

Application

Double-acting pneumatic piston actuator for the Type 3241 DWA Valve

Actuator area 314, 490 and 804 cm²
Rated travel 15 to 30 mm

The actuators are mainly used with Type 3241 Valves in pressure swing adsorption plants.

Special features

- Small overall height
- Powerful thrust due to the supply pressure of max. 6 bar
- Low friction
- Temperature range from -30 to 80 °C

The actuators with 314 und 490 cm² areas are fixed to a yoke which is designed to accommodate a pneumatic or electropneumatic positioner.

This type of direct attachment has the following advantages:

- Tight and accurate linkage
- Adjustments are not affected during transport
- Travel pick-off protected against touching and external influences, meeting the requirements of the German Accident Prevention Regulations (VBG 5)
- Easy pneumatic connection between actuator and positioner

The actuator with 804 cm² areas does not need a yoke. The valve accessories are mounted onto the NAMUR interface.

Versions

- **Type 3275** · Pneumatic Piston Actuator (Fig. 1), effective diaphragm area 314 cm²
- **Type 3275** · Pneumatic Piston Actuator, effective diaphragm area 490 cm²
- **Type 3275** · Pneumatic Piston Actuator, effective diaphragm area 804 cm² with positioner attachment to the NAMUR interface

Additional versions

- Larger travel ranges on request

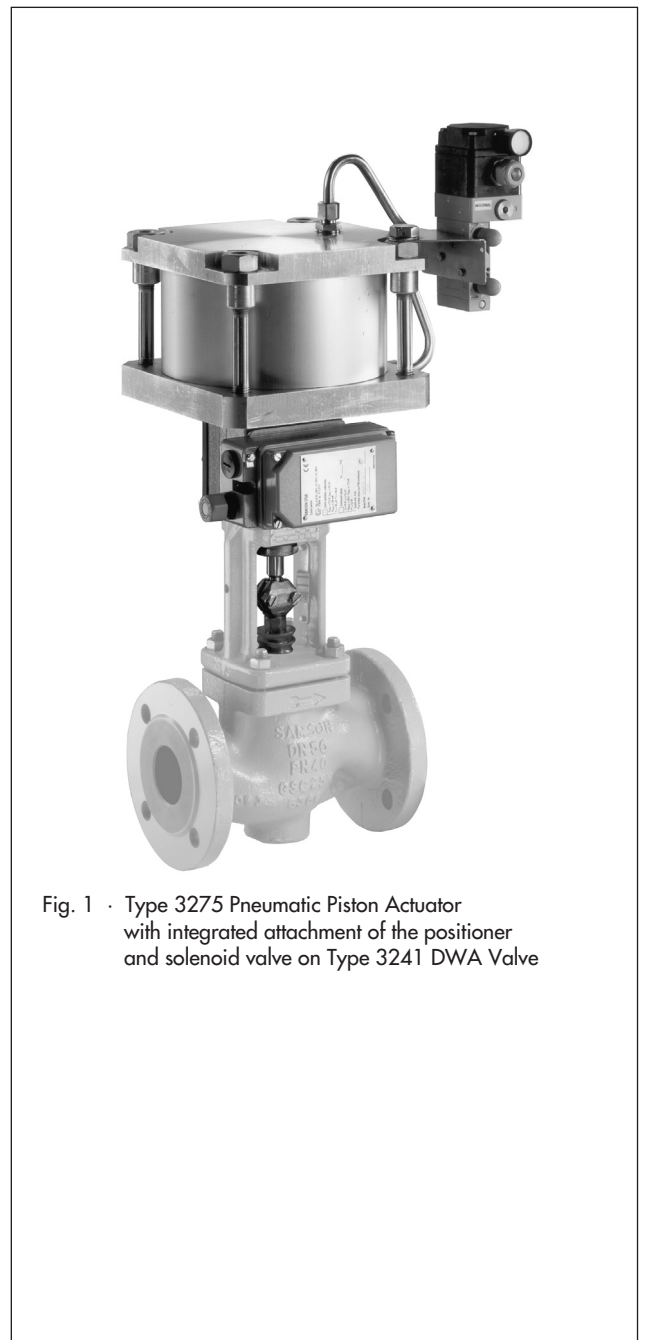


Fig. 1 · Type 3275 Pneumatic Piston Actuator with integrated attachment of the positioner and solenoid valve on Type 3241 DWA Valve

Principle of operation

The piston (6) of the actuator is pressurized with the supply air over the two connections (G 3/8 or G 1/2).

The double-acting piston actuator does not have a defined fail-safe action as it does not have spring assemblies.

Legend for Figs. 3 and 4

- 1 Piston rod
- 2 Yoke for direct attachment of positioner and/or limit switch
- 3 Plain bearing
- 4 Gasket
- 5 Piston guide tape
- 6 Piston
- 7 Rod seal/wiper

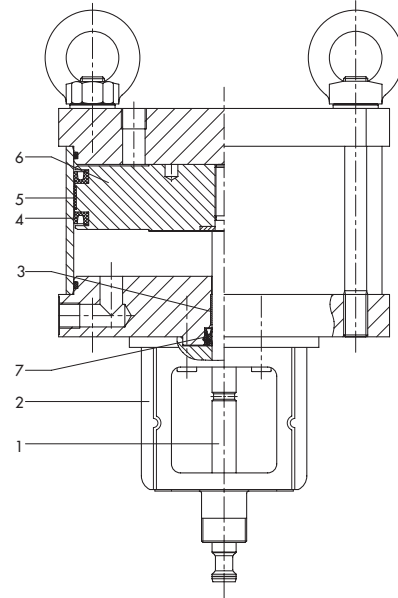


Fig. 3 · Type 3275 Pneumatic Piston Actuator version with 314 or 490 cm² effective actuator area

