



# ***Kämmer Actuators Series 3***

## *Pneumatic Actuators*



***Experience In Motion***

## Actuators Series 3

### Description

Heavy duty linear actuators for control valves:

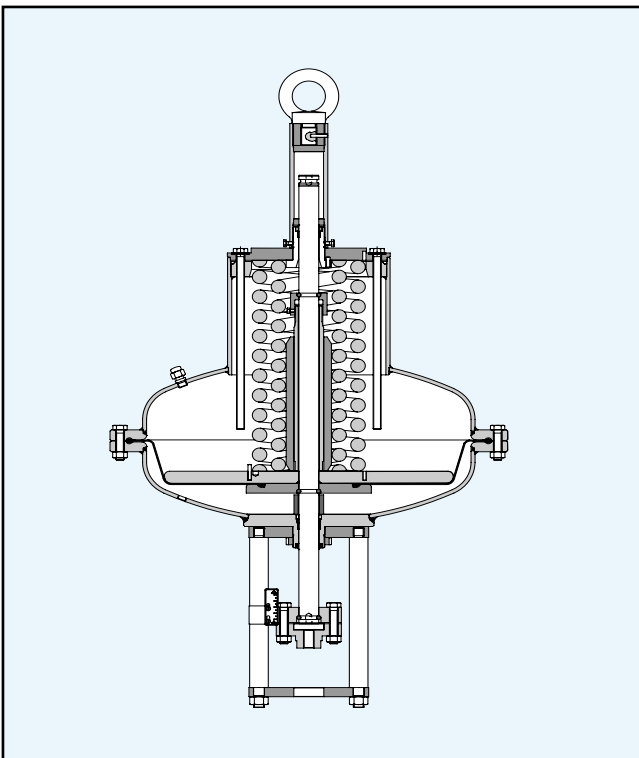
- Standard actuator made from zinc plated steel
- Air supply up to 6 bar
- Multi-spring design
- Reversible
- Top handwheel (optional)

Kammer series 3 actuators P6 and P7 are powerful, compact units designed for high stroking thrusts. They are fully reversible without additional parts. By using zinc plated material with an epoxy resin coating the actuators have a far reaching resistance to corrosion. Accessories such as positioners, limit switches or solenoid valves etc. can be fitted according to NAMUR.

