



## Pneumatically Actuated Steam Ball Valve in Stainless Steel

- 1/2" to 2"
- TFM 4215 High Temperature Seats
- Carbon or Stainless steel Body
- Various End Connections
- Double Acting and Single acting
- 185°C at 10 Bar Maximum
- Fully Maintainable
- Available Online

### Description

#### Economical automatic steam isolation valve.

Designed specifically for isolation on steam lines fully rated to 10 Bar Steam. The ball valve and pneumatic actuator are the perfect combination meeting today's industry standards. Comprising of a three piece Stainless steel investment cast body with TFM 4215 Sealing. The valve offers a high cycle life and has self-adjusting packing glands. The valve fits directly onto a powerful pneumatic actuator, via a mounting pad ISO 5211 and heat dissipating bracket. Offered in both single and double acting actuator functions, with the addition of universal mounting platforms for position feedback, pilot solenoids and gearbox override. Various End Connections:- BSP, Socket.

### Design Advantages

*TFM 4215 High Temperature Seals (see explanation P4)*

#### blow - out proof stem

*Prevents stem blowing out for maximum safety.*

#### Easy in line maintenance

*3 piece body swing out design, allowing easy maintenance.*

#### Repair Kits Readily Available

**Normally Closed by Spring – NC**  
**Normally Open by Spring – NO**  
**Double Acting – Air to Open and Close**

## STOCKED PRODUCT



### Description

A combination of a 3 piece fully maintainable ball valve, fitted to a powerful Pneumatic spring close/open or double acting actuator. Perfectly suited for on/off steam isolation at temperatures up to 185°C at 10 Bar. A 30% safety factor is included when sizing, offering reliable and safe operation.



### Beschreibung

Eine Kombination aus einem 3-teiligen vollständig wartbaren Kugelventil, das an einem leistungsstarken pneumatischen Feder-Schließer / Öffner- oder doppelwirkenden Betätiger angebracht ist. Perfekt geeignet für die On / Off-Dampfisolierung bei Temperaturen bis 185 ° C bei 10 Bar. Bei der Dimensionierung ist ein Sicherheitsfaktor von 30% enthalten, der einen zuverlässigen und sicheren Betrieb ermöglicht.



