

## AK31 P: Pneumatic actuator

### Improving energy efficiency

Precise damper activation with only the slightest air requirement

### Features

- Conformity tested as per EN 13463-1 and EN 1127-1 (ex zone 1 II 2 G T6)
- Rolling diaphragms made of silicone; drive spindle in stainless steel with M8 male thread
- Plug nipple for connecting plastic tubing with an internal diameter of 4 mm

### Technical data

Parameters		
Control pressure <sup>1)</sup>		0...1.2 bar
Maximum pressure		1.5 bar
Effective area		30 cm <sup>2</sup>
Stroke		50 mm
Lever length for 90°		35 mm
Running time for 100% stroke <sup>2)</sup>		5 s

Ambient conditions		
Admissible ambient temperature		-5...60 °C

Construction		
Housing material		Fire-retardant plastic

Standards and directives		
Type of protection		IP 20

### Overview of types

**i** Admissible damper surface area: Recommended value for equal-sided, smooth-running air dampers. The increased actuating force required to overcome the slit seals must be taken into account for tightly sealed air dampers in accordance with DIN 1946

Type	AK31P1F001	AK31P2F001	AK31P3F001
Working pressure range	0.3...0.9 bar	0.2...0.6 bar	0.3...0.9 bar
Pushing force at 0 bar	70 N	40 N	160 N
Pushing force at 1.2 bar	70 N	160 N	40 N
Torque 0 bar	1.8 Nm	1 Nm	4 Nm
Torque 1.2 bar	1.8 Nm	4 Nm	1 Nm
Admissible damper surface area	0.6 m <sup>2</sup>	0.3 m <sup>2</sup>	0.3 m <sup>2</sup>
Air consumption for 100% stroke	0.3 l <sub>n</sub>	0.2 l <sub>n</sub>	0.2 l <sub>n</sub>
Weight	0.3	0.32	0.32

### Accessories

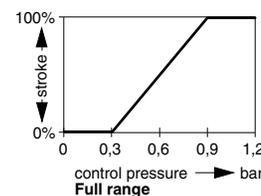
Type	Description
0274587000	Fixing bracket
0274589000	Straight ball joint with 2 nuts (M8)
0274593000	Angled ball joint with 2 nuts (M8)
0370039000	Coupling nut (M8), 2 lock nuts (M8)
0370040000	Threaded rod (M8), length 500 mm
0370059000	Clamping lever for shaft, Ø 8...18 mm

<sup>1)</sup> Required to achieve the actuating power; for regulations concerning the quality of the supply air, particularly at low ambient temperatures, see [www.sauter-controls.com/en/pneumatic\\_plants](http://www.sauter-controls.com/en/pneumatic_plants)

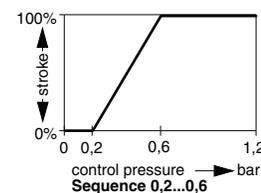
<sup>2)</sup> In respect of the centair air capacity (400 l<sub>r</sub>/h) and a supply line with a length of 20 m and a diameter of 4 mm



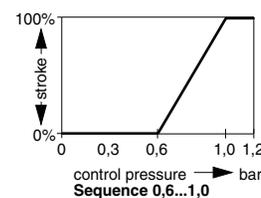
AK31P\*F001



AK31P1F001



AK31P2F001



AK31P3F001



**Description of operation**

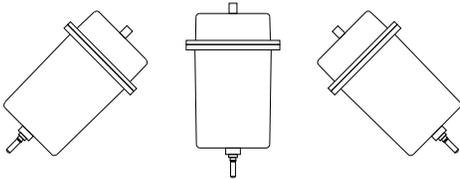
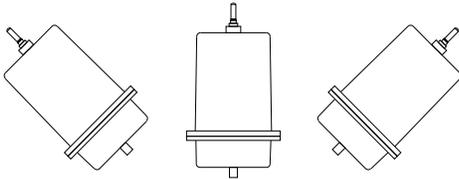
As the control pressure increases, the spindle is pushed out, when the control pressure decreases, it is pulled back by the compression spring. To achieve the maximum actuating power at 0 and 100% stroke, the control pressure must change from 0 to 1.2 bar. A positioner cannot be attached.

