

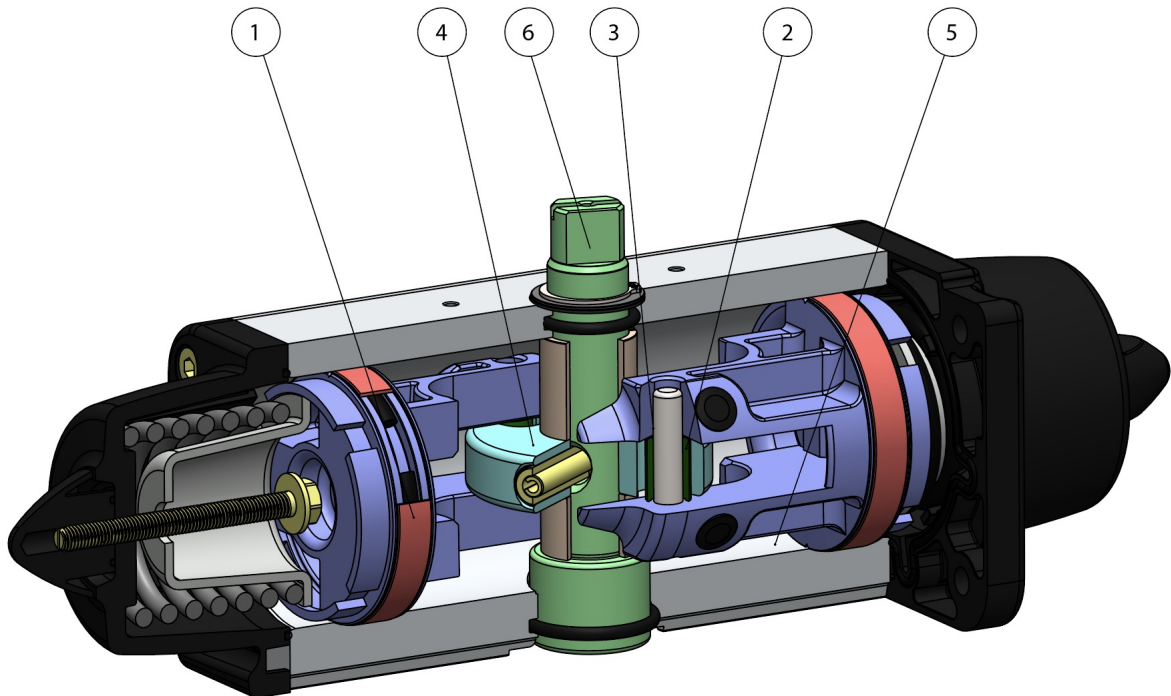
AGO 316 - SR type inox 316 from solid bar



Macro Pneumatic actuators

Category AGO 316 - Inox 316 from solid bar actuators

benefits



1. Energized and self-lubricated strips

Less friction between piston and cylinder

It prevents the bonding of the seal to the cylinder even after long periods of inactivity

2. Slots, bushes and pins made by steel with hardness higher than 50 HRC

Higher resistance to the forces inside the actuator

3. Rolling friction between piston and slot

Less friction

4. Scotch yoke with rolling friction (transforming rotary motion into linear motion using piston and shaft without teeth/gears)

Reduced friction between piston and shaft with consequently less wear on the relevant parts

Empowered Breakaway Torque (BTO & BTC)

Smaller volume/size than rack and pinion actuators (with the same torque) therefore less space required for installation

Less weight than the rack and pinion (-30% kg / Nm), with consequent savings on the construction sizing of the plant/equipment

Lower air consumption compared to the rack and pinion actuators (-40% air cm³/Nm for Double Acting and -20% air cm³/Nm for Spring Return) therefore less load on the compressor or the possibility of using a smaller compressor's size.

5. Rolled cylinder

Less wear of the energized ties thanks to the low roughness of the surface

6. Stainless Steel shaft

Higher corrosion resistance

From sizes bigger than DAN15, NAMUR interface for solenoid valve is already integrated

No need for extra plate.

