

Pneumatic Actuators

TYPE PA

Description

The pneumatic actuators type PA is the last generation of SART von Rohr actuators and make it possible to convert a supply pressure into linear movement. They are used to actuate control valves and on-off valves.

With a maximum 6 bar air supply, our actuators develops considerable efforts in safety conditions.

The fluid supply can be carried out in standard by compressed air, nitrogen or filtered water. Some modifications can be done for other fluids possible (for example oxygen, oil, etc). These actuator shows an excellent sensitivity in control application.

3 types of design to meet all a wide range of needs:

- Po : The stem is OUT by airless (Single acting)
- Ps : The stem is IN by airless (Single acting)
- Pos :The stem leaves and returns according to the fluid supply (Double acting)

Characteristics:

Force up to 2200 daN and maximum stroke 63 mm,

Temperature: -30°C 90°C

Mechanical stroke indicator,

Surface from 95 to 400 cm²,

Options :

Accessories mounted on pillars,

Handwheel

Stroke limitation

Lower and higher temperature

All parts in contact with the fluid in stainless steel

Actuator with all stainless steel external parts or completely in stainless steel.



Limit switches
Solenoid valve
Connection plate

Particular features

Pneumatic actuators type PA were tested 1 000 000 cycles (with 100% stroke) on their qualifications to ensure maximum reliability. Pa actuators are equipped with anti stress device ensuring diaphragm reliability and durability.

How to order ?

Pneumatic actuator type PA60 A6 6G Po

Certification :

DESP et ATEX II 2 G/D / ISO 9001 version 2008

Forces for single acting actuators

| TYPE | Stroke in mm | Max. Air Supply | TYPE DE RESSORT | Spring Force in daN | Spring range |
|---------------------------|-------------------|-----------------|-----------------|---------------------|--------------------------|
| PA | (MAXI see page 4) | en bar | Spring type | | For maximum stroke (bar) |
| 15 A6 95 cm ² | 20 | 6 | 3R | 88 | 0.2 – 1 |
| | | | 3G | 118 | 0.72 – 1.36 |
| | | | 3S | 170 | 0.93 – 2 |
| | | | 6G | 237 | 1.37 – 2.68 |
| | | | 6S | 339 | 1.95 – 4.05 |
| | | | 7G | 270 | 1.52 – 3.12 |
| | | | 7S | 388 | 2.13 – 4.48 |
| 35 A6 180 cm ² | 24 | 6 | 2G | 115 | 0.2 – 0.7 |
| | | | 3G | 173 | 0.4 – 1.0 |
| | | | 6G | 346 | 0.7 – 2.2 |
| | | | 7G | 403 | 0.8 – 2.5 |
| 35 B6 180cm ² | 38 | 6 | 2G | 147 | 0.2 – 1.0 |
| | | | 3G | 220 | 0.4 – 1.5 |
| | | | 6G | 441 | 0.7 – 3.0 |
| | | | 7G | 514 | 0.8 – 3.5 |
| 60 A6 400cm ² | 43 | 6 | 3R | 441 | 0.3 – 1.2 |
| | | | 3G | 521 | 0.4 – 1.4 |
| | | | 5G * | 869 | 0.7 – 2.4 |
| | | | 3S | 903 | 0.8 – 2.4 |
| | | | 6G | 1043 | 0.8 – 2.8 |
| | | | 7G * | 1244 | 0.9 – 3.3 |
| | | | 5S * | 1506 | 1.3 – 4 |
| | | | 6S | 1688 | 1.6 – 4.9 |
| 7S * | 1969 | 1.8 – 5.6 | | | |
| 60 C6 400cm ² | 62 | 6 | 3G | 468 | 0.3 – 1.3 |
| | | | 5G * | 780 | 0.5 – 2.2 |
| | | | 3S | 958 | 0.4 – 2.7 |
| | | | 6G | 936 | 0.6 – 2.6 |
| | | | 7G * | 1092 | 0.7 – 3.1 |
| | | | 5S * | 1597 | 0.6 – 4.5 |
| | | | 6S | 1917 | 0.7 – 5.4 |
| | | | 7S * | 2237 | 0.8 – 6.3 |

