

PNEUMATIC VALVES

Valvaut B DV F F3L AL/1 F4G - Omal 100 160 400 450 VIP

It is well known that many factors contribute to the choice of a valve, both from a point of view of performance requirements and operating saving.

The final decision will be taken according to an accurate analysis of all the variables affecting the valve operation, for the purposes of optimal performances of machinery or equipment.

We suggest to analyse the following data:

- 1) kind of fluid to intercept: water, steam, gas, vacuum.
- 2) compatibility of the fluid to intercept with the metals and seals of the valve.
- 3) resiliency to temperatures and take into account possible thermal shocks for seals, especially for ball and butterfly valves.
- 4) maximum pressures allowable and any possible condition that can cause the water hammer.
- 5) fluid features with regard to interception or break modes, taking into account that the valve movement can be reciprocating or rotary.
- 6) number of working cycles is important to choose the type of valve: shutter, ball, butterfly.

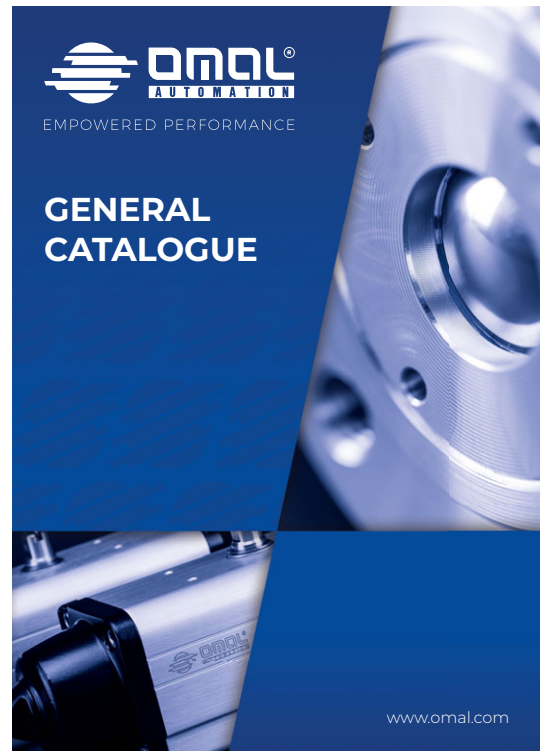
Only after a careful analysis of all the variables, it is possible to make a wise choice that allows a duration as long as possible, particularly when the valve is mounted on machineries and system requiring expensive warranty engagements and after-sale service.

In the following page there is an analytic table with all the necessary information, helpful for a correct choice of the valve to use.

Please do not hesitate to contact our Technical Office for any further information or investigations You might need.

You can also contact us to our e-mail address:

e-mail: technical@pneuvano.com



Art. B - SHUTTER GLOBE VALVES



DESCRIPTION

Valve with shutter closing.
 Standard seals in NBR, in FPM or in EPDM.
 On request: shutter closing with PTFE.
 Perfect airtight.
 Connections with inner GAS ISO 228 thread female-female.
 On request: NPT connections.
 Control air 1/8" GAS connections.

ALLOWABLE TEMPERATURES

Operating temperature:
 Seal in NBR/NBR: from -20°C to +100°C
 Seal in FPM/FPM: from -15°C to +100°C
 Seal in EPDM/EPDM: from -40°C to +100°C
 Seal in PTFE/FPM: from -20°C to +100°C
 Seal in PTFE/EPDM: from -40°C to +100°C

ACTUATOR PILOT PRESSURE: Max. 8 bar.

VERSIONS AND SIZES

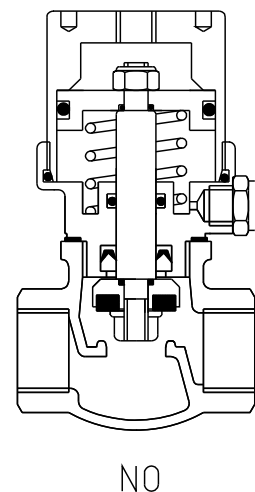
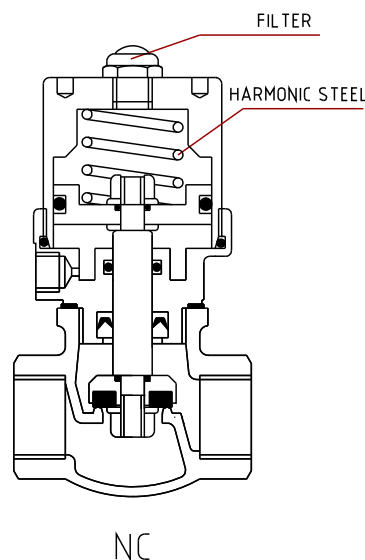
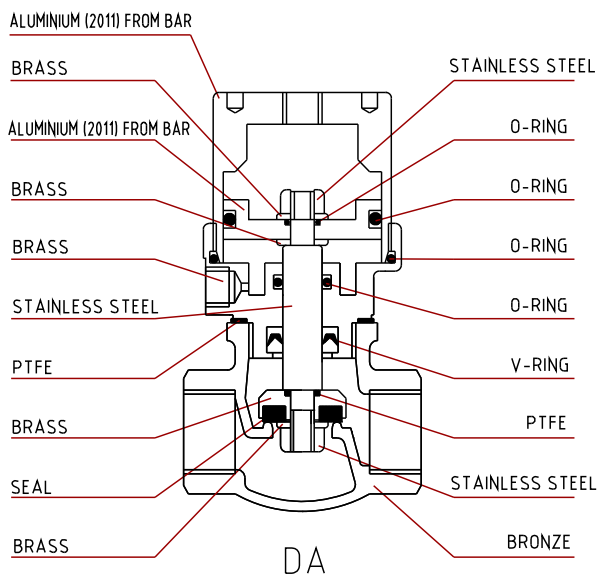
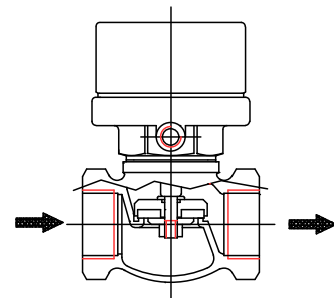
DA: 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2"

SANC: 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2"

SANO: 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2"

**ANODIZING TREATMENT ON OUTSIDE DETAILS
 MADE IN ALUMINIUM**

It is **not subject** to the "Water Hammer" if the fluid pass through the valve in the direction of the arrow printed on the body (under the shutter).
 With these conditions the tightness is guaranteed up to the pressures shown in the Differential Pressure Chart.



Technical modifications keep in reserve !

(2020/01)

NC : NBR-FPM-EPDM

NC : PTFE

DA/NO : NBR-FPM-EPDM

DA/NO : PTFE

G	DeltaP bar
1/2"	8
3/4"	7
1"	7
1"1/4	5.5
1"1/2	8
2"	5

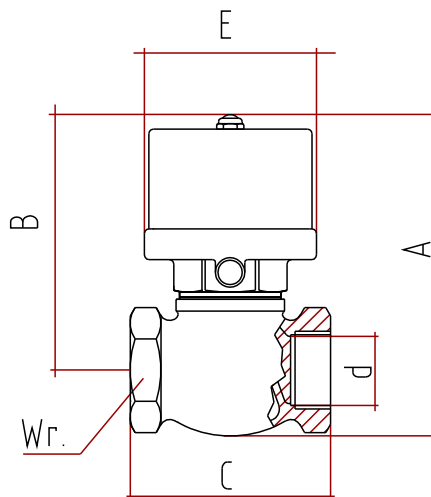
G	DeltaP bar
1/2"	8
3/4"	5
1"	6
1"1/4	4.5
1"1/2	6
2"	3.5

G	PILOT PRESS.	DeltaP bar
1/2"	4	15
1/2"	5	19
3/4"	4	10
3/4"	5	13
1"	4	18
1"	5	23
1"1/4	4	11
1"1/4	5	14
1"1/2	4	11
1"1/2	5	13
2"	4	7
2"	5	9

G	PILOT PRESS.	DeltaP bar
1/2"	4	15
1/2"	5	19
3/4"	4	8
3/4"	5	11
1"	4	15
1"	5	20
1"1/4	4	9
1"1/4	5	12
1"1/2	4	10
1"1/2	5	12
2"	4	6
2"	5	8

MINIMUM PRESSURE REQUIRED TO OPEN NC VERSION

G	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Bar	4.5	4.5	3.5	3.5	4	4



OVERALL DIMENSIONS

DN mm.	G	A mm.	B mm.	C mm.	d mm.	E mm.	Wrench mm.	Kv m3/h	Weight gr.
15	1/2"	106	86	60	17	50	27	3.4	590
20	3/4"	110	85	74	24	50	35	7.9	700
25	1"	128	98	85	30	76	46	11	1400
32	1"1/4	138	106	95	39	76	52	18	1650
40	1"1/2	166	130	110	45	89	60	28	2600
50	2"	184	139	120	55	89	72	44	3400

Technical modifications keep in reserve !

(2020/01)

Art. DV - SHUTTER ANGLE VALVES FOR STEAM AND HIGH PRESSURE



DESCRIPTION

Angle valve at 45° with flat shutter closing .

SEAL: PTFE.

Seal in PTFE **energized** with stainless steel spring on the stem.

Special gaskets for high temperature on the pneumatic side.

Perfect airtight. Long life even with high operating frequencies.

Pneumatic actuator with reciprocating piston movement.

It is equipped with a **NUT** which, turning the cylinder by 360°, allows the desired positioning of air side connection.

Connections with inner GAS ISO 228 thread female-female.

On request with NPT connections.

Control air 1/8" GAS connections.

ALLOWABLE TEMPERATURES

Operating temperature: from -20°C to +200°C

ACTUATOR PILOT PRESSURE. Max 8 bar.

For steam please refer to the Differential pressure and Saturated Steam Charts.

VERSIONS AND SIZES

DA: 1/2" - 3/4" - 1"

SANC: 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2" - 2 1/2" - 3"

SANO: 1/2" - 3/4" - 1"

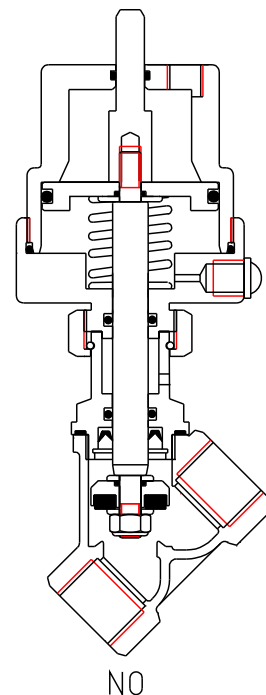
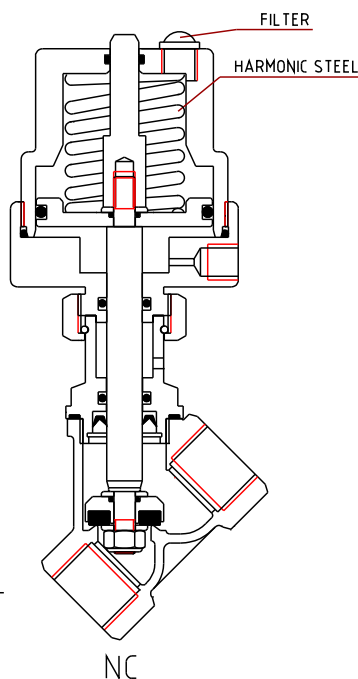
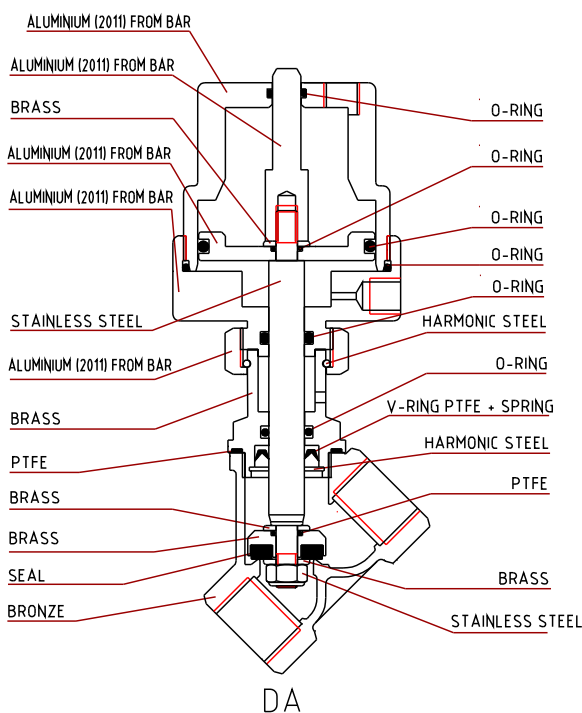
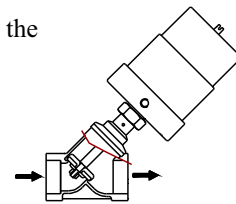
**ANODIZING TREATMENT ON OUTSIDE DETAILS
MADE IN ALUMINIUM**

It is **not subject** to the "Water Hammer" if the fluid pass through the valve in the direction of the arrow printed on the body (under the actuator).

With these conditions the tightness is guaranteed up to the pressures shown in the Differential Pressure Chart.

MINIMUM PRESSURE REQUIRED TO OPEN NC VERSION

G	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
BAR	4	4	5	5	5	5	5	5



Technical modifications keep in reserve !

(2020/01)

SATURATED STEAM CHART

MANOMETER PRESSURE bar	TEMP. C°
0	100
1	120
2	134
3	144
4	152
5	159
6	165
7	170
8	175
9	180
10	184
11	188
12	192
13	195
14	198
15	201
16	204
17	207
18	210
19	212
20	215

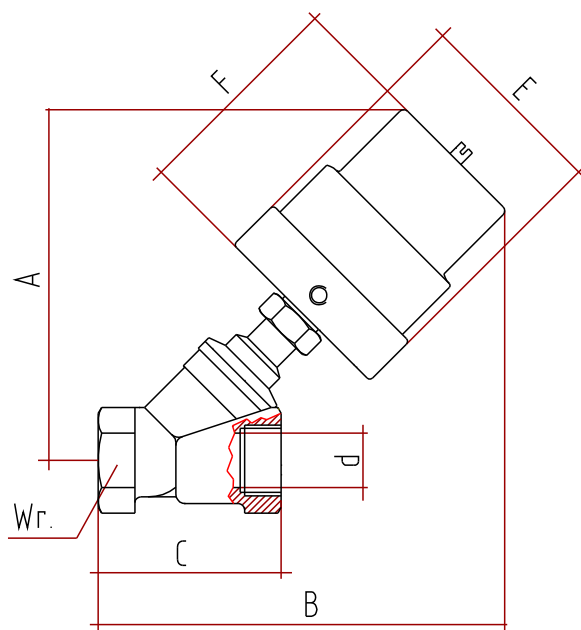
DIFFERENTIAL PRESSURE CHART

NC VERSION

G	DeltaP bar
1/2"	20
3/4"	12
1"	13
1"1/4	20
1"1/2	15
2"	9
2"1/2	4
3"	3

DA/NO VERSIONS

G	PRESS. PILOTA	DeltaP bar
1/2"	4	18
1/2"	5	23
3/4"	4	16
3/4"	5	22
1"	4	15
1"	5	20



OVERALL DIMENSIONS

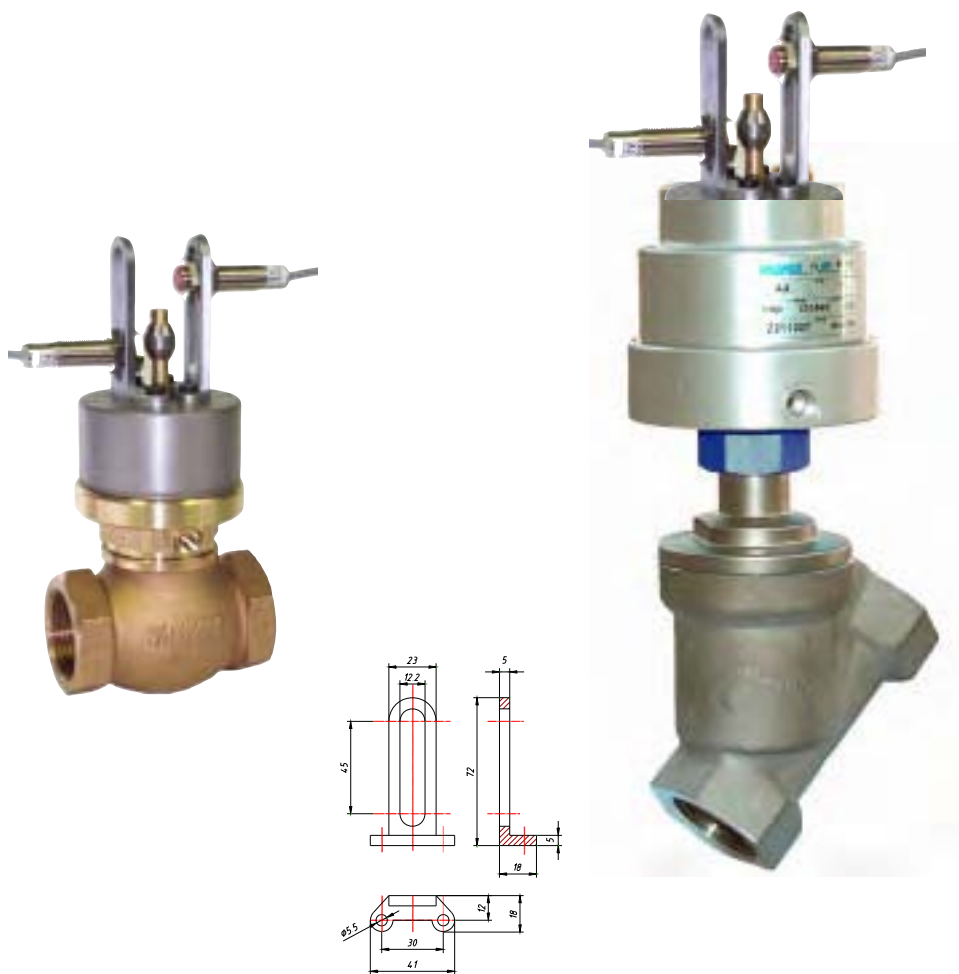
DN	G	A	B	C	d	E	F	Wrench	Kv	Weight
mm.		mm.	mm.	mm.	mm.	mm.	mm.	mm.	m3/h	gr.
15	1/2"	118	136	61	15	64	67	27	4.5	780
20	3/4"	124	144	70	20	64	67	33	11	920
25	1"	131	154	81	25	78	73	38	13	1180
32	1"1/4	183	210	95	32	100	111	49	30	2460
40	1"1/2	191	219	110	40	100	111	56	42	2900
50	2"	203	239	130	50	100	111	69	66	3760
65	2"1/2	238	243	149	65	119	115	86	82	5680
80	3"	245	262	174	80	119	115	110	98	7000

Technical modifications keep in reserve !