100% in- house manufacturing process technology

Maximum control and accuracy in all the stages of the manufacturing process

ATEX Certificate

Installation is allowed in a potential explosive environment

Up to SIL 3 Certified

Guarantee of the high level of functional safety.

features

TECHNICAL FEATURES

Torque from 360 Nm to 960 Nm.

Mounting flange according to EN ISO 5211; F10 - F12 - F14 - F16.

In compliance with EN 15714-3.

Rotation angle: 92° (-1°, +91°)

Torque: the return torque depends on spring action only notwithstanding the air supply.

The spring is provided in four different sizes (see table - general catalogue pneumatic actuator SR).

The code numbers after the letters SR, always correspond to the breakaway torque in Nm by 5,6 bar air supply. The actuator automatic closing takes place in clockwise direction by means of its springs.

ATEX version in conformity with directive 2014/34/EU. Please add YX at the end of the code for ATEX version.

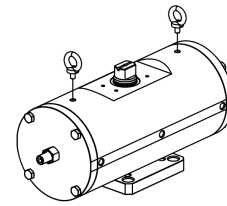
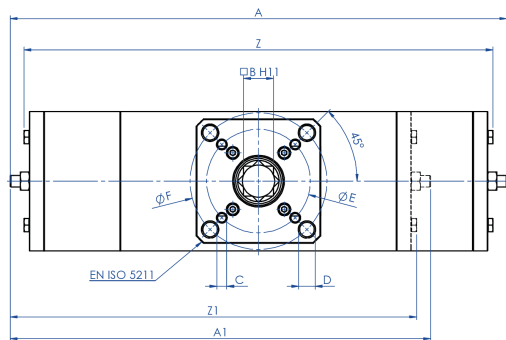
WORKING CONDITION

Temperature: from -20°C to +80°C.

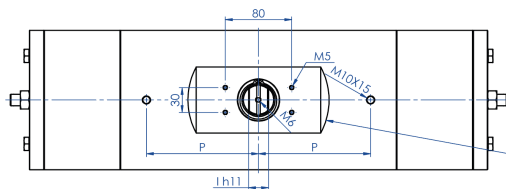
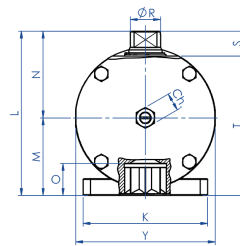
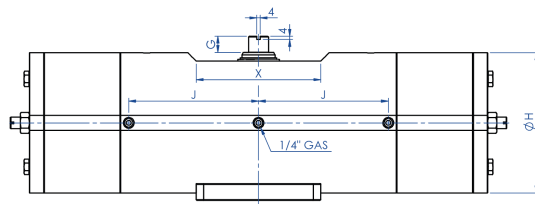
Air supply: 5,6 bar; maximum 8,4 bar.

Actuating media: filtered dry compressed air, not necessarily lubricated. In case of lubricated air, either non detergent oil, NBR compatible oil, must be used.

dimensions



I punti di sollevamento sono progettati per il solo attuatore
Per il sollevamento utilizzare due golfari M10
For the lifting use n° 2 eyebolts M10
Lifting point are designed for actuator only

