

Available with actuator function: DOUBLE ACTING, SINGLE ACTING (Failsafe), MODULATING (with optional positioner)



Type: 3010H

Actuator fitted via mounting kit

### Pneumatic Actuator features:

- Rack and pinion construction
- Hard anodised extruded aluminium body
- Epoxy coated cast aluminium end caps
- Pre-tensioned spring sets, no special tools needed to change
- Low friction sliding parts
- Factory lubricated for life (high temperature grease available)
- ATEX approved for use in Zone 1 EExd applications
- Local visual position indicator
- ISO5211, VDI-VDE3845 & Namur compliant

### Applications:

PVC is odourless and tasteless and is used in many applications such as potable water and many food processing. PVC has good chemical resistance and resists most solutions of acids, alkalis and salts, and solvents that can be diluted with water acids. It is not resistant to aromatic and chlorinated carbons.

Actuators sized on a maximum differential pressure of 10 bar wet service, operated at least once per day. If the intended duty is above this differential, or dry (eg: some solvents) call to check actuator sizing as a larger output actuator may be required.

### Ball valve information:

The 3010H is a true union ball valve ideal for general service applications where price is the prime consideration. Manufactured in Spain, this full bore (up to and including 3") ball valve with blow-out proof ball and stem is available with UK or US imperial, BSP or NPT, or metric end connections, and with either EPDM or Viton seals.

Automation is made quick and easy when using the manufacturers bespoke mounting kit, which is a wrap around style for valves up to and including 1 1/2" (D50/DN40).

Specifications:	
Actuator housing	Hard anodised aluminium
Hazardous area rating	ATEX II 2GD EExd
Actuator temp limits	-20 to +80°C
Assembly temp limits	PA3010G +60°C Max
Valve body	uPVC
Valve ball	uPVC
Valve seats	PTFE with EPDM seals Option PTFE with FKM (Viton) seals
Valve pressure rating	16 bar at ambient temp
Valve temp limits	0 to +60°C Note: Working pressure reduces dramatically as temperature rises.
Size range	1/2" to 4"

### How this air operated 1/4 turn valve works (on-off):

Within the cylindrical bore of the actuator are 2 opposing aluminium pistons, each with an integrally cast rack, which is driven by a bearing supported nickel plated steel pinion.

The housing has air ports drilled to allow compressed air supplied via the air connection ports to flow either in to the cavity between the pistons to drive them apart, which via the rack & pinion system, rotates the actuator's output drive shaft, or into the cylinder between the pistons and end caps to drive the pistons together, which reverses the direction of rotation of the output shaft. Final open and closed positions are set with adjustable mechanical stops.

### Actuator body coating options:

**Standard:** Hard anodized extruded aluminium body, with epoxy coated aluminium end caps.

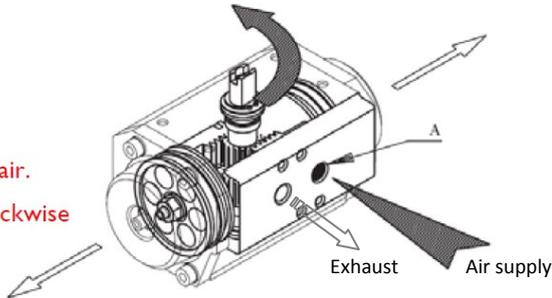
**ENP:** Electroless nickel plated body and end caps

**Teflon®:** PTFE coated aluminium body & end caps

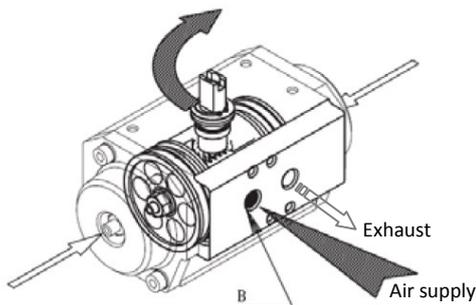
Actuator Information - air ports and standard direction of rotation (closes clockwise)