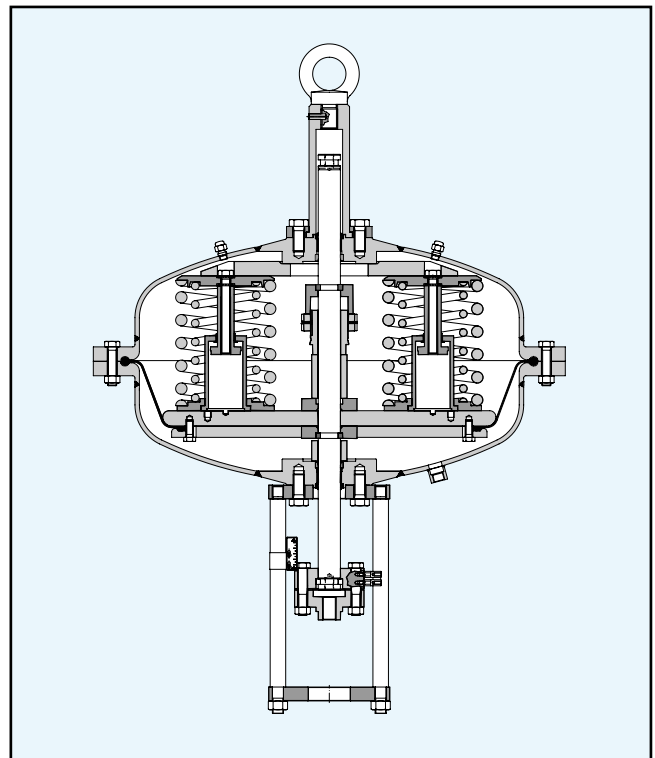
#### Definition

Air-to-open: without air supply the actuator stem extends

Air-to-close: without air supply the actuator stem retracts



**Actuator Type P6**



**Actuator Type P7**

## Actuators Series 3

### Technical Data

Actuator		P6	P7
<b>Diaphragm area</b>	cm <sup>2</sup>	1700	3200
<b>Thrust max.</b>	daN	up to 4000	up to 10000
<b>Stroke</b>	mm	20 - 80	20 - 100
<b>Actuator action</b>		air-to-open / air-to-close, reversible	
<b>Supply pressure</b>		Depends on spring set (max. 6 bar)	
<b>Air connection</b>	(Standard)	1/4" NPT	
<b>Allowable ambient temperature</b>		-40 to +80 °C (-40 to +176 °F)	
<b>Spring range</b>		See appropriate table	
<b>Mounting position</b>		Optional when supported (vertical preferred)	
<b>Operating medium</b>	(supply)	Instrument air* (dry and oil-free)	
<b>Actuator cases</b>		Zinc plated steel	
<b>Diaphragm</b>		NBR-Polyamide fabric	
<b>Springs</b>		Spring steel, epoxy resin coated	
<b>Actuator stem</b>		Stainless steel	
<b>Screws, nuts</b>		Stainless steel	
<b>Other parts</b>		Stainless steel/Aluminium/Plastic	

\*Other operating mediums on request.

## Actuators Series 3

Actuator thrust in relationship to spring set and supply pressure

Actuator type	Stroke (mm)	Spring range (bar)	Spring set no.	Supply min. (bar)	Air-to-open Spring-to-close	Spring-to-open / Air-to-close									
					Closing thrust Spring(daN)	Thrust (daN) at supply pressure <sup>1</sup> (bar)									
						1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
P6 1700 cm <sup>2</sup>	20	0.56-0.73	1721	1.00	<b>957</b>	1306	2156	3006	3856	4706					
	20	0.97-1.45	1722	1.70	<b>1650</b>		929	1779	2629	3479					
	20	1.70-2.25	1723	2.50	<b>2894</b>			418	1268	2118	2968				
	20	2.00-2.73	1724	3.00	<b>3400</b>				463	1313	2163	3013	3863		
	20	2.37-3.16	1725	3.40	<b>4034</b>					584	1434	2284	3134	3984	4834
	40	0.56-0.82	1741	1.10	<b>957</b>	1162	2012	2862	3712	4562					
	40	0.97-1.79	1742	2.00	<b>1650</b>		354	1204	2054	2904					
	40	1.70-2.55	1743	2.80	<b>2894</b>				763	1613	2463	3313			
	40	2.00-3.16	1744	3.40	<b>3400</b>					584	1434	2284	3134	3984	
	40	2.37-3.59	1745	3.80	<b>4034</b>						705	1555	2405	3255	4105
	60	0.56-0.90	1761	1.20	<b>957</b>	1019	1869	2719	3569	4419					
	60	0.97-2.13	1762	2.40	<b>1650</b>			629	1479	2329					
	60	1.70-2.85	1763	3.10	<b>2894</b>					1108	1958	2808			
	60	2.00-3.59	1764	3.80	<b>3400</b>						705	1555	2405	3255	
	80	0.56-0.99	1781	1.20	<b>957</b>	875	1725	2575	3425	4275					
80	0.99-1.87	1782	2.10	<b>1675</b>			1076	1926	2776						

<sup>1</sup> The supply pressures shown in these tables must not be exceeded.