**Intended use**

This product is only suitable for the purpose intended by the manufacturer, as described in the "Description of operation" section.

All related product documents must also be adhered to. Changing or converting the product is not admissible.

**Fitting position**

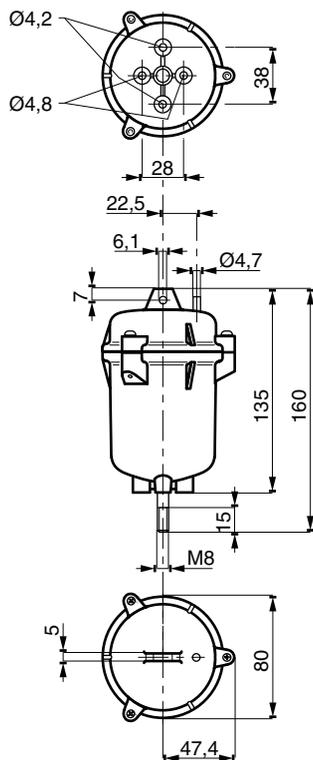
	
<p>Admissible</p>	<p>Admissible with restrictions Penetration of condensate, dripping water, etc. along the spindle into the actuator must be prevented</p>

**Disposal**

When disposing of the product, observe the currently applicable local laws.

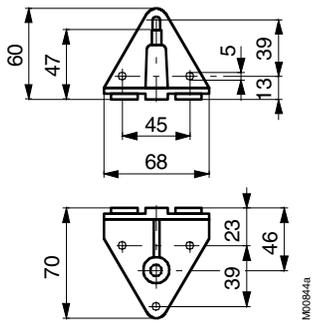
More information on materials can be found in the Declaration on materials and the environment for this product.

**Dimension drawing**

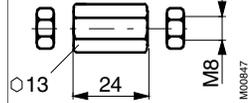


Accessories

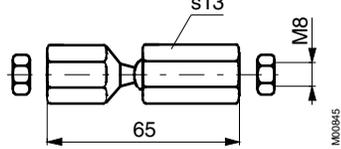
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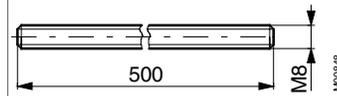
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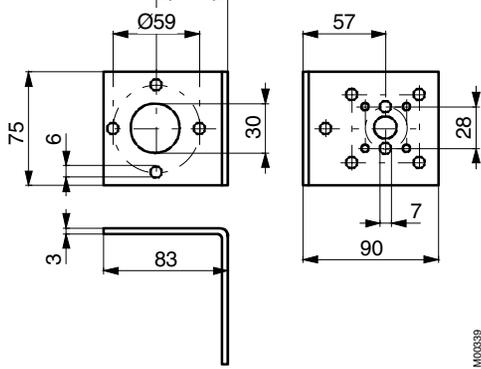
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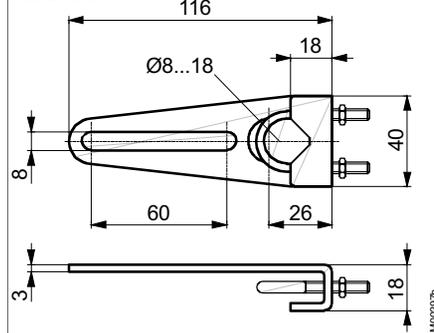
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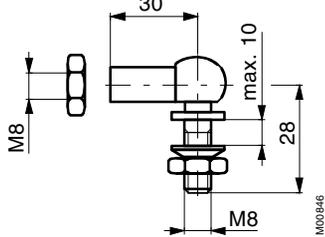
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Fitting methods

