



# Lin Linear unit for linear motions

Lin - ...  
Lin - ... - CT

Subject to change!

Linear unit suitable for all **...Max-...-F** actuators for conversion of a rotating into a linear motion, adaptable for valves up to stroke 42 mm

## Compact. Easy installation. Universal. Cost effective. Safe.

Type	Stroke (maximum)	Description
Lin-7.5	7,5 mm	Linear unit up to max. 7,5 mm stroke, suitable for all ..Max-..-F.. actuators size „S“
Lin-10	10 mm	Linear unit up to max. 10 mm stroke, suitable for all ..Max-..-F.. actuators size „S“ or „M“ with spring return function
Lin-15	15 mm	Linear unit up to max. 15 mm stroke, suitable for all ..Max-..-F.. actuators size „S“ or „M“ with spring return function
Lin-20	20 mm	Linear unit up to max. 20 mm stroke, suitable for all ..Max-..-F.. actuators size „S“ or „M“ with spring return function
Lin-30	30 mm	Linear unit up to max. 30 mm stroke, suitable for all ..Max-..-F.. actuators size „S“ or „M“ with spring return function
Lin-40	42 mm	Linear unit up to max. 42 mm stroke, suitable for all ..Max-..-F.. actuators size „S“ or „M“ with spring return function
Lin-...-CT		Amercoat painted aluminium housing, resistant against corrosive and/or maritime atmosphere. Lifting rod, connection parts and screws stainless steel

### Area of application/Product views

assembly size S of 2-way-valve



assembly size M of 3-way-valve



Lin-.. + ExMax-..-F.. size M



Lin-.. + RedMax-..-F.. size M



Lin-.. + InMax-..-F.. size M



### Selection table: recommended actuator ...Max-...-F... in relation of force (N) and and max. stroke (mm)

Type	LIN - 7,5	LIN - 10	LIN - 15	LIN - 20	LIN - 30	LIN - 40	
max. stroke	7,5 mm	10 mm	15 mm	20 mm	30 mm	42 mm	
Force							
500 N	...Max- 15 - F...	...Max- 15 - F...	...Max- 15 - F...	...Max- 15 - F...	...Max- 15 - F...	...Max- 30 - F...	At strokes between two values use the next higher linear unit e.g. 24 mm stroke = Lin-30
800 N	...Max- 15 - F...	...Max- 15 - F...	...Max- 15 - F...	...Max- 15 - F...	...Max- 30 - F...	...Max- 30 - F...	
1.000 N	...Max- 15 - F...	...Max- 15 - F...	...Max- 15 - F...	...Max- 30 - F...	...Max- 30 - F...	...Max- 50 - F...	
1.500 N	...Max- 15 - F...	...Max- 15 - F...	...Max- 30 - F...	...Max- 30 - F...	...Max- 50 - F...	...Max- 50 - F...	
2.000 N	...Max- 15 - F...	...Max- 30 - F...	...Max- 30 - F...	...Max- 50 - F...	...Max- 50 - F...	-	
2.500 N	...Max- 15 - F...	...Max- 30 - F...	...Max- 50 - F...	...Max- 50 - F...	-	-	
3.000 N	...Max- 15 - F...	...Max- 30 - F...	...Max- 50 - F...	...Max- 50 - F...	-	-	

**Attention:** Limitation of resolution at YF-actuators with strokes < nominal (motor blockade)!

Note the maximum force of the actuator to prevent damage to your valve!

### Description

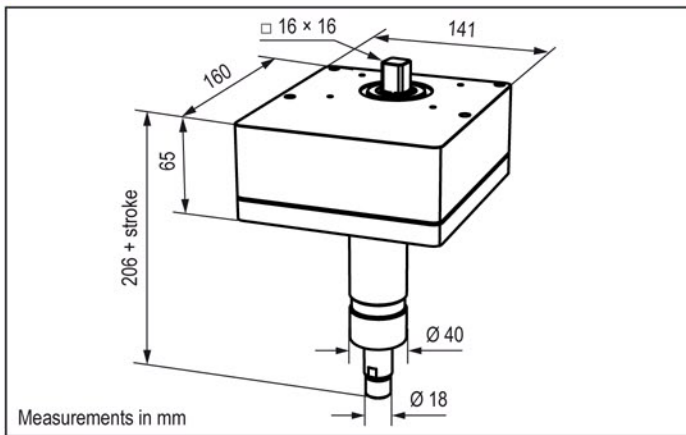
The Linear unit is used for conversion of a ¼ turn rotation into a linear motion. The stroke is acc. to LIN type from 7,5 to 42 mm available.

LIN-... + ...Max-... linear-valve actuator for automation of 2-way valves or 3-way valves. Application as control or safety actuator.

The linear unit is suitable for all ...Max-...-F... actuators size „S“ or „M“. The valve adaption, acc. to valve manufacturer, valve type and nominal size DN is required.

