ACTUATECH S.p.A.
Via San Lorenzo 70
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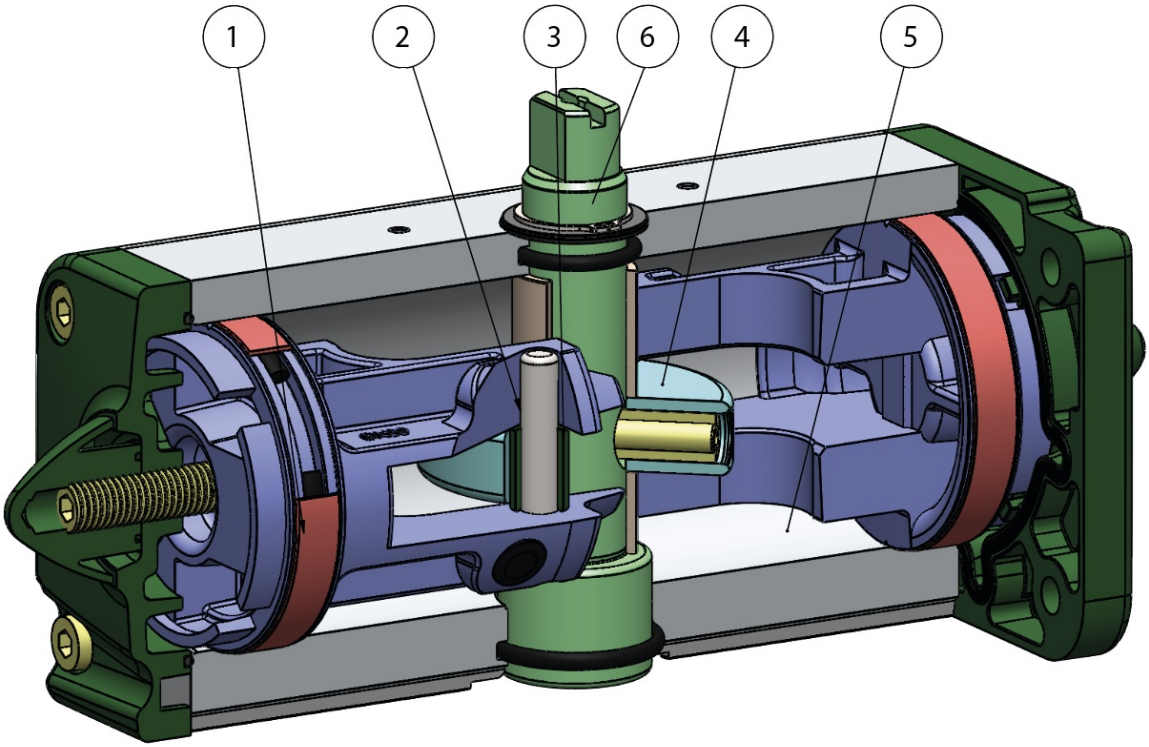
GD (double acting) pneumatic actuator A105 carbon steel

Macro DA & SR Pneumatic Actuators

Category Carbon steel A105 actuators

Nominal torque of the actuator: from 720 Nm to 3840 Nm

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 teeths/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 GD15, 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.

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features

TECHNICAL FEATURES

Torque from 720 Nm to 1920 Nm
Mounting flange according to EN ISO 5211
F10 - F12 - F14 - F16
In compliance with EN 15714-3
Rotation angle 92° (-1° +91°)
Torque: directly proportional to the air supply (see table pneumatic actuator GD)
In the code of standard version GD actuators, it is indicated the breakaway torque in Nm at 5,6 bar air supply.
Actuator with epoxy painting
ATEX version in conformity with directive 2014/34/EU

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.

