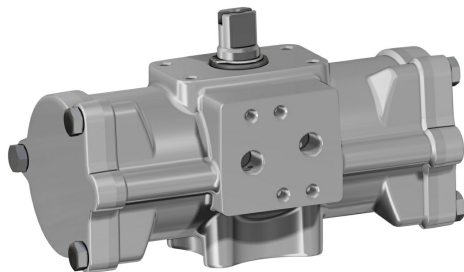


## GD (double acting) pneumatic actuator CF8M (microcast stainless steel)

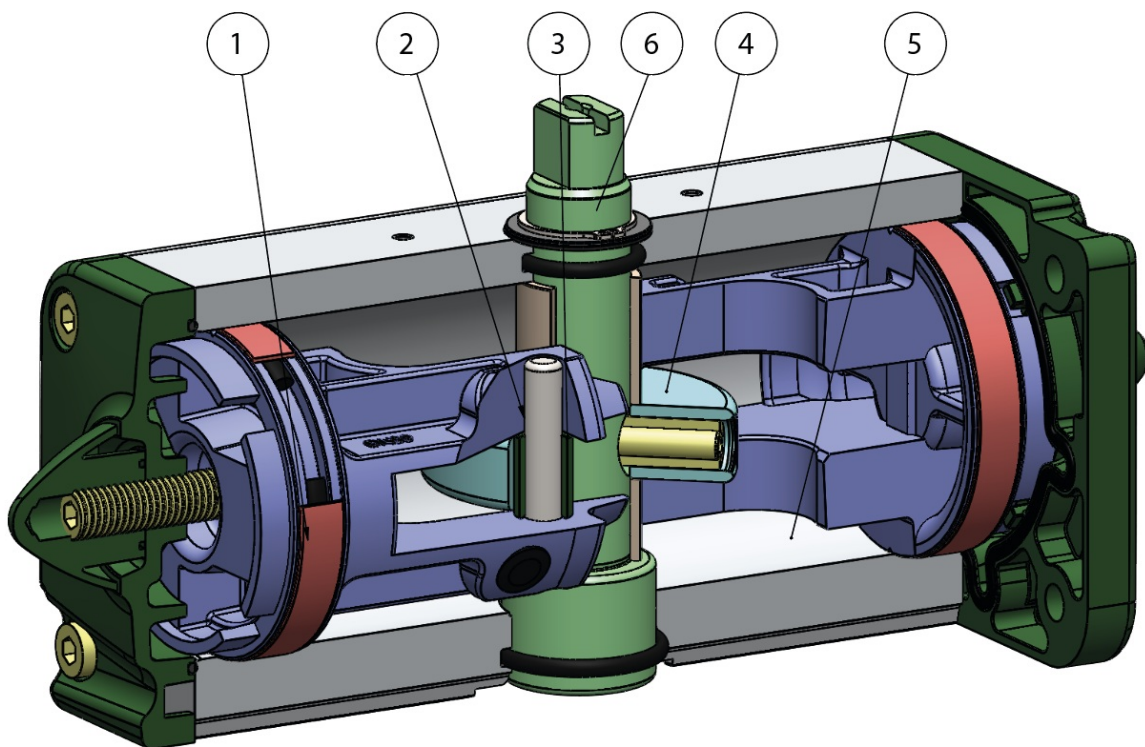


Macro Pneumatic actuators

Category Inox precision casting CF8M actuators

Nominal torque of the actuator: from 15 Nm to 480 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 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 cm<sup>3</sup>/Nm for Double Acting and -20% air cm<sup>3</sup>/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.

## features

### TECHNICAL FEATURES

Torque from 15 Nm to 480 Nm

Mounting flange according to ISO 5211; F03 - F05 - F07 - F10

In compliance with EN 15714-3

Rotation angle: 92° (-1°, +91°)

Torque: directly proportional to the air supply (see table - general catalogue 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.