DA

Opening by air.  
Counter-clockwise



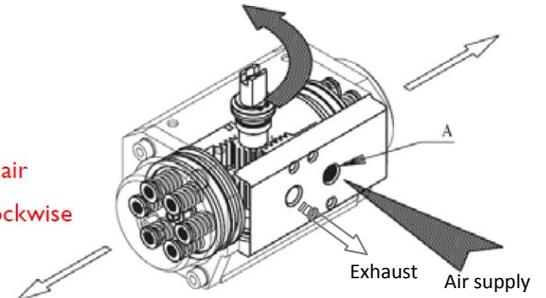
Closing by air.  
Clockwise



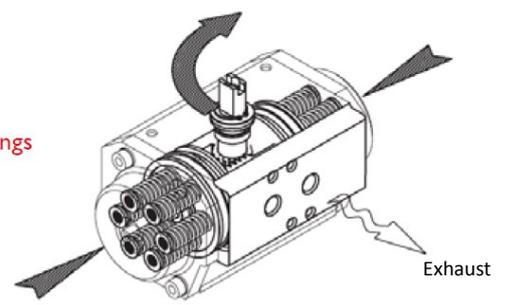
Double acting actuators - standard shaft rotation

SR

Opening by air.  
Counter-clockwise



Closing by springs.  
Clockwise

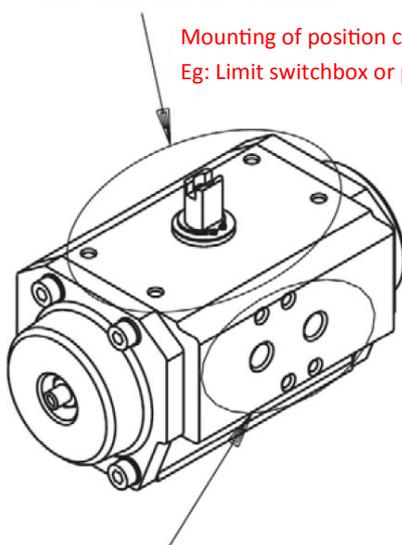


Single acting actuators - standard shaft rotation

Actuator Information - standards for mounting valves and accessories

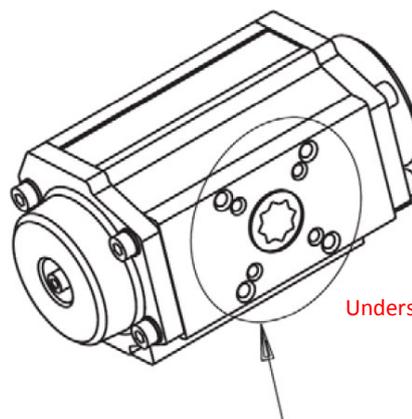
VDI-VDE 3845 (NAMUR)

Mounting of position control & monitoring devices  
Eg: Limit switchbox or positioner



VDI-VDE 3845 (NAMUR)

Mounting of Namur pilot solenoid valves



Underside of actuator

ISO 5211 - DIN 3337

Valve mounting

## Method of assembly and accessories for position feedback, position monitoring and position control



### Safety Notice:

Ensure positioner, switchbox and/ or solenoid are compatible with the intended installation area - is it a safe area, or a hazardous area? If hazardous, which Zone? We can supply either. Call to check if unsure.

**Positioner:** Sets the degree of opening of the actuator (and therefore valve) proportional to a control input signal. This signal can be either 4-20mA, or 0-15psi.

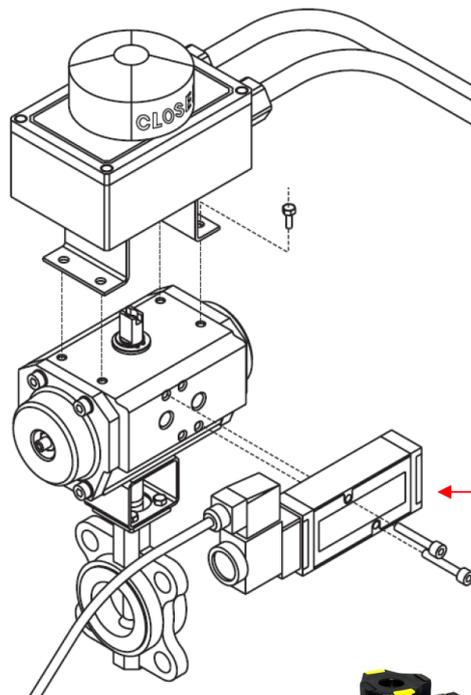
**Switchbox:** Internal switches, activated by cams or similar, driven by the actuator's pinion, make a circuit at end of travel (ie: full open, or full closed) to provide remote end of travel confirmation. Also has local visual position indicator

**Solenoid:** Provides electrical control of the pneumatic actuator. Air remains energised permanently, the solenoid valve switches to control the opening and closing of the actuator.