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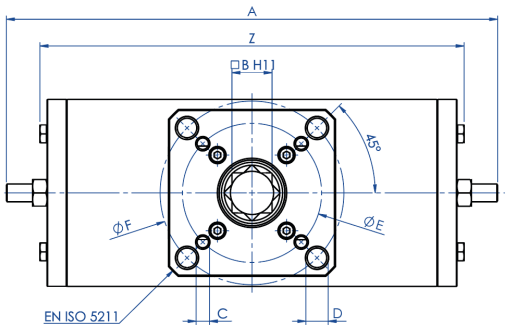
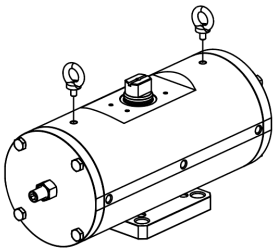
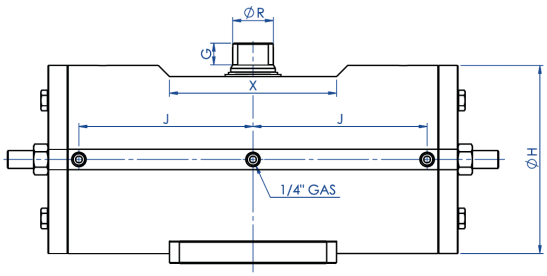
dimensions

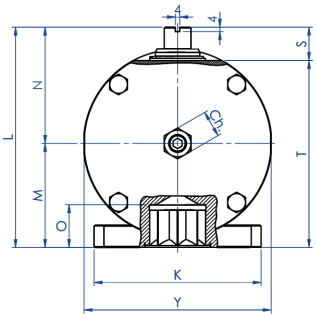


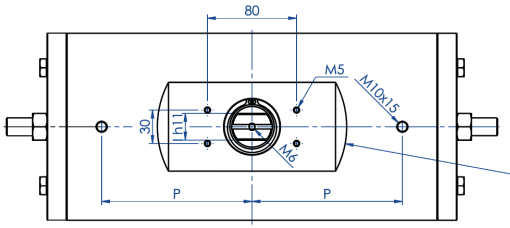


I punti di sollevamento sono progettati per il solo attuatore
Per il sollevamento utilizzare due golfari M10

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)

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DATA SHEET					
Spare seals	KGGSS123	KGGSS124	KGGSS125	KGGSS125	KGGSS126
Size	**GD0720 F10/F12**	**GD0960 F12/F16**	**GD1440 F12**	**GD1440 F14**	**GD1920 F12/F16**
A	401,5	441	524,8	524,8	562
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
ØR	31,8	36,5	41	41	46
S	30	30	30	30	30
T	148	168	186	186	207,7
X	150	150	150	150	150
Y	155	168	187	187	209
Z	345,8	381	433,8	433,8	469
Ch	24	24	30	30	30
Weight (Kg)	30	40	50,5	50,5	73
Air (dm^3/cycle) (l/cycle)	3,7	4,8	7,7	7,7	10

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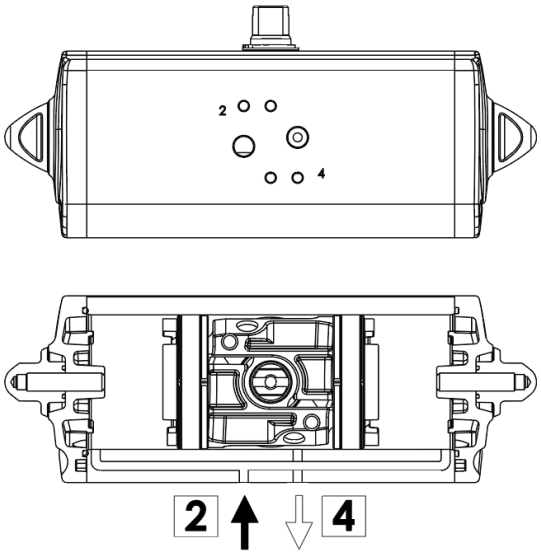
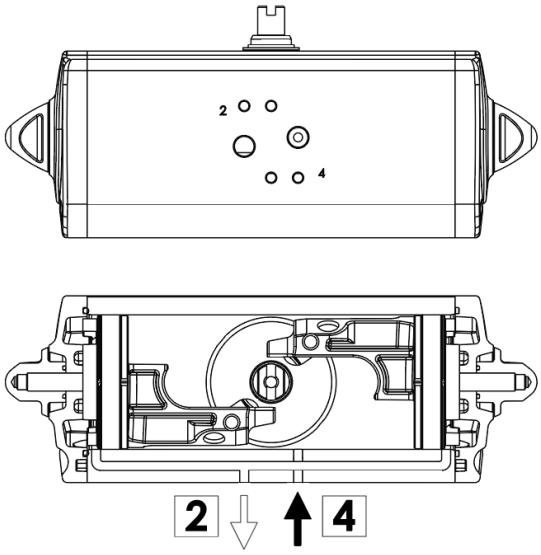
specifications

