

## BALL VALVES

### Brass ball valve

#### ITEM 160,161 - 3-way threaded-ends

---

[features](#)

[diagrams & breakaway torque](#)

[codes and dimensions](#)

[drives](#)

---



## Features

---

### GENERAL FEATURES

Valve with 4 ball seats. Inlet from any of the 3 ends, see plane.

Working temperature: from -15°C to + 120°C.

Working pressure: see table.

Fluid range: water, air, gas, vacuum, petroleum and petrochemical products. Not suitable for aggressive media.

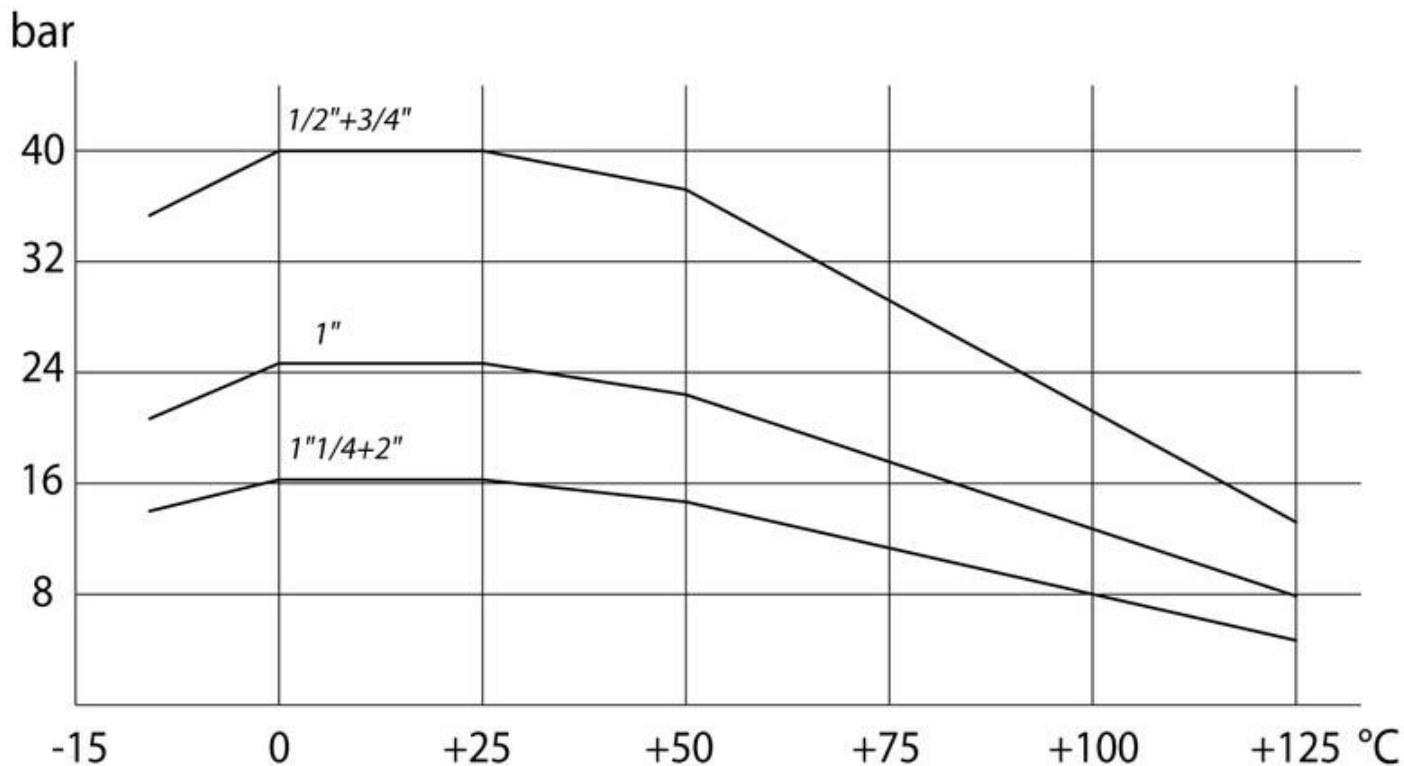
Threaded ends as per UNI/ISO 7/1 Rp specifications.

### ON REQUEST

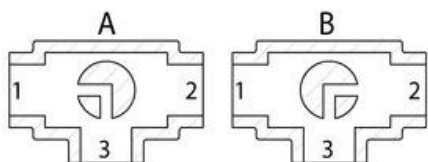
For other applications, please contact our technical department.