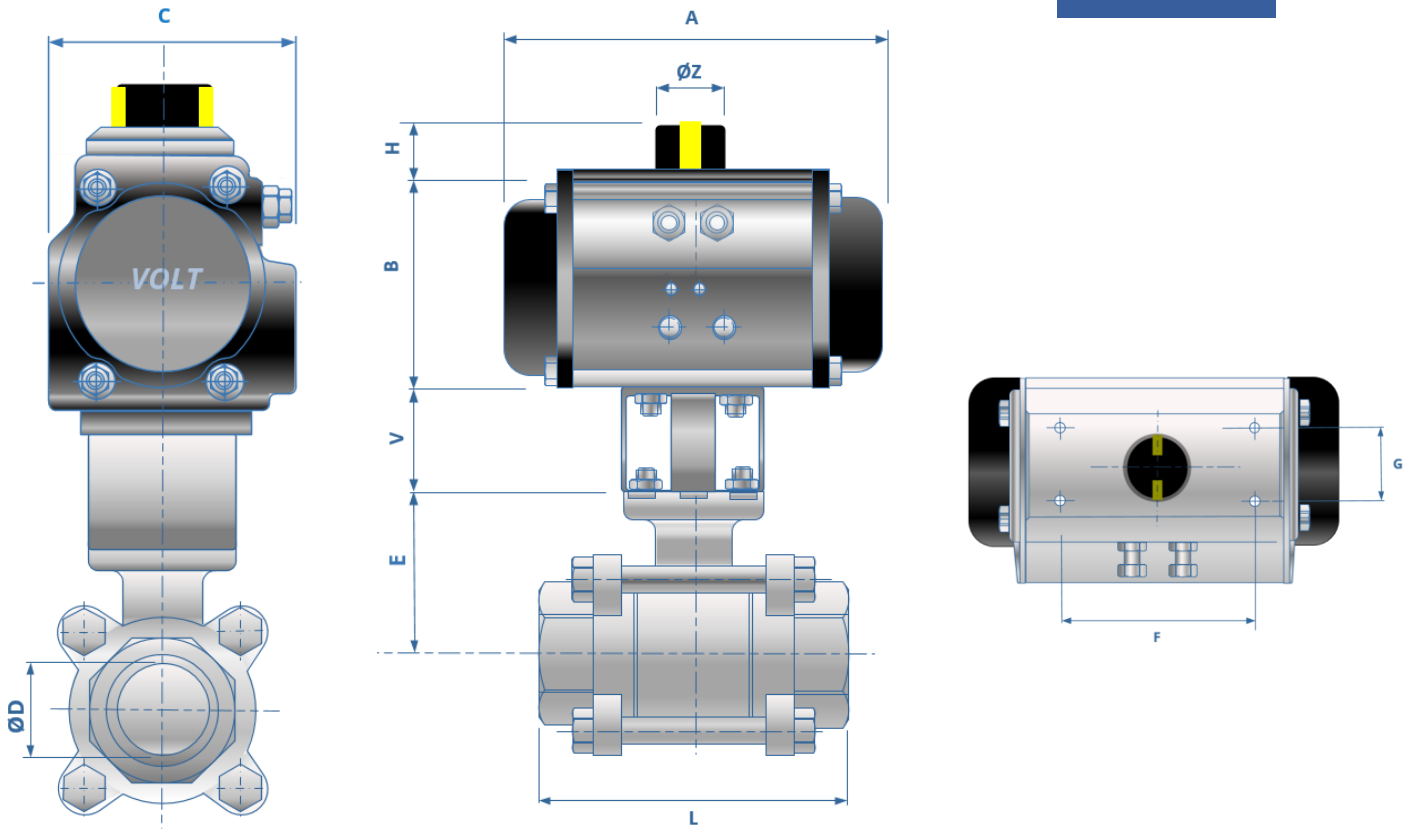
### Descripción

Una combinación de una válvula de bola completamente mantenible de 3 piezas, instalada en un potente actuador neumático de cierre / apertura o doble efecto. Perfectamente adaptado para el aislamiento de vapor encendido / apagado a temperaturas de hasta 185 ° C a 10 bar. Se incluye un factor de seguridad del 30% cuando se dimensiona, ofreciendo un funcionamiento confiable y seguro.



### Description

Combinaison d'un robinet à boisseau sphérique 3 pièces entièrement maintenable, monté sur un puissant actionneur pneumatique à fermeture / ouverture ou double effet. Parfaitement adapté à l'isolation de vapeur on / off à des températures allant jusqu'à 185 ° C à 10 bar. Un facteur de sécurité de 30% est inclus lors du dimensionnement, offrant un fonctionnement fiable et sûr.



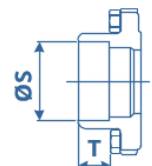
**Threaded - Spring Open / or Close - Dimensions mm**

Port Connection	Actuator Type	A	$\varnothing D$	B	C	L	E	F	G	H	V
Size	Model										
1/2"	HP50S	144	15	73	72	63.5	37	80	30	20	100
3/4"	HP50S	144	20	73	75	75.5	40	80	30	20	100
1"	HP63S	163	25	87	85	86	48	80	30	20	100
1 1/4"	HP66S	202	32	87	85	96	53.5	80	30	20	100
1 1/2"	HP75S	210	40	104	96	111	63.5	80	30	20	100
2"	HP88S	247	50	116	108	129	72	80	30	20	100