GD PNEUMATIC ACTUATOR OPERATING DIAGRAM



SCHEMA DI FUNZIONAMENTO
Immettendo aria nel foro 2 di alimentazione, i pistoni si muovono verso il centro e si ha una rotazione antioraria, la posizione finale è quella rappresentata nel disegno.

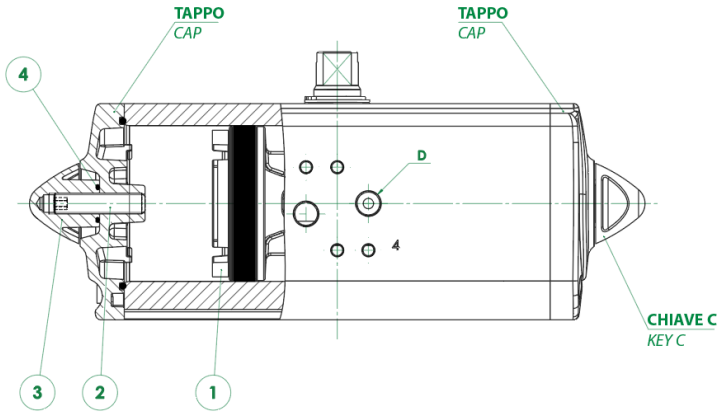
WORKING PLANE
Supplying air through the air connection 2, the pistons move towards the center in an anticlockwise direction. The above drawing shows the final position.



SCHEMA DI FUNZIONAMENTO
Immettendo aria nel foro 4 di alimentazione, i pistoni si muovono verso l'esterno e si ha una rotazione oraria, la posizione finale è quella rappresentata nel disegno.

WORKING PLANE
Supplying air through the air connection 4, the pistons move outwards in a clockwise direction. The above drawing shows the final position.

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



A) Immettere aria nel foro "D" in modo che i pistoni (part. n°1) si vengano a trovare in posizione di finecorsa verso i tappi.
B) Togliere il controdado (part. n°3) agendo sulla chiave C.
C) Togliere l'aria di alimentazione.
D) Con una chiave a brugola agire sulle viti (part. n°2) ed effettuare la limitazione di corsa desiderata.
N.B. La corsa può essere limitata per un massimo di 10° da 80° a 90°.
Altre regolazioni disponibili a richiesta.
E) Mettere aria nel foro "D", verificare che entrambe le viti (part. n°2) siano a battuta contro i pistoni.
F) Mettere il controdado (part. n°3) munito di O-ring (part. n°4) per la tenuta tra dado e tappo.

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

A) *Supply air through the air connection D so that the pistons (Part. 1) move to the end-stroke position, towards the caps.*
B) *Remove the counter nut (part. 3) acting on the C key.*
C) *Shut off the air supply.*
D) *Adjust the end stroke as desired, acting on the screws (part 2) with an hexagonal key.*
Note: *maximum adjusting stroke 10°, ranging from 80° to 90°.*
Other regulations on request.
E) *Supply air through the air connection D and check that both screws stop the pistons.*
F) *Screw the counter-nut (part 3) and its 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

Certificates

AKNOWLEDGEMENT OF RECEIPT - EC - ATEX
SIL CERTIFICATE GD

Catalogs

ATTUATORI ACCIAIO CARBONIO