# Diagrams & breakaway torque

## PRESSUE / TEMPERATURE DIAGRAM

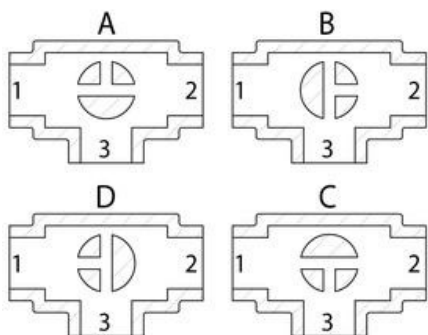


### PLAN FOR "L" PORT



N.B. "A" must be the rest position of the ball with SR actuator

### PLAN FOR "T" PORT



With actuator, 2 positions with 90° rotation are possible only.  
N.B. please choose the rest position of the ball when the SR actuator is used, paying attention to the fact that this actuator turns in an anticlockwise direction, whenever supplied with air.

### BREAKAWAY TORQUES Nm

size	DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 32 1 1/4"	DN 40 1 1/2"	DN 50 2"
PN 16 bar				31	43	74
PN 25 bar			20			
PN 40 bar	8	14				

Torque can vary depending on temperature and type of fluid; a safety factor of 1.4 must be applied.

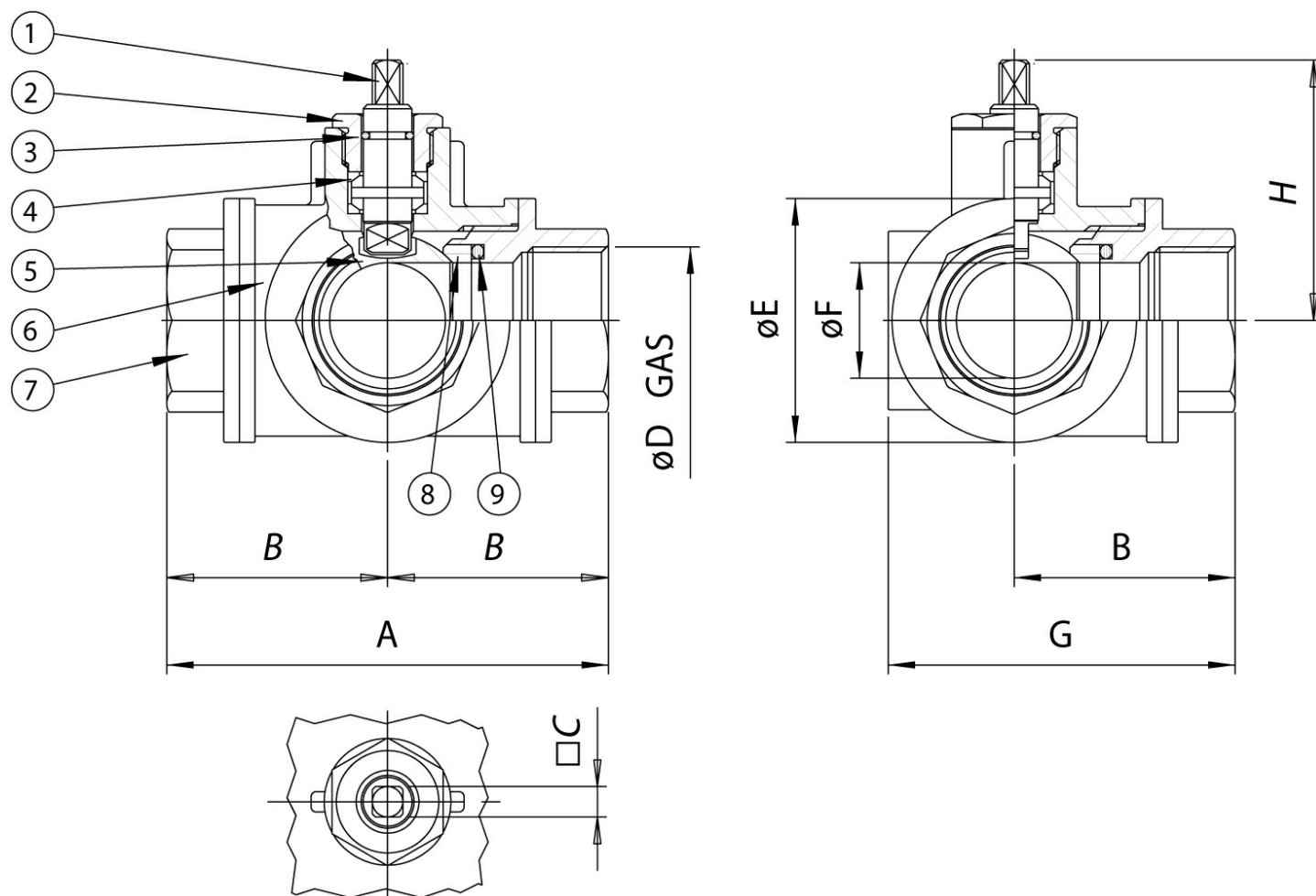
Torque can drop on high frequency of operations. The actuator/valve sizing, indicated on the following pages, are based for

valves to be used with liquids or gaseous fluids, clean, and for medium temperatures. For further information, or different uses please contact our technical department.