(2020/01)

PROXIMITY AND ELECTROMECHANICAL SWITCH FOR SHUTTER AND ANGLE VALVES

The shutter and angle valves, only in the SANC version (normally closed), can be equipped with electromechanical and proximity switches using the special kit. The gate valves of the series "A" are excluded.



It is **NOT** possible to assembly switches in valves already installed because the actuators are not arranged in advance.



DESCRIPTION

Ball valve with rotary pneumatic actuator.
 Valve body: brass OT 58 nickel plated.
 Ball: brass OT 58 heavy duty chromium plated.
 Ball gasket: Virgin PTFE.

TECHNICAL FEATURES

Allowable temperatures:

For liquid: from -20°C up to +130°C (with peaks of 150°C).
 For gas: from -20°C up to +60°C.

Maximum temperatures for special uses (valve all open)

+100°C - fuel oils, mineral oils, margarine;
 + 90°C - seawater, drinking water (municipal water system);
 + 60°C - trichloroethylene, butane, methane, propane, carbon dioxide;
 + 40°C - inflammable alcohol, gasoline, illuminating gas, natural gas, limewater, soda water.

PRESSURE/TEMPERATURE LIMITS' DIAGRAM

For any pressure level there is the corresponding allowable temperature level.

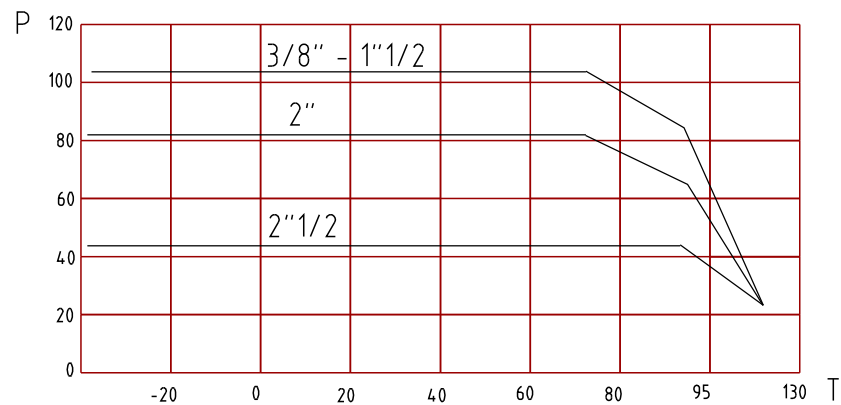


Diagram made with the following analysis:

Inside seats and seal: hydraulic-test of recirculation water-glycol at 50%,
 water hammer 1.1 PN e n°of cycles following UNI EN3828 - EN331.

Outside body and seal: hydraulic-test static 1.5 PN.

Limits of pressure: for liquids from 100 bar up to 40 bar.
 for gas PN 5.

ACTUATOR PILOT PRESSURE

Double acting versions: from 3 to 8 bar.

Single acting versions: from 6 to 8 bar.

Connections with inner GAS ISO 228 thread female-female.

On request with inner NPT connections.

Control air 1/8" GAS connections.

VERSIONS AND SIZES

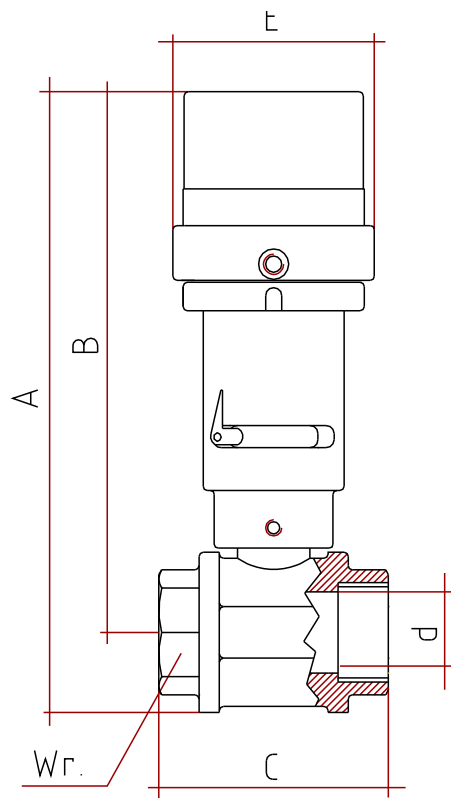
DA: 3/8" - 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2" - 2 1/2"

SANC: 3/8" - 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2"

SANO: 3/8" - 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2"

**ANODIZING TREATMENT ON OUTSIDE DETAILS
 MADE IN ALUMINIUM.**

OVERALL DIMENSIONS



DOUBLE ACTING

DN	G	ACTUATOR	A	B	C	d	E	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	m ³ /h	gr.
10	3/8"	DE5002	207	193	54	10	65	22	11	1080
15	1/2"	DE5002	213	195	69	15	65	27	20	1220
20	3/4"	DE6302	241	218	77	20	77	33	60	1640
25	1"	DE6302	250	223	89	25	77	40	100	1900
32	1"1/4	DE8003	294	261	103	32	100	50	130	3420
40	1"1/2	DE8003	307	267	114	40	100	55	170	4120
50	2"	DE8003	327	279	134	50	100	70	280	5480
65	2"1/2	DE1004	358	298	147	65	120	86	510	8400

SINGLE ACTING (NC - NO)

DN	G	ACTUATOR	A	B	C	d	E	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	m ³ /h	gr.
10	3/8"	SE5002	207	193	54	10	65	22	11	1160
15	1/2"	SE5002	213	195	69	15	65	27	20	1280
20	3/4"	SE6302	241	218	77	20	77	33	60	1800
25	1"	SE6302	250	223	89	25	77	40	100	2040
32	1"1/4	SE8003	294	261	103	32	100	50	130	3620
40	1"1/2	SE8003	307	267	114	40	100	55	170	4340
50	2"	SE1004	359	310	134	50	120	70	280	7320

Technical modifications keep in reserve !

(2020/01)

Art. F - BALL VALVES BRASS



DESCRIPTION

Ball valve with rotary actuator.
 Valve body: brass.
 Ball: brass heavy duty chromium plated.
 Ball gasket: Virgin PTFE.

ALLOWABLE TEMPERATURES

Operating temperature: from -15°C to +100°C.
 Max operating temperature for special uses (valve all open):
 +100°C - fuel oils, mineral oils, margarine;
 + 90°C - seawater, drinking water (municipal water system);
 + 60°C - trichloroethylene, butane, methane, propane, carbon dioxide;
 + 40°C - inflammable alcohol, gasoline, illuminating gas, natural gas, limewater, soda water.

ACTUATOR PILOT PRESSURE

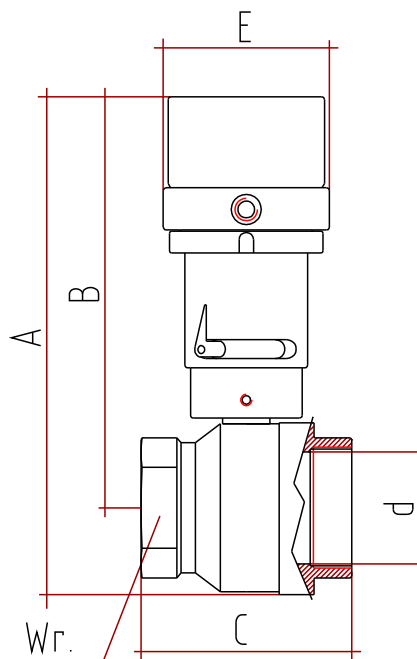
From 3 to 8 bar.
 Connections with inner GAS ISO 228 thread female-female.
 On request with inner NPT connections.
 Control air 1/8" GAS connections.

VERSIONS AND SIZES

DA: 3" - 4"

ANODIZING TREATMENT ON OUTSIDE DETAILS

MADE IN ALUMINIUM



RATED PRESSURE "PN"

G	3"	4"
PN	16	16

OVERALL DIMENSIONS

DOUBLE ACTING

DN	G	ACTUATOR	A	B	C	d	E	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	m ³ /h	gr.
80	3"	DE1004	355	293	151	75	120	94	770	6900
100	4"	DE1155	433	358	180	90	134	120	1200	11400

Technical modifications keep in reserve !

(2020/01)

Art. F3L - BALL VALVES BRASS 3W



DESCRIPTION

3-way ball valve with rotary pneumatic actuator.
 Valve body: brass OT 58 nickel plated.
 Ball: brass OT 58 heavy duty chromium plated.
 Ball gasket: Virgin PTFE.
 3/2 function (3-way and 2-position).

ALLOWABLE TEMPERATURES

Operating temperature: from -15°C to +100°C.
 Max operating temperature for special uses (valve all open):
 +100°C - fuel oils, mineral oils, margarine;
 + 90°C - seawater, drinking water (municipal water system);
 + 60°C - trichloroethylene, butane, methane, propane, carbon dioxide;
 + 40°C - inflammable alcohol, gasoline, illuminating gas, natural gas, limewater, soda water.

ACTUATOR PILOT PRESSURE

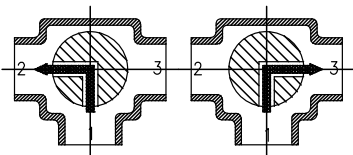
Double acting versions: from 4 to 8 bar.
 Single acting versions: from 6 to 8 bar.
 Connections with inner GAS ISO 228 thread female-female.
 Control air 1/8" GAS connections.

VERSIONS AND SIZES

DA: 1/2" - 3/4" - 1" - 1"1/4 - 1"1/2 - 2"
 SA: 1/2" - 3/4" - 1" - 1"1/4 - 1"1/2 - 2"

ANODIZING TREATMENT ON OUTSIDE DETAILS
 MADE IN ALUMINIUM

L - DRILLED BALL



Left deviation 1-2 Right deviation 1-3

RATED PRESSURE "PN"

G	1/2"	3/4"	1"	1"1/4	1"1/2	2"
PN	40	40	25	16	16	16

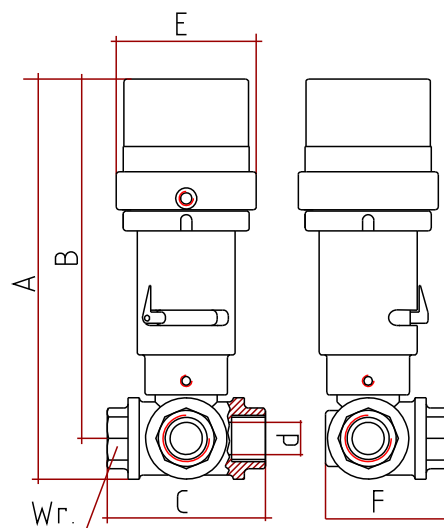
OVERALL DIMENSIONS

DOUBLE ACTING

DN	G	ACTUATOR	A	B	C	d	E	F	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	mm.	m3/h	gr.
15	1/2"	DE6302	225	206	80	13	77	60	27	4	1540
20	3/4"	DE6302	237	213	96	18	77	73	33	6	2040
25	1"	DE8003	271	242	113	23	100	87	40	10	3520
32	1"1/4	DE8003	287	254	130	29	100	99	50	20	4350
40	1"1/2	DE8003	298	260	147	35	100	113	57	38	5420
50	2"	DE1004	315	268	169	44	119	132	70	50	8780

SINGLE ACTING

DN	G	ACTUATOR	A	B	C	d	E	F	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	mm.	m3/h	gr.
15	1/2"	SE6302	225	206	80	13	77	60	27	4	1780
20	3/4"	SE6302	237	213	96	18	77	73	33	6	2200
25	1"	SE8003	271	242	113	23	100	87	40	10	3740
32	1"1/4	SE8003	287	254	130	29	100	99	50	20	4560
40	1"1/2	SE1004	330	291	147	35	119	113	57	38	7260
50	2"	SE1004	349	302	169	44	119	132	70	50	11200



Technical modifications keep in reserve !

(2020/01)



DESCRIPTION

Ball valve with rotary pneumatic actuator.
 Valve body and ball in stainless steel **AISI 316** for Art: **AL1**.
 The valve body is obtained from a block and polished.
 Ball gasket: Virgin PTFE.

ALLOWABLE TEMPERATURES

Operating temperature: from -15°C to +100°C.
 Max operating temperature for special uses (valve all open):
 +100°C - fuel oils, mineral oils, margarine;
 + 90°C - seawater, drinking water (municipal water system);
 + 60°C - trichloroethylene, butane, methane, propane, carbon dioxide;
 + 40°C - inflammable alcohol, gasoline, illuminating gas, natural gas,
 limewater, soda water.

ACTUATOR PILOT PRESSURE

Double acting versions: from 3 to 8 bar.
 Single acting versions: from 6 to 8 bar.
 Connections with inner GAS ISO 228 thread female-female.
 On request with NPT or DIN connections.
 Control air 1/8" GAS connections.

VERSIONS AND SIZES

DA: 3/8" - 1/2" - 3/4" - 1" - 1"1/4 - 1"1/2 - 2" - 2"1/2 - 3" - 4"
 SANC: 3/8" - 1/2" - 3/4" - 1" - 1"1/4 - 1"1/2 - 2"
 SANO: 3/8" - 1/2" - 3/4" - 1" - 1"1/4 - 1"1/2 - 2"

**ANODIZING TREATMENT ON OUTSIDE DETAILS
 MADE IN ALUMINIUM**

RATED PRESSURE "PN"

G	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
PN	64	64	64	40	40	40	25	25	25	25

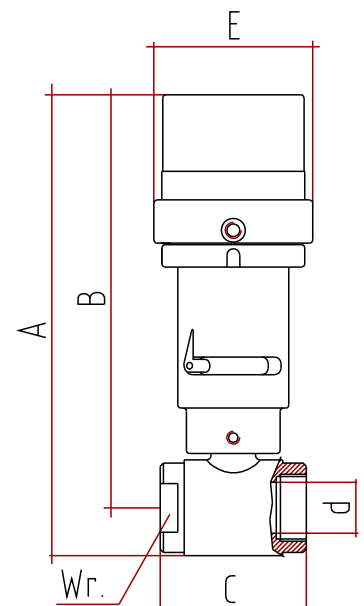
DOUBLE ACTING

DN	G	ACTUATOR	A	B	C	d	E	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	m3/h	gr.
10	3/8"	DE5002	210	195	52	10	65	26	11	1160
15	1/2"	DE5002	216	198	62	15	65	32	20	1260
20	3/4"	DE6302	236	215	72	20	77	38	60	1660
25	1"	DE6302	246	220	82	25	77	48	100	2020
32	1"1/4	DE8003	283	253	92	32	100	52	130	3300
40	1"1/2	DE8003	297	260	104	40	100	64	170	3980
50	2"	DE8003	317	273	116	50	100	80	280	5260
65	2"1/2	DE1004	344	288	128	65	119	100	510	8800
80	3"	DE1155	417	351	150	80	133	115	770	13200
100	4"	DE1155	447	365	178	100	133	125	1200	20200

SINGLE ACTING (NC-NO)

DN	G	ACTUATOR	A	B	C	d	E	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	m3/h	gr.
10	3/8"	SE5002	210	195	52	10	65	26	11	1220
15	1/2"	SE5002	216	198	62	15	65	32	20	1340
20	3/4"	SE6302	236	215	72	20	77	38	60	1860
25	1"	SE6302	246	220	82	25	77	48	100	2200
32	1"1/4	SE8003	283	253	92	32	100	52	130	3440
40	1"1/2	SE8003	297	260	104	40	100	64	170	4180
50	2"	SE1004	349	305	116	50	119	80	280	7000

OVERALL DIMENSIONS



Art. F4G - BUTTERFLY VALVES CAST IRON



DESCRIPTION

Butterfly valve with rotary pneumatic actuator.