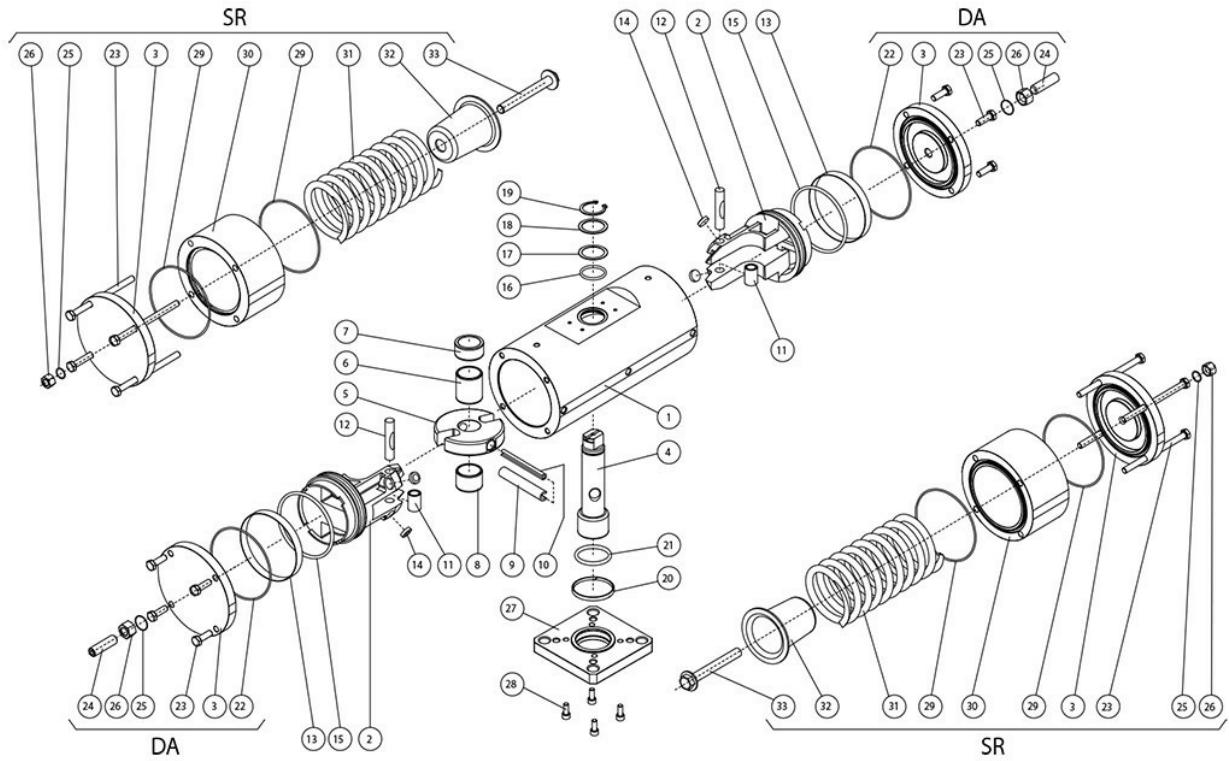


Interfaccia per accessori
EN 15714-3 (VDI/VDE 3845)
Accessories interface
EN 15714-3 (VDI/VDE 3845)

DATA SHEET					
Code	SR0360416S	SR0480416S	SR0720424S	SR0720416S	SR0960416S
Spare seals	KGXI0023	KGXI0024	KGXI0025	KGXI0025	KGXI0026
Size	SR0360 F10/F12	SR0480 F12/F16	SR0720 F12	SR0720 F14	SR0960 F12/F16
A	565,5	598	736,8	736,8	769,6
A1 (2,8 Bar)	483,5	506	630,8	630,8	645
B	27	36	36	36	46
C x depth	M10x11,5	M12x20	M12x18	M16x18	M12x23
D x depth	M12x11,5	M20x20	-	-	M20x23
ØE	102	125	125	140	125
ØF	125	165	-	-	165
G	19,5	19,5	19,5	19,5	18,5
ØH	156	169	188	188	211
I	22	24	27	27	32
J	138,5	156,3	179,5	179,5	192
K	115	150	130	130	150
L	178	198	216	216	237,7
M	78,5	93,5	101,5	101,5	114,7
N	99,5	104,5	114,5	114,5	123
O	29,5	38,5	38,5	38,5	48,5
P	116	135	160	160	160
Q	-	-	-	-	-
Q2	-	-	-	-	-
ØR	31,8	36,5	41	41	46
S	30	30	30	30	30
S2	-	-	-	-	-
T	148	168	186	186	207,7
T2	-	-	-	-	-
X	150	150	150	150	150
Y	155	168	187	187	209
Z	525,8	565	685	685	718,4
Z1 (2,8 Bar)	435,8	473	559,4	559,4	593,8
Ch	22	22	24	24	24
Ch1 (2,8 Bar)	24	24	30	30	30
Weight (Kg)	45,5	60	82,5	82,5	112
Weight (2,8 Bar) (Kg)	37,5	51	77	77	96
Air (dm ³ /cycle) (l/cycle)	2,00	2,8	4,20	4,20	5,9