### Highlights

- ▶ Linear conversion for safety applications (Fail-Safe-Function)
- ▶ Suitable for ...Max-...-F... actuators size S and M
- ▶ For ...Max-...-F... actuators with and without spring return
- ▶ Simple mounting
- ▶ 100 % overload protected
- ▶ Compact design and small dimensions (L x B x H = 160 x 141 x 206 mm)
- ▶ Form closed double square shaft connection
- ▶ Robust aluminium housing (option in seawater resistant finishing ...-CT)
- ▶ Housing protection IP66
- ▶ Gear made of steel
- ▶ Option: Ex terminal boxes
- ▶ Option: Mounting bracket


**Dimensions**

**Technical data**

Material:	Housing: Aluminium anodized AlMg4,5 Lifting rod: Stainless steel V4A (1.4404, 316L) Adaption 16 x 16: Stainless steel V4A (1.4404, 316L)
Temperature:	-20 °C ... +50 °C
Weight:	~ 4,3 kg
Dimension:	160 mm x 141 mm x 206 mm
Delivery:	LIN-... incl. adaption 12 x 12 mm for ..Max size S resp. 16 x 16 mm for ..Max- size M actuators and screws M8 x 130 mm resp. M4 x 85 mm in stainless steel V4A

**Valve adaption**

For selection of suitable valve adaption and pricing are following details necessary:

1. Valve Manufacturer
2. Valve type
3. Ventil nominal size DN

With existing adaptions data for the selection of these are usually sufficient.

With valves these Schischek yet did not designed an adaption an additional detailed drawing of the valve is necessary. When ordering the actuator type and the adaptation type must be specified.

**Order Example**

Modulating valve actuator with spring return in explosive atmosphere zone 2.

Valve with 20 mm stroke and 1.500 N needed force.

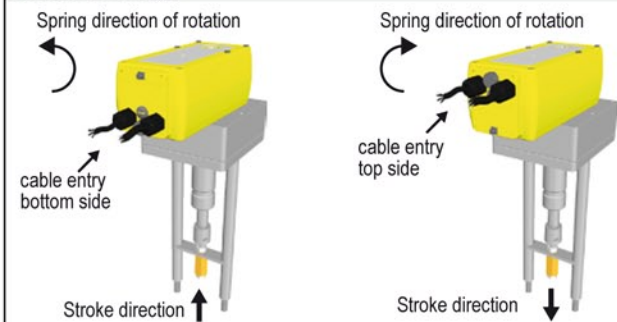
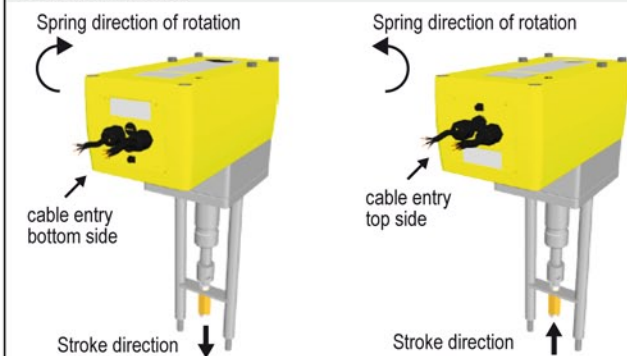
Actuator: RedMax-30-YF

Linear adaption: LIN-20

Valve adaption: suitable to valve type on request

**Notes**

- The blocking force is much higher than the nominal force.  
Verify if your valve is suitable!
- Is the time of the spring return actuator > 30 s. You should check the application.  
The safety function is reduced.
- Actuators size S with 1 s and size M with 3 s spring return time are not permitted together with the linear adaption LIN.

**Important informations for installation and use**
**Actuator size „S“**

**Actuator size „M“**


Motor speed size S		Motor speed s/90°					
s/mm	mm	7,5	15	30	60	120	
Stroke 7,5	1,0	2,0	4,0	8,0	16		
Stroke 10	0,75	1,5	3,0	6,0	12		
Stroke 15	0,5	1,0	2,0	4,0	8,0		
Stroke 20	0,4	0,75	1,5	3,0	6,0		
Stroke 30	0,25	0,5	1,0	2,0	4,0		
Stroke 42	0,18	0,36	0,72	1,43	2,86		

Motor speed size M		Motor speed s/90°					
s/mm	mm	40	60	90	120	150	
Stroke 7,5	5,34	8,0	12	16	20		
Stroke 10	4,0	6,0	9,0	12	15		
Stroke 15	2,67	4,0	6,0	8,0	10		
Stroke 20	2,0	3,0	4,5	6,0	7,5		
Stroke 30	1,33	2,0	3,0	4,0	5,0		
Stroke 42	1,0	1,43	2,15	2,86	3,58		

Spring return size S		Spring return time s/90°	
s/mm	mm	3	10
Stroke 7,5	0,4	1,5	
Stroke 10	0,3	1,0	
Stroke 15	0,2	0,7	
Stroke 20	0,15	0,5	
Stroke 30	0,1	0,3	
Stroke 42	0,1	0,2	