ART. "F4/G" : Valve body: Spheroidal cast iron GS 400/12 UNI 4544.

Disk: spheroidal **cast iron** GS.400/12 UNI 4544 nickel-plated.

Stem: Stainless steel AISI 303.

ART. "F4/A" Valve body: Spheroidal cast iron GS 400/12 UNI 4544.

Disk: stainless steel **AISI 316**.

Stem: Stainless steel AISI 303.

Gasket: NBR, EPDM, FPM.

CONNECTIONS

Assembly between the flanges UNI PN 10-16 and ANSI 125-150.

Control air 1/8" GAS connections.

ALLOWABLE TEMPERATURES

Seal in NBR: from -20°C to +100°C

Seal in EPDM: from -35°C to +130°C

Seal in FPM: from -10°C to +160°C

ACTUATOR PILOT PRESSURE

From 5 to 8 bar.

VERSIONS AND SIZES

"F4G" DA: DN 65 - 80 - 100 - 125 - 150 - 200

"F4A" DA: DN 40 - 50 - 65 - 80 - 100 - 125 - 150 - 200

ANODIZING TREATMENT ON OUTSIDE DETAILS

MADE IN ALUMINIUM

**AVOID TO INTERCEPT
SHARP MATERIALS**

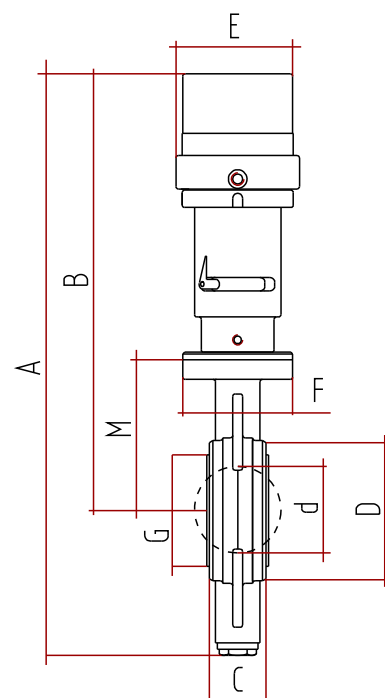
RATED PRESSURE "PN"

DN	40	50	65	80	100	125	150	200
PN	16	16	16	16	16	16	16	16

OVERALL DIMENSIONS

DOUBLE ACTING

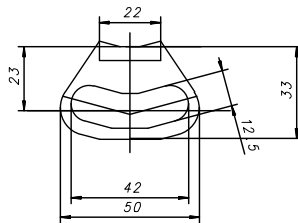
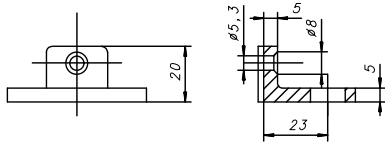
DN	ACTUATOR	A	B	C	D	d	E	F	G	M	Kv	Weight
mm.	type	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	m ³ /h	gr.
40	DE8003	410	318	34	90	46	100	90	65	98	13.5	4600
50	DE8003	427	329	44	100	56	100	90	79	110	22	4980
65	DE8003	452	342	47	122	70	100	90	91	122	4.9	5400
80	DE8003	471	351	46	140	83	100	90	107	131	7.8	6340
100	DE8003	507	374	52	162	105	100	90	133	154	30.0	7060
125	DE1004	543	393	57	202	128	119	90	160	178	63.5	10900
150	DE1004	575	409	57	224	153	119	90	190	194	84.1	12400
200	DE1004	633	440	60	274	198	119	90	240	225	119.0	14000



Technical modifications keep in reserve !

(2020/01)

MOUNTING BRACKETS KIT FOR SWITCHES - BALL AND BUTTERFLY VALVES



It is possible to fit switches on valves already installed by using the mounting bracket kit that it can be also bought separately;

It includes:

- No. 2 clamps to fit in the relevant holes present on the actuator,
- No. 1 pin dia.8 mm for actuators 5002,6302,8003 or dia. 10mm for actuators 1004, 1155 to apply in place of the position indicator,
- Attachment screws.

It can be equipped only the mounting Kit for the use of switch different from those we supplied.

ATTENTION: in the purchase order it is necessary to specify if the Kit has to be for proximity switch or for the electromechanical ones.

DESCRIPTION

1 kit = set of 2 brackets + 1 lever
(the switch is not included)

ORDER CODE

1200002-M8 For actuators $\varnothing \leq 80$
1200003-M10 For actuators $\varnothing > 100$

All the valves with rotary actuator can be supplied with proximity and electromechanical switch. They can be fit one by one or a pair of them to signal the position open or closed of the valve.

The proximity and electromechanical switches that we supply have the following features:

PROXIMITY SWITCH IN DIRECT CURRENT (D.C)

Inductive proximity switch with threaded body M12, available in the PNP or NPN version.

Feed 10-30 Vdc .

Max current 200mA.

Max residual ripple 10%.

Degree of protection IP 67.

Line of temperature $-25^{\circ}\text{C} +70^{\circ}\text{C}$.

Equipped with a signalling LED and 2m of cable.

ELECTROMECHANICAL SWITCH

The electromechanical proximity switch is actuated by a pin mounted in place of the position indicator.

It has two contacts, one open and the other closed, electrically splitted.

Degree of protection IP 67.

In accordance with the rules IEC, VDE, NFC, CEI.

Length of cable 2m.



ITEM 100

VALVOLA A SFERA IN OTTONE 2 VIE FILETTATA PASSAGGIO INTEGRALE.
2-WAY FULL-BORE THREADED-ENDS BRASS BALL VALVE.



CARATTERISTICHE GENERALI:

- La valvola é costruita per impieghi a basse pressioni con fluidi non aggressivi.
- Temperatura di utilizzo: da -20°C a +150°C per fluidi.
- Pressione di utilizzo: vedi diagramma.
- Fluido intercettato: aria, acqua, olii, applicazioni leggere.
- Estremità filettate a norma ISO 7/1.
- Flangia montaggio attuatore a norma ISO 5211.

ESECUZIONI SPECIALI A RICHIESTA:

- Per altre applicazioni contattare il nostro ufficio commerciale.

CERTIFICAZIONI:

- Conforme alla direttiva Europea 2014/68/UE "PED".

GENERAL FEATURES:

- The valve is suitable for low pressures on condition that non aggressive fluids are used.
- Working temperature: from -20°C to +150°C for fluids.
- Working pressure: see diagram.
- Fluid range: water, oil, gas and light applications.
- Threaded ends as per ISO 7/1 specifications.
- ISO 5211 flange connection.

ON REQUEST:

- For other applications, please contact our sales department.

CERTIFICATIONS:

- According to 2014/68/EU "PED".

Technical modifications keep in reserve !

(2022/06)

ITEM 100 - BALL VALVES BRASS



DIAGRAMMA PRESSIONE/TEMPERATURA PRESSURE/TEMPERATURE DIAGRAM

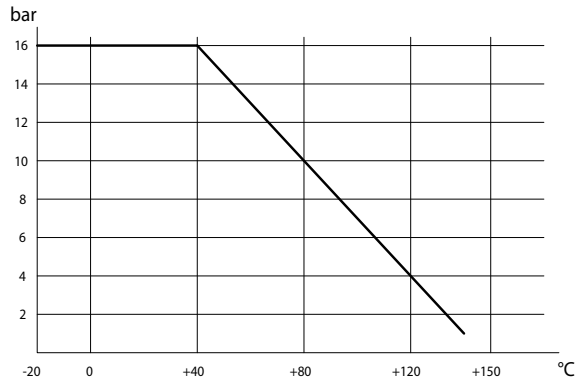
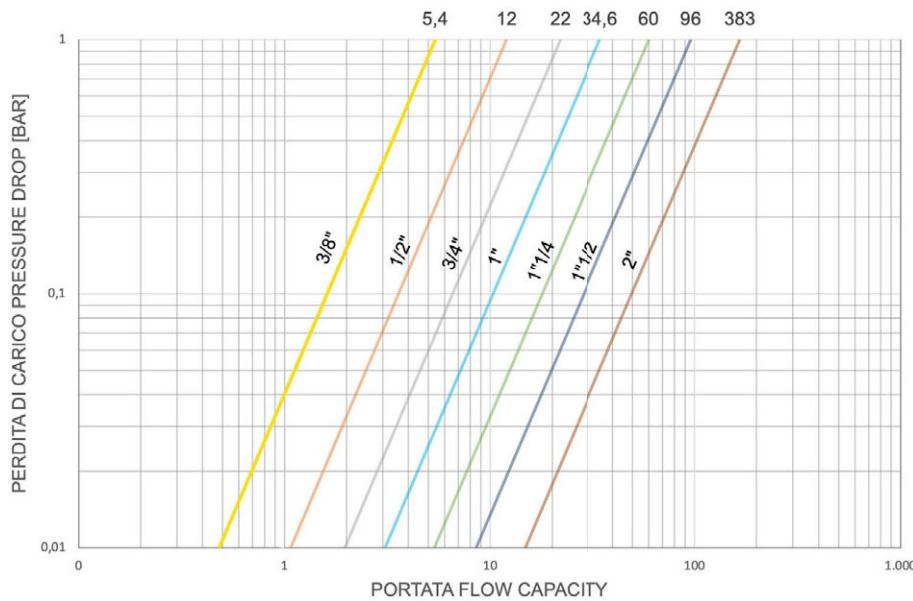


DIAGRAMMA PORTATA/PERDITA DI CARICO E COEFFICIENTE NOMINALE Kv FLOW/PRESSURE LOSS DIAGRAM AND Kv NOMINAL COEFFICIENT



Il valore Kv è il valore di portata in m³/h (con acqua a 15°C) che provoca la caduta di pressione di 1 bar.

Kv is the coefficient, expressed in m³/h (with water at 15°C) causing a pressure loss of 1 bar.

COPPIE DI SPUNTO in Nm BREAKAWAY TORQUES Nm

MISURA SIZE	DN 10 3/8"	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	3	3	4	5	7	9	15

I valori della coppia possono variare in funzione della temperatura e del tipo di fluido. Considerare un fattore di sicurezza pari a 1,4. Con frequenti cicli di apertura e chiusura la coppia di manovra può diminuire sensibilmente rispetto a quella iniziale. Gli accoppiamenti attuatore/valvola, riportati nelle pagine seguenti, sono realizzati per valvole che intercettano fluidi liquidi o gassosi, puliti e per medie temperature. Per maggiori informazioni, o utilizzi diversi, consultare il nostro ufficio commerciale.

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 sales department.

Technical modifications keep in reserve !

(2022/06)

ITEM 100 - BALL VALVES BRASS

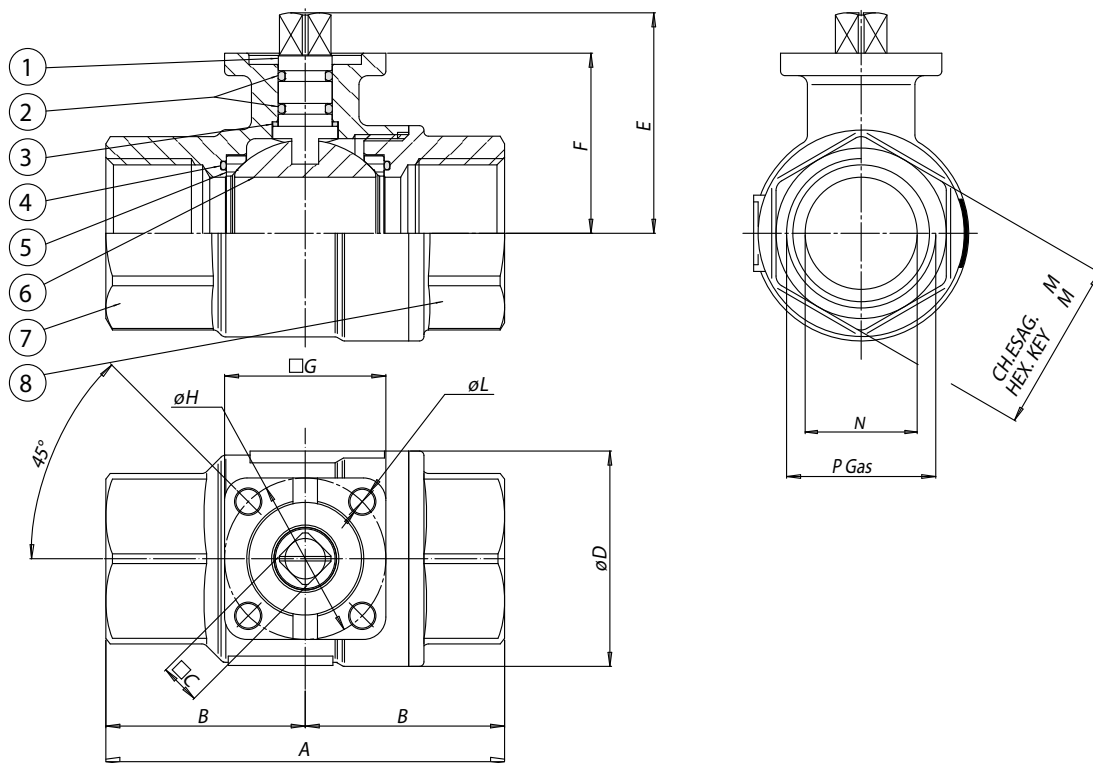


ITEM 100

OTTONE BRASS

ASSE LIBERO E CON LEVA FREE SHAFT AND WITH LEVER

MISURA SIZE		ASSE LIBERO FREE SHAFT		CON LEVA WITH LEVER		
DN [mm]	[inch]	Asse libero Free shaft	Kg	Con Leva With lever	Kg	Kit leva Lever kit
DN 10	3/8"	V100N203G	0,18	L100N203G	0,23	KLV10103
DN 15	1/2"	V100N204G	0,26	L100N204G	0,3	KLV10103
DN 20	3/4"	V100N205	0,44	L100N205	0,51	KLV10103
DN 25	1"	V100N206	0,66	L100N206	0,72	KLV10103
DN 32	1" 1/4	V100N207G	1,04	L100N207G	1,1	KLV10105
DN 40	1" 1/2	V100N208G	1,5	L100N208G	1,56	KLV10105
DN 50	2"	V100N209G	2,56	L100N209G	2,6	KLV10109



MATERIALI MATERIALS			
1	Stelo Shaft	Ottone Brass	EN 12164 CW614N
2	O-ring	FKM	
3	Anello antifrizione Antifriction rings	P.T.F.E.	
4	O-ring laterali O-ring	FKM	
5	Guarnizioni di tenuta laterale Seals	P.T.F.E.	
6	Sfera Ball	Ottone cromatura dura Brass chromium plated	EN 12164 CW614N
7	Corpo* Body*	Ottone Brass	EN 12165 CW617N
8	Manicotto femmina* Threaded end*	Ottone Brass	EN 12165 CW617N

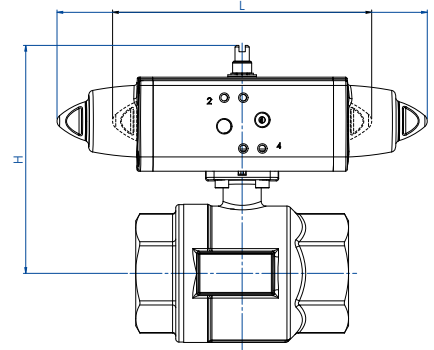
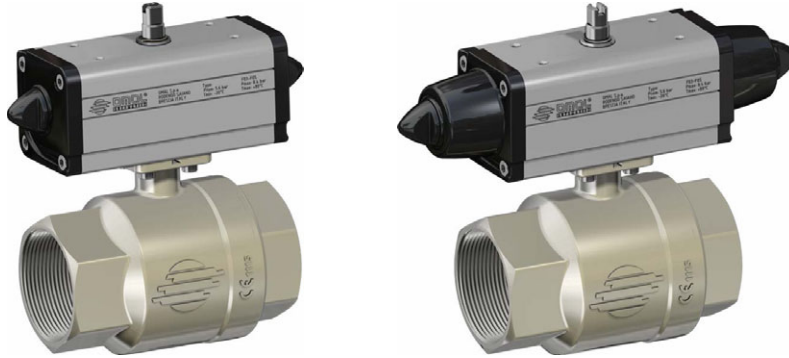
* Trattamento esterno: Nichelatura brillante * Surface treatment: bright nickel plating

