU23, RU30, RU33		
F	Load	S	Stroke

12 Push load limit, safety factor S = 2 in accordance with IEC 60601



001CA61F

1	Extended retracted length at S > 500 mm	2	RU22, RU25, RU32, RU35
3	RU21, RU24, RU31, RU34	4	RU20, RU23, RU30, RU33
F	Load	S	Stroke

Ordering key

13 Ordering designation RUNNER

RU 2 0 - 050 315 A 15 0 0 0 V - 00

Type

Voltage

- 2 DC 24 V
- 3 DC 36 V, available on request

Load/speed

- | | | |
|---|-------------------|-------------------------------|
| | DC 24 V | DC 36 V, available on request |
| 0 | 8000 N/7-10 mm/s | 14 to 15 mm/s |
| 3 | 8000 N/8-15 mm/s | 17 to 24 mm/s |
| 1 | 10000 N/5-8 mm/s | 11 to 13 mm/s |
| 4 | 10000 N/6-12 mm/s | 14 to 20 mm/s |
| 2 | 12000 N/4-7 mm/s | 9 to 10 mm/s |
| 5 | 12000 N/5-9 mm/s | 11 to 15 mm/s |

Stroke (S)/retracted length (L)

- 050 315 50 mm/315 mm
- 100 315 100 mm/315 mm
- 150 365 150 mm/365 mm
- 200 415 200 mm/415 mm
- 250 465 250 mm/465 mm
- 300 515 300 mm/515 mm
- 350 565 350 mm/565 mm
- 400 615 400 mm/615 mm
- 450 665 450 mm/665 mm
- 500 715 500 mm/715 mm
- 550 865 550 mm/865 mm
- 600 915 600 mm/915 mm
- 650 965 650 mm/965 mm
- 700 XXX 700 mm/1 015 mm
- SSS LLL 50 < S ≤ 500 mm/S + 215, available on request
- SSS LLL 500 < S < 700 mm/S + 315, available on request
- XXX XXX S > 700 mm (customized), available on request

Protection type/color

- A IPX4S, gray
- B IPX6S, gray

Cable

- 15 Straight cable, 1,5 m, DIN-8 plug
- 0D Straight cable, 1,5 m, jack plug 180°, available on request

Alignment of rear attachment

- 0 0°
- 2 45°, available on request
- 4 90°, available on request
- 6 135°, available on request

Option 1

- 0 No option
- K Electrical anti-pinching protection (safety switch), load direction pull, L + 20 mm, available on request
- L Electrical anti-pinching protection (safety switch), load direction pull, L + 20 mm, available on request
- M Mechanical end stop, L + 25 mm, available on request
- N Electrical anti-pinching protection, load direction pull, with mechanical end stop, L + 45 mm, available on request
- P Electrical anti-pinching protection, load direction push, with mechanical end stop, L + 45 mm, available on request

Option 2

- 0 No option
- A Dual Hall encoder, 14 pulses, DIN-8 plug

Option 3

- No option
- V Emergency lowering, L + 53 mm (for load direction push only), available on request

Customization

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