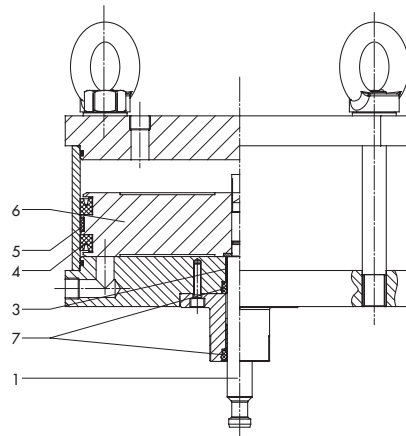


Fig. 4 · Type 3275 Pneumatic Piston Actuator version with 804 cm² effective actuator area

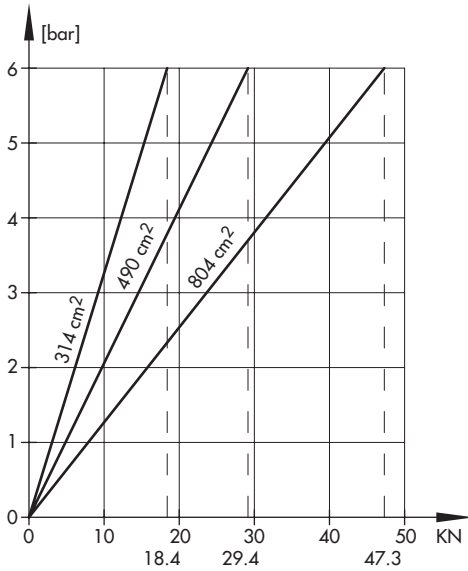


Fig. 2 · Diagram showing forces of Type 3275 Pneumatic Piston Actuator

Table 1 · Technical data

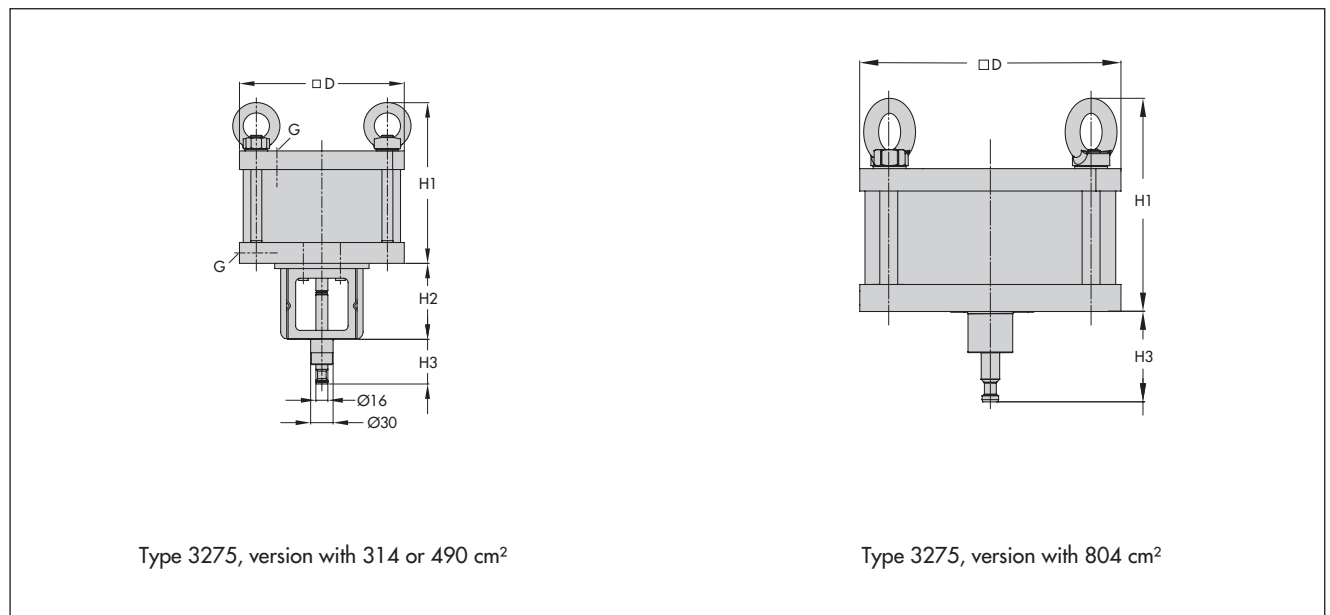
Version	Type	3275					
Actuator area	cm ²	314		490		804	
Supply pressure	max	6 bar		6 bar		6 bar	
Rated travel	mm	15	30	15	30	15	30
Piston displacement	cm ³	471	942	735	1470	1206	2412
Air connection		G 3/8		G 1/2		G 1/2	
Max. perm. leakage (t ≥ 0 °C)		50 cm ³ /min		58 cm ³ /min		70 cm ³ /min	
Perm. temperature range for continuous operation		-30 ... 80 °C					

Table 2 · Materials

Cylinder tube	3.3206, anodized
Bonnet/bottom section	3.3547, anodized
Piston bearing tape	PTFE
Piston rod	1.4548.4
Piston rod guide	Iglidur
Ring nut	C 15 / A2E
Yoke	1.0460
Seals	NBR/PU

Table 3 · Dimensions and weights

Actuator	Type	3275					
Effective area	cm ²	314		490		804	
Rated travel	mm	15	30	15	30	15	30
Piston displacement	cm ³	471	942	735	1470	1206	2412
□ D	mm	220		270		350	
H1 incl. lifting ring	mm	201		220		286	
H2	mm	102		102		-	
H3 (rod retracts)	mm	60		60		60	
Air connection		G 3/8		G 1/2		G 1/2	
Weight	kg	10		17		21	



Specifications subject to change without notice



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