Safe area switchbox fitted



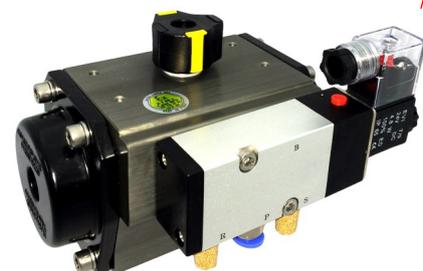
Fit limit switchbox or positioner



Fit Namur pilot solenoid



Safe area pilot solenoid and switchbox fitted. The solenoid can be pre-wired to the switch-box.



Safe area Namur solenoid fitted.

## Valve Data

### Applications:

- Suitable for its use in Irrigation, Public Works, Swimming-pools, Gardening, Livestock and Industries (depending on fluid elements).

- The valve lever- lock system ND 113 of Ø 125, as there is no flow narrowness due to the ball nor any obstructions, is fit to be the suitable valve for agri-food industry, particularly for olive oil mill, wine cellars, sterilized canned food, etc.

- Food-industry use: Our valves are entirely manufactured with virgin raw materials and certifications of "non-toxic" according to E.U. standards, being completely fit for the management of drinking water and food- industry.

- His optional seals in EPDM and VITON, give them a special resistance to numerous chemical substances.

### Nominal Pressure:

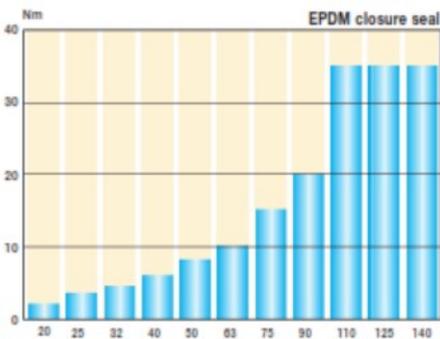
Ø 20 to 63	PN = 16 bar.	232 psi
Ø 75 to 140	PN = 10 bar.	145 psi

### Standard:

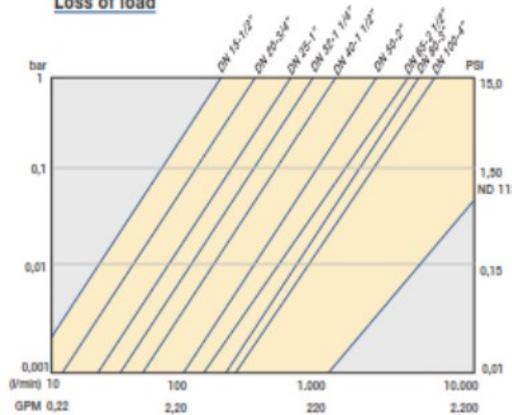
- Connections to PE pipes: UNE EN 12201 (PE).
- Solvent Socket connections: UNE EN 1452 (PVC-U).
- Threads: UNE 19 009.



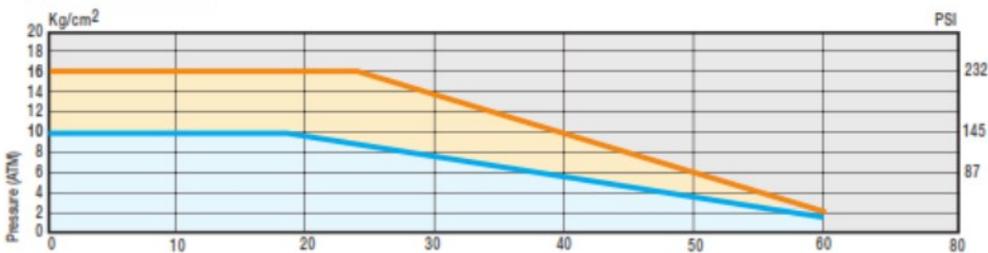
### Torque at maximum pressure of service