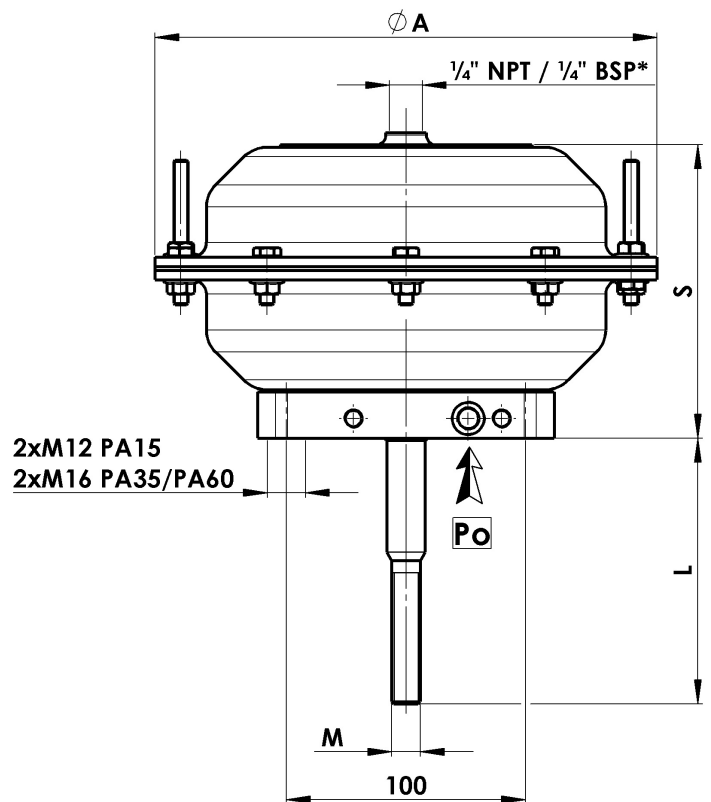
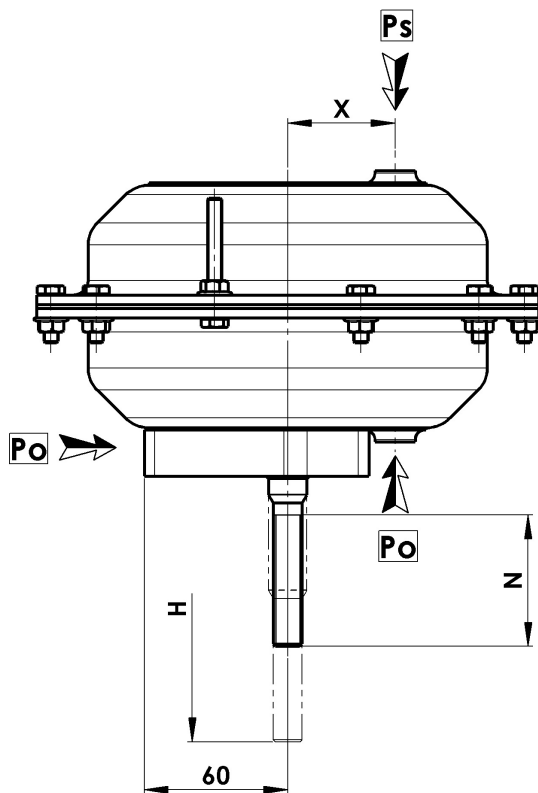
* Only on Po version, without stroke limiter HB and without hand wheel H23