Sizes from GD 60 direct connection with NAMUR solenoid valve

Sizes GD15 - GD30 can be provided with NAMUR plate on request

ATEX version in conformity with directive 2014/34/EU

### WORKING CONDITION

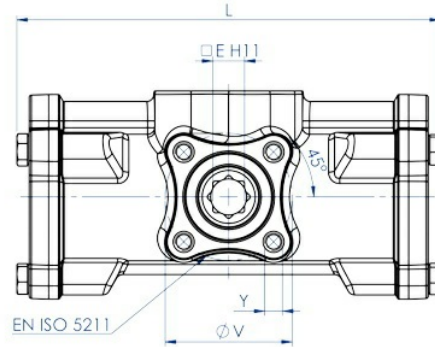
Temperature: from -20°C to +80°C

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

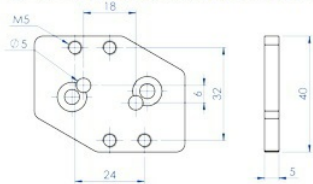
Actuating media: filtered dry compressed air, not necessarily lubricated. In case of lubricated air, either non detergent oil, NBR compatible oil, must be used.

dimensions

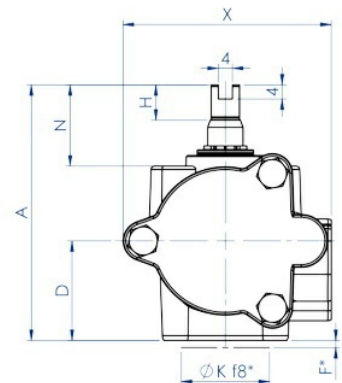
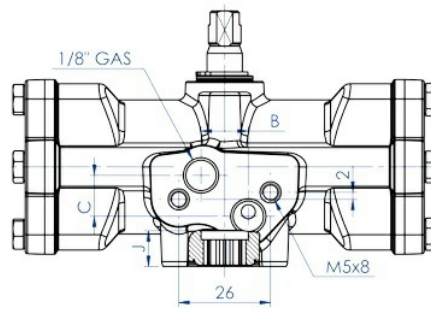
GD15 ÷ GD30



Interfaccia EN 15714-3 (Namur) a richiesta  
EN 15714-3 (Namur) interface on request

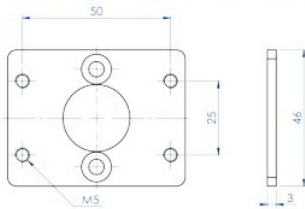


Optional Code KBNI4015

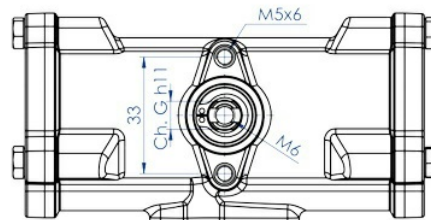


\*Anello di centraggio  
Centering ring

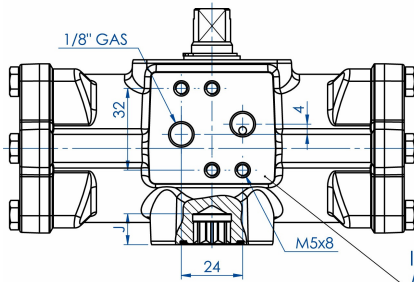
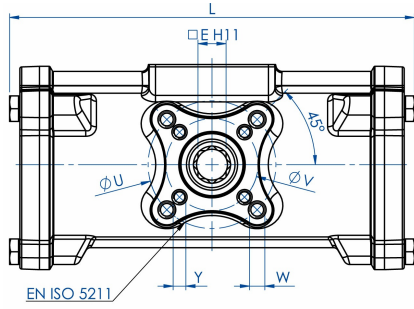
Interfaccia EN 15714-3 (Namur) a richiesta  
EN 15714-3 (Namur) interface on request