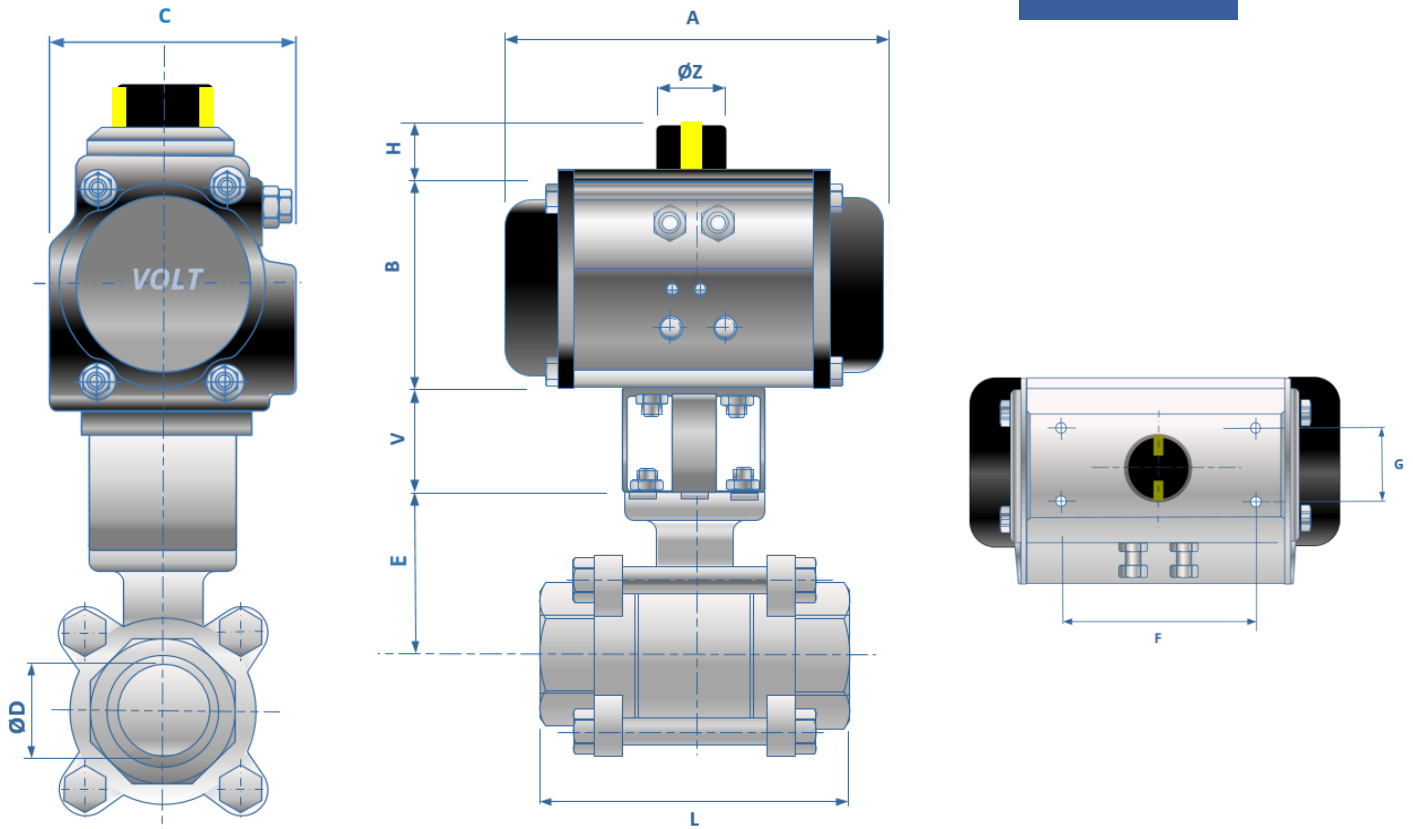
**WELDED - Spring Close/Open - Dimensions mm**

Port Connection	Actuator Type	A	$\varnothing D$	B	C	L	E	F	G	H	V	S	T
Size	Model												
1/2"	HP50D	144	15	73	72	63.5	37	80	30	20	100	21.8	12.7
3/4"	HP50D	144	20	73	72	75.5	40	80	30	20	100	27.1	14.3
1"	HP50D	163	25	87	85	86	48	80	30	20	100	33.8	15.9
1 1/4"	HP63D	202	32	87	85	96	53.5	80	30	20	100	42.5	17.5
1 1/2"	HP63D	210	40	104	96	111	63.5	80	30	20	100	48.7	19.1
2"	HP66D	247	50	116	108	129	72	80	30	20	100	61.1	22.2

Socket weld



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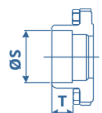
**Threaded - Double Acting - Dimensions mm**

