



## AK31 P.: Pneumatic damper drive

### How energy efficiency is improved

Accurate activation of dampers with minimal air consumption.

### Areas of application

Controlling or open/closed control of final control elements, e.g. in ventilation and air-conditioning systems.

### Features

- ATEX certification for use in Zone 1 potentially explosive areas
- Complies with EN 13463-1 and EN 1127-1 (Ex II 2 G T6)
- Housing made of self-extinguishing plastic
- Roller membranes made of silicone, drive spindles in stainless steel with M8 male thread
- Plug nipple for connecting plastic hoses with an internal diameter of 4 mm

### Technical description

- Control pressure 0 - 1.2 bar
- Max. damper area 0.6 m<sup>2</sup>

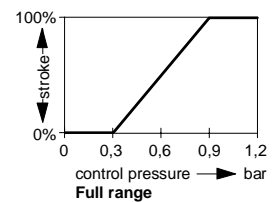


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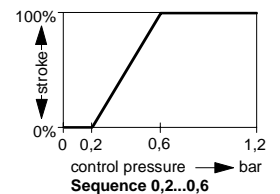
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AK31 P1



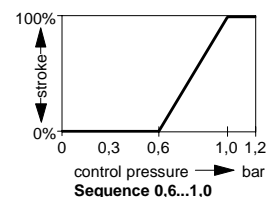
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AK31 P2



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AK31 P3



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Type	Working range bar	max. force at		max. torque at		Permissible damper area <sup>1)</sup> m <sup>2</sup>	Weight kg
		0 bar N	1,2 bar N	0 bar Nm	1,2 bar Nm		
AK31 P1 F001	0,3...0,9	70	70	1,8	1,8	0,6	0,3
AK31 P2 F001	0,2...0,6	40	160	1	4	0,3	0,32
AK31 P3 F001	0,6...1,0	160	40	4	1	0,3	0,32

Control pressure	0...1,2 bar <sup>2)</sup>	Air consumption for 100% stroke	
Max. permissible pressure	1,5 bar	AK31 P1	0,3 l <sub>n</sub>
Effective area	30 cm <sup>2</sup>	AK31 P2, P3	0,2 l <sub>n</sub>
Stroke	50 mm	Perm. ambient temp.	-5...60 °C
Lever length for 90°	35 mm	Degree of protection	IP 20
Running time for 100% stroke <sup>3)</sup>	5 s	Dimension drawing	M00965
		Fitting instruction	MV 505113

### Accessories

- 0274587 000\* Fixing console
- 0274589 000\* Straight ball-joint with 2 nuts (M8)
- 0274591 000\* Fixing bracket with 4 screws Ø 5,5 × 13
- 0274593 000\* Angled ball-joint with 2 nuts (M8)
- 0370039 000\* Connecting nut, 2 locking nuts (M8)
- 0370040 000\* Threaded rod (M8), 500 mm long
- 0370059 000\* Clamping lever for shaft diameter 8...18 mm

<sup>\*)</sup> Dimension drawing or wiring diagram are available under the same number

- 1) Recommended value for equal-sided, easy-action air dampers. In cases where the air dampers are tight-sealing in accordance with DIN 1946, the increased actuating power required to overcome the lamella seals must be taken into account.
- 2) Necessary for obtaining the actuating power. See Section 60 on regulations concerning the quality of supply air, especially at low ambient temperatures.
- 3) Based on the Centair air capacity (400 l<sub>n</sub>/h) and a line of 20 m length and 4 mm diameter

### Operation

The spindle is extended as the control pressure increases, and retracted by the spring as the control pressure decreases. In order to attain the maximum actuating power at both 0 and 100% stroke, the control pressure must change from 0 to 1,2 bar. It is not possible to affix a positioner.