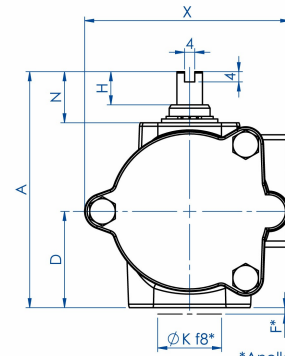
Optional Code KBVI4015



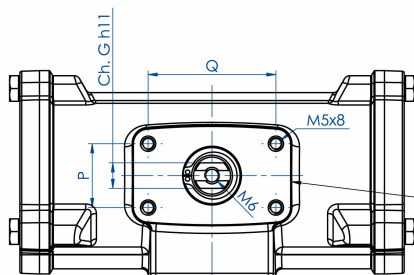
**GD60 ÷ GD480**



Interfaccia EN 15714-3 (Namur)  
EN 15714-3 (Namur) interface



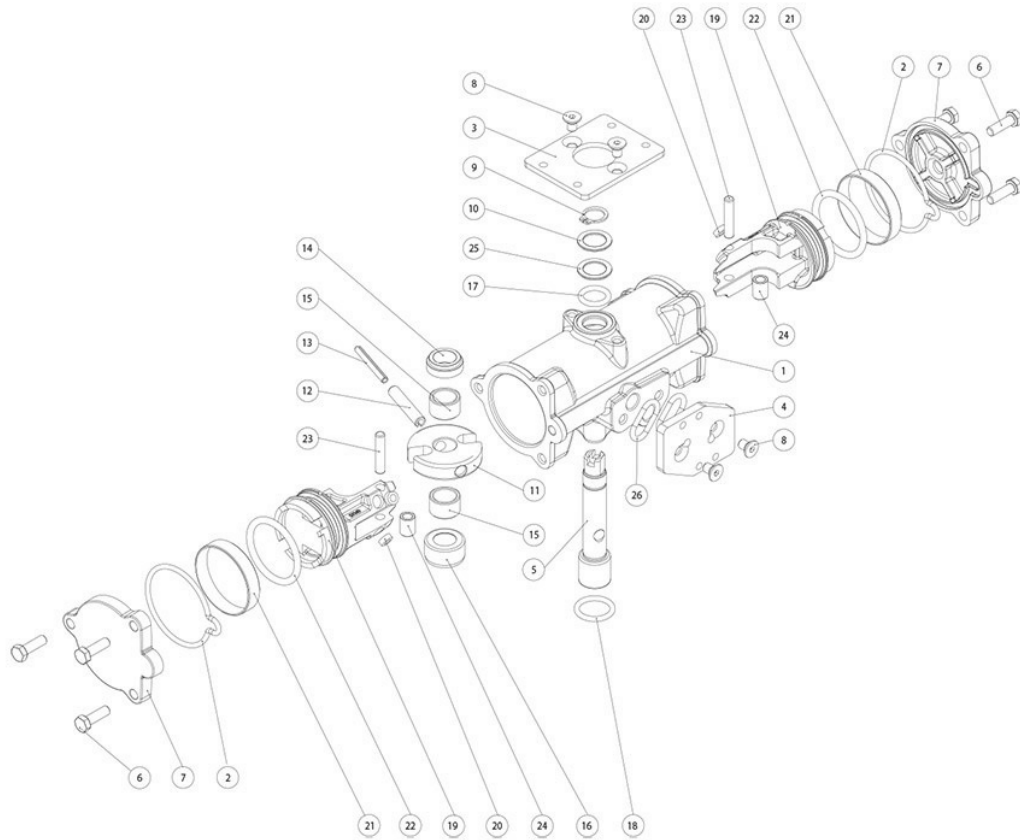
\*Anello di centraggio  
Centering ring



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

DATA SHEET						
Spare seals	KGGS112	KGGS114	KGGS116	KGGS118	KGGS120	KGGS122
Size	GD15 F03	GD30 F03	GD60 F03-F05	GD120 F05-F07	GD240 F05-F07	GD480 F07-F10
L mm.	120	134,6	158,4	192,9	246,8	298,4
A mm.	72,4	80,4	92,5	116,5	136,4	160
B mm.	13,4	11,6	-	-	-	-
C mm.	12	13	-	-	-	-
D mm.	28,2	32,7	37,7	46,2	56,2	68
E mm.	9	9	11	14	17	22
F mm.	2	2	2	3	3	3
Ch, G mm.	8	9	10	12	15	19
H mm.	10	10	13	13	17	19
N mm.	23	23	20	30	30	30
X mm.	59	68	80,3	94,4	117	139,7
J mm.	10,2	10,2	12,2	16,3	19,3	24,3
ØK mm.	25	25	25	35	35	55
Q mm.	50	50	50	80	80	80
P mm.	25	25	25	30	30	30
ØU mm.	-	-	50	70	70	102
ØV mm.	36	36	36	50	50	70
Y x prof. depth mm.	M5x9	M5x9	M5x9	M6x11	M6x11	M8x13
W x prof. depth mm.	-	-	M6x11	M8x15	M8x13	M10x22
air dm <sup>3</sup> /cycle	0,08	0,16	0,30	0,61	1,26	2,46
weight Kg.	0,8	1,2	1,8	3,3	5,6	9,5