Port Connection	Actuator Type	A	ØD	B	C	L	E	F	G	H	V
Size	Model										
1/2"	HP50D	144	15	73	72	63.5	37	80	30	20	100
3/4"	HP50D	144	20	73	72	75.5	40	80	30	20	100
1"	HP50D	144	25	73	72	86	48	80	30	20	100
1 1/4"	HP63D	163	32	87	85	96	53.5	80	30	20	100
1 1/2"	HP63D	163	40	87	85	111	63.5	80	30	20	100
2"	HP66D	202	50	87	85	129	72	80	30	20	100

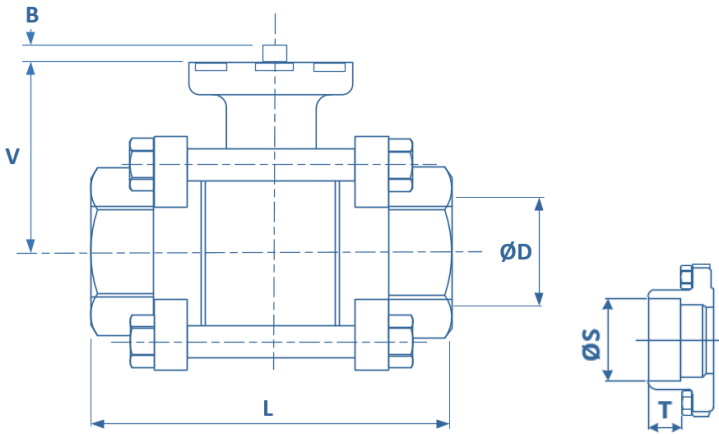
**WELDED - Double Acting - Dimensions mm**

Port Connection	Actuator Type	A	ØD	B	C	L	E	F	G	H	V	S	T
Size	Model												
1/2"	HP50D	144	15	73	72	63.5	37	80	30	20	100	21.8	12.7
3/4"	HP50D	144	20	73	72	75.5	40	80	30	20	100	27.1	14.3
1"	HP50D	144	25	73	72	86	48	80	30	20	100	33.8	15.9
1 1/4"	HP63D	163	32	87	85	96	53.5	80	30	20	100	42.5	17.5
1 1/2"	HP63D	163	40	87	85	111	63.5	80	30	20	100	48.7	19.1
2"	HP66D	202	50	87	85	129	72	80	30	20	100	61.1	22.2

Socket weld



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Socket  
weld

**What is TFM 4215**

TFM-4215 is classed as the second-generation of modified polytetra-fluoro-ethylene (PTFE). This seal material maintains all the chemical and heat resistance characteristics of conventional PTFE, but has a significantly lower melt viscosity.

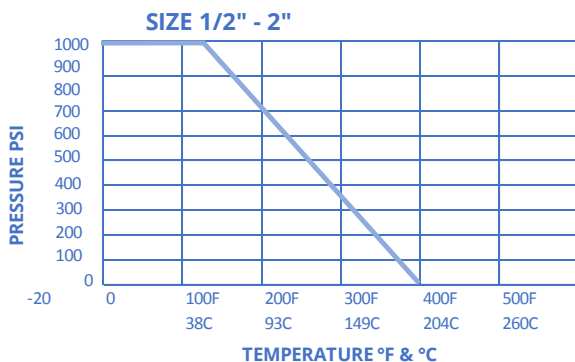
Valve Details	
Valve	3-Piece Fully Maintainable
Body	Stainless Steel 1.4408
Ball	Stainless Steel 1.4408
Seat	TFM4215
Temperature	185°C (see chart)
Pressure	1000 psi / PN63
Sizes	1/2" to 2"

Dimensions							
Size	B	V	L	ØD	S	T	Weight kg
1/2"	11	37	63.5	15	21.8	12.7	0.48
3/4"	11	40	75.5	20	27.1	14.3	0.84
1"	14	48	86	25	33.8	15.9	1.1
1 1/4"	14	53.5	96	32	42.5	17.5	1.78
1 1/2"	18	63.5	111	38	48.7	18.3	2.54
2"	18	72	129	50	61.1	21.3	4.12