# Codes and dimensions

## 160-161 VALVE CODES IN STANDARD EXECUTION

size	DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 32 1"1/4	DN 40 1"1/2	DN 50 2"
Free shaft "T" port	V160N204	V160N205	V160N206	V160N207	V160N208	V160N209
Free shaft "L" port	V161N204	V161N205	V161N206	V161N207	V161N208	V161N209
Weight Kg.	0,6	1,1	1,6	2,4	3,4	5,5
With lever "T" port	L160N204	L160N205	L160N206	L160N207	L160N208	L160N209
With lever "L" port	L161N204	L161N205	L161N206	L161N207	L161N208	L161N209
Weight	0,67	1,18	1,67	2,47	3,47	5,57
Seals kit	KGBV6704	KGBV6705	KGBV6706	KGBV6707	KGBV6708	KGBV6709



### MATERIALS

1) Shaft*	Brass	12164 CW614N
2) Gland nut*	Brass	EN 12164 CW614N
3) O-Ring	FKM	
4) Seals	P.T.F.E.	
5) Ball	Brass chromium plated	EN 12164 CW614N
6) Body*	Brass	EN 12165 CW617N
7) Threaded end*	Brass	EN 12165 CW617N
8) Seals	P.T.F.E.	
9) O-ring	FKM	

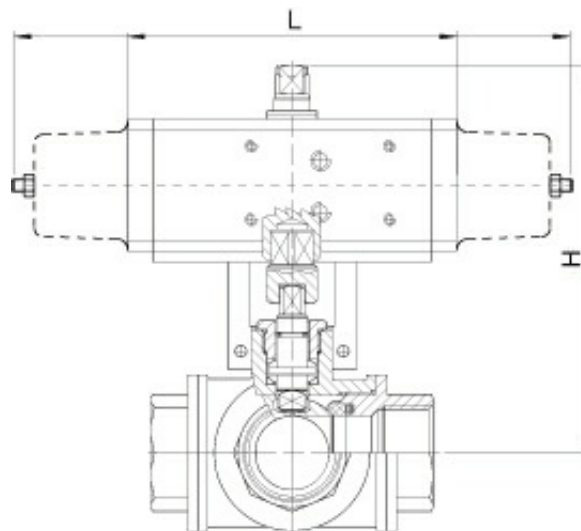
\* Surface treatment: bright nickel plating

#### DIMENSIONS

size	A	B	C	øD	E	F	G	øH
DN 15 - 1/2"	80	40	7	1/2"	38	13	61	46,3
DN 20 - 3/4"	96	48	10	3/4"	48	18	74	53,5
DN 25 - 1"	113	56,5	10	1"	58	23	88	57
DN 32 - 1"1/4	130	65	14	11/4"	67	29	99	74,5
DN 65 - 1"1/2	147	73,5	14	11/2"	78	35	114	79
DN 50 - 2"	169	84,5	17	2"	95	44	132	90,5



## Drives - Double acting pneumatic actuator



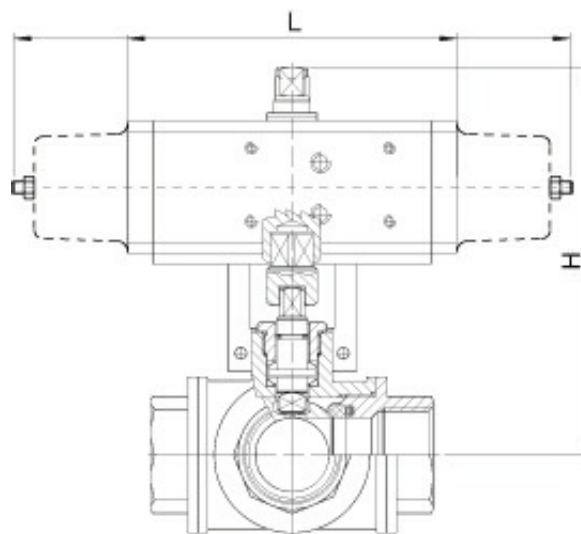
Model	Actuator	Mounting kit	DN mm	"	L mm	H mm	Weight kg
D16 * H004	DA015401S	KCF032430	15	1/2"	114	124	1,3
D16 * H005	DA030401S	KCF032439	20	3/4"	130	144,5	2,1
D16 * H006	DA030401S	KCF032439	25	1"	130	150,5	2,7
D16 * K007	DA045402S	KCF042434	32	1"1/4	144	168,3	3,8
D16 * H008	DA060402S	KCF042434	40	1"1/2	152	176	5
D16 * H009	DA120401S	KCF052435	50	2"	184	218	8,4