MISURA SIZE		DIMENSIONI DIMENSIONS										
DN [mm]	[inch]	A	B	C	øD	E	F	G	øH	øL	ch.M	N
DN 10	3/8"	69	34,5	9	31,8	38,5	29,5	36	36	5,5	25	10
DN 15	1/2"	69	34,5	9	31,8	38,5	29,5	36	36	5,5	25	15
DN 20	3/4"	77	38,5	9	40	45,3	36,3	36	36	5,5	31	20
DN 25	1"	89	44,5	9	48	49,2	40,2	36	36	5,5	38	25
DN 32	1" 1/4	103	51,5	11	62	59,6	50,5	42	36	5,5	47	32
DN 40	1" 1/2	114	57	11	72,6	66,2	57	42	36	5,5	54	40
DN 50	2"	134	67	11	88,5	75,5	64,3	46	36/42	5,5	66	50

ITEM 100 - BALL VALVES BRASS



ITEM 100 OTTONE BRASS CON ATTUATORE WITH ACTUATOR



CON ATTUATORE PNEUMATICO DOPPIO EFFETTO WITH DOUBLE ACTING PNEUMATIC ACTUATOR

MISURA DN [mm]	SIZE [inch]	ARTICOLO ITEM CODE	ATTUATORE ACTUATOR	KIT montaggio Mounting KIT	L [mm]	H [mm]	Kg
DN 10	3/8"	DG100H003	DA008401S	KCF032558	70,0	85,0	0,5
DN 15	1/2"	DG100H004	DA008401S	KCF032558	70,0	88,0	0,6
DN 20	3/4"	D100H005	DA008401S	KCF032558	70,0	94,0	0,7
DN 25	1"	D100H006	DA008401S	KCF032558	70,0	98,0	1,0
DN 32	1" 1/4	DG100H007	DAN0015411S	KCF032558	159,0	122,8	1,9
DN 40	1" 1/2	DG100H008	DAN0015411S	KCF032558	159,0	129,8	2,7
DN 50	2"	DG100H009	DAN0030411S	KCF032558	174,2	143,8	4,2

CON ATTUATORE PNEUMATICO SEMPLICE EFFETTO WITH SPRING RETURN PNEUMATIC ACTUATOR

MISURA DN [mm]	SIZE [inch]	ARTICOLO ITEM CODE	ATTUATORE ACTUATOR	KIT montaggio Mounting KIT	L [mm]	H [mm]	Kg
DN 10	3/8"	SG100H003	SRN0015401S	KCF042565	233,2	105,8	1,5
DN 15	1/2"	SG100H004	SRN0015401S	KCF042565	233,2	108,8	1,6
DN 20	3/4"	SG100H005	SRN0015401S	KCF042565	233,2	115,8	1,7
DN 25	1"	SG100H006	SRN0015401S	KCF042565	233,2	119,8	2,0
DN 32	1" 1/4	SG100H007	SRN0015401S	KCF032558	233,2	129,8	2,5
DN 40	1" 1/2	SG100H008	SRN0015401S	KCF032558	233,2	136,8	3,3
DN 50	2"	SG100H009	SRN0030401S	KCF055309	258,8	155,0	5,2

Dimensionamento degli attuatori pneumatici fatto considerando una pressione minima di alimentazione pari a 5,6 barg. Sizing of pneumatic actuators by minimum pressure rate 5,6 barg.

Technical modifications keep in reserve !

(2022/06)

ITEM 400-401

VALVOLA A SFERA IN ACCIAIO INOX MICROFUSA 2 VIE FILETTATA
PASSAGGIO INTEGRALE.

2-WAY FULL-BORE THREADED-ENDS STAINLESS STEEL BALL VALVE.

ITEM 400

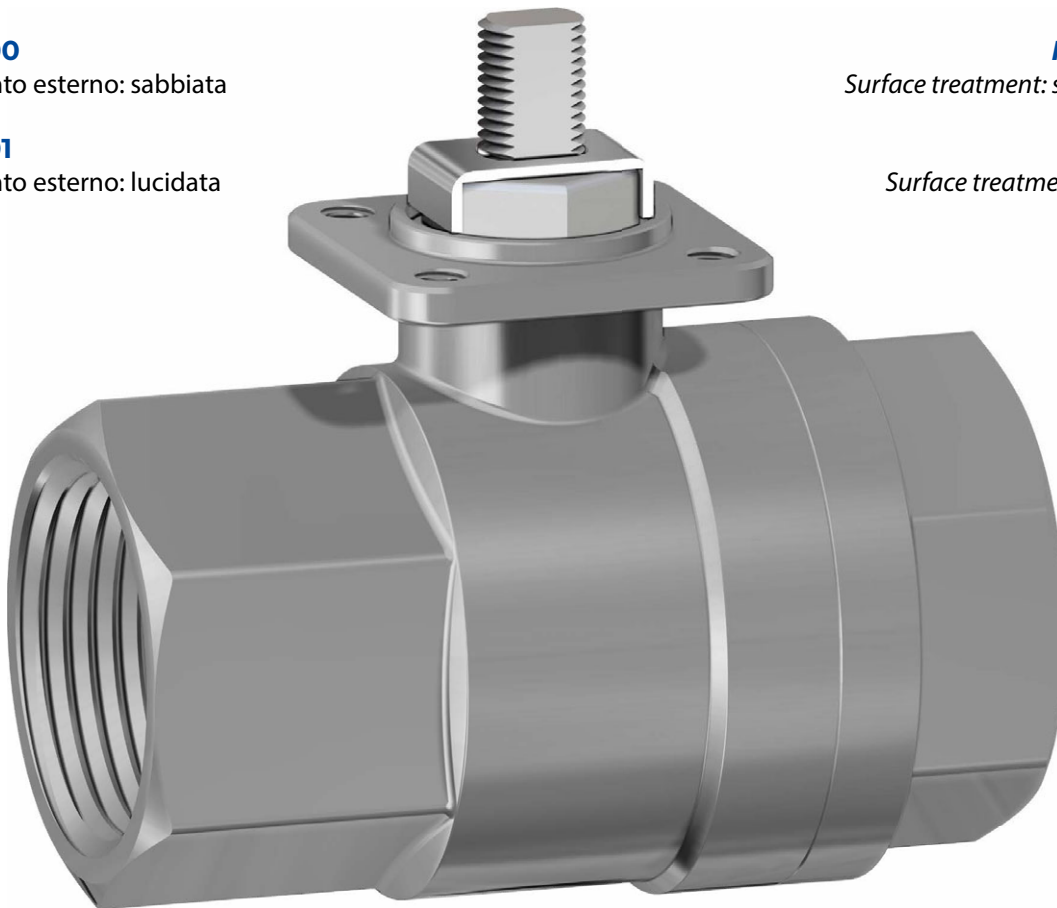
Trattamento esterno: sabbiata

ITEM 400
Surface treatment: sandblasted

ITEM 401

Trattamento esterno: lucidata

ITEM 401
Surface treatment: polished



CARATTERISTICHE GENERALI:

- Costruita per l'utilizzo a medie pressioni.
- Temperatura di utilizzo: da -20°C a +150°C.
- Pressione di utilizzo: vedi diagramma.
- Fluido intercettato: aria, acqua, gas, prodotti petroliferi e petrolchimici, fluidi aggressivi.
- Trattamento esterno: articolo 400 sabbiata; articolo 401 lucidata.
- Estremità filettate a norma ISO 7/1.
- Flangia montaggio attuatore a norma ISO 5211.

GENERAL FEATURES:

- Suitable for middle pressure applications.
- Working temperature: from -20°C to +150°C.
- Working pressure: see diagram.
- Fluid range: air, water, gas, petroleum and petrochemical products, aggressive media.
- Surface treatment: article 400 sandblasted; article 401 polished.
- Threaded ends as per ISO 7/1 specifications.
- ISO 5211 flange connection.

ESECUZIONI SPECIALI A RICHIESTA:

- Attacchi femmina NPT ANSI B1.20.1.
- Guarnizioni di tenuta in: PTFE caricato vetro;
PTFE caricato carbografite.
- Per altre applicazioni contattare il nostro ufficio commerciale.

ON REQUEST:

- Female threaded ends as per NPT B1.20.1 specifications.
- Seals made of: PTFE glass filled;
PTFE with carbon graphite.
- For other applications, please contact our sales department.

CERTIFICAZIONI:

- Conforme alla direttiva Europea 2014/68/UE "PED".
- Versione ATEX a richiesta in conformità alla direttiva 2014/34/UE, non disponibile per le misure DN10 3/8" e DN15 1/2".

CERTIFICATIONS:

- According to 2014/68/EU "PED".
- ATEX version on request in conformity with directive 2014/34/EU, not available for sizes DN10 3/8" e DN15 1/2".

Technical modifications keep in reserve !

(2022/06)

ITEM 400 - BALL VALVES INOX



DIAGRAMMA PRESSIONE/TEMPERATURA PRESSURE/TEMPERATURE DIAGRAM

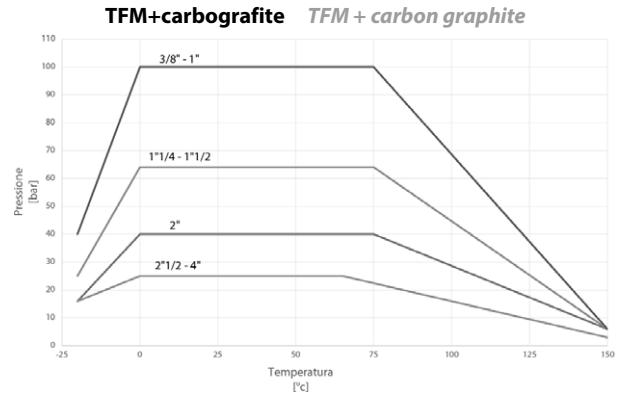
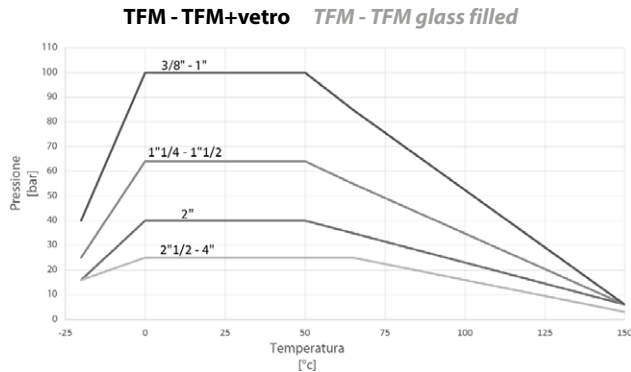
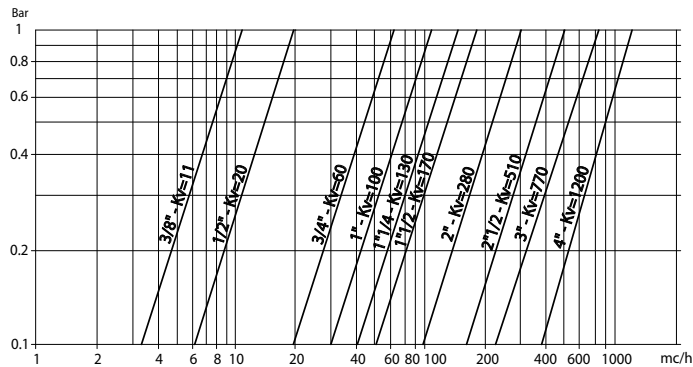


DIAGRAMMA PORTATA/PERDITA DI CARICO E COEFFICIENTE NOMINALE Kv FLOW/PRESSURE LOSS DIAGRAM AND Kv NOMINAL COEFFICIENT



Il valore Kv è il valore di portata in m³/h (con acqua a 15°C) che provoca la caduta di pressione di 1 bar.

Kv is the coefficient, expressed in m³/h (with water at 15°C) causing a pressure loss of 1 bar.

COPPIE DI SPUNTO in Nm BREAKAWAY TORQUES Nm

MISURA SIZE	DN 10 3/8"	DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 32 1"1/4"	DN 40 1"1/2"	DN 50 2"	DN 65 2"1/2"	DN 80 3"	DN 100 4"
PN 25 bar								76	106	146
PN 40 bar							56			
PN 64 bar					28	40				
PN 100 bar	8	10	14	20						

I valori della coppia possono variare in funzione della temperatura e del tipo di fluido. Considerare un fattore di sicurezza pari a 1,4. Con frequenti cicli di apertura e chiusura la coppia di manovra può diminuire sensibilmente rispetto a quella iniziale. Gli accoppiamenti attuatore/valvola, riportati nelle pagine seguenti, sono realizzati per valvole che intercettano fluidi liquidi o gassosi, puliti e per medie temperature. Per maggiori informazioni, o utilizzi diversi, consultare il nostro ufficio commerciale.

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 sales department.

Technical modifications keep in reserve !

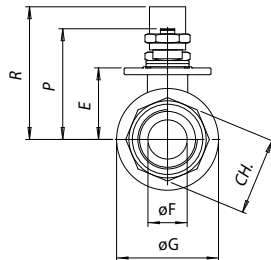
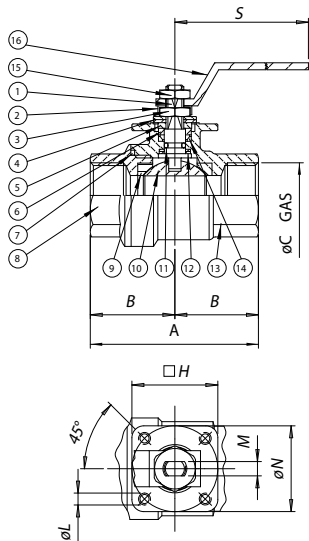
(2022/06)

ITEM 400 - BALL VALVES INOX

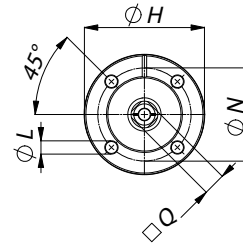


ITEM 400-401 ACCIAIO INOX STAINLESS STEEL ASSE LIBERO E CON LEVA FREE SHAFT AND WITH LEVER

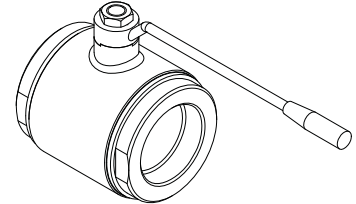
MISURA DN [mm]	SIZE [inch]	ASSE LIBERO FREE SHAFT				CON LEVA WITH LEVER				Kg	Kit guarnizioni Seals kit	
		Asse libero -sabbata Free shaft -sand blasted	→ ATEX	Asse libero -lucidata Free shaft -polished	→ ATEX	Con leva -sabbata With lever -sand blasted	→ ATEX	Con leva -lucidata With lever -polished	→ ATEX			
DN 10	3/8"	V400H203	-	V401H203	-	0,24	L400H203	-	L401H203	-	0,31	KGBV5003
DN 15	1/2"	V400H204	-	V401H204	-	0,32	L400H204	-	L401H204	-	0,39	KGBV5004
DN 20	3/4"	V400H205	V400H205YX	V401H205	V401H205YX	0,51	L400H205	L400H205YX	L401H205	L401H205YX	0,58	KGBV5005
DN 25	1"	V400H206	V400H206YX	V401H206	V401H206YX	0,77	L400H206	L400H206YX	L401H206	L401H206YX	0,87	KGBV5006
DN 32	1" 1/4	V400H207	V400H207YX	V401H207	V401H207YX	1,27	L400H207	L400H207YX	L401H207	L401H207YX	1,37	KGBV5007
DN 40	1" 1/2	V400H208	V400H208YX	V401H208	V401H208YX	1,81	L400H208	L400H208YX	L401H208	L401H208YX	2,01	KGBV5008
DN 50	2"	V400H209	V400H209YX	V401H209	V401H209YX	3,2	L400H209	L400H209YX	L401H209	L401H209YX	3,4	KGBV5009
DN 65	2" 1/2	-	-	V419H410	V419H410YX	5,47	-	-	L419H410	L419H410YX	5,67	KGBV5010
DN 80	3"	-	-	V419H411	V419H411YX	8,92	-	-	L419H411	L419H411YX	9,22	KGBV5011
DN 100	4"	-	-	V419H412G	V419H412GYX	15,9	-	-	L419H412	L419H412YX	16,4	KGBV5012



Per le versioni 2"1/2 - 4" Asse libero:
2"1/2 - 4" only, Free shaft:



Per le versioni 2"1/2 - 4" con leva:
2"1/2 - 4" only, with lever:



La versione con leva non ha la testa della valvola a norma ISO 5211 e non è possibile montare alcun tipo di attuatore

The manual version (with lever) doesn't have the ISO 5211 top work and its therefore not possible to mount on it any kind of actuators

	MATERIALI	MATERIALS	
1	Stelo Shaft	316 S.S.	1.4401
2	Piastra bloccadado Nut holder	304 S.S.	1.4301
3	Dado di bloccaggio Lock nut	304 S.S.	1.4301
4	Molla a tazza Belleville washer	301 S.S.	1.4310
5	Distanziale Washer	304 S.S.	1.4301
6	Anello premiguarnizione Gland nut	304 S.S.	1.4301
7*	Guarnizione statica Static ring	P.T.F.E.	
8	Manicotto femmina End	316 S.S.	1.4408
9*	Guarnizioni di tenuta laterale Seals	P.T.F.E.	
10	Sfera Ball	316 S.S.	1.4401
11*	O-ring di tenuta intermedia O-ring	FKM	Non presente nella versione ATEX
12*	Anello di tenuta inferiore Bottom tight ring	P.T.F.E.	
13	Corpo con manicotto femmina Body with female end	316 S.S.	1.4408
14*	Coppia di tenuta superiore Top sealing	P.T.F.E.	
15	Dado blocca leva Lever nut	304 S.S.	1.4301
16	Leva di manovra Lever	304 S.S.	1.4301

* Particolari del kit di ricambio Components of spare part kit KGBV50...