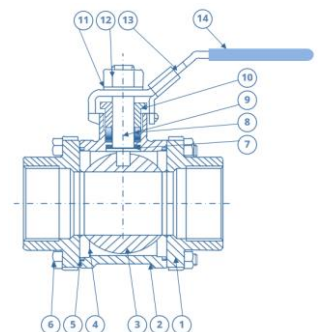
Specification	
Pressure range	1/2" to 2" 1000 PSI
Size	Full Bore 1/2" to 2"
Temperature range	185°C TFM 4215
Movement	90°
Cycle life	1,000,000 operations
Diameter Class	Full Port Schedule 40 Pipe
Packing Gland	Self Adjusting TFM
End Connections	BSPP, Socket Weld

Material List			
NO.	Parts	Materials	QTY
1	End Cap	CF8M	2
2	Body	CF8M	1
3	Ball	SS316	1
4	Seat	PTFE	2
5	Gasket	PTFE	2
6	Bolts	SUS304	4
7	Thrust Washer	RPTFE	1
8	Stem Packing	PTFE	1
9	Stem	SUS316	1
10	Gland	SUS304	1
11	Spring Washer	SUS304	1
12	Stem Nut	SUS304	1
13	Handle	SUS304	1
14	Handle Cover	PLASTIC	1

**Pressure - Temperature Limits**



TFM  
4215



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## Repair Kits

Size	TFM4215
1/2"	RK8809-220915
3/4"	RK8809-220916
1"	RK8809-220917
1 1/4"	RK8809-220918
1 1/2"	RK8809-220919
2"	RK8809-220920

### TFM 4215

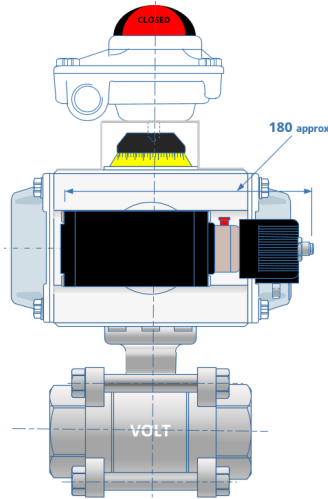


#### What is TFM 4215

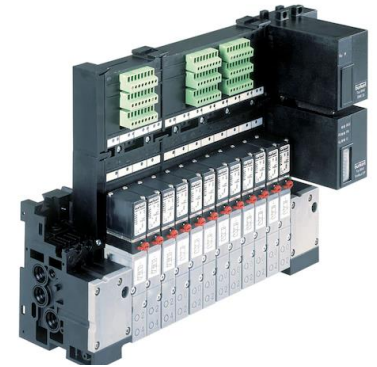
TFM-4215 is classed as the second-generation of modified polytetra-fluoro-ethylene (PTFE). This seal material maintains all the chemical and heat resistance characteristics of conventional PTFE, but has a significantly lower melt viscosity.

## Pilot Solenoid Ordering Chart

Voltage	Part Number
24 VDC	AP9000-900001
24 VAC	AP9000-900002
110 VAC	AP9000-900003
230 VAC	AP9000-900004