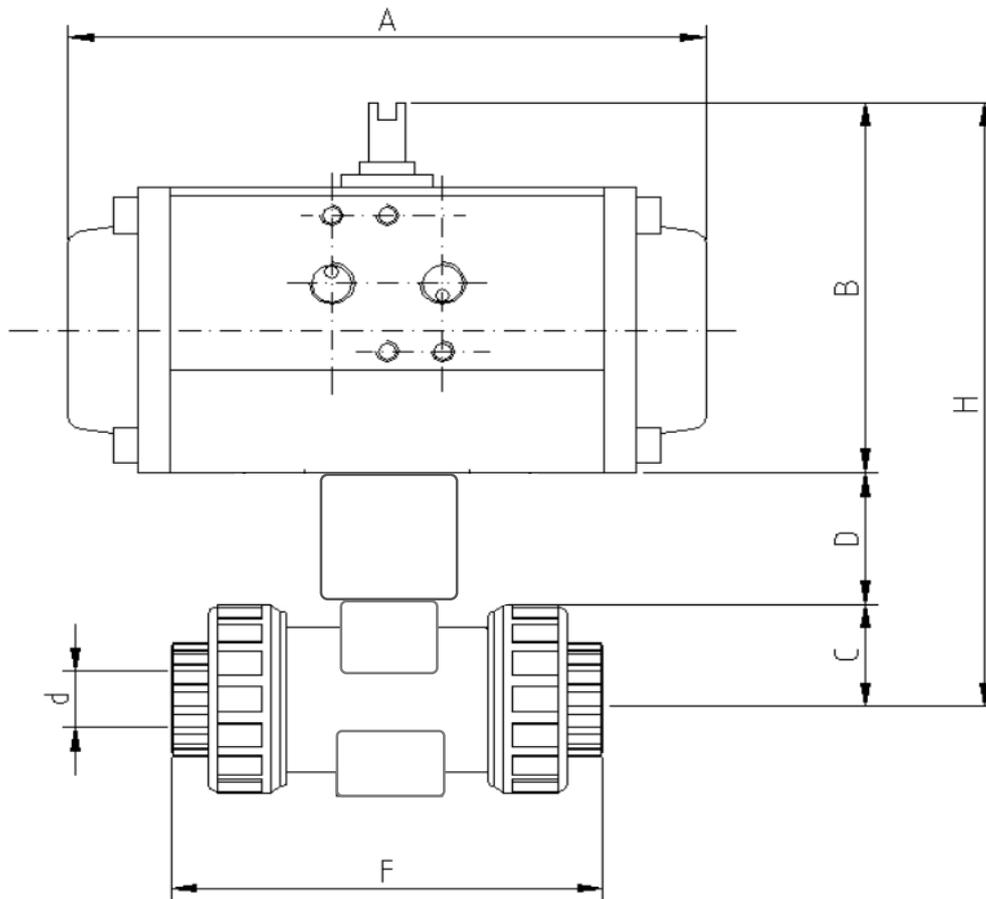
### Loss of load



### Pressure/ Temperature



Typical Assembly Dimensions (mm)



Size 'd' (imperial)	Size 'd' (metric OD)	CH-air A Model No	A	B	C	D	H	F
1/2"	D20 DN15	DA 42 SR 42SR	DA 160 SR 160	DA 57 SR 57	25	29	DA 111 SR 111	86
3/4"	D25 DN20	DA 42 SR 42SR	DA 160 SR 160	DA 57 SR 57	29	29	DA 115 SR 115	94
1"	D32 DN25	DA 42 SR 50SR	DA 160 SR 138	DA 57 SR 67	34	29	DA 120 SR 130	122
1 1/4"	D40 DN32	DA 42 SR 50SR	DA 160 SR 138	DA 57 SR 67	42	29	DA 128 SR 138	131
1 1/2"	D50 DN40	DA 42 SR 63SR	DA 160 SR 156	DA 57 SR 83	49	29	DA 135 SR 161	150
2"	D63 DN50	DA 50 SR 75SR	DA 138 SR 210	DA 67 SR 100	58	29	DA 144 SR 187	177
2 1/2"	D75 DN65	DA 50 SR 75SR	DA 138 SR 210	DA 67 SR 100	75	0	DA 142 SR 175	216
3"	D90 DN80	DA 75 SR 85SR	DA 210 SR 228	DA 100 SR 110	81	0	DA 181 SR 191	
4"	D110 D100	DA 75 SR 85SR	DA 210 SR 228	DA 100 SR 110	89	0	DA 189 SR 214	