Dimensions of single acting actuators

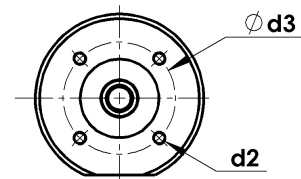
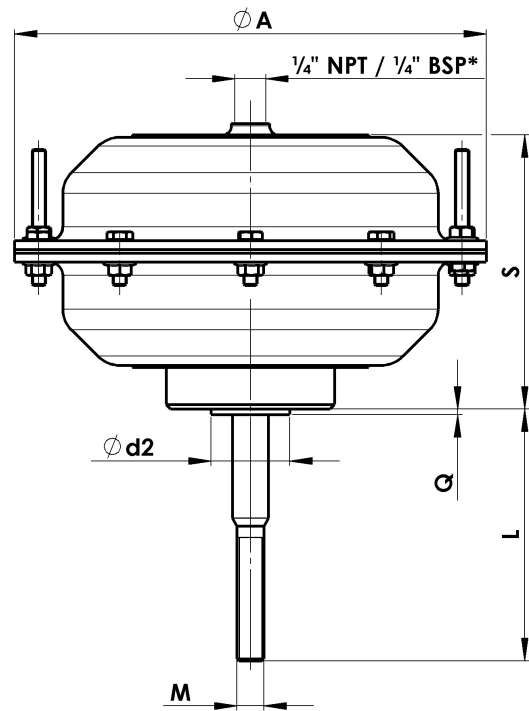
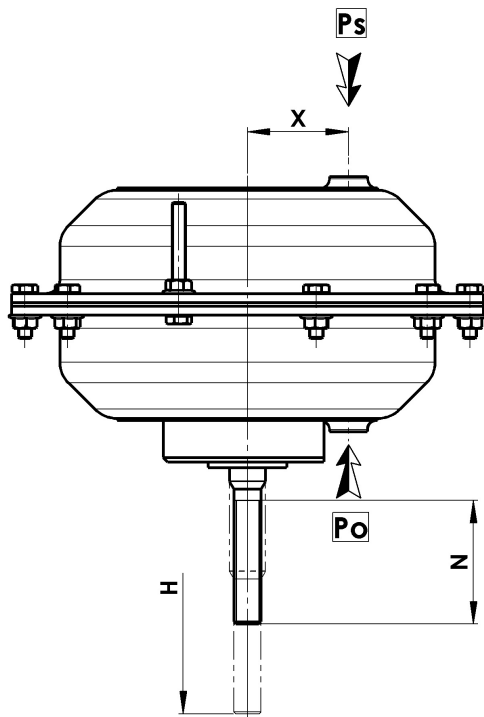
| Type | Course MAXI maximum stroke (H) | A | S | L | M | N | X | Pour PA ISO | | | Weight (Kg) | | |
|------------|--------------------------------------|-----|-----|-----|------|----|-----|-------------|-----|-----|----------------|----|---|
| | | | | | | | | Q | d2 | d3 | | d4 | |
| PA15 A6 Po | 24 | 162 | 106 | 65 | M12 | 35 | 35 | 2.5 | F05 | 35 | 50 | M6 | 4 |
| PA15 A6 Ps | 26 | | | 48 | | | | | | | | | |
| PA35 A6 Po | 24 | 210 | 125 | 110 | | 45 | | | | | | | |
| PA35 A6 Ps | | | | 119 | | | | | | | | | |
| PA35 B6 Po | 38 (G) / 33 (S) | | | 110 | | 55 | | | | | | | |
| PA35 B6 Ps | | | | 119 | | | | | | | | | |
| PA60 A6 Po | 43 | 310 | 153 | 115 | | 61 | F10 | 70 | 102 | M10 | 10.5 | | |
| PA60 A6 Ps | | | | 121 | | | | | | | | | |
| PA60 C6 Po | 62 | 173 | 135 | 141 | | | | | | | | | |
| PA60 C6 Ps | | | | | 12.5 | | | | | | | | |

- Execution with 125 mm distance between pillars axis possible on request.
- Air supply ¼ GAZ on request.

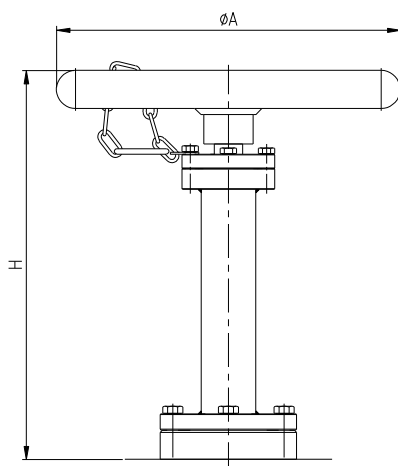
Actuators with pillars



Actuator with DIN/ ISO 5211 connection plate



Dimensions of Hand Wheel H23



| Type | H | ϕA |
|---------|-----|----------|
| PA15 A6 | | |
| PA35 A6 | 219 | 250 |
| PA35 B6 | | |
| PA60 A6 | 357 | 315 |
| PA60 C6 | | |

Parts List

| Item | Description |
|------|------------------|
| 1 | Nut |
| 2 | Pillar |
| 3 | Stroke indicator |
| 4 | Sub-plate |
| 5 | O-ring |
| 6 | Pressure plate |
| 7 | Diaphragm |
| 8 | Diaphragm plate |
| 9 | Lower casing |
| 10 | Screw |
| 11 | Nut |
| 12 | Upper casing |
| 13 | Spring |
| 14 | Spring plate |
| 15 | Handwheel plate |
| 16 | Screw |
| 17 | Nut |
| 18 | Handwheel body |
| 19 | Stem |
| 20 | Cover |
| 21 | Screw |
| 22 | Pin |
| 23 | Washer |
| 24 | Screw |
| 25 | Handwheel |
| 26 | Chain of safety |
| 27 | Guiding bush |
| 28 | Screw |
| 29 | Screw |
| 30 | Screw |
| 31 | Screw |
| 32 | Gasket |
| 33 | Guiding bush |
| 34 | Dirt stripper |
| 35 | Stem |
| 36 | Nut |
| 37 | Coupling |
| 38 | Screw |
| 39 | Nut |