### Fitting position

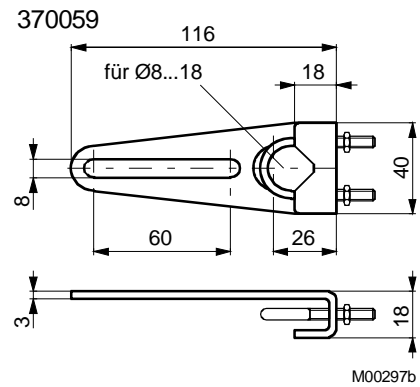
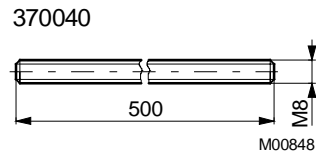
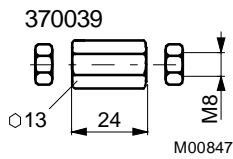
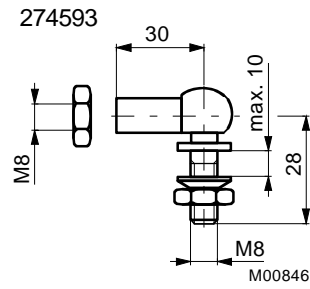
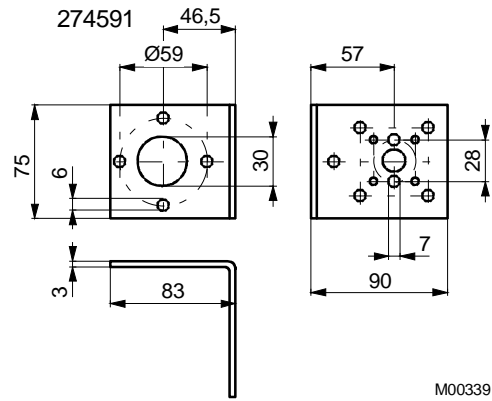
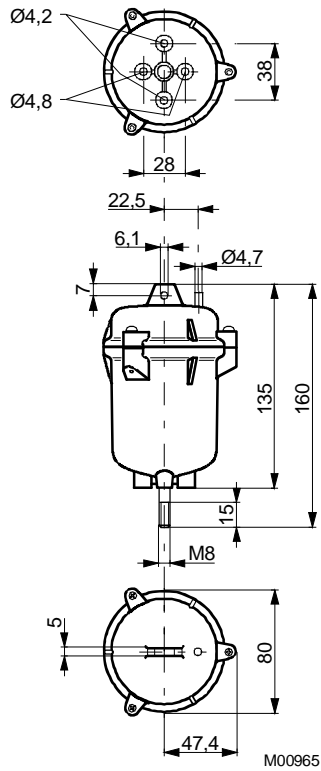
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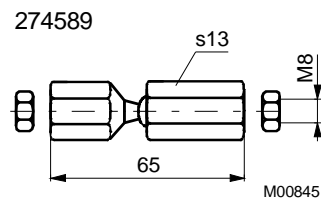
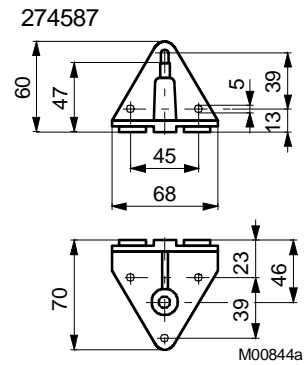
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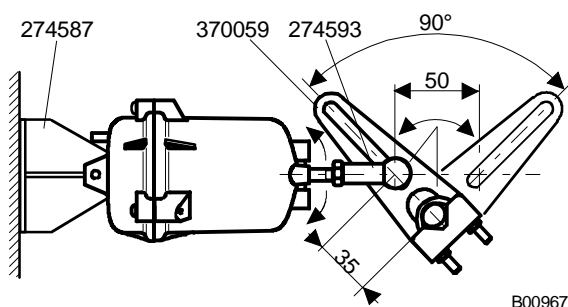
**Dimension drawing**



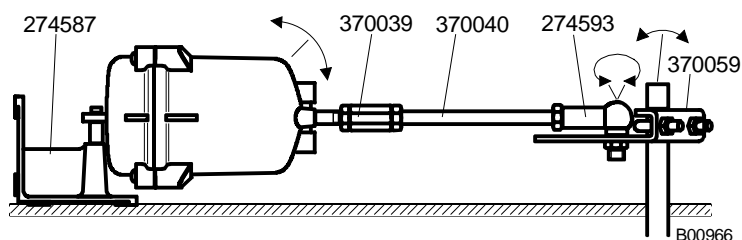
**Accessories**



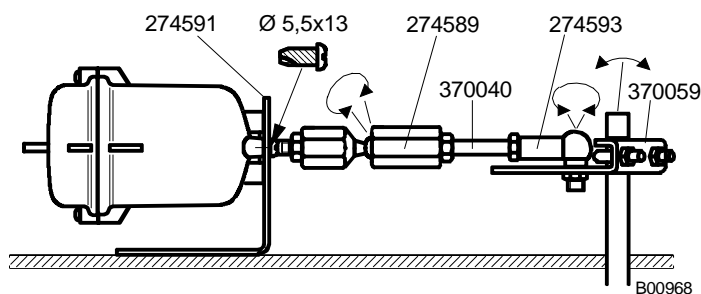
Fitting options



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Единый адрес для всех регионов: [sxr@nt-rt.ru](mailto:sxr@nt-rt.ru) || [www.sauter.nt-rt.ru](http://www.sauter.nt-rt.ru)