

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 m²

Type	Working range bar	max. force at 0 bar N	max. force at 1,2 bar N	max. torque at 0 bar Nm	max. torque at 1,2 bar Nm	Permissible damper area ¹⁾ m ²	Weight kg
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 ²⁾

Max. permissible pressure 1,5 bar

Effective area 30 cm²

Stroke 50 mm

Lever length for 90° 35 mm

Running time for 100% stroke ³⁾ 5 s

Air consumption for 100% stroke

AK31 P1 0,3 l_n

AK31 P2, P3 0,2 l_n

Perm. ambient temp. -5...60 °C

Degree of protection IP 20

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

*) 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.

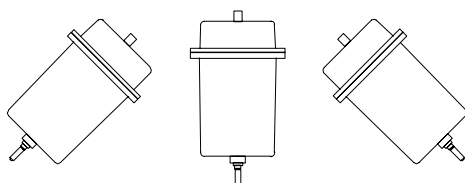
See Section 60 on regulations concerning the quality of supply air, especially at low ambient temperatures.

3) Based on the Centair air capacity (400 l_n/h) and a line of 20 m length and 4 mm diameter

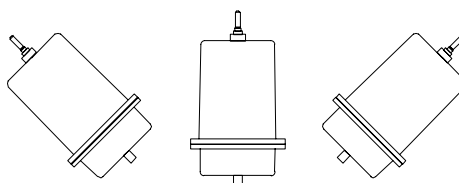
Operation

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



permissible



permissible only under certain conditions

B03117

The ingress of condensate, water droplets etc. along the spindle and into the drive should be prevented.

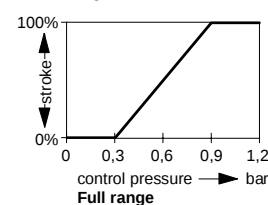


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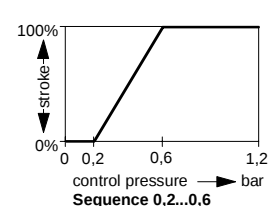
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AK31 P1



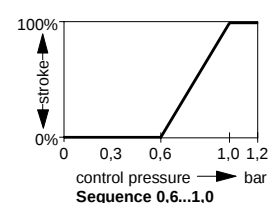
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AK31 P2



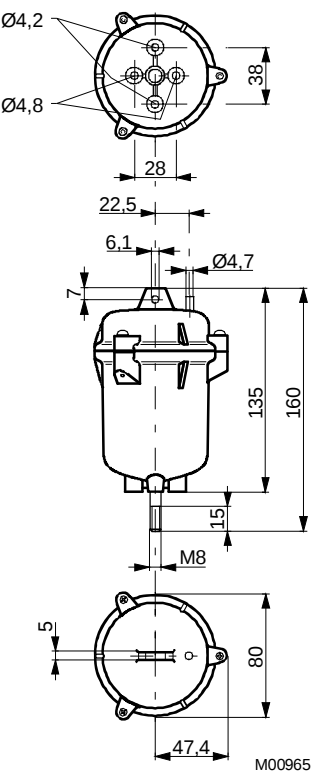
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AK31 P3

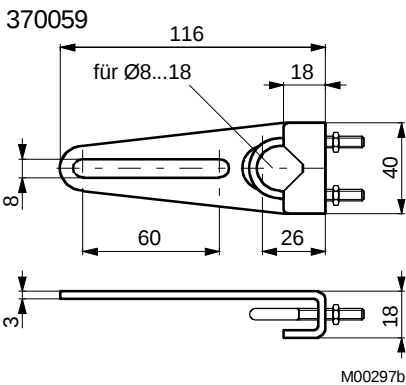
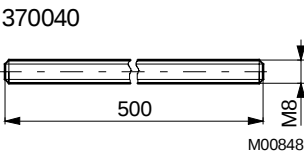
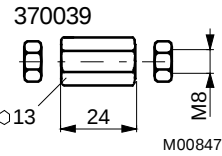
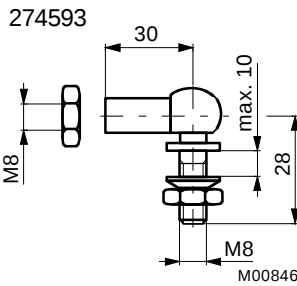
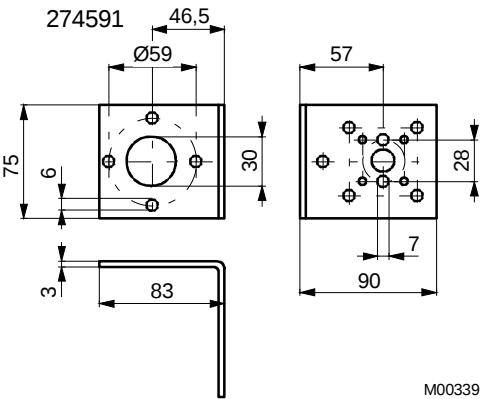
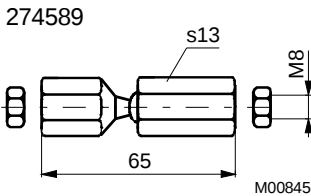
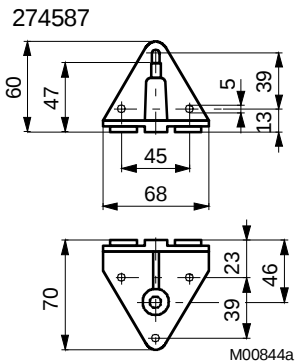


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Dimension drawing



Accessories



Fitting options