materials

316 FROM BAR DOUBLE ACTING AND SPRING RETURN PNEUMATIC ACTUATOR COMPONENTS



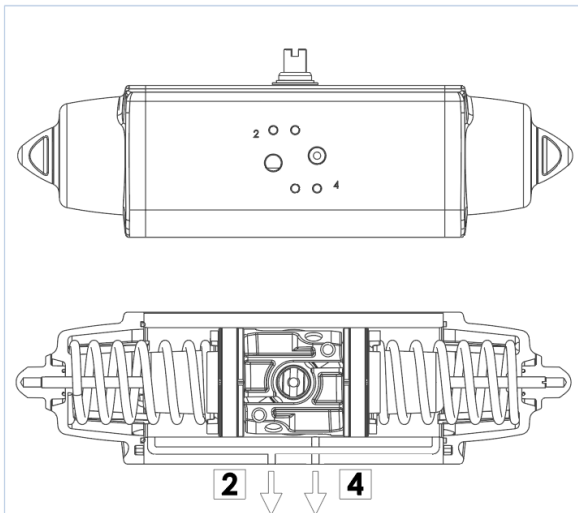
316 FROM BAR DOUBLE ACTING AND SPRING RETURN PNEUMATIC ACTUATOR COMPONENTS

Pos	Denomination	Q.ty	Material
1	Cylinder	1	Stainless steel
2	Piston	2	Aluminium alloy
3	Cap	2	Stainless steel
4	Shaft	1	Stainless steel
5	Scotch yoke	1	Steel alloy
6	Bearing shaft	1	Acetalic resin
7	Upper shaft support	1	Acetalic resin
8	Bearing shaft	1	Acetalic resin
9	Ext.elastic pin	1	Steel alloy
10	Int.elastic pin	1	Steel alloy
11	Steel bush	2	Steel alloy
12	Rotative sleeve	2	Steel alloy
13*	Dynamic seal	2	Polyurethane
14*	Support disk	4	P.T.F.E. carbo-graphite filled
15*	O-ring	2	Nitrilic rubber
16	O-ring	1	FKM
17	Thrust bearing	1	Acetalic resin
18	Washer	1	Stainless steel
19	Seeger	1	Stainless steel
20	Lower shaft support	1	P.T.F.E. carbo-graphite filled
21	O-ring	1	FKM
22*	GD O-ring	2	Nitrilic rubber
23	Screws	8	Stainless steel
24	Grub screws	2	Stainless steel
25	O-ring	2	Nitrilic rubber
26	Adjusting nut	2	Stainless steel
27	Fixing flange	1	Stainless steel
28	Screws	4	Stainless steel
29*	GS O-ring	4	Nitrilic rubber
30	Cylinder spacer	2	Stainless steel
31	Spring	2	Steel alloy
32	Spring cap	2	Aluminium alloy
33	Spring loading screw	2	Stainless steel
* Components of spare part kit			

specifications

WORKING PLANE PNEUMATIC ACTUATOR "SR" TYPE

SCHEMA FUNZIONAMENTO ATTUATORE PNEUMATICO AGO "SR" WORKING PLANE PNEUMATIC ACTUATOR AGO "SR" TYPE

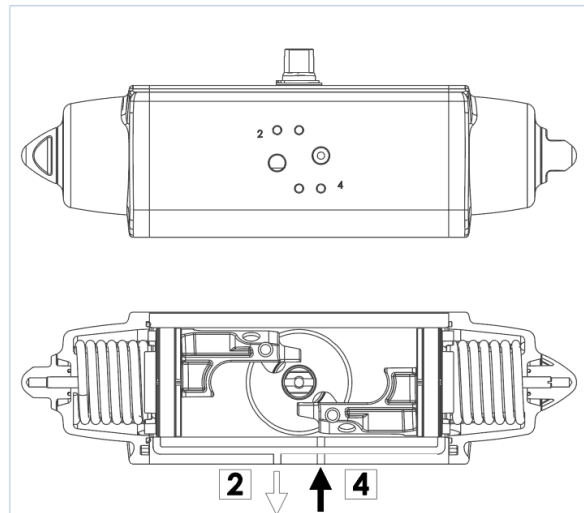


SCHEMA DI FUNZIONAMENTO

Senza pressione di alimentazione, nella versione semplice effetto, l'attuatore torna automaticamente in posizione di riposo compiendo una rotazione oraria e la posizione finale è quella rappresentata nel disegno. Sul foro 2 è consigliato montare un filtrino onde evitare che polvere o particelle solide possano entrare nella camera del cilindro senza tuttavia impedire il passaggio dell'aria.