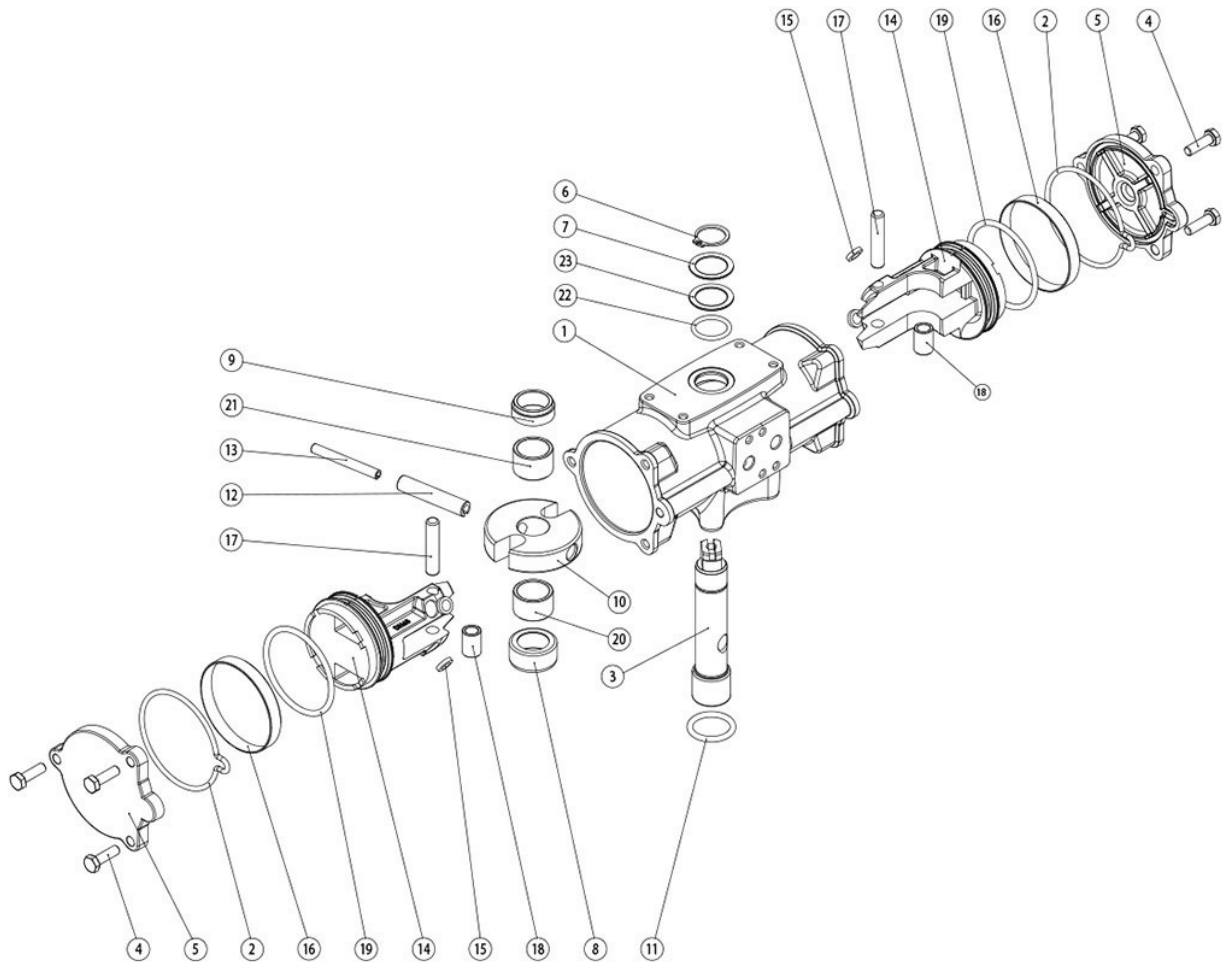
**CASTING CF8M DOUBLE ACTING PNEUMATIC ACTUATOR COMPONENTS SIZE: GD 15-GD 30**



<b>MATERIALS: GD 15 ÷ GD 30</b>			
<b>Pos</b>	<b>Denomination</b>	<b>Q.ty</b>	<b>Material</b>
1	Cylinder	1	Stainless steel CF8M
2*	Cap o-ring	2	Nitrilic rubber
3	Plate	1	Stainless steel
4	NAMUR plate	1	Stainless steel
5	Shaft	1	Stainless steel
6	Screw	6	Stainless steel
7	Cap	2	Stainless steel
8	Screw (optional)	4	Stainless steel
9	Seeger	1	Stainless steel
10	Washer	1	Stainless steel
11	Scotch yoke	1	Steel alloy
12	External elastic pin of the yoke	1	Steel alloy
13	Internal elastic pin of the yoke	1	Steel alloy
14	Upper shaft support	1	Acetalic resins
