

PNEUMATIC VALVES

1. General overview

- 1.1 Pneumatic valves with reciprocating actuator (gate, globe, angle)
- 1.2 Pneumatic valves with rotary actuator (ball, butterfly)
- 1.3 Optional accessories

2. Data sheets (of the valves we have in STOCK)

- ART. "B" Globe valve
- ART. "F" Ball valve
- ART. "F3" 3-Way ball valve
- ART. "DV" Angle steam valve

(data sheets of other types on request)




1. GENERAL OVERVIEW

1.1 RECIPROCATING ACTUATOR

They are used to control gate valves, flow valves and all shutter valves. They basically consist of a cylinder and a piston directly connected to the valve shutter.

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. B

GLOBE VALVE
(detailfiche see page 5.04.05)



STOCK

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. BHP


GLOBE VALVE FOR HIGH PRESSURE



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

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. C

RIGHT-ANGLE CONNECTION VALVE



DA
5/4"
2"
3"

ART. C3

3-WAY RIGHT-ANGLE CONNECTION VALVE FOR VACUUM



DA
1/2"
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. 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. DV

ANGLE STEAM VALVE



STOCK

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

Technical modifications keep in reserve !

(2010/07)

ART. AX

INOX



**ANGLE VALVE
BODY IN STAIN-
LESS 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. 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

INOX



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

DA
1/2"
3/4"

1.2 ROTARY ACTUATOR

They have been specially designed for controlling ball & butterfly valves, or any other valves where the reciprocating, rectilinear movement of the piston needs to be transformed into a rotary movement needed to open or close the valves. They can be used in order to produce the considerable torque needed to control large diameter valves.

ART. F

STOCK



BALL VALVE
(detailfiche see
page 5.04.07)

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"
10/4"		
3"		
4"		

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		

ART. F3L or F3T

STOCK



**3-WAY BALL
VALVE**
L or T drilled
(detailfiche see
page 5.04.10)

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

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. 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. HP



BALL VALVE FOR HIGHPRESSURE (ONLY FOR OLEODYNAMICS)

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

ART. HP3



3-WAY BALL VALVE FOR HIGHPRESSURE (ONLY FOR OLEODYNAMICS)

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

ART. HPX



INOX
STAINLESS STEEL (AISI 316) BALL VALVE FOR HIGHPRESSURE

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

ART. AL or AL/1



INOX
STAINLESS STEEL (AISI 304 or 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"
10/4"		
3"		
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. 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 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"
10/4"	
3"	
4"	

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. F4G or F4A



BUTTERFLY VALVE IN CAST IRON

F4G-DA	F4A-DA
DN50	DN40
DN65	DN50
DN80	DN65
DN100	DN80
DN125	DN100
DN150	DN125
DN200	DN150

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

ART. VFM



BUTTERFLY VALVE IN ALUMINIUM MANUAL VERSION

(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

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"		

DA DOUBLE ACTING
SANC SINGLE ACTING NORMALLY CLOSED
SANO SINGLE ACTING NORMALLY OPEN

1.3 OPTIONAL ACCESSORIES

MANUAL CONTROL WITH LEVER



SLOTTED HOLE PROTECTION RING



ACTUATOR WITH NAMUR CONNECTION



ACTUATOR WITH ISO CONNECTION



MOUNTING BRACKET FOR PROXIMITY SWITCH



STOCK

MOUNTING BRACKET FOR ELECTROMECHANICAL PROXIMITY SWITCH

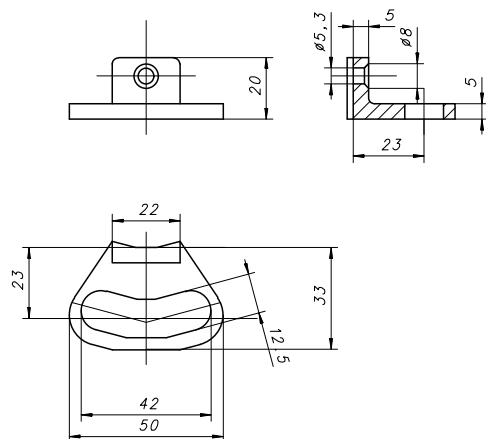


DESCRIPTION

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 $\varnothing > 100$



Technical modifications keep in reserve !