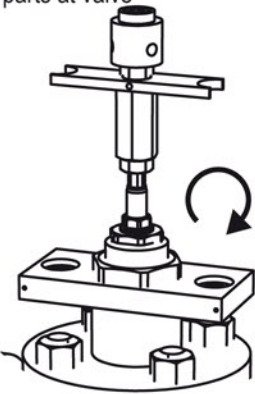
Spring return size M		Spring return time s/90°	
s/mm	mm	20	
Stroke 7,5		2,6	
Stroke 10		2,0	
Stroke 15		1,3	
Stroke 20		1,0	
Stroke 30		0,7	
Stroke 42		0,5	



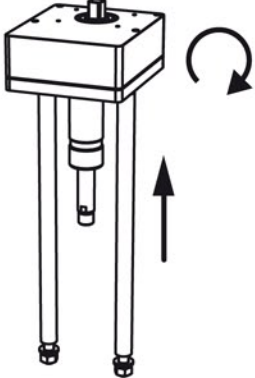
Lin...

**Mounting**

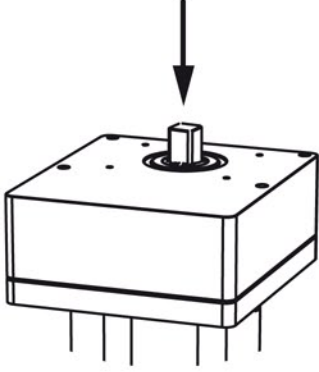
1. Screw connection parts at valve



2. Screw spacer rods

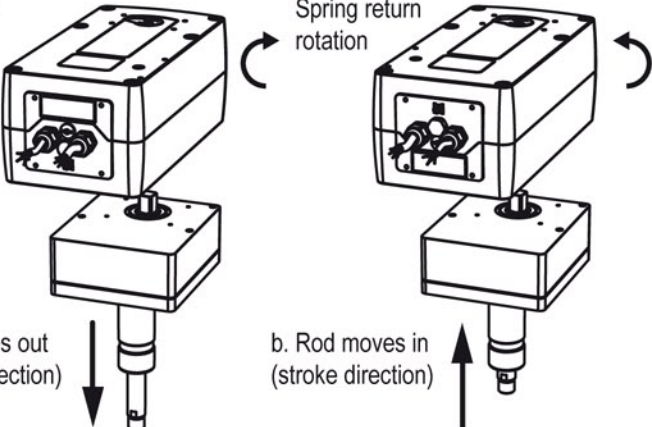


3. Put adaption part into actuator



4. Function on valve:

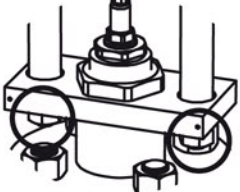
Spring return rotation



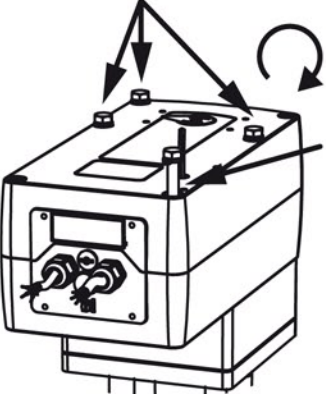
a. Rod moves out (stroke direction)

b. Rod moves in (stroke direction)

5. screw with nuts (2 x)

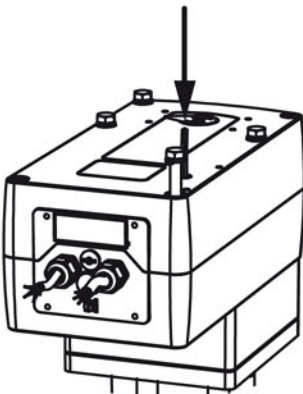


6. fix screws (3 x)



a. Put screw into hole only 1 x

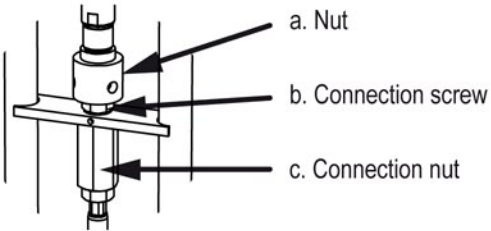
7. rotate allen key 1,5 turns (tensioning the spring)



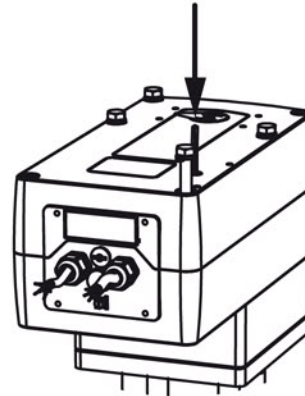


**Mounting**

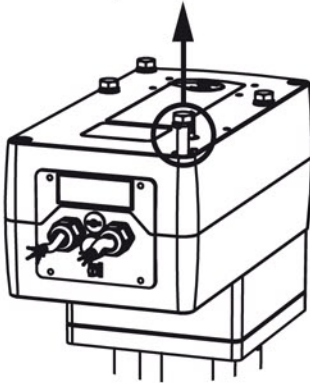
8. Screw nut with valve linkage  
- note valve tightness!  
- If necessary adjust  
connection parts again



9. Remove allen key



10. pull out the screw



11. Fix screw here