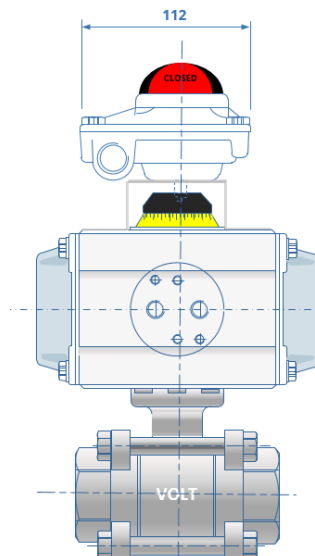


For multi-valve systems ask about our manifolded pilot valves and valve-islands



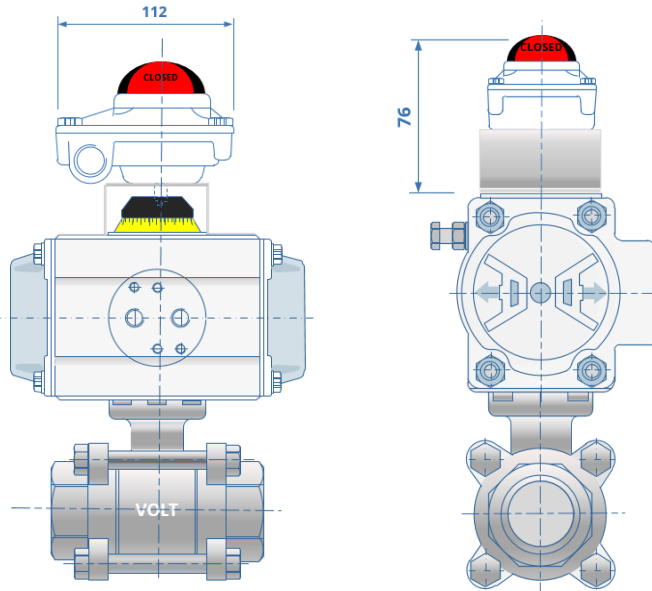
## Switch Box Ordering Chart

Voltage	Part Number
24 VDC	APL210
24 VAC	APL210
110 VAC	APL210
230 VAC	APL210



Combination of fieldbus, pilot valves and I/O modules

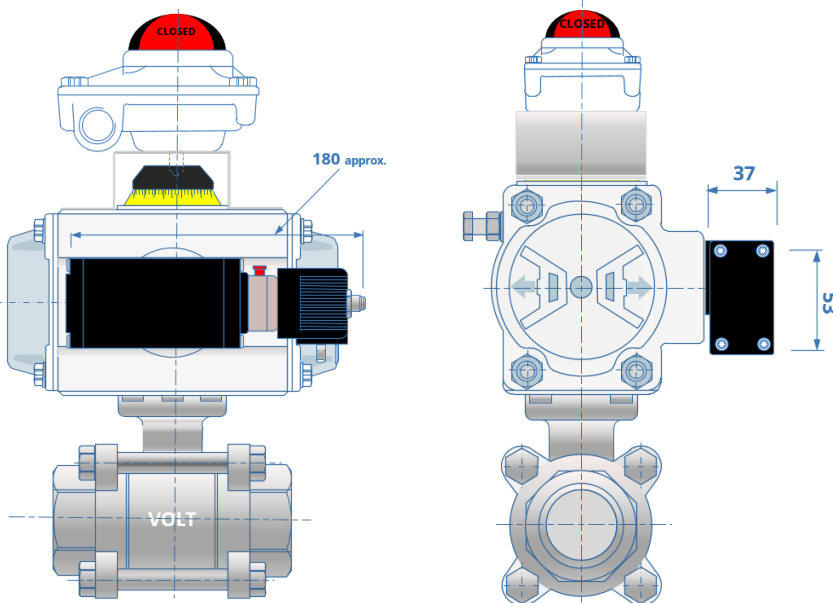
**TYPE APL**



**APL 2 Standard Switchbox**

Offering a reliable Optical and Electrical indication of the valve position at all times. Fitted with 2 x SPDT Limit Switches, offering IP67 protection, Beacon Indicator with choice of alternative colours and 2 x M20 cable entries.

**Options:-** include Proximity Sensors, Stainless Steel Housing, ATEX Exd or Exia Versions.



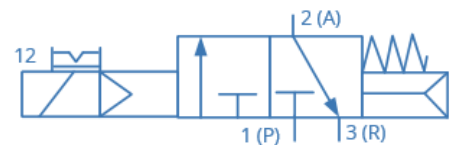
**Namur Pilot Solenoid Valve**

Sized to operate at 6 Bar, IP65 with Cable Plug, Seals NBR and Ports 1/4" BSP Brass. Voltages 24VDC 24/ 110 / 230 V/ 50-60 Hz

