

# Type 3275 Pneumatic Piston Actuator



## Application

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

**Actuator area** 314, 490 and 804 cm<sup>2</sup>  
**Rated travel** 15 to 30 mm

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

## Special features

- Low 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 cm<sup>2</sup> areas are fixed to a yoke which is designed to accommodate a pneumatic or electro-pneumatic 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)
- Simple pneumatic connection between actuator and positioner

The actuator with 804 cm<sup>2</sup> area does not need a yoke. The valve accessories are mounted over the NAMUR interface.

## Versions

- **Type 3275** · Pneumatic piston actuator (Fig. 1), 314 cm<sup>2</sup> effective actuator area
- **Type 3275** · Pneumatic piston actuator, 490 cm<sup>2</sup> effective actuator area
- **Type 3275** · Pneumatic piston actuator, 804 cm<sup>2</sup> effective actuator area with positioner attachment to the NAMUR interface

## Further versions

- Larger travel ranges on request



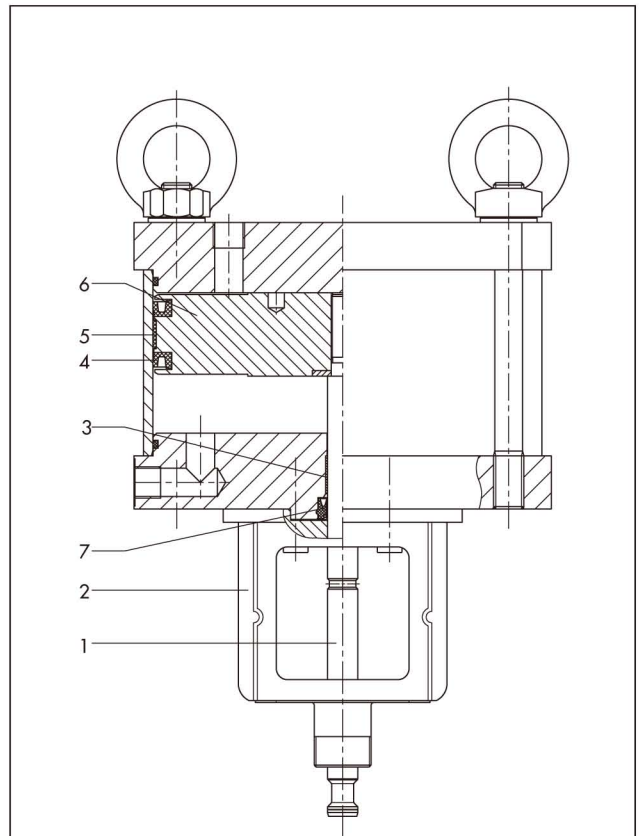
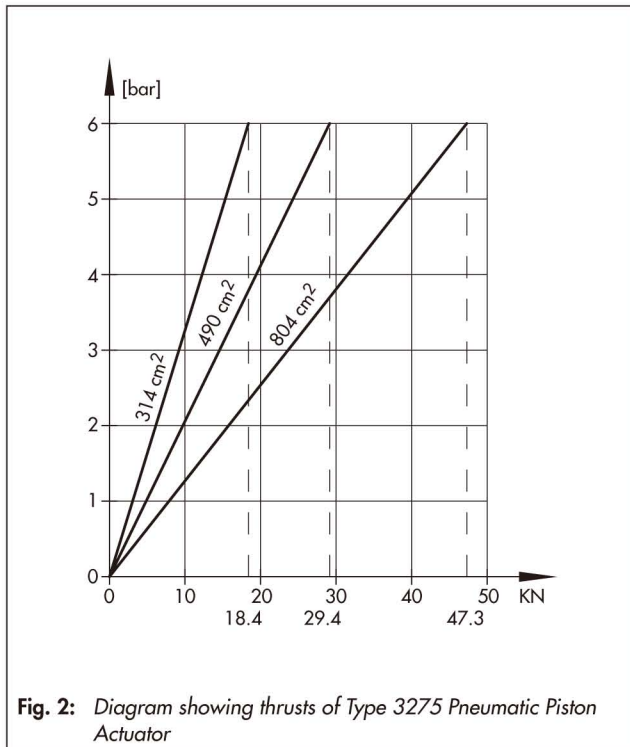
**Fig. 1:** Type 3275 Piston Actuator with integrated attachment of the positioner and solenoid valve on Type 3241 PSA Valve

