

## QUALITY MANAGEMENT

With high-precision CNC machine tools and machining centers, sophisticated technology and strict quality management system, and gathered with professional and technical elite and leading the level of science and technology team, Full the use of new technologies, new technology to ensure product stability and reliability. Product quality derived from advanced manufacturing means, quality awareness from constant innovation.



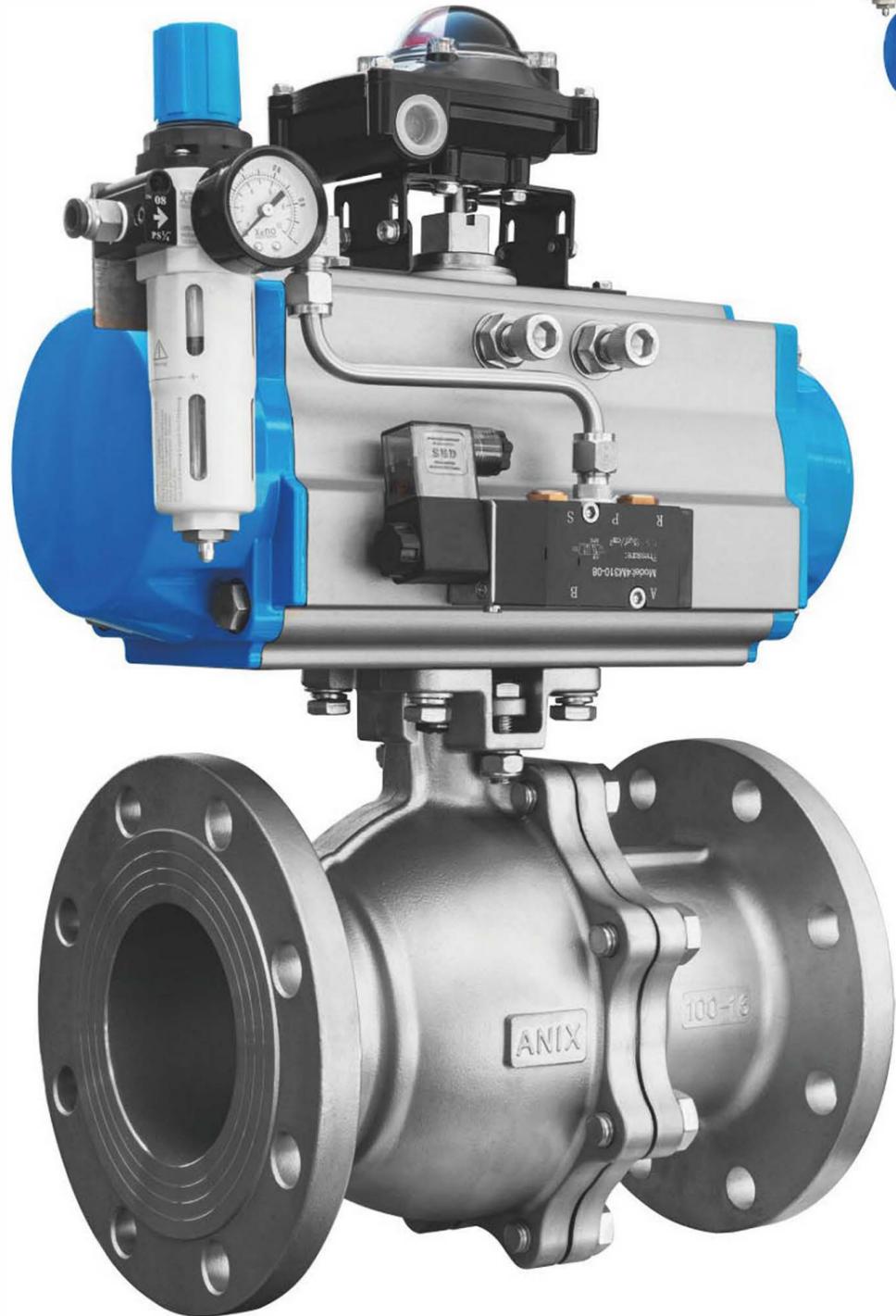
Strict Examination,  
Quality Guarantee



We ensure high product quality and product safety standards; to ensure that meet customer requirements.