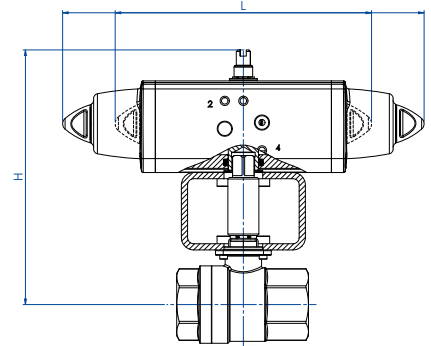
MISURA SIZE		DIMENSIONI DIMENSIONS															
DN [mm]	[inch]	A	B	øC	E	øF	øG	H	øL	M	□Q	øN	CH	P	R	S	
DN 10	3/8"	55	25	3/8"	22	10	29	36	M5	4	-	36	21,5	37,5	52	110	
DN 15	1/2"	65	30	1/2"	24,8	15	34	36	M5	4	-	36	26,5	40,3	55	110	
DN 20	3/4"	70	35	3/4"	31,3	20	42,5	36	M5	6	-	36	31,5	50,8	66	140	
DN 25	1"	85	42,5	1"	35,3	25	50,5	36	M5	6	-	36	40,5	54,8	70	140	
DN 32	1" 1/4	95	47,5	1" 1/4	44	32	63	42	M5	8	-	42	49,5	68	85	180	
DN 40	1" 1/2	105	52,5	1" 1/2	50,3	40	75,5	42	M5	8	-	42	54,5	74,3	91	180	
DN 50	2"	125	62,5	2"	57,9	50	91	50	M6	10	-	50	69,5	87	105	230	
DN 65	2" 1/2	128	64	2" 1/2	94,5	65	110	90	9	-	17	70	-	109,5	110	235	
DN 80	3"	150	75	3"	106	80	141	90	9	-	17	70	-	121	130	285	
DN 100	4"	178	89	4"	120	100	160	120	11	-	17	102	-	135	150	310	

ITEM 400 - BALL VALVES INOX



ITEM 400-401

ACCIAIO INOX STAINLESS STEEL
CON ATTUATORE WITH ACTUATOR



CON ATTUATORE PNEUMATICO DOPPIO EFFETTO WITH DOUBLE ACTING PNEUMATIC ACTUATOR

MISURA SIZE		ARTICOLO ITEM CODE	ATTUATORE ACTUATOR	KIT montaggio Mounting KIT	L [mm]	H [mm]	Kg	ATEX
DN	[inch]							
DN 10	3/8"	DG40*H003	DAN0015411S	KCNAAHD5261	159,0	144,2	1,5	-
DN 15	1/2"	DG40*H004	DAN0015411S	KCNAAHD5261	159,0	147,0	1,5	-
DN 20	3/4"	DG40*H005	DAN0030411S	KCNAAHD5262	174,2	160,5	2,0	DG40*H005YX
DN 25	1"	DG40*H006	DAN0030411S	KCNAAHD5262	174,2	160,5	2,3	DG40*H006YX
DN 32	1" 1/4	DG40*H007	DAN0045412S	KCNBCHD5264	188,5	188,5	3,3	DG40*H007YX
DN 40	1" 1/2	DG40*H008	DAN0060412S	KCNBCHD5266	198,0	200,7	4,3	DG40*H008YX
DN 50	2"	DG40*H009	DAN0106411S	KCNCHD5605	237,0	221,2	6,7	DG40*H009YX
DN 65	2" 1/2	DG419H010	DAN0120411S	KCF075269	244,1	197,8	8,3	DG419H010YX
DN 80	3"	DG419H011	DAN0180411S	KCF102624	289,9	243,5	13,8	DG419H011YX
DN 100	4"	DG419H012	DAN0240411S	KCF105271	313,6	261,1	21,8	DG419H012YX

CON ATTUATORE PNEUMATICO SEMPLICE EFFETTO WITH SPRING RETURN PNEUMATIC ACTUATOR

MISURA SIZE		ARTICOLO ITEM CODE	ATTUATORE ACTUATOR	KIT montaggio Mounting KIT	L [mm]	H [mm]	Kg	ATEX
DN	[inch]							
DN 10	3/8"	SG40*H003	SRN0015401S	KCNAAHD5261	233,2	151,2	1,9	---
DN 15	1/2"	SG40*H004	SRN0015401S	KCNAAHD5261	233,2	154,0	2,0	---
DN 20	3/4"	SG40*H005	SRN0030402S	KCNACHD5263	258,8	181,7	3,2	SG40*H005YX
DN 25	1"	SG40*H006	SRN0030402S	KCNACHD5263	258,8	185,7	3,4	SG40*H006YX
DN 32	1" 1/4	SG40*H007	SRN0053401S	KCNBCHD5265	304,2	207,3	5,2	SG40*H007YX
DN 40	1" 1/2	SG40*H008	SRN0060401S	KCNBCHD5265	338,5	217,3	6,2	SG40*H008YX
DN 50	2"	SG40*H009	SRN0090401S	KCNCDHD5606	393,7	255,4	10,4	SG40*H009YX
DN 65	2" 1/2	SG419H010	SRN0120401S	KCF102624	409,6	235,6	12,5	SG419H010YX
DN 80	3"	SG419H011	SRN0180401S	KCF102624	474,0	254,0	18,1	SG419H011YX
DN 100	4"	SG419H012	SRN0240401S	KCF125272	520,5	285,0	28,2	SG419H012YX

* = 0 valvola esterno sabbata (articolo 400); sand blasted valve (item 400) * = 1 valvola esterno lucidato (articolo 401); polished valve (item 401)

Dimensionamento degli attuatori pneumatici fatto considerando una pressione minima di alimentazione pari a 5,6 barg. Sizing of pneumatic actuators by minimum pressure rate 5,6 barg.

Technical modifications keep in reserve !

(2022/06)

ITEM 160-161

VALVOLA A SFERA IN OTTONE 3 VIE 4 GUARNIZIONI - FILETTATA CON SFERA A "T" O "L".

3 WAY 4 SEALS BRASS BALL VALVE - THREADED-ENDS "T" OR "L" PORT.

ITEM 160

Valvola con sfera a "T"

ITEM 160

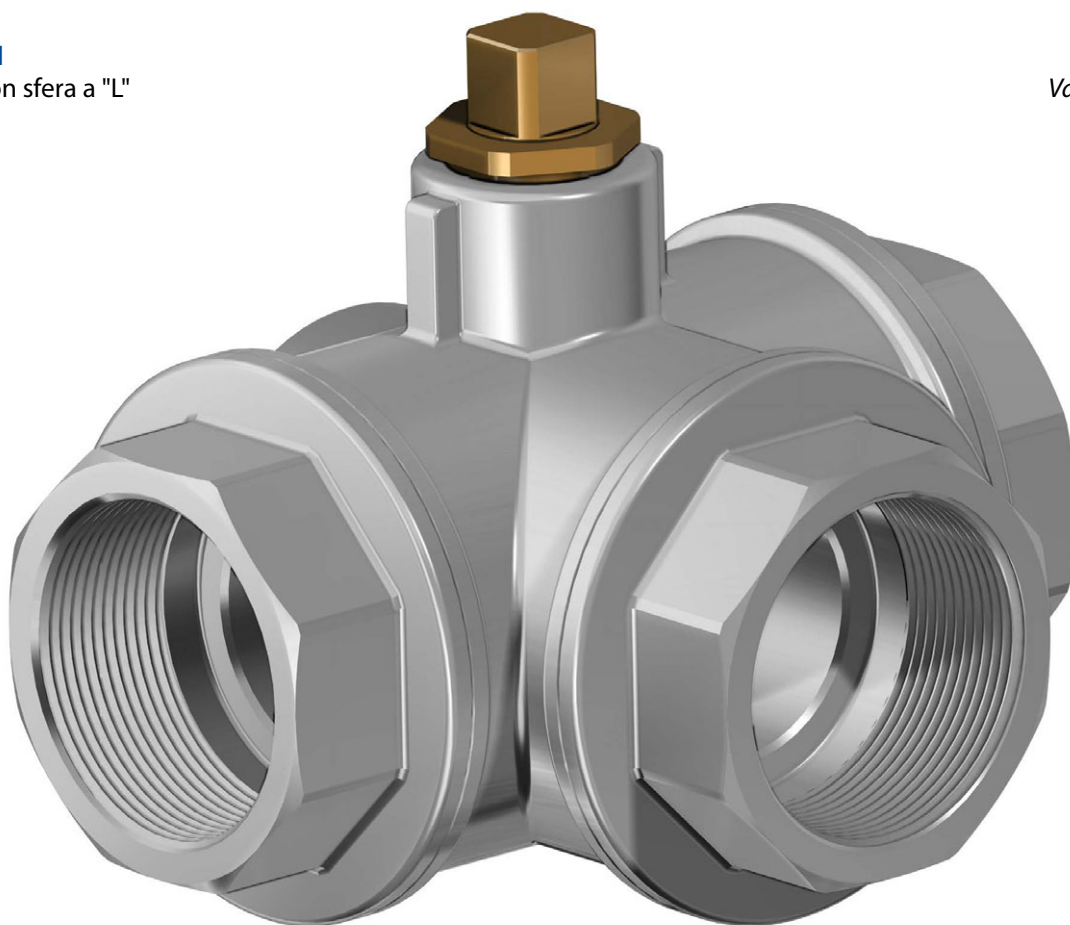
Valve "T" port

ITEM 161

Valvola con sfera a "L"

ITEM 161

Valve "L" port



CARATTERISTICHE GENERALI:

- **La valvola con 4 guarnizioni sulla sfera, permette la deviazione del flusso in tutte le direzioni**, vedere schema.
- Temperatura di utilizzo: da -15°C a + 120°C.
- Pressione di utilizzo: vedi tabella.
- Fluido intercettato: aria, acqua, gas, olii, prodotti petroliferi e petrolchimici, vuoto, fluidi non aggressivi.
- Estremità filettate a norma ISO 7/1.

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 ISO 7/1 specifications.

ESECUZIONI SPECIALI A RICHIESTA:

- Per altre applicazioni contattare il nostro ufficio commerciale.

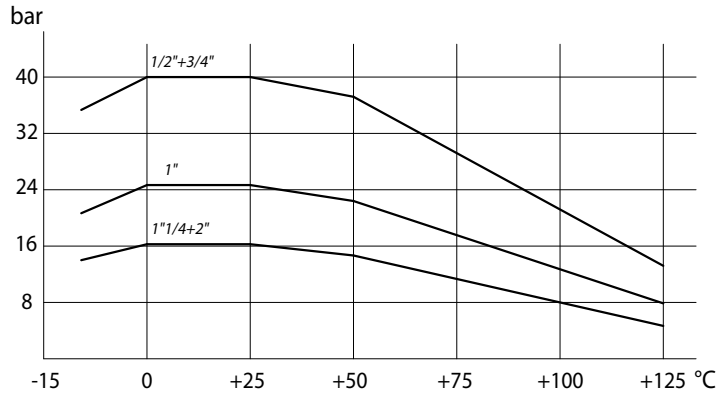
ON REQUEST:

- For other applications, please contact our sales department.

ITEM 160 - BALL VALVES BRASS 3W



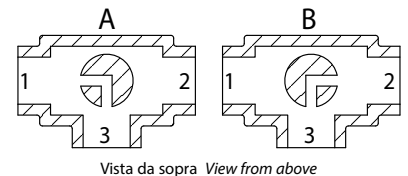
DIAGRAMMA PRESSIONE/TEMPERATURA PRESSURE/TEMPERATURE DIAGRAM



SCHEMA SFERA A "L" PLAN FOR "L" PORT

N.B.: Con attuatore **SR NORMALMENTE CHIUSO** la posizione di riposo della sfera deve essere la "A".
Con attuatore **SR NORMALMENTE APERTO** la posizione di riposo della sfera deve essere la "B".

N.B.: "A" must be the rest position of the ball with **SR FAIL CLOSE** actuator.
"B" must be the rest position of the ball with **SR FAIL OPEN** actuator.



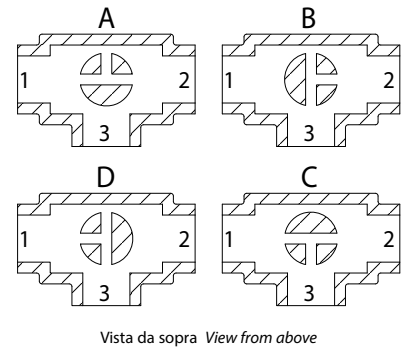
SCHEMA SFERA A "T" PLAN FOR "T" PORT

Con l'attuatore sono possibili solo due posizioni con rotazione di 90°: la configurazione della sfera deve essere sempre comunicata al nostro ufficio commerciale.

N.B.: Con attuatore **SR NORMALMENTE CHIUSO** scegliere la posizione di riposo della sfera; alimentando, l'attuatore ruota in senso antiorario.
Con attuatore **SR NORMALMENTE APERTO** scegliere la posizione di riposo della sfera; alimentando, l'attuatore ruota in senso orario.

With actuator 2 positions with 90° rotation are possible only: the configuration of the ball must always be communicated at our sales department.

N.B.: Choose the rest position of the ball with **SR FAIL CLOSE** actuator; whenever supplied with air, actuator turns in an anticlockwise direction.
Choose the rest position of the ball with **SR FAIL OPEN** actuator; whenever supplied with air, actuator turns in a clockwise direction.



	COPPIE DI SPUNTO in Nm		BREAKAWAY TORQUES Nm			
MISURA 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				

I valori della coppia possono variare in funzione della temperatura e del tipo di fluido. Considerare un fattore di sicurezza pari a 1,4.
Con frequenti cicli di apertura e chiusura la coppia di manovra può diminuire sensibilmente rispetto a quella iniziale. Gli accoppiamenti attuatore/valvola, riportati nelle pagine seguenti, sono realizzati per valvole che intercettano fluidi liquidi o gassosi, puliti e per medie temperature. Per maggiori informazioni, o utilizzi diversi, consultare il nostro ufficio commerciale.

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 sales department.

Technical modifications keep in reserve !