WORKING PLANE

Without air supply, the spring return actuator returns to its resting position, rotating in a clockwise direction. The drawing shows its final position. We assembling a small filter on the air connection 2 to prevent dust and particles into the cylinder chamber without, however, preventing the passage of air.



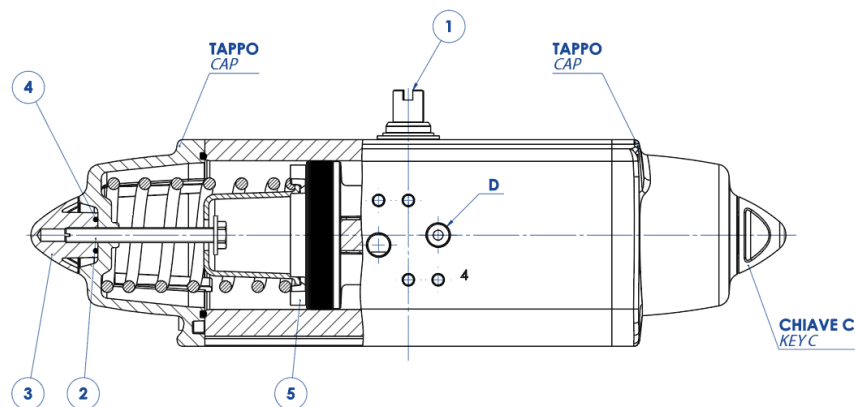
SCHEMA DI FUNZIONAMENTO

Immettendo aria nel foro 4 di alimentazione, i pistoni si muovono verso l'esterno comprimendo le molle, si ha una rotazione antioraria e la posizione finale è quella rappresentata nel disegno.

WORKING PLANE

Supplying air through the air connection 4, the pistons move outwards pressing the spring. An anticlockwise rotation takes place and the final position is shown above.

ATTUATORE REGOLABILE-ISTRUZIONI PER L' UTILIZZO ACTUATOR WITH STROKE ADJUSTMENT-INSTRUCTIONS



- A)** Verificare che le molle siano in posizione di riposo osservando la chiave dell'albero (part. n°1) come da disegno e controllando che nel foro "D" non ci sia pressione.
B) Togliere i controdadi (part. n°3) agendo sulla chiave C.
C) Con un cacciavite avvitare le viti (part. n°2) in senso orario ed effettuare la limitazione di corsa desiderata.
N.B. La corsa può essere limitata per un massimo di 10° da 80° a 90°
D) Immettere aria nel foro "D" e verificare che entrambe le viti (part. n°2) siano a battuta contro i pistoni (part. n°5).
E) Bloccare i controdadi (part. n°3) muniti di O-ring (part. n°4) per la tenuta tra controdado, tappo e vite.

N.B. queste spiegazioni sono indicative, per le istruzioni operative, vedere il manuale.

- A)** The springs must be at rest position, the shaft (part. 1) must be as shown in the drawing. Air connection D must not be supplied with air.
B) Remove the counter-nuts (part. 3), acting on C key.
C) By means of a screwdriver turn screws (part. 2) in a clockwise direction until you obtain the requested end-stroke regulation.
Note: maximum adjusting stroke 10°, ranging from 80° to 90°.
D) Supply connection D with air pressure and check that both adjusting screws (part. 2) stop the pistons (part. 5).
E) Screw the counter-nuts (part. 3) and their O-ring (part. 4) to keep nut and cap tight.

N.B. these explanations are indicative, for operating instructions, see the manual.



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documents

Certificati

ATEX - Pneumatic Actuators

SIL EN 61508 - Actuators: SR, SRN, DA, DAN

Type Approval Certificate for Marine and machinery systems and equipment

Istruzioni

ISTRUZIONI ATEX UITGOG01ATX

ISTRUZIONI USO 8_0842

Manuali

MANUALE UMA800081B