### Principle of operation

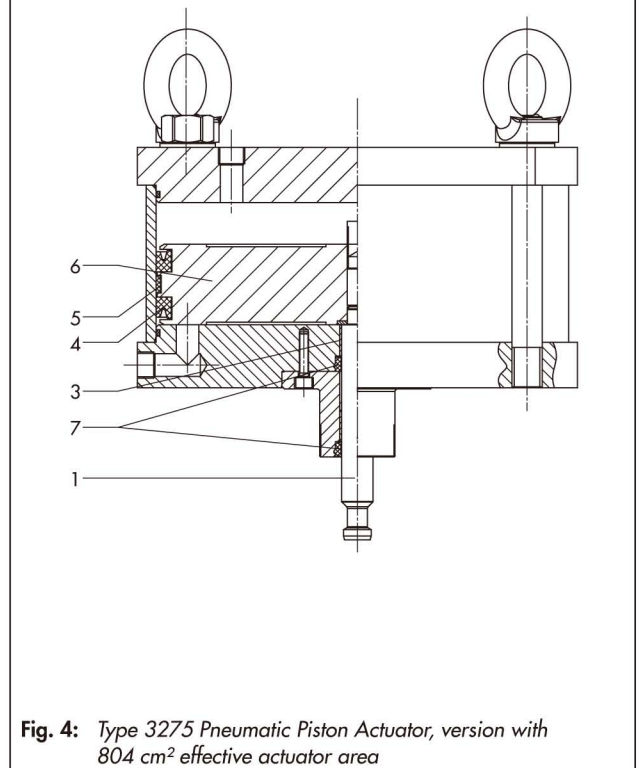
The piston (6) of the actuator is pressurized with the supply air over the two connections (G  $\frac{3}{8}$  or G  $\frac{1}{2}$ ). The double-acting piston actuator does not have a defined fail-safe action as it does not contain a spring assembly.

### Legend for Fig. 3 and Fig. 4

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



**Fig. 3:** Type 3275 Pneumatic Piston Actuator, version with 314 or 490 cm<sup>2</sup> effective actuator area



**Fig. 4:** Type 3275 Pneumatic Piston Actuator, version with 804 cm<sup>2</sup> effective actuator area

**Table 1: Technical data**

Version	Type	3275					
Actuator area	cm <sup>2</sup>	314		490		804	
Supply pressure	Max.	6 bar		6 bar		6 bar	
Rated travel	mm	15	30	15	30	15	30
Piston displacement	cm <sup>3</sup>	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 <sup>3</sup> /min		58 cm <sup>3</sup> /min		70 cm <sup>3</sup> /min	
Perm. temperature range for continuous operation		-30 to 80 °C · Extended temperature range down to -40 °C on request					
Compliance		<b>ERC</b>					

**Table 2: Materials**

Cylinder tube	3.3206, anodized
Bonnet/bottom section	3.3547, anodized
Piston guide band	PTFE
Piston rod	1.4548.4
Piston rod guide	Iglidur®
Ring nut	C15/A2E
Yoke	1.0460
Seals	NBR/PU

**Table 3: Dimensions and weights**

Actuator	Type	3275					
Effective area	cm <sup>2</sup>	314		490		804	
Rated travel	mm	15	30	15	30	15	30
Piston displacement	cm <sup>3</sup>	471	942	735	1470	1206	2412
□	mm	220		280		350	
H1 including lifting ring	mm	225 <sup>1)</sup>		250 <sup>1)</sup>		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	

<sup>1)</sup> Different dimensions are possible for special version (e.g. for low temperatures)