\* = 0 "T" port (model 160); \* = 1 "L" port (model 161)

The sizing of pneumatic actuator has been done considering a minimum supply pressure of 5,6 barg.



## Drives - Spring return pneumatic actuator



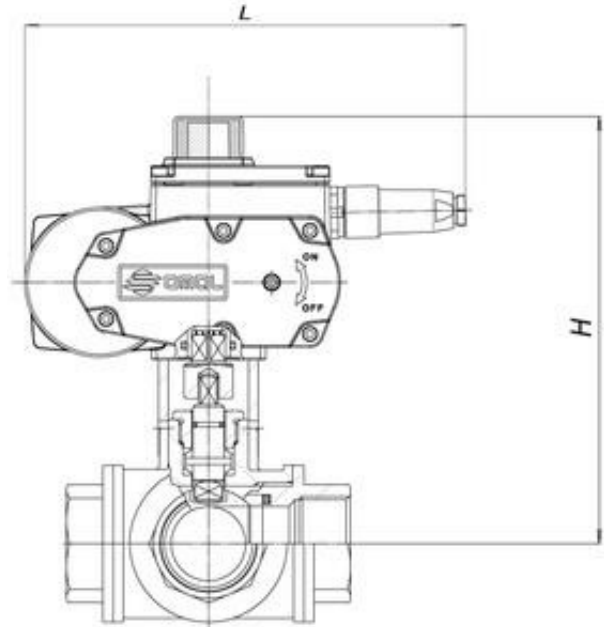
Model	Actuator	Mounting kit	DN mm	"	L mm	H mm	Weight kg
S16 * H004	SR015401S	KCF032430	15	1/2"	221	134	2,1
S16 * H005	SR030402S	KCF042372	20	3/4"	240	154,5	3,3
S16 * H006	SR030402S	KCF042372	25	1"	240	160,5	3,9
S16 * K007	SR045401S	KCF052013	32	1"1/4	294	180,1	5,7
S16 * H008	SR060401S	KCF052013	40	1"1/2	320	202	7,8
S16 * H009	SR120401S	KCF071714	50	2"	395	238	13

\* = 0 "T" port (model 160); \* = 1 "L" port (model 161)

The sizing of pneumatic actuators has been done considering a minimum supply pressure of 5,6 barg.



## Drives - Electric Actuators



### ON-OFF ELECTRICAL ACTUATOR

Model	Actuator	Mounting kit	DN mm	"	L mm	H mm	Weight kg
C16 * A5E04	EA0035A5C000	KCF052011	15	1/2"	250	106	4,2
C16 * A5E05	EA0035A5C000	KCF052010	20	3/4"	250	203	4,7
C16 * A5E06	EA0035A5C000	KCF052010	25	1"	250	209	5,2
C16 * A5G07	EA0070A5C000	KCF052013	32	1"1/4"	250	223	6
C16 * A5G08	EA0070A5C000	KCF052013	40	1"1/2"	250	236	7
C16 * A5I09	EA0130A5C000	KCF071714	50	2"	280	262,5	13

\* = 0 "T" port (model 160); \* = 1 "L" port (model 161)

### ROTARY MODULAR TYPE ELECTRICAL ACTUATOR (230 V ac)

Model	Actuator	Mounting kit	DN mm	"	L mm	H mm	Weight kg
M16*16C04	AM160002	KCF052011	15	1/2"	165,8	175,5	3,5
M16*16F05	AM160005	KCE282016	20	3/4"	207,5	229,5	6,6
M16*16F06	AM160005	KCE282016	25	1"	207,5	235,5	7,1
M16*16F07	AM160005	KCE282017	32	1"1/4"	207,5	249,5	7,9
M16*16L08	AM160020	KCE362078	40	1"1/2"	256,5	284	13,6
M16*16L09	AM160020	KCE362018	50	2"	256,5	290	15,8

\* = 0 "T" port (model 160); \* = 1 "L" port (model 161)

Items are with electric actuator 230 Vac