(2022/06)

ITEM 160 - BALL VALVES BRASS 3W

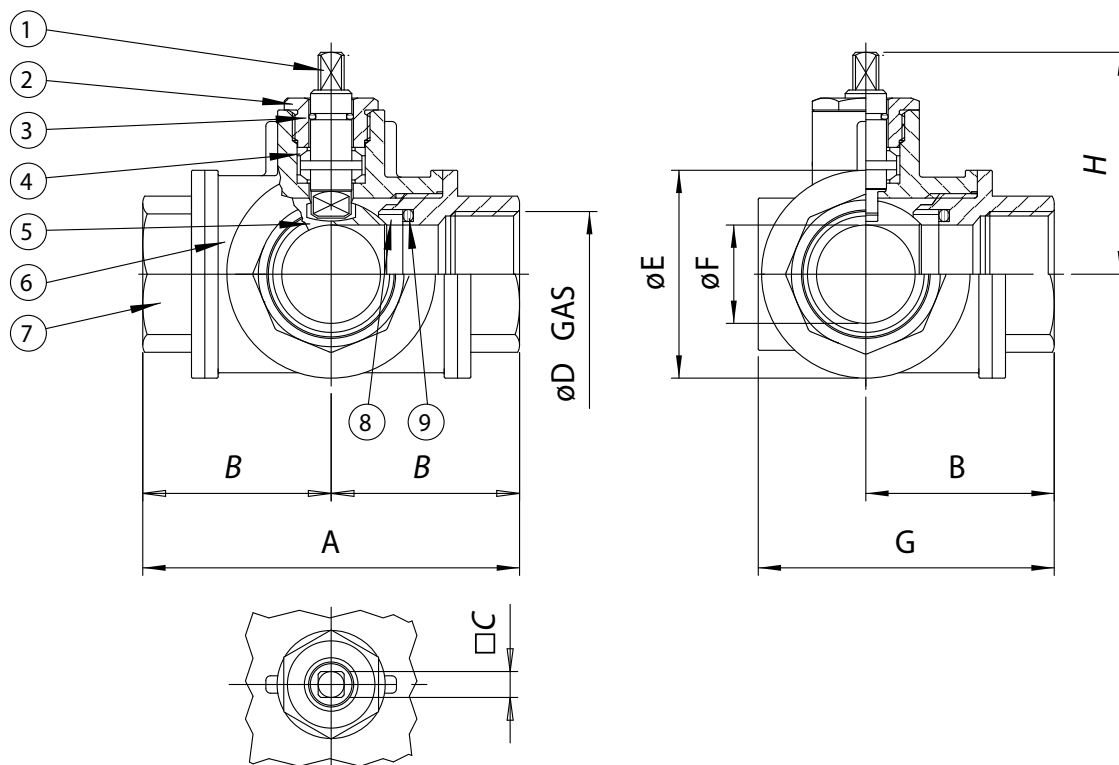


ITEM 160-161

OTTONE BRASS

ASSE LIBERO E CON LEVA FREE SHAFT AND WITH LEVER

MISURA SIZE		ASSE LIBERO FREE SHAFT			CON LEVA WITH LEVER			Kit guarnizioni Seals kit
DN [mm]	[inch]	Asse libero "T" port Free shaft "T" port	Asse libero "L" port Free shaft "L" port	Kg	Con Leva "T" port With lever "T" port	Con Leva "L" port With lever "L" port	Kg	
DN 15	1/2"	V160N204	V161N204	0,6	L160N204	L161N204	0,67	KGBV6704
DN 20	3/4"	V160N205	V161N205	1,1	L160N205	L161N205	1,18	KGBV6705
DN 25	1"	V160N206	V161N206	1,6	L160N206	L161N206	1,67	KGBV6706
DN 32	1" 1/4	V160N207	V161N207	2,4	L160N207	L161N207	2,47	KGBV6707
DN 40	1" 1/2	V160N208	V161N208	3,4	L160N208	L161N208	3,47	KGBV6708
DN 50	2"	V160N209	V161N209	5,5	L160N209	L161N209	5,57	KGBV6709



MATERIALI		MATERIALS	
1	Stelo* Shaft*	Ottone Brass	EN 12164 CW614N
2	Premiguarnizione* Gland nut*	Ottone Brass	EN 12164 CW614N
3	O-ring	FKM	
4	Coppia di tenuta superiore Seals	P.T.F.E.	
5	Sfera Ball	Ottone cromata lucida Brass chromium plated	EN 12164 CW614N
6	Corpo* Body*	Ottone Brass	EN 12165 CW617N
7	Manicotto femmina* Threaded end*	Ottone Brass	EN 12165 CW617N
8	Guarnizioni di tenuta laterale Seals	P.T.F.E.	
9	O-ring di tenuta laterale O-ring	FKM	

*Trattamento esterno: Nichelatura brillante *Surface treatment: bright nickel plating

MISURA SIZE		DIMENSIONI DIMENSIONS							
DN [mm]	[inch]	A	B	□C	øD	øE	øF	G	H
DN 15	1/2"	80	40	7	1/2"	38	13	61	43,2
DN 20	3/4"	96	48	10	3/4"	48	18	74	52,9
DN 25	1"	113	56,5	10	1"	58	23	88	57,3
DN 32	1" 1/4	130	65	14	1" 1/4	67	29	99	74,5
DN 40	1" 1/2	147	73,5	14	1" 1/2	78	35	114	79
DN 50	2"	169	84,5	17	2"	95	44	132	94,2

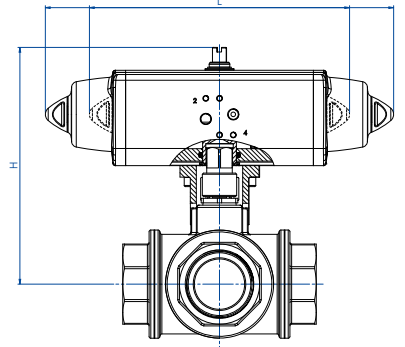
Technical modifications keep in reserve !

(2022/06)

ITEM 160 - BALL VALVES BRASS 3W



ITEM 160-161 OTTONE BRASS CON ATTUATORE WITH ACTUATOR



CON ATTUATORE PNEUMATICO DOPPIO EFFETTO WITH DOUBLE ACTING PNEUMATIC ACTUATOR

MISURA	SIZE	ARTICOLO	ATTUATORE	KIT montaggio	L	H	Kg
DN [mm]	[inch]	ITEM CODE	ACTUATOR	Mounting KIT	[mm]	[mm]	
DN 15	1/2"	DG16*H004	DAN0015411S	KCF042970	159,0	124,0	1,4
DN 20	3/4"	DG16*H005	DAN0030411S	KCF042372	174,2	143,3	2,1
DN 25	1"	DG16*H006	DAN0030411S	KCF042372	174,2	149,3	2,7
DN 32	1" 1/4	DG16*H007	DAN0045412S	KCF042434	188,5	167,1	3,8
DN 40	1" 1/2	DG16*H008	DAN0060412S	KCF052013	198,0	176,0	5,0
DN 50	2"	DG16*H009	DAN0120411S	KCF071714	244,1	208,6	8,2

CON ATTUATORE PNEUMATICO SEMPLICE EFFETTO WITH SPRING RETURN PNEUMATIC ACTUATOR

MISURA	SIZE	ARTICOLO	ATTUATORE	KIT montaggio	L	H	Kg
DN [mm]	[inch]	ITEM CODE	ACTUATOR	Mounting KIT	[mm]	[mm]	
DN 15	1/2"	SG16*H004	SRN0015401S	KCF042970	233,2	132,8	2,0
DN 20	3/4"	SG16*H005	SRN0030402S	KCF052010	258,8	154,5	3,3
DN 25	1"	SG16*H006	SRN0030402S	KCF052010	258,8	160,5	3,9
DN 32	1" 1/4	SG16*H007	SRN0053401S	KCF075677	30,2	185,9	6,3
DN 40	1" 1/2	SG16*H008	SRN0060401S	KCF075677	338,5	192,6	7,7
DN 50	2"	SG16*H009	SRN0120401S	KCF103401	409,6	249,5	14,3

* = 0 valvola con sfera a "T" (articolo 160) - "T" port (item 160); * = 1 valvola con sfera a "L" (articolo 161) - "L" port (item 161)

Dimensionamento degli attuatori pneumatici fatto considerando una pressione minima di alimentazione pari a 5,6 barg. Sizing of pneumatic actuators by minimum pressure rate 5,6 barg.

Technical modifications keep in reserve !

(2022/06)

ITEM 450-451

VALVOLA A SFERA IN ACCIAIO INOX 3 VIE 4 GUARNIZIONI, FILETTATA CON SFERA A "T" O "L" - PASSAGGIO INTEGRALE.

3 WAY 4 SEALS, FULL-BORE THREADED-ENDS STAINLESS STEEL BALL VALVE, "T" OR "L" PORT.

ITEM 450

Valvola con sfera a "T"

ITEM 451

Valvola con sfera a "L"

ITEM 450

Valve "T" port

ITEM 451

Valve "L" port



CARATTERISTICHE GENERALI:

- La valvola è costruita in 316L acciaio inox, con 4 guarnizioni sulla sfera. Per il funzionamento vedere lo schema.
- Temperatura di utilizzo: da -20°C a +150°C.
- Pressione di utilizzo: vedi tabella.
- Fluido intercettato: per usi alimentari.
- Trattamento esterno: lucidata.
- Estremità filettate femmina a norma ISO 228.
- Flangia montaggio attuatore a norma ISO 5211.
- **La versione con leva non ha la flangia montaggio attuatore a norma ISO 5211 e non è possibile montare alcun tipo di attuatore.**

GENERAL FEATURES:

- The valve is manufactured in 316L stainless steel with 4 seals on ball. See plant for the operation.
- Working temperature: from -20°C to +150°C.
- Working pressure: see table.
- Fluid range: food industry.
- Surface treatment: polished.
- Threaded ends as per ISO 228 specifications.
- ISO 5211 flange connection.
- **The manual version (with lever) doesn't have the ISO 5211 flange connection and its therefore not possible to mount on it any kind of actuators.**

ESECUZIONI SPECIALI A RICHIESTA:

- Attacchi: NPT.
- Guarnizioni di tenuta in: PTFE caricato vetro;
PTFE caricato carbografite;
Polietilene alta densità.
- Per altre applicazioni contattare il nostro ufficio commerciale.

ON REQUEST:

- Connection: NPT.
- Seals made of: PTFE glass filled;
PTFE with carbon graphite;
High-molecular weight polyethylene.
- For other applications, please contact our sales department.

CERTIFICAZIONI:

- Versione ATEX in conformità alla Direttiva Europea 2014/34/UE.
- Certificato ATEX a richiesta.

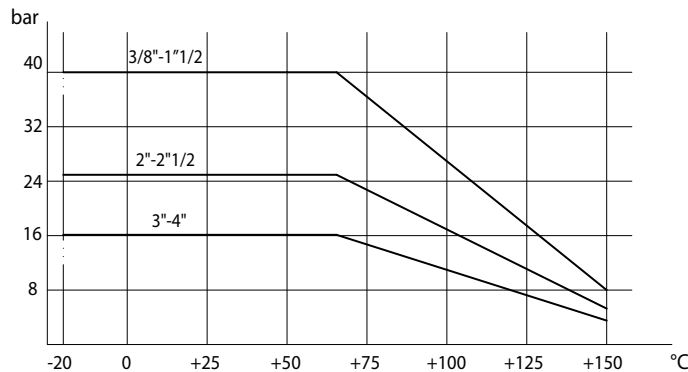
CERTIFICATIONS:

- ATEX version in conformity with European Directive 2014/34/EU.
- ATEX certificate on request.

ITEM 450 - BALL VALVES INOX 3W



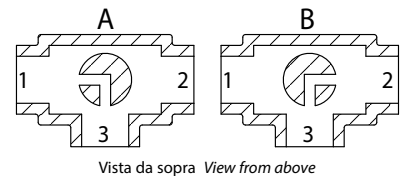
DIAGRAMMA PRESSIONE/TEMPERATURA PRESSURE/TEMPERATURE DIAGRAM



SCHEMA SFERA A "L" PLAN FOR "L" PORT

N.B.: Con attuatore **SR NORMALMENTE CHIUSO** la posizione di riposo della sfera deve essere la "A".
Con attuatore **SR NORMALMENTE APERTO** la posizione di riposo della sfera deve essere la "B".

N.B.: "A" must be the rest position of the ball with **SR FAIL CLOSE** actuator.
"B" must be the rest position of the ball with **SR FAIL OPEN** actuator.



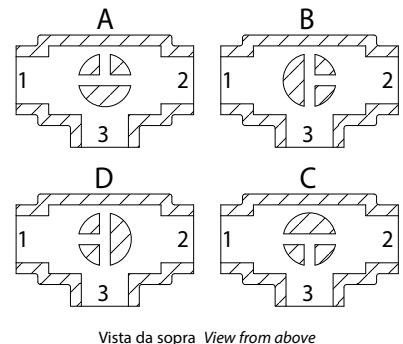
SCHEMA SFERA A "T" PLAN FOR "T" PORT

Con l'attuatore sono possibili solo due posizioni con rotazione di 90°: la configurazione della sfera deve essere sempre comunicata al nostro ufficio commerciale.

N.B.: Con attuatore **SR NORMALMENTE CHIUSO** scegliere la posizione di riposo della sfera; alimentando, l'attuatore ruota in senso antiorario.
Con attuatore **SR NORMALMENTE APERTO** scegliere la posizione di riposo della sfera; alimentando, l'attuatore ruota in senso orario.

With actuator 2 positions with 90° rotation are possible only: the configuration of the ball must always be communicated at our sales department.

N.B.: Choose the rest position of the ball with **SR FAIL CLOSE** actuator; whenever supplied with air, actuator turns in an anticlockwise direction.
Choose the rest position of the ball with **SR FAIL OPEN** actuator; whenever supplied with air, actuator turns in a clockwise direction.



	COPPIE DI SPUNTO in Nm					BREAKAWAY TORQUES Nm				
MISURA SIZE	DN 10 3/8"	DN 15 1/2"	DN 20 3/4"	DN 25 1"	DN 32 1 1/4"	DN 40 1 1/2"	DN 50 2"	DN 65 2 1/2"	DN 80 3"	DN 100 4"
PN 16 bar									212	304
PN 25 bar							83	142		
PN 40 bar	9	18	23	27	36	54				

I valori della coppia possono variare in funzione della temperatura e del tipo di fluido. Considerare un fattore di sicurezza pari a 1,4.
Con frequenti cicli di apertura e chiusura la coppia di manovra può diminuire sensibilmente rispetto a quella iniziale. Gli accoppiamenti attuatore/valvola, riportati nelle pagine seguenti, sono realizzati per valvole che intercettano fluidi liquidi o gassosi, puliti e per medie temperature. Per maggiori informazioni, o utilizzi diversi, consultare il nostro ufficio commerciale.

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 sales department.

ITEM 450 - BALL VALVES INOX 3W

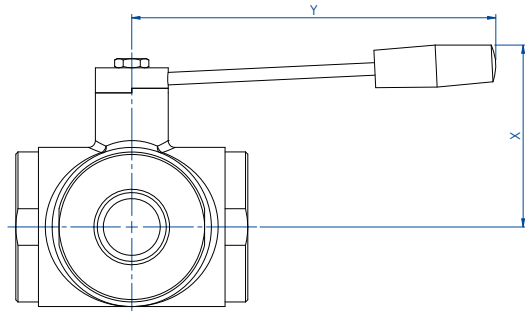
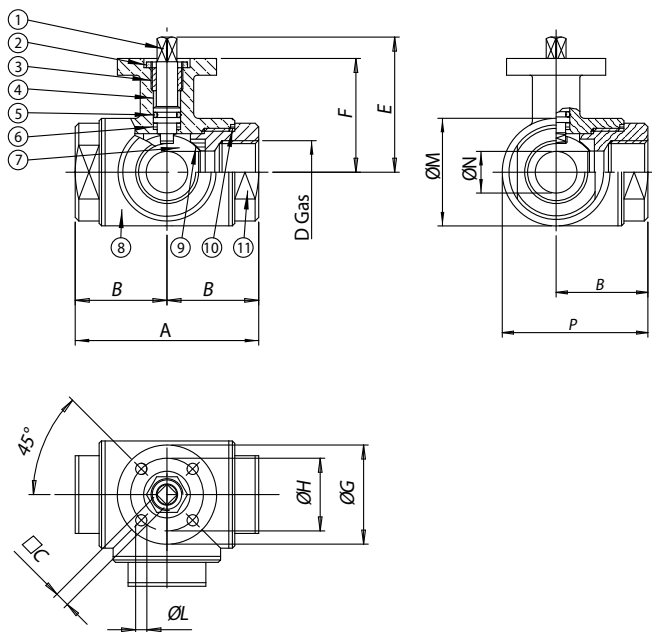


ITEM 450-451 ACCIAIO INOX STAINLESS STEEL ASSE LIBERO E CON LEVA FREE SHAFT AND WITH LEVER

MISURA SIZE		ASSE LIBERO FREE SHAFT				CON LEVA WITH LEVER				Kit guarnizioni Seals kit		
DN [mm]	[inch]	Asse libero Free shaft "T" port	→ ATEX	Asse libero Free shaft "L" port	→ ATEX	Kg	Con leva With lever "T" port	→ ATEX	Con leva With lever "L" port		→ ATEX	Kg
DN 10	3/8"	V450H403	V450H403YX	V451H403	V451H403YX	0,9	L450H403	L450H403YX	L451H403	L451H403YX	0,9	KGBV4503
DN 15	1/2"	V450H404G	V450H404GYX	V451H404G	V451H404GYX	1,3	L450H404	L450H404YX	L451H404	L451H404YX	1,2	KGBV4504
DN 20	3/4"	V450H405	V450H405YX	V451H405	V451H405YX	1,9	L450H405	L450H405YX	L451H405	L451H405YX	1,9	KGBV4505
DN 25	1"	V450H406	V450H406YX	V451H406	V451H406YX	2,7	L450H406	L450H406YX	L451H406	L451H406YX	2,5	KGBV4506
DN 32	1" 1/4	V450H407G	V450H407GYX	V451H407G	V451H407GYX	5,0	L450H407	L450H407YX	L451H407	L451H407YX	4,4	KGBV4507
DN 40	1" 1/2	V450H408G	V450H408GYX	V451H408G	V451H408GYX	6,8	L450H408	L450H408YX	L451H408	L451H408YX	6,7	KGBV4508
DN 50	2"	V450H409	V450H409YX	V451H409	V451H409YX	8,3	L450H409	L450H409YX	L451H409	L451H409YX	8,0	KGBV4509
DN 65	2" 1/2	V450H410G	V450H410GYX	V451H410G	V451H410GYX	10,3	L450H410	L450H410YX	L451H410	L451H410YX	9,8	KGBV4510
DN 80	3"	V450H411	V450H411YX	V451H411	V451H411YX	20,7	L450H411	L450H411YX	L451H411	L451H411YX	20,3	KGBV4511
DN 100	4"	V450H412	V450H412YX	V451H412	V451H412YX	33,0	L450H412	L450H412YX	L451H412	L451H412YX	32,8	KGBV4512

ASSE LIBERO FREE SHAFT

CON LEVA WITH LEVER



La versione con leva non ha la flangia montaggio attuatore a norma ISO 5211 e non è possibile montare alcun tipo di attuatore.