15	Support bush	2	Acetalic resins
16	Lower shaft support	1	Acetalic resins
17*	O-ring (upper sealing shaft)	1	FKM
18*	O-ring (low sealing shaft)	1	FKM
19	Piston	2	Aluminium alloy
20*	Piston's support	4	P.T.F.E. carbo-graphite filled
21*	Dynamic seal (piston)	2	Polyurethane
22*	Piston o-ring	2	Nitrilic rubber
23	Rotative sleeve	2	Steel alloy
24	Bush	2	Steel alloy
25*	External support ring	1	Acetalic resins
26	O-ring (optional)	2	Nitrilic rubber

\* Components of spare part kit

**CASTING CF8M DOUBLE ACTING PNEUMATIC ACTUATOR COMPONENTS SIZE: GD60-GD480**

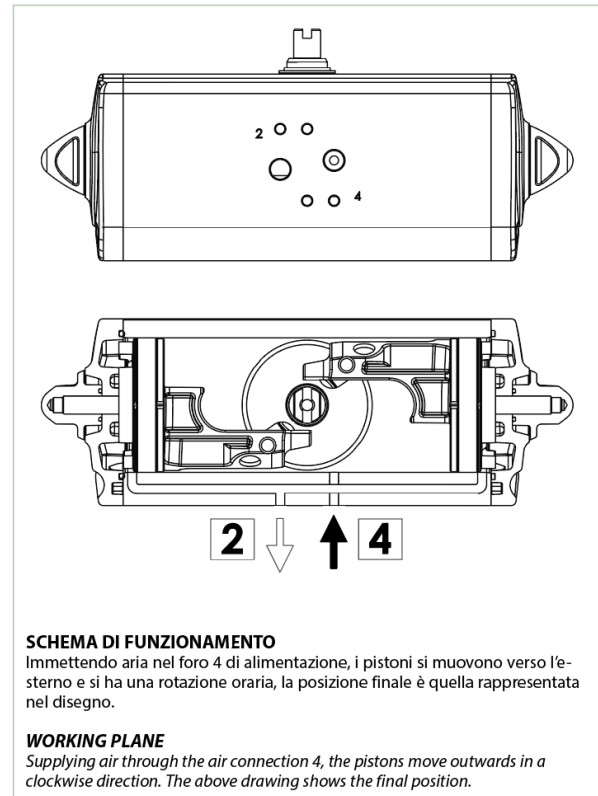
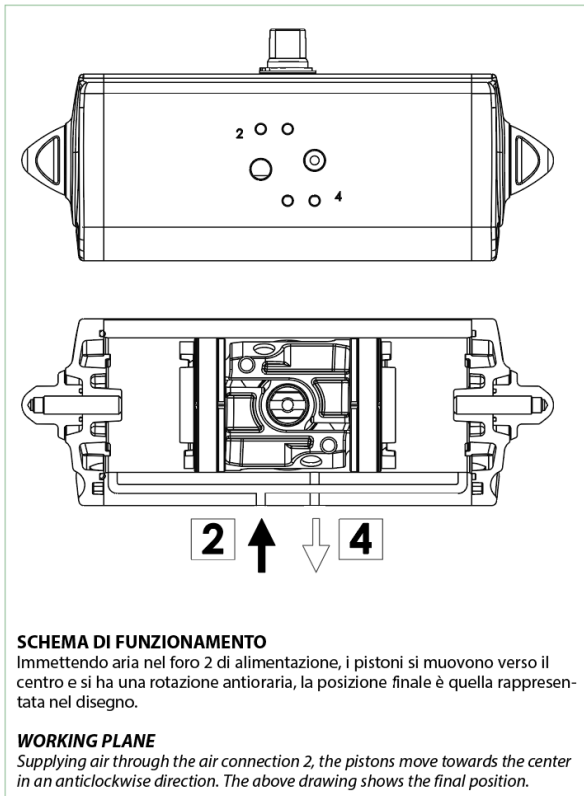