## Actuators Series 3

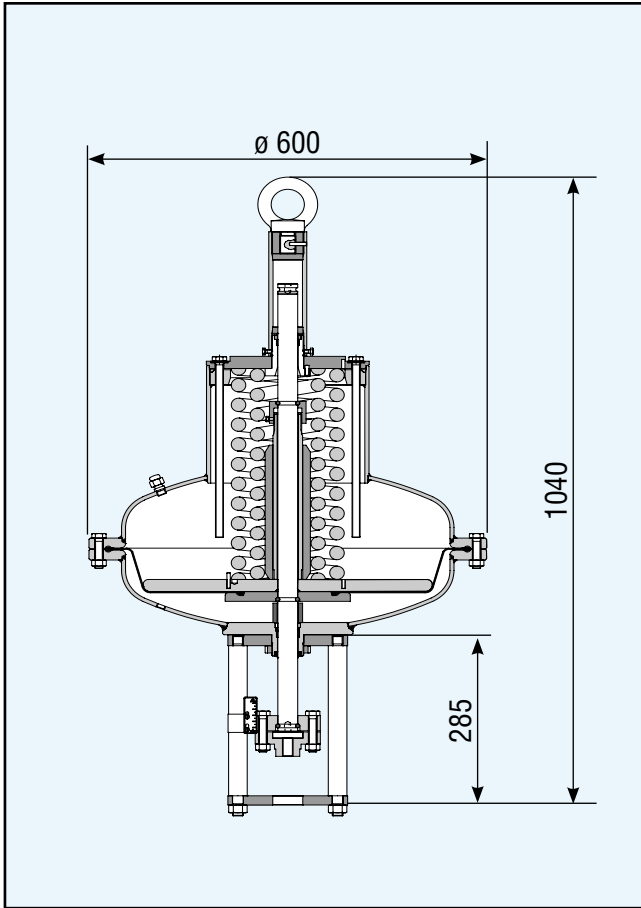
Actuator thrust in relationship to spring set and supply pressure

Actuator type	Stroke (mm)	Spring range (bar)	Spring set no.	Supply min. (bar)	Air-to-open Spring-to-close	Spring-to-open / Air-to-close									
					Closing thrust Spring(daN)	Thrust (daN) at supply pressure <sup>1</sup> (bar)									
						1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
P7 3200 cm <sup>2</sup>	20	0.63-0.84	3221	1.10	<b>2000</b>	2100	3700	5300	6900	8500					
	20	1.21-1.64	3222	1.90	<b>3880</b>		1157	2757	4357	5957					
	20	1.82-2.46	3223	2.70	<b>5820</b>				1735	3335	4935	6535			
	20	2.29-3.09	3224	3.30	<b>7320</b>					1311	2911	4511	6111	7711	9311
	20	2.76-3.72	3225	4.00	<b>8820</b>						886	2486	4086	5686	7286
	20	3.24-4.28	3226	4.50	<b>10365</b>							710	2310	3910	5510
	40	0.63-0.97	3241	1.20	<b>2000</b>	1700	3300	4900	6500	8100					
	40	1.21-1.88	3242	2.10	<b>3880</b>			1974	3574	5174					
	40	1.82-2.82	3243	3.10	<b>5820</b>					2161	3761	5361	6961		
	40	2.29-3.55	3244	3.80	<b>7320</b>						1435	3035	4635	6235	7835
	40	2.76-4.28	3245	4.50	<b>8820</b>							710	2310	3910	5510
	40	3.24-4.83	3246	5.10	<b>10365</b>									2134	3734
	60	0.63-1.09	3261	1.30	<b>2000</b>	1299	2899	4499	6099	7699					
	60	1.21-2.13	3262	2.40	<b>3880</b>			1190	2790	4390					
	60	1.82-3.19	3263	3.40	<b>5820</b>					986	2586	4186	5786	7386	
	60	2.29-4.01	3264	4.30	<b>7320</b>							1560	3160	4760	6360
	60	2.76-4.83	3265	5.10	<b>8820</b>									2134	3734
	60	3.24-5.39	3266	5.60	<b>10365</b>										1958
	80	0.63-1.22	3281	1.50	<b>2000</b>	898	2498	4098	5698	7298					
	80	1.21-2.37	3282	2.60	<b>3880</b>				2007	3607					
80	1.82-3.56	3283	3.80	<b>5820</b>						1411	3011	4611	6211		
80	2.29-4.47	3284	4.70	<b>7320</b>								1684	3284	4884	
80	2.76-5.39	3285	5.60	<b>8820</b>										1958	
100	1.89-4.17	32XX	4.40	<b>5624</b>							1060	2660	4260	5860	