The manual version (with lever) doesn't have the ISO 5211 flange connection and its therefore not possible to mount on it any kind of actuators.

MATERIALI MATERIALS

1	Stelo Shaft	316L S.S.	1.4401	UNI X2CrNiMo 17 12
2	Dado Nut	303 S.S.		
3	Anello premiguarnizione Gland nut ring	304L S.S. (303 S.S.)		
4*	Anello di tenuta superiore Top tight ring	P.T.F.E.		
5*	O-ring di tenuta perno Shaft o-ring	FKM		
6*	Dischetto di tenuta perno Washer	P.T.F.E.		
7	Sfera Ball	316L S.S.	1.4401	UNI X2CrNiMo 17 12
8	Corpo Body	316L S.S.	1.4401	UNI X2CrNiMo 17 12
9*	Guarnizioni di tenuta laterale Seals	P.T.F.E.		
10*	Guarnizioni di tenuta manicotti End sealings	P.T.F.E.		
11	Manicotto femmina End	316L S.S.	1.4401	UNI X2CrNiMo 17 12

* Particolari del kit di ricambio Components of spare part kit KGBV45...

DIMENSIONI DIMENSIONS

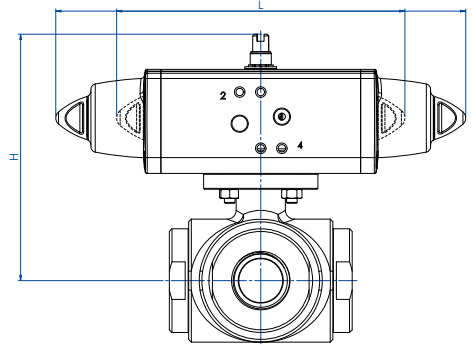
MISURA SIZE		A	B	C	D	E	F	øG	øH	øL	øM	øN	P	X	Y
DN [mm]	[inch]														
DN 10	3/8"	72	36	6	3/8"	54,5	46,5	46	36	6	45	12	58,5	60	110
DN 15	1/2"	82	41	6	1/2"	57	49	54	42	6	52	15	67	65	110
DN 20	3/4"	92	46	9	3/4"	69,5	56,5	65	50	7	60	20	76	70	160
DN 25	1"	102	51	9	1"	74	61	65	50	7	70	25	86	80	160
DN 32	1" 1/4	118	59	14	1" 1/4	94,5	81,5	90	70	9	85	32	101,5	95	190
DN 40	1" 1/2	134	67	14	1" 1/2	102	89	90	70	9	100	40	117	110	190
DN 50	2"	144	72	17	2"	106,5	91,5	90	70	9	110	50	127	120	220
DN 65	2" 1/2	160	80	17	2" 1/2	116,5	101,5	125	102	11	122	65	141	130	285
DN 80	3"	200	100	17	3"	134	116	125	102	11	150	80	175	145	310
DN 100	4"	240	120	17	4"	149	131	125	102	11	192	100	216	160	310

ITEM 450 - BALL VALVES INOX 3W



ITEM 450-451

ACCIAIO INOX STAINLESS STEEL
CON ATTUATORE WITH ACTUATOR



CON ATTUATORE PNEUMATICO DOPPIO EFFETTO WITH DOUBLE ACTING PNEUMATIC ACTUATOR

MISURA SIZE		ARTICOLO ITEM CODE	ATTUATORE ACTUATOR	KIT montaggio Mounting KIT	L [mm]	H [mm]	Kg	ATEX
DN	[inch]							
DN 10	3/8"	DG45*H003	DAN0015411S	KCF045293	159,0	118,7	1,7	DG45*H003YX
DN 15	1/2"	DG45*H004	DAN0030412S	KCF045293	174,2	128,2	2,3	DG45*H004YX
DN 20	3/4"	DG45*H005	DAN0045412S	KCF045294	188,5	141,0	3,3	DG45*H005YX
DN 25	1"	DG45*H006	DAN0045412S	KCF045294	188,5	145,5	3,9	DG45*H006YX
DN 32	1" 1/4	DG45*H007	DAN0060412S	KCF075298	198,0	171,9	6,2	DG45*H007YX
DN 40	1" 1/2	DG45*H008	DAN0106411S	KCF075304	237,0	192,3	9,5	DG45*H008YX
DN 50	2"	DG45*H009	DAN0120411S	KCF075298	244,1	198,5	11,3	DG45*H009YX
DN 65	2" 1/2	DG45*H010	DAN0240411S	KCF105300	313,6	242,6	15,9	DG45*H010YX
DN 80	3"	DG45*H011	DAN0360411S	KCF105300	339,3	264,0	27,9	DG45*H011YX
DN 100	4"	DG45*H012	DAN0480411S	KCF125301	387,6	295,9	43,6	DG45*H012YX

CON ATTUATORE PNEUMATICO SEMPLICE EFFETTO WITH SPRING RETURN PNEUMATIC ACTUATOR

MISURA SIZE		ARTICOLO ITEM CODE	ATTUATORE ACTUATOR	KIT montaggio Mounting KIT	L [mm]	H [mm]	Kg	ATEX
DN	[inch]							
DN 10	3/8"	SG45*H003	SRN0015401S	KCF045293	233,2	125,7	2,2	SG45*H003YX
DN 15	1/2"	SG45*H004	SRN0030401S	KCF055302	258,8	139,4	3,2	SG45*H004YX
DN 20	3/4"	SG45*H005	SRN0053401S	KCF075303	258,8	159,8	5,1	SG45*H005YX
DN 25	1"	SG45*H006	SRN0053401S	KCF075303	304,2	164,3	5,7	SG45*H006YX
DN 32	1" 1/4	SG45*H007	SRN0060401S	KCF075304	338,5	188,5	8,0	SG45*H007YX
DN 40	1" 1/2	SG45*H008	SRN0090401S	KCF105305	393,7	226,5	12,9	SG45*H008YX
DN 50	2"	SG45*H009	SRN0120401S	KCF105299	409,6	232,6	15,5	SG45*H009YX
DN 65	2" 1/2	SG45*H010	SRN0240401S	KCF125301	520,5	266,5	22,3	SG45*H010YX
DN 80	3"	SG45*H011	SRN0360401S	KCF125301	613,0	294,0	37,9	SG45*H011YX
DN 100	4"	SG45*H012	SRN0480401S	KCF145306	648,2	329,0	56,7	SG45*H012YX

* = 0 valvola con sfera a "T" (articolo 450) - "T" port (model 450); * = 1 valvola con sfera a "L" (articolo 451) - "L" port (model 451)

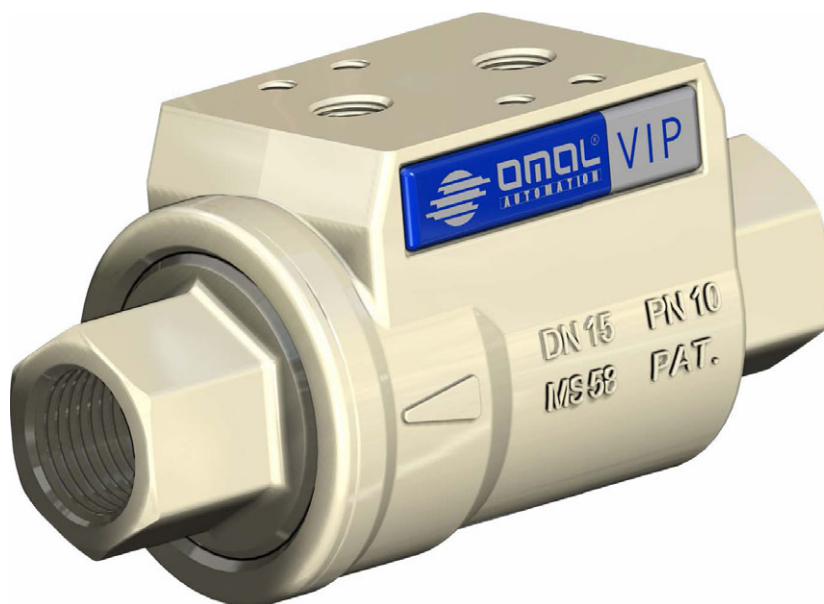
Dimensionamento degli attuatori pneumatici fatto considerando una pressione minima di alimentazione pari a 5,6 barg. Sizing of pneumatic actuators by minimum pressure rate 5,6 barg.

Technical modifications keep in reserve !

(2022/06)

VIP

VALVOLA DI INTERCETTAZIONE PNEUMATICA PNEUMATIC COAXIAL VALVE



CARATTERISTICHE GENERALI:

- Disponibile nelle versioni doppio effetto "DA" e semplice effetto "SR" (sia normalmente aperto sia normalmente chiuso) con misure da 3/8" a 2".
- Flusso unidirezionale.
- Attacchi filettati GAS EN 10226-1 Rp (Ex ISO 7/1) - DIN 2999 (a richiesta filetti NPT) con connessioni del fluido di comando secondo interfaccia NAMUR.
- L'ottimizzazione della fluidodinamica interna ha consentito la realizzazione di un condotto con perdite di carico ridotte al minimo: vedi diagramma portate.
- Possibilità di utilizzo in qualsiasi posizione di montaggio (orizzontale, verticale, obliqua).
- Disponibile con guarnizioni NBR, FKM ed EPDM:
NBR: compatibile con aria, gas, olii, acqua, etc.
FKM: ottima compatibilità con la maggior parte dei fluidi. Sconsigliato per il vapore.
EPDM: ottima compatibilità con acqua calda e vapore. Non compatibile con prodotti minerali (oli, grassi etc.).
- Per gas, fluidi esplosivi e maggiori informazioni sulla compatibilità dei materiali si prega di consultare il nostro ufficio commerciale.
- Possibilità di segnalare l'apertura o chiusura della valvola tramite l'applicazione di fincorsa induttivi a contatto magnetico esterni (disponibili a richiesta). Previo acquisto della versione VIP con magnete interno, da specificare in fase d'ordine.
- **Conforme alla direttiva Europea 2014/68/UE "PED"**
- **Configurazione ATEX 2014/34/UE da richiedere in fase d'ordine.**

FLUIDO DI COMANDO:

- Aria compressa filtrata non necessariamente lubrificata; con temperature da -20°C a 0°C usare aria secca.
- In caso di lubrificazione usare olio compatibile con le guarnizioni impiegate.
- Pressione di comando: min. 3 bar; max. 8 bar nella versione doppio effetto - min. 4,2 bar; max. 8 bar nelle versioni semplice effetto.

FLUIDO INTERCETTATO:

- Pressione: max. 10 bar, vedere diagramma.
- Temperatura: da -20°C a +80°C (NBR); da -20°C a +150°C (FKM); da -20°C a +150°C (EPDM).
- Tenuta al vuoto: 97% vuoto (circa 30 mbar assoluti, -980 mbarg).

GENERAL FEATURES:

- Both Double Acting and Spring Return VIP valves (either Normally Open or Normally Closed) are available in sizes ranging from 3/8" to 2".
- Unidirectional flow.
- GAS threaded ends as per EN 10226-1 Rp (Ex ISO 7/1) - DIN 2999 (NPT threads on request) with control fluid connections as per NAMUR interface.
- Improved fluid dynamics allow minimum pressure losses. See Flow Pressure Diagram.
- VIP valves can be used in any mounting position (horizontal, vertical or oblique).
- They can be provided with seals in NBR, FKM or EPDM:
NBR: suitable for air, gas, oils, water etc.
FKM: perfectly suitable for most fluid. Unsuitable for steam.
EPDM: perfectly suitable for hot water and steam. Unsuitable for mineral products (oils, grease, etc.).
- For further information about gas, explosive fluids, material compatibilities etc. please contact our sales department.
- Possibility to check open / close valve position thanks to inductive limit switches (magnetic contact) available on request. Internal magnet needs to be requested at VIP order phase.
- **According to 2014/68/EU "PED"**
- **2014/34/EU ATEX configuration to request at time of order.**

CONTROL MEDIA:

- Filtered compressed air, not necessarily lubricated. At temperatures from -20°C to 0°C, use dry air.
- In case of lubricated air, seal compatible oil must be used.
- Air supply: 3 bar min.- 8 bar max. in Double Acting execution. 4,2 bar min.- 8 bar max. in Spring Return execution.

OPERATING MEDIA:

- Pressure: 10 bar max, see diagram.
- Temperature: from -20°C to +80°C (NBR); from -20°C to +150°C (FKM); from -20°C to +150°C (EPDM).
- Vacuum tightness: 97% vacuum (about 30 mbar absolut, -980 mbarg).

Principio di funzionamento

La valvola di intercettazione pneumatica VIP (di esclusivo brevetto OMAL) è, a tutti gli effetti, una valvola automatica che raggruppa, in un unico dispositivo, sia il meccanismo di intercettazione (tra il condotto C-D) che quello di comando (A-B).

Il principio di funzionamento si basa sul movimento interno di un pistone dovuto alla pressione del fluido di comando. Il pistone, esaurita la sua corsa (VIP è una valvola on/off), preme o si stacca dalla guarnizione del sedgio di tenuta, consentendo o impedendo il passaggio del liquido intercettato. Dato che la tenuta è realizzata sul sedgio e le pressioni del fluido intercettato si scaricano sul medesimo, la pressione necessaria al movimento del pistone risulta indipendente da quella del fluido intercettato. Questo ha permesso di contenere i pesi e gli ingombri e di garantire un altissimo numero di manovre di apertura e chiusura. La valvola è a passaggio totale e l'accurato studio della fluidodinamica interna consente di ridurre al minimo le turbolenze e le perdite di carico.

Working principle

A VIP valve (patented by OMAL exclusively) is a proper automatic valve embodying both interception device (between pipe C-D) and control device (A-B). It works thanks to the internal movement of a piston supplied with air. At the end of its stroke (a VIP valve is an ON/OFF valve), the piston presses on the seat seal or moves away from it letting the intercepted fluid flow or stopping it from flowing. As the seat is perfectly tight and the intercepted fluid pressures discharge on it, the pressure necessary to move the piston is completely independent of the fluid pressure. As a result OMAL has been able to design a light space saving and lasting valve. Its full bore and its improved internal dynamics allow minimum pressure losses, too.

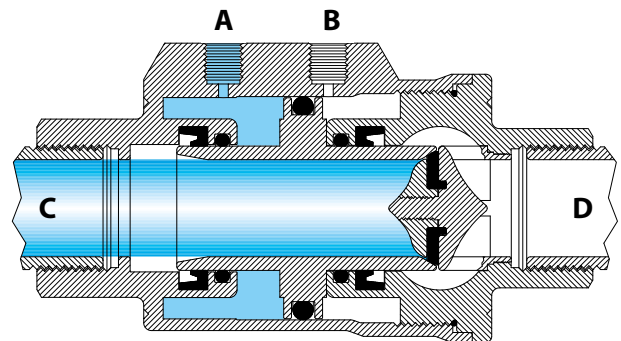
Valvola chiusa

Immettendo aria nel foro di comando "A" (il foro "B" deve essere a scarico) il pistone, esaurita la sua corsa, preme sulla guarnizione del sedgio di tenuta: la valvola è chiusa.

Nelle versioni SEMPLICE EFFETTO N.C. la molla è alloggiata nella camera "A" questo fa sì che, in mancanza di comando, il pistone sia a contatto con la guarnizione del sedgio di tenuta: la posizione preferenziale è quindi quella chiusa.

Closed valve

Supplying the hole "A" with air (the hole "B" must be discharging) at the end of its stroke the piston presses on the seat seal: the valve is closed. As in Spring Return N.C. executions the spring is in "A"; if there is no control, the piston will touch the seat seal: therefore, the preferable position is the closed one.

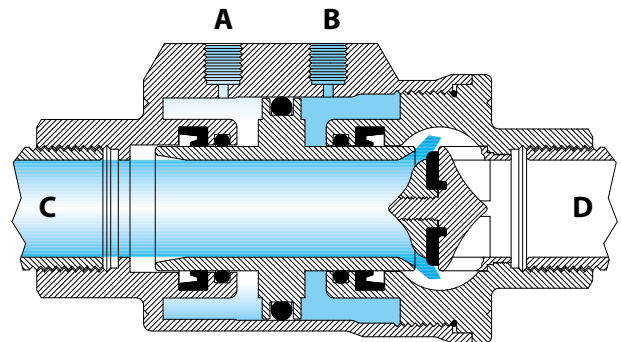


Fase transitoria

Durante la fase transitoria (la figura indica il transitorio di apertura della versione DOPPIO EFFETTO) viene data pressione a uno dei due fori di alimentazione. Il pistone si muove assialmente modificando lo stato di apertura o chiusura preesistente. Nella versione SEMPLICE EFFETTO N.C. la chiusura viene determinata dalla molla (in assenza di comando). Nella versione SEMPLICE EFFETTO N.A. l'apertura viene determinata dalla molla (in assenza di comando). La fase transitoria sia in apertura che in chiusura ha una durata inferiore al secondo.