MATERIALS				
Pos	Denomination	Q.ty	Material	
1	Cylinder	1	Stainless steel	
2*	Cap o-ring	2	Nitrilic rubber	
3	Shaft	1	Stainless steel	
4	Screw	6	Stainless steel	
5	Cap	2	Stainless steel	
6	Seeger	1	Stainless steel	
7	Washer	1	Stainless steel	
8	Lower shaft support	1	Acetalic resins	
9	Upper shaft support	1	Acetalic resins	
10	Scotch yoke	1	Steel alloy	
11*	O-ring (low sealing shaft)	1	FKM	
12	External elastic pin of the yoke	1	Steel alloy	
13	Internal elastic pin of yoke	1	Steel alloy	
14	Piston	2	LAluminium alloy	
15*	Piston's support	4	P.T.F.E. carbo-graphite filled	
16*	Dynamic seal (piston)	2	Polyurethane	
17	Rotative sleeve	2	Steel alloy	
18	Bush	2	Steel alloy	
19*	Piston o-ring	2	Nitrilic rubber	
20	Suwer support bush	1	Acetalic resins	
21	Upper support bush	1	Acetalic resins	
22*	O-ring (upper sealing shaft)	1	FKM	
23*	External support ring	1	Acetalic resins	

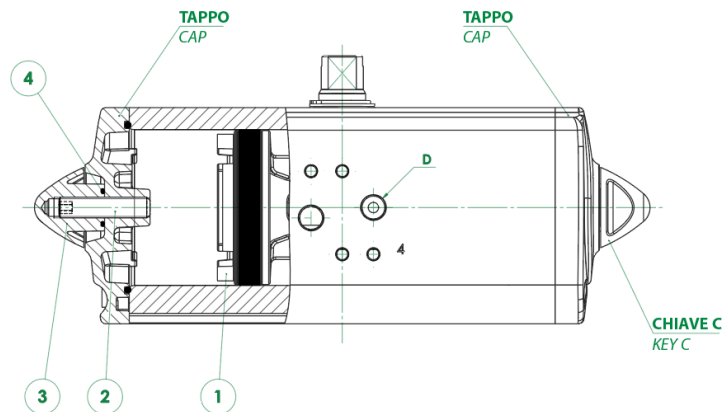
\*Components of spare part kit



**GD PNEUMATIC ACTUATOR OPERATING DIAGRAM**



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

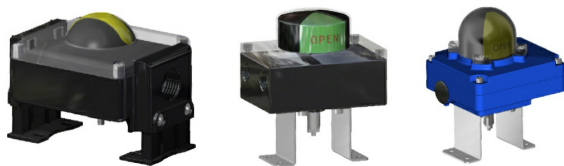


- A) Immettere aria nel foro "D" in modo che i pistoni (part. n°1) si vengano a trovare in posizione di finecorsa verso i tappi.
  - B) Togliere il controdado (part. n°3) agendo sulla chiave C.
  - C) Togliere l'aria di alimentazione.
  - D) Con una chiave a brugola agire sulle viti (part. n°2) ed effettuare 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.