Material: Aluminium alloy

Colour Assortment:



AN 050



AN 063



AN 075



AN 115



AN 090



AN 145



AN 125-180°



AN 125



AN 050



AN 090



AN 100



AW083



Pneumatic flanged ball valves



Pneumatic butterfly valve



Pneumatic flange ball valve

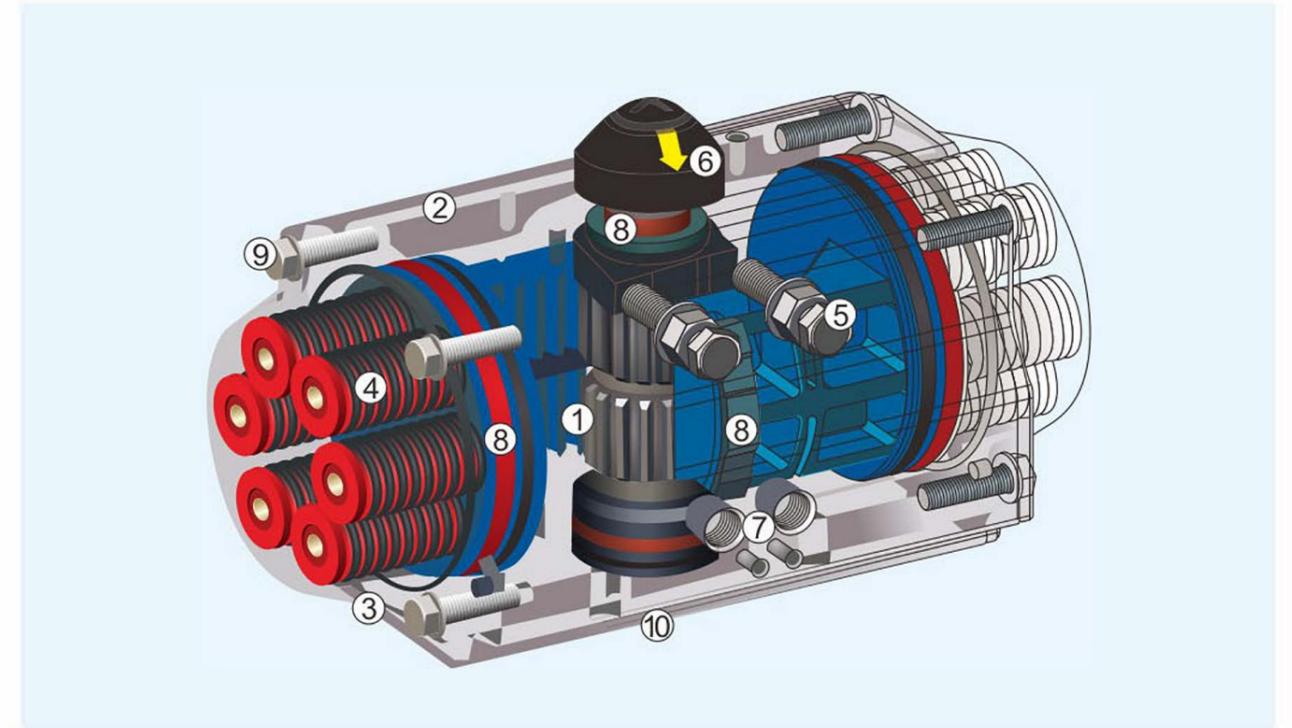


Three-piece pneumatic ball valve

Products applicable to petroleum, chemical, natural gas, light industry, electric power, pharmaceuticals, dyes, metallurgy, fiber, leather, textile, food, military, construction, refrigeration, water supply and other industries.