**TYPE AP9000**

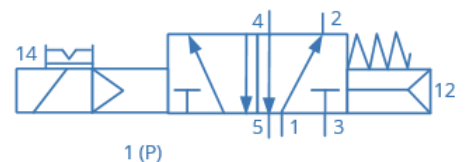
**C Function 3/2**

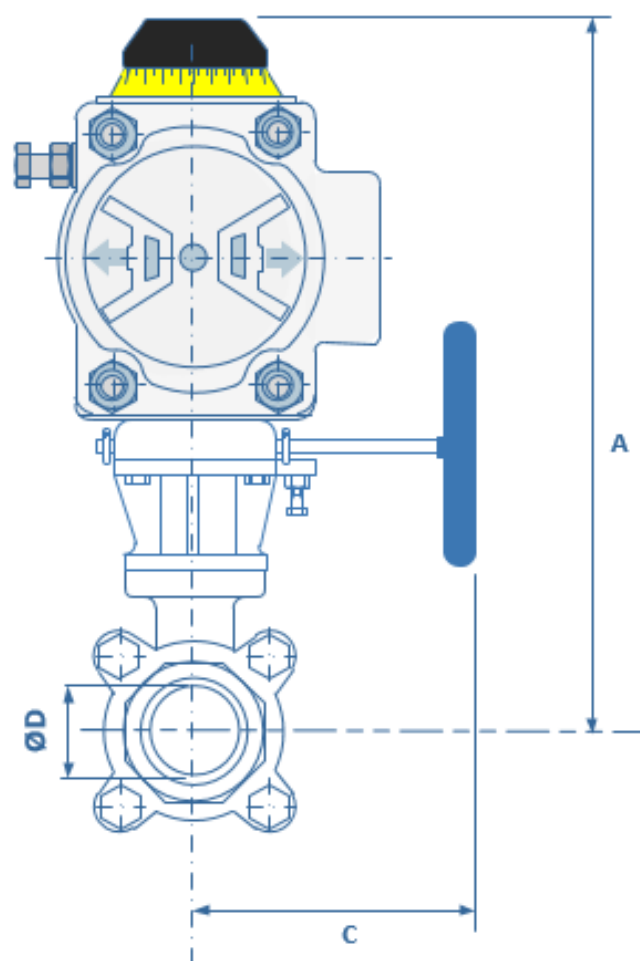
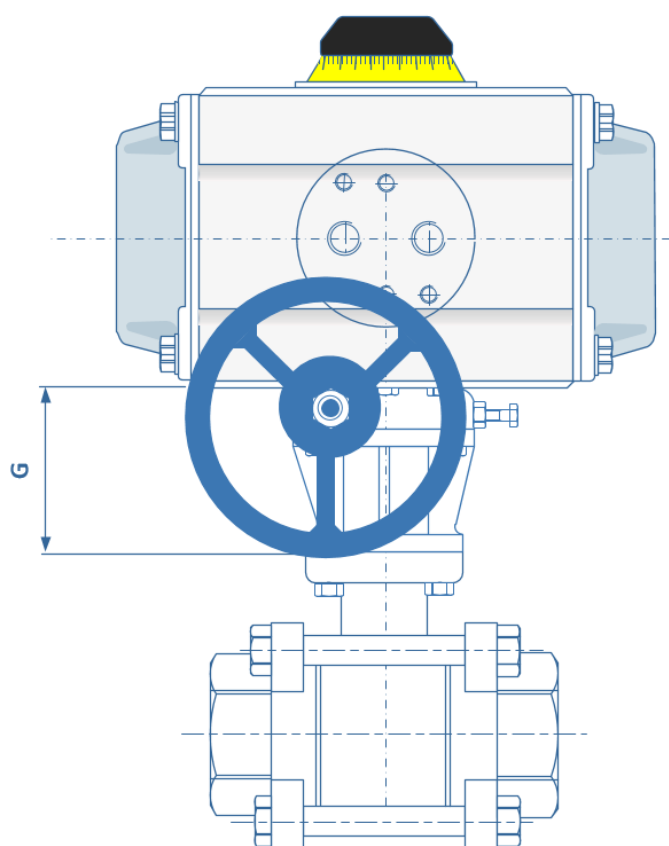
Usually used on Spring Return, Normally Closed with manual override, G1/4"Port, Supplied with cable Plug.



**H Function 5/2**

Usually used on Double Acting, manual override, G1/4"Port, Supplied with cable Plug.





### Gear Box Ordering Chart

Size	Part Number	Type	A	C	G
1/4"	9393003	960G-010	233	124	104
3/8"	9393003	960G-010	233	124	104
1/2"	9393003	960G-010	249	124	104
3/4"	9393003	960G-010	249	124	104
1"	9393003	960G-010	253	124	104
1 1/4"	9393003	960G-010	269	124	104
1 1/2"	9393003	960G-010	307	124	104
2"	9393004	960G-050	349	142	137

Type	Torque N/M	Ratio
960G-010	120	30:1
960G-050	500	48:1
960G-080	800	52:1
960G-160	1600	64:1

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