accessories

**LIMIT SWITCH BOX**



**MANUAL OVERRIDE WITH HAND WHEEL**



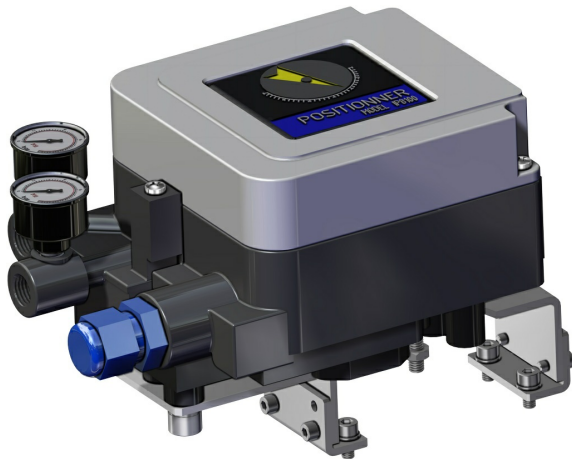
**NAMUR SOLENOID VALVES**



**SOLENOID VALVES**



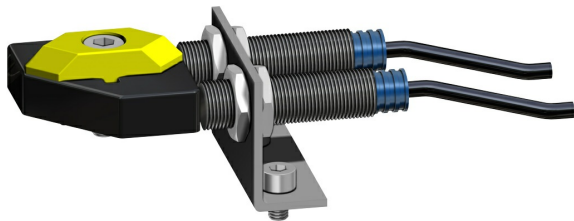
**ELECTROPNEUMATIC POSITIONER (INTRINSICALLY SAFE)**



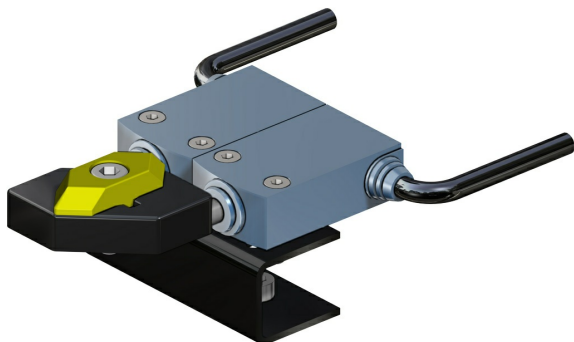
**PNEUMATIC POSITIONER**



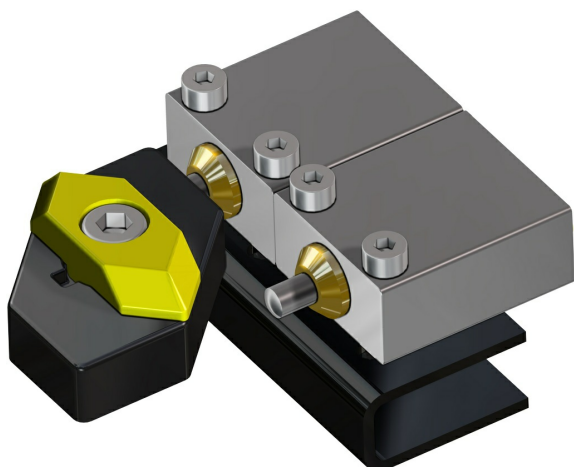
**PROXIMITY LIMIT SWITCHES**



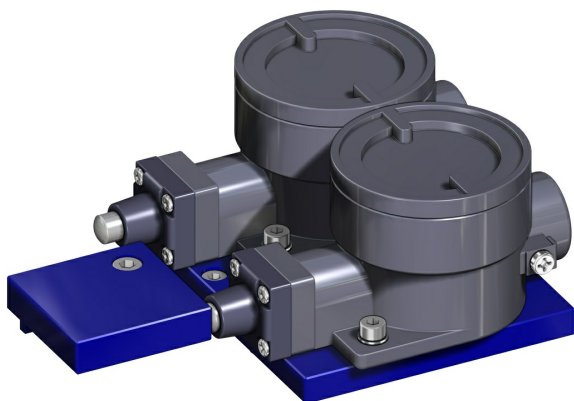
**ELECTROMECHANICAL LIMIT SWITCHES**



**PNEUMATIC LIMIT SWITCHES**



**EXPLOSION PROOF LIMIT SWITCHES II2GD ExdIIC**



For more information check the ACTUATECH Accessories Catalogue.

## documents

### Catalogs

ATTUATORI INOX

### Certificates

AKNOWLEDGEMENT OF RECEIPT - EC - ATEX

SIL CERTIFICATE GD

### Datasheet

GD0120F05F07INOX

GD0030F03INOX

GD0480F07F10INOX

GD0015F03INOX\_OPT

GD0060F03F05INOX

GD0240F05F07INOX

GD0015F03INOX

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