The new AT pneumatic rack and pinion actuators have been innovated and optimally designed through CAD, Cinema, Mastercam three-dimensional model, incorporating the latest technology at home and abroad. The shape is beautiful and compact, and the style is modern. We adopt new practical materials, new processes to make the quality and the performance of the products more reliable; multi-standard selection is more affordable; the products fully meet the latest international standard technical specifications and the current and future needs.



- 1 Dual piston rack and pinion design of symmetric structure for fast and smooth action, high precision and high output power. Reverse rotation can be accomplished by simply changing the mounting position of the pistons.
  - 2 Extruded high-quality aluminum alloy cylinder block, precisely processed inner hole and hard anodized outer surface (anodic oxidation under special circumstances + Teflon coating) extend the lifecycle and lower friction coefficient.
  - 3 Uniform design utilizes identical cylinder body and end cap for all double acting and single acting actuators. It allows changing acting way easily by adding or removing springs.
  - 4 Modular preloaded safe spring cartridges can install or remove springs easily and safely no matter in the process of mounting or in the field.
  - 5 The two independent adjusting screws on the external side can precisely adjust the on/off location of valve, which has been installed with actuator. If full stroke adjustment is required, additionally instal longer adjusting screws on two end covers.
  - 6 Multi-positioner and visual indicator comply with standard VIDME 3845 and NAMUR able to install and output all accessories. Such as limit switch, positioner and position sensor
  - 7 Air port complies with NAMUR standard and can be directly mounted NUMAR standard solenoid valve.
  - 8 The compound bearing bush and piston guide ring at the back of gear rack and bearing of outlet shaft prevent metal to metal friction. In addition, the increased lubricants help to reduce friction and extend the lifecycle.
  - 9 All fasteners are made of stainless steel materials and long-term corrosion resistance.
- Fully conformance to the latest specifications of ISO 5211, DN3337 (F03-F25), Namur and make the installation interchangeable and versatile.

Multi-functional indicator in the 4th generation actuator is the standard product, which can be applied to following occasions since it is made of compound materials.



**1. Location indication**

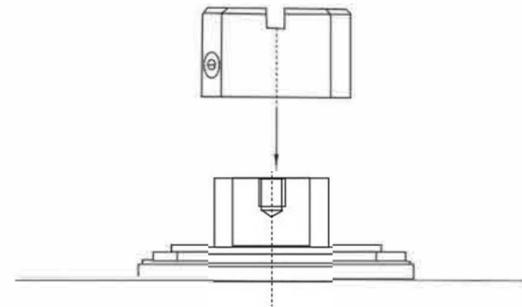
Indicating location of valve and actuator visually by a color insert and NAMUR standard trough. The indicator is suitable for all output shafts and two rotation directions of actuator.

**2. Output accessories of actuator**

NAMUR standard trough of location indicator can directly engaging output limit switch and locator.

**3. Install proximity sensors directly**

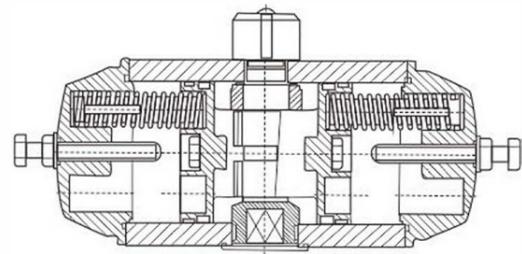
Indicator with metal insert can be mounted with numerous different proximity sensors conveniently and practically.



**Attachment installed without multi-functional indicator**

According to the requirement, replace standard indicator by stainless steel cap with NAMUR standard trough in 4th generation actuator to carry out following functions:

- 1.Attachment installation such as limit switch box and locator.
- 2.Indicating location of actuator by NUMAR standard trough.
- 3.Operable under high temperature.
- 4.Operate the actuator manually under emergency.



