

## AVP 142: Pneumatic valve actuator

### How energy efficiency is improved

Precise valve activation with only the slightest air requirement

### Features

- Actuation of 2-way and 3-way valves of the V6R/B6R series for continuous control facilities or for OPEN/CLOSE control
- Silicone-free, therefore usable in many applications
- Long-term stable NBR diaphragm
- The direction of operation can be reversed by fitting the head of the actuator to the fixing bracket the opposite way round
- Stroke indicator enables the position of the actuator to be determined quickly
- Compressed-air connection with Rp 1/8" female thread



AVP142F001



### Technical data

#### Parameters

Control pressure <sup>1)</sup>	0...1.2 bar
Maximum pressure	1.5 bar
Effective area	180 cm <sup>2</sup>
Valve with 14mm stroke: span (bar)	0.6 bar
Valve with 14 mm stroke: air consumption (l <sub>n</sub> /stroke)	0.8 l <sub>n</sub> /stroke
Valve with 20 mm stroke: span (bar)	0.9 bar
Valve with 20 mm stroke: air consumption (l <sub>n</sub> /stroke)	1.1 l <sub>n</sub> /stroke

#### Ambient temperature

Admissible ambient temperature	-15...50 °C
Temperature at the diaphragm	max. 70 °C

#### Construction

Weight	2 kg
Housing material	Housing of glass-fibre-reinforced plastic; fixing bracket of light metal

#### Standards and directives

Conformity	Directive 97/23/EG Art 3.3 for pressure equipment
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#### Overview of types


Type	Description
AVP142F001	Pneumatic valve actuator

### Assembly materials for the V6R and B6R valve series

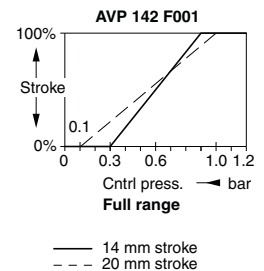
Type of actuator	XSP31	XSP31G	XAP	XEP
AVP142	0226504002	0226532002	0226512003	0274700

#### Accessories

Type	Description
XSP31	Pneumatic positioner (see product data sheet)
XAP1	Auxiliary contacts (see product data sheet)
XAP2	Potentiometer unit (see product data sheet)
XEP	Electro-pneumatic converter for continuous signals (see product data sheet)

 *Electro-pneumatic converter: Of the accessories, only one positioner (XSP 31), one feedback unit (XAP) and one electro-pneumatic converter (XEP) can be fitted; if the XSP 31 and XAP are fitted, the XEP must be screwed onto the side of the fixing bracket*

<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)



- ⚡ *Positioner, auxiliary contact unit, potentiometer: Can be used for minimum or maximum limitation of the stroke; hand wheel can be removed*
- ⚡ *XSP 31, XAP 1, XAP 2: Fitted at the factory to the valve/actuator combination*

### Description of operation

The control pressure acts via a disc membrane against a preloaded compression spring. When the control pressure exerted on the membrane exceeds the spring pressure, the working spindle starts moving. The actuator is reversible and can be mounted on the bracket in two ways:

Function A: Normally extended (the actuator spindle is retracted as the control pressure increases).

Function E: Normally retracted (the actuator spindle is extended as the control pressure increases).

On delivery, the actuator is set up for function E.

With valves of the V6R and B6R series, (suspended plug):

Function A (assembly 0274282 000 + modification 0297938 500): Valve control passage normally open (NO).

Function E (assembly 0274282 000): Valve control passage normally closed (NC) = combination as delivered ex works.

### 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.

### Engineering and fitting notes

The actuator spring can be used for fitting with the valve (14 mm stroke).

Can be fitted in any position except suspended up to a valve medium temperature of 240 °C. For medium temperatures above 180 °C, a horizontal fitting position is recommended. When combined with the AVP 142 actuator and a media temperature above 130 °C, the adaptor 0361259 must be used.

The adaptor can also be used as an extension to come out of the pipe insulation with the actuator.

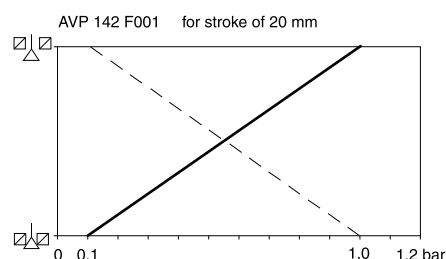
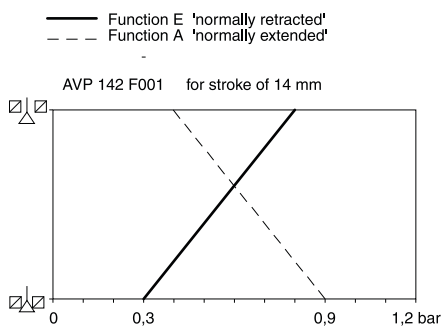
Penetration of the actuator by condensate and dripping water, etc. along the spindle must be avoided.

When mounting the actuator, make sure that the plug is not twisted in the valve seat (limit stop), as this can damage the sealing surface.