Transitory phase

During the transitory phase (the picture shows the opening transition in a Double Acting execution), one of the two holes is supplied. The piston moves axially changing the previous closed or open state. In Spring Return N.C. executions, the closing is caused by the spring (if there is no control). In Spring Return N.O. executions, the opening is caused by the spring (if there is no control). Both opening and closing transitory phases last less than a second.



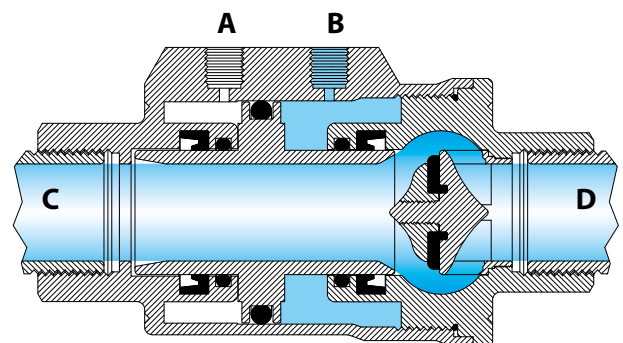
Valvola aperta

Immettendo aria nel foro di alimentazione "B" (il foro "A" deve essere a scarico) il pistone, esaurita la sua corsa, si trova alla massima distanza dal sedgio di tenuta: la valvola è aperta.

Nelle versioni SEMPLICE EFFETTO N.A. la molla è alloggiata nella camera "B" questo fa sì che, in mancanza di comando, il pistone sia lontano dal sedgio di tenuta: la posizione preferenziale è quindi quella aperta.

Opened valve

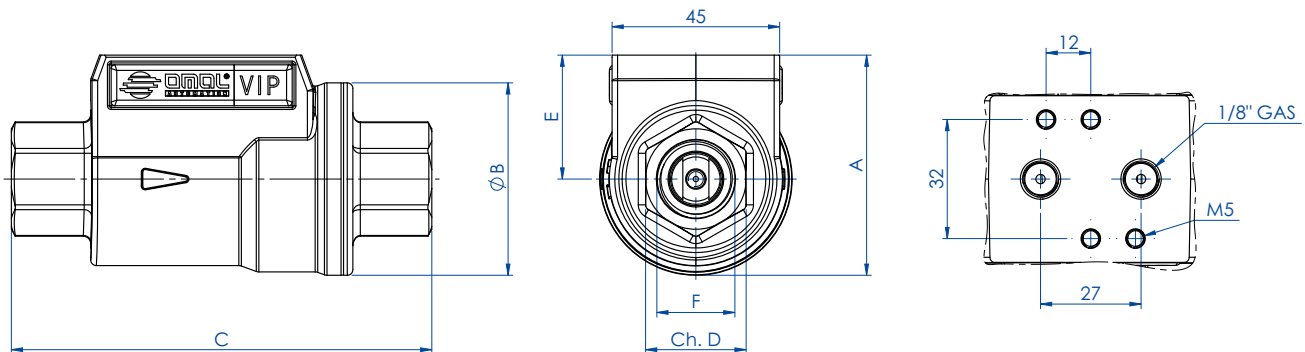
Supplying the hole "B" with air (the hole "A" must be discharging) at the end of its stroke the piston is at maximum distance from the seat seal: the valve is open. As in Spring Return N.O. executions the spring is in "B"; if there is no control, the piston will be away from the seat seal: therefore, the preferable position is the open one.



VIP - COAXIAL VALVES



VIP



	DIMENSIONI		DIMENSIONS					
DN diametro nominale DN nominal diameter mm.	10	15	20	25	32	40	50	
misura size F GAS.	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	
passaggio bore mm.	10	15	20	25	32	40	50	
A mm.	54	60	70	76	92	102	115	
ØB mm.	46	51,7	63,5	69	86	96	109	
C mm.	98	112	135	143	165	180	207	
ch. D mm.	22	27	33	41	50	60	75	
E mm.	31	34	39	42	49	54	60	
aria doppio effetto double acting air dm ³ /cycle	0,024	0,035	0,063	0,080	0,150	0,219	0,310	
aria semplice effetto spring return air dm ³ /cycle	0,012	0,017	0,031	0,040	0,075	0,109	0,155	
peso doppio effetto "DA" weight double acting "DA" Kg.	0,80	1	1,59	1,8	3,13	3,5	5,5	
peso semplice effetto "SR" weight spring return "SR" Kg.	0,85	1,05	1,69	1,88	3,41	3,7	5,8	

	CODICI VIP CON GUARNIZIONI NBR		VIP CODE WITH SEALING IN NBR				
codice VIP doppio effetto "DA" VIP code double acting "DA"	VDA10003	VDA10004	VDA10005	VDA10006	VDA10007	VDA10008	VDA10009
codice VIP DA+1 finecorsa VIP code DA+1 limit switch	VDA10603	VDA10604	VDA10605	VDA10606	VDA10607	VDA10608	VDA10609
codice VIP DA+2 finecorsa VIP code DA+2 limit switches	VDA10703	VDA10704	VDA10705	VDA10706	VDA10707	VDA10708	VDA10709
codice VIP semplice effetto "SR" N.A. VIP code spring return "SR" N.O.	VNA10003	VNA10004	VNA10005	VNA10006	VNA10007	VNA10008	VNA10009
codice VIP "SR" N.A.+1 finecorsa VIP code "SR" N.O.+1 limit switch	VNA10603	VNA10604	VNA10605	VNA10606	VNA10607	VNA10608	VNA10609
codice VIP "SR" N.A.+2 finecorsa VIP code "SR" N.O.+2 limit switches	VNA10703	VNA10704	VNA10705	VNA10706	VNA10707	VNA10708	VNA10709
codice VIP semplice effetto "SR" N.C. VIP code spring return "SR" N.C.	VNC10003	VNC10004	VNC10005	VNC10006	VNC10007	VNC10008	VNC10009
codice VIP "SR" N.C.+1 finecorsa VIP code "SR" N.C.+1 limit switch	VNC10603	VNC10604	VNC10605	VNC10606	VNC10607	VNC10608	VNC10609
codice VIP "SR" N.C.+2 finecorsa VIP code "SR" N.C.+2 limit switches	VNC10703	VNC10704	VNC10705	VNC10706	VNC10707	VNC10708	VNC10709
Kit guarnizioni di ricambio Spare seals KIT	KGVN0103	KGVN0104	KGVN0105	KGVN0106	KGVN0107	KGVN0108	KGVN0109

	CODICI VIP CON GUARNIZIONI FKM		VIP CODE WITH SEALING IN FKM				
codice VIP doppio effetto "DA" VIP code double acting "DA"	VDA20003	VDA20004	VDA20005	VDA20006	VDA20007	VDA20008	VDA20009
codice VIP DA+1 finecorsa VIP code DA+1 limit switch	VDA20603	VDA20604	VDA20605	VDA20606	VDA20607	VDA20608	VDA20609
codice VIP DA+2 finecorsa VIP code DA+2 limit switch	VDA20703	VDA20704	VDA20705	VDA20706	VDA20707	VDA20708	VDA20709
codice VIP semplice effetto "SR" N.A. VIP code spring return "SR" N.O.	VNA20003	VNA20004	VNA20005	VNA20006	VNA20007	VNA20008	VNA20009
codice VIP "SR" N.A.+1 finecorsa VIP code "SR" N.O.+1 limit switch	VNA20603	VNA20604	VNA20605	VNA20606	VNA20607	VNA20608	VNA20609
codice VIP "SR" N.A.+2 finecorsa VIP code "SR" N.O.+2 limit switches	VNA20703	VNA20704	VNA20705	VNA20706	VNA20707	VNA20708	VNA20709
codice VIP semplice effetto "SR" N.C. VIP code spring return "SR" N.C.	VNC20003	VNC20004	VNC20005	VNC20006	VNC20007	VNC20008	VNC20009
codice VIP "SR" N.C.+1 finecorsa VIP code "SR" N.C.+1 limit switch	VNC20603	VNC20604	VNC20605	VNC20606	VNC20607	VNC20608	VNC20609
codice VIP "SR" N.C.+2 finecorsa VIP code "SR" N.C.+2 limit switches	VNC20703	VNC20704	VNC20705	VNC20706	VNC20707	VNC20708	VNC20709
Kit guarnizioni di ricambio Spare seals KIT	KGVV0103	KGVV0104	KGVV0105	KGVV0106	KGVV0107	KGVV0108	KGVV0109

	CODICI VIP CON GUARNIZIONI IN FKM USO OSSIGENO		CODE WITH FKM SEALS OXYGEN USE				
Versione sgrassata per ossigeno Degreased execution for oxygen applications	VNC90503	VNC90504	VNC90505	VNC90506	VNC90507	VNC90508	VNC90509

	CODICI VIP CON GUARNIZIONI EPDM		VIP CODE WITH SEALING IN EPDM				
codice VIP doppio effetto "DA" VIP code double acting "DA"	VDA30003	VDA30004	VDA30005	VDA30006	VDA30007	VDA30008	VDA30009
codice VIP DA+1 finecorsa VIP code DA+1 limit switch	VDA30603	VDA30604	VDA30605	VDA30606	VDA30607	VDA30608	VDA30609
codice VIP DA+2 finecorsa VIP code DA+2 limit switch	VDA30703	VDA30704	VDA30705	VDA30706	VDA30707	VDA30708	VDA30709
codice VIP semplice effetto "SR" N.A. VIP code spring return "SR" N.O.	VNA30003	VNA30004	VNA30005	VNA30006	VNA30007	VNA30008	VNA30009
codice VIP "SR" N.A.+1 finecorsa VIP code "SR" N.O.+1 limit switch	VNA30603	VNA30604	VNA30605	VNA30606	VNA30607	VNA30608	VNA30609
codice VIP "SR" N.A.+2 finecorsa VIP code "SR" N.O.+2 limit switches	VNA30703	VNA30704	VNA30705	VNA30706	VNA30707	VNA30708	VNA30709
codice VIP semplice effetto "SR" N.C. VIP code spring return "SR" N.C.	VNC30003	VNC30004	VNC30005	VNC30006	VNC30007	VNC30008	VNC30009
codice VIP "SR" N.C.+1 finecorsa VIP code "SR" N.C.+1 limit switch	VNC30603	VNC30604	VNC30605	VNC30606	VNC30607	VNC30608	VNC30609
codice VIP "SR" N.C.+2 finecorsa VIP code "SR" N.C.+2 limit switches	VNC30703	VNC30704	VNC30705	VNC30706	VNC30707	VNC30708	VNC30709
Kit guarnizioni di ricambio Spare seals KIT	KGVE0103	KGVE0104	KGVE0105	KGVE0106	KGVE0107	KGVE0108	KGVE0109

Per tutti i modelli, la versione ATEX si ottiene aggiungendo YX alla fine del codice
For all the models, to create the ATEX code please add YX at the end of the standard version code

Technical modifications keep in reserve !

(2022/06)

OTHER VALVES AVAILABLE ON REQUEST



ART. A



GATE VALVE

DA	SANC	SANO
3/4"	3/4"	3/4"
1"	1"	1"
5/4"	5/4"	5/4"
6/4"	6/4"	6/4"
2"	2"	2"
10/4"	10/4"	
3"	3"	
4"		

ART. BHP



GLOBE VALVE FOR HIGH PRESSURE

DA	SANC	SANO
1/4"	1/4"	1/4"
3/8"	3/8"	3/8"

ART. C



RIGHT-ANGLE CONNECTION VALVE

DA
5/4"
2"
3"

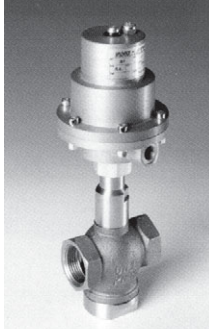
ART. T



COMPACT RIGHT-ANGLE CONNECTION VALVE FOR LOW PRESSURE (Δ P)

DA	SANC
3/4"	3/4"
1"	1"
5/4"	5/4"

ART. B3



DIVERTING 3-WAY GLOBE VALVE

DA	SA
1/2"	1/2"
3/4"	1/2"
1"	1"
5/4"	5/4"
6/4"	6/4"
2"	2"

ART. C3



3-WAY RIGHT-ANGLE CONNECTION VALVE FOR VACUUM

DA
1/2"
5/4"
2"
3"

ART. D



ANGLE VALVE

DA	SANC	SANO
1/2"	1/2"	1/2"
3/4"	3/4"	3/4"
1"	1"	1"
5/4"	5/4"	5/4"
6/4"	6/4"	6/4"
2"	2"	2"
10/4"	10/4"	
3"	3"	

ART. Y



COMPACT ANGLE VALVE FOR LOW PRESSURE (Δ P)

DA	SANC
1/2"	1/2"
3/4"	3/4"
1"	1"
5/4"	5/4"
6/4"	6/4"
2"	2"

ART. PET



ANGLE VALVE IN STAINLESS STEEL (AISI 316) FOR HIGH PRESSURE

DA
1/2"
3/4"

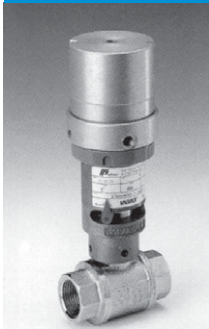
ART. AX



ANGLE VALVE BODY IN STAINLESS STEEL (AISI 316) ACTUATOR IN ALUMINIUM

DA	SANC	SANO
1/2"	1/2"	1/2"
3/4"	3/4"	3/4"
1"	1"	1"
5/4"	5/4"	5/4"
6/4"	6/4"	6/4"
2"	2"	2"

ART. FHP



BALL VALVE FOR HIGH PRESSURE

DA
3/8"
1/2"
3/4"
1"

ART. F2



FLANGED BALL VALVE

DA	SANC	SANO
DN20	DN20	DN20
DN25	DN25	DN25
DN32	DN32	DN32
DN40	DN40	DN40
DN50	DN50	DN50
DN65		

Technical modifications keep in reserve !

(2020/01)

ART. HP



BALL VALVE FOR HIGH PRESSURE (ONLY FOR OLEODYNAMICS)

DA
1/8"
1/4"
3/8"
1/2"
3/4"
1"
5/4"
6/4"

ART. AL2/1



INOX
STAINLESS STEEL (AISI 316) FLANGED BALL VALVE

DA	SANC	SANO
DN10	DN10	DN10
DN15	DN15	DN15
DN20	DN20	DN20
DN25	DN25	DN25
DN32	DN32	DN32
DN40	DN40	DN40
DN50	DN50	DN50
DN65		
DN80		

ART. R1



INOX
3-PIECE STAINLESS STEEL (AISI 316) BALL VALVE

DA	SANC	SANO
3/8"	3/8"	3/8"
1/2"	1/2"	1/2"
3/4"	3/4"	3/4"
1"	1"	1"
5/4"	5/4"	5/4"
6/4"	6/4"	6/4"
2"	2"	2"

ART. HPX



INOX
STAINLESS STEEL (AISI 316) BALL VALVE FOR HIGH PRESSURE

DA
1/4"
3/8"
1/2"
3/4"
1"
5/4"

ART. G1



BALL VALVE WITH FLAT BODY (AISI 316)

DA	SANC	SANO
DN15	DN15	DN15
DN20	DN20	DN20
DN25	DN25	DN25
DN32	DN32	DN32
DN40	DN40	DN40
DN50	DN50	DN50

ART. F3D



DIVERTING 3-WAY BALL VALVE

DA	SA
1/2"	1/2"
3/4"	3/4"
1"	1"
5/4"	5/4"
6/4"	6/4"
2"	2"

ART. HP3



3-WAY BALL VALVE FOR HIGH PRESSURE (ONLY FOR OLEODYNAMICS)

DA
1/8"
1/4"
3/8"
1/2"
3/4"
1"

ART. AL3L/1 or AL3T/1



INOX
STAINLESS STEEL (AISI 316) 3-WAY BALL VALVE

DA	SA
3/8"	3/8"
1/2"	1/2"
3/4"	3/4"
1"	1"
5/4"	5/4"
6/4"	6/4"
2"	2"

ART. AL3D



INOX
STAINLESS STEEL (AISI 316) DIVERTING 3-WAY BALL

DA	SA
3/8"	3/8"
1/2"	1/2"
3/4"	3/4"
1"	1"
5/4"	5/4"
6/4"	6/4"
2"	2"
10/4"	
3"	
4"	

ART. AL4



INOX
BUTTERFLY VALVE IN STAINLESS STEEL (AISI 304)

DA	SANC	SANO
1"	1"	1"
5/4"	5/4"	5/4"
6/4"	6/4"	6/4"
2"	2"	2"
10/4"	10/4"	10/4"
3"	3"	3"
4"		

ART. VF



BUTTERFLY VALVE IN ALUMINIUM

(The flanges are NOT according to the standards)

DA	SANC	SANO
DN80	DN80	DN80
DN100	DN100	DN100
DN150	DN150	DN150
DN200	DN200	DN200
DN250	DN250	DN250