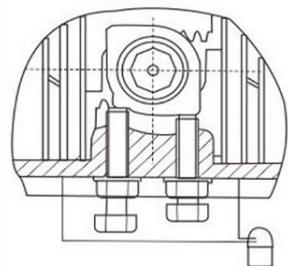
Required

**Full stroke adjustment on 4th generation actuator**

The stroke range is 0° to 90° plus or minus 4° . When a stroke less than 90° is required, such as 1° , 5° , 10° , 25° , 50° or 80° , you can add two special bolts adjustable or limitable at 0° to 90° at two end covers of actuator according to the requirement of customer. Full stroke adjustment is available in all 4th generation actuators.

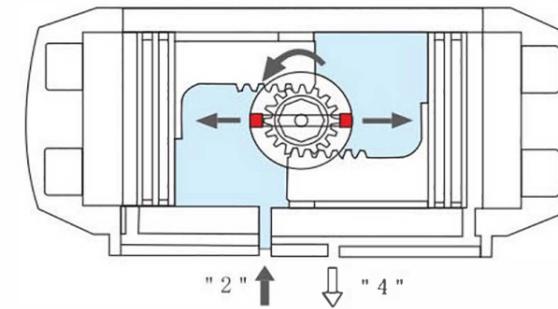
**Locking function in fully open and fully closed position**

When it is required to lock at complete on (90° ) or complete off (0° ) , the 4th generation actuator offers practical and affordable method. Special bolt and locking device in the actuator can lock the actuator at each location forever. Using padlock, to avoid any unnecessary operation.



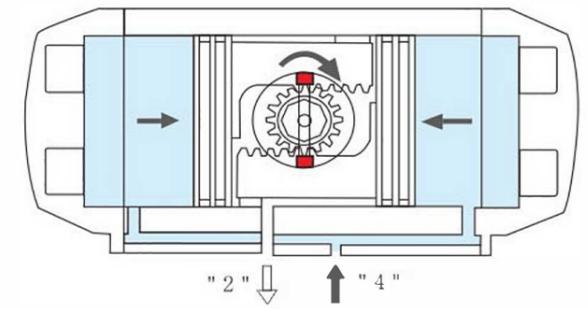
The standard rotating direction is clockwise, and can be anticlockwise when the air arrive the port 2. The rotating direction of the actuators marked LF is anticlockwise, and can be clockwise when the air arrive the Port 2

**Operating principle of double acting**



**CCW**

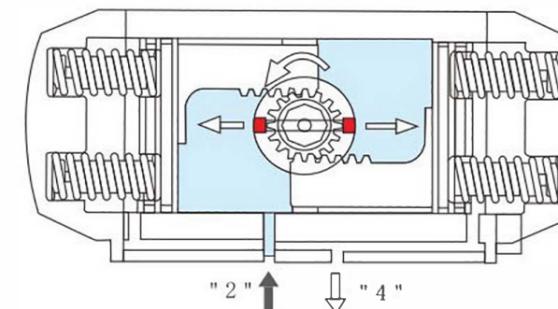
Air to Port 2 forces the pistons outwards to the two ends, causing the pinion to turn counterclockwise while the air is being exhausted from Port 4.



**CW**

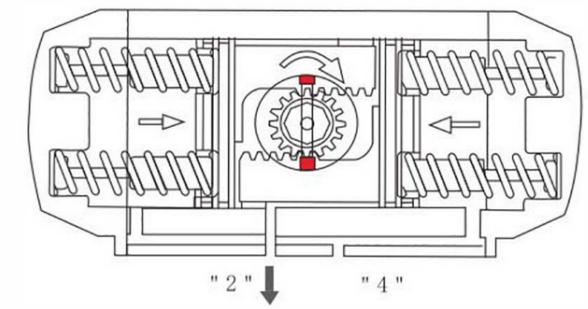
Air to Port 4 forces the pistons inwards to the middle, causing the pinion to turn clockwise while the air is being exhausted from Port 2.

**Operating principle of single acting**



**CCW**

Air to Port 2 forces the pistons outwards to the two ends, causing the springs to compress, The pinion turns counter-clockwise while air is being exhausted from Port 4.



**CW**

Air to Port 4 forces the pistons inwards to the middle, causing the pinion to turn clockwise while the air is being exhausted from Port 2.