### Pressure-stroke characteristics

Prepared for 2-way valves with 14 to 20 mm stroke (see table of types)

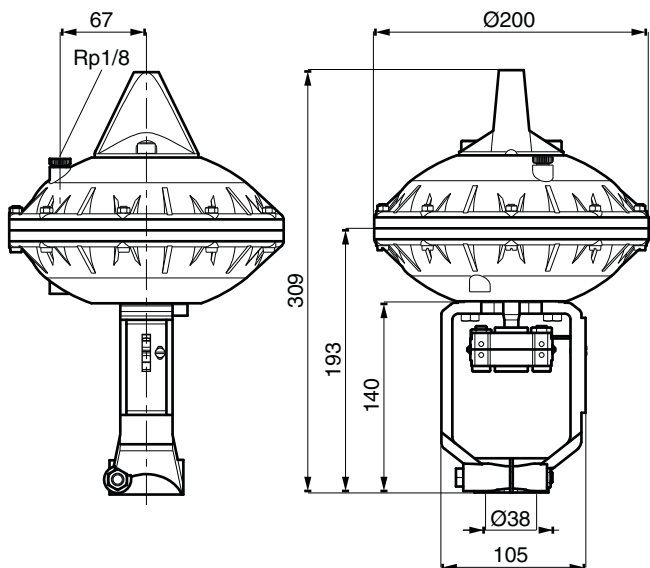
### Pressure-stroke characteristics, prepared for 2-way valves



**Disposal**

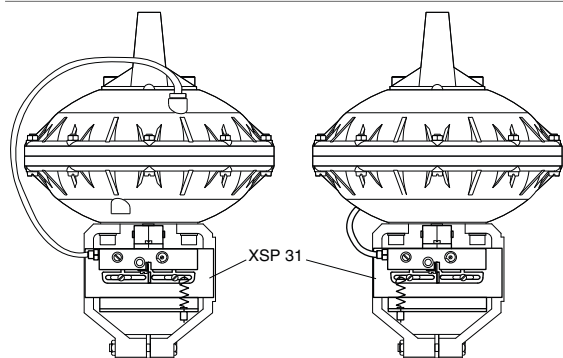
When disposing of the product, observe the currently applicable local laws.  
 More information on materials can be found in the Declaration on materials and the environment for this product.

**Dimension drawing**

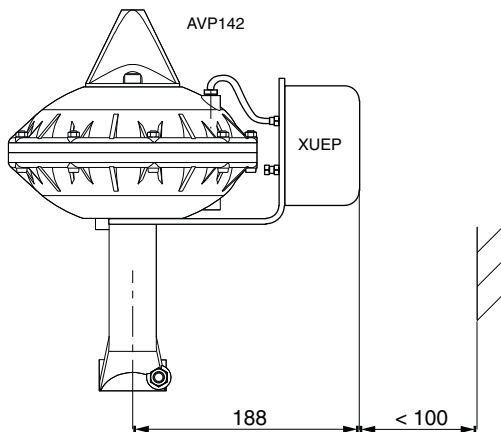


**Fitting methods: Auxiliary equipment**

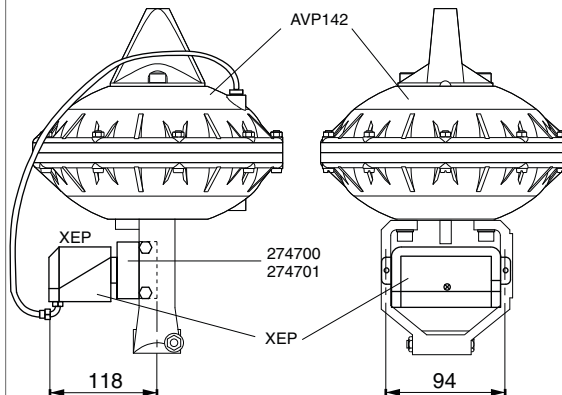
XSP 31



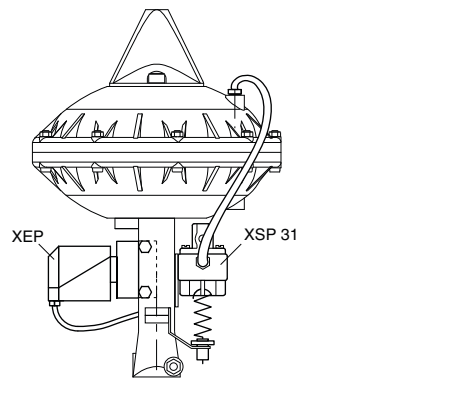
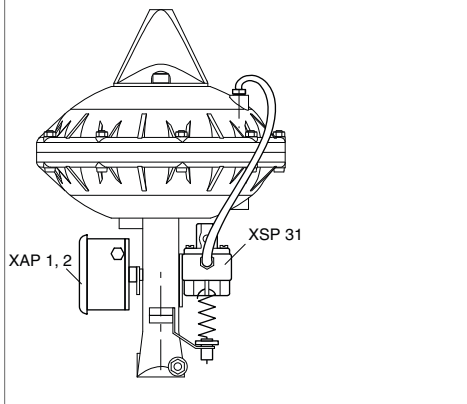
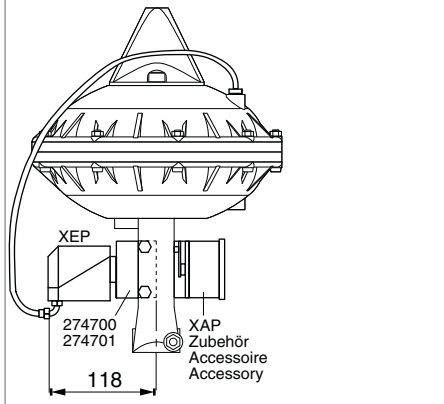
XUEP 1



XEP



Fitting methods: 2 additional devices

XEP + XSP 31	XAP + XSP 31	XEP + XAP
 <p>XEP</p> <p>XSP 31</p>	 <p>XAP 1, 2</p> <p>XSP 31</p>	 <p>XEP</p> <p>274700</p> <p>274701</p> <p>118</p> <p>XAP Zubehör Accessoire Accessory</p>