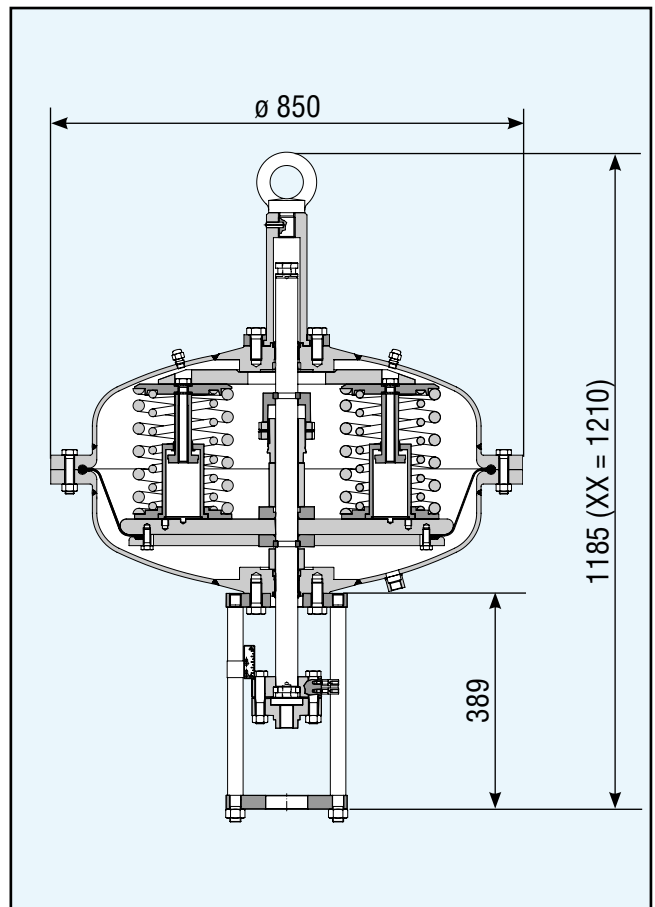
<sup>1</sup> The supply pressures shown in these tables must not be exceeded.

## Actuators Series 3

Dimensions [mm]



**Actuator Type P6**



**Actuator Type P7**

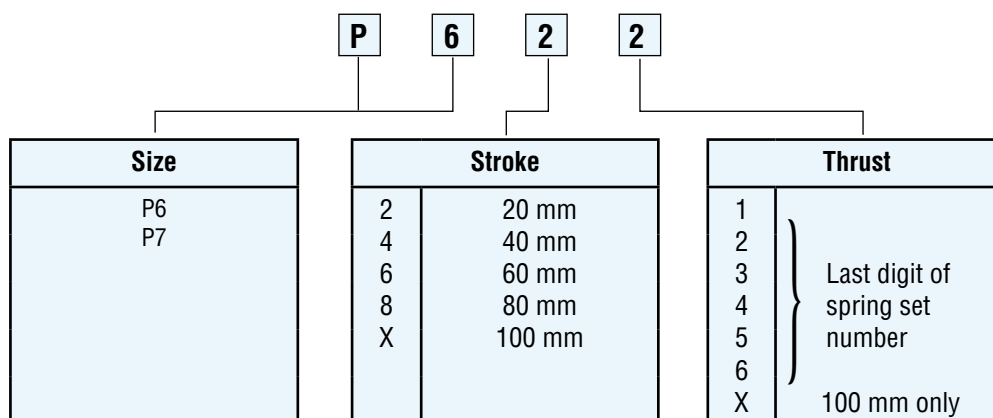
## Actuators Series 3

Weights (Kg)\*

Type	P6	P7
	190	365

\* Can vary according to spring set. Exact weights on request.

## Model Code





**Germany**

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