(2001/10)

2. DATA SHEETS

Art. "B" - SHUTTER GLOBE VALVE



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.

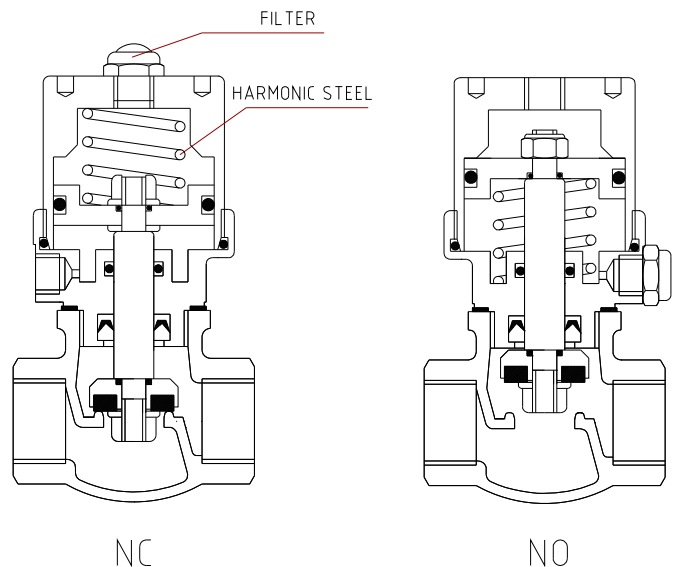
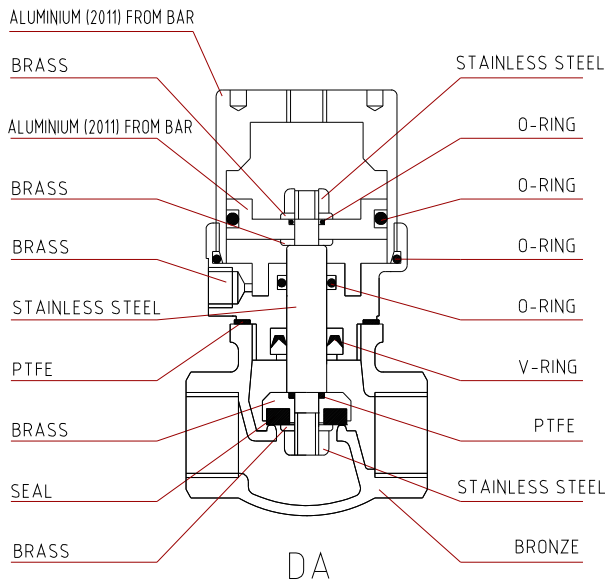
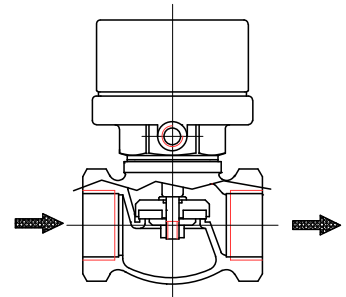
VERSIONS AND SIZES

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 !

(2009/09)

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

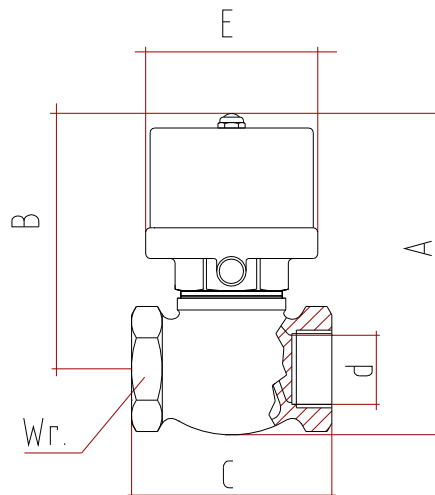
G	DeltaP bar
1/2"	8
3/4"	5
1"	6
1"1/4	4.5
1"1/2	6
2"	3.5

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	G	A	B	C	d	E	Wrench	Kv	Weight
mm.		mm.	mm.	mm.	mm.	mm.	mm.	m ³ /h	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 !

(2009/09)

Art. "F" - BRASS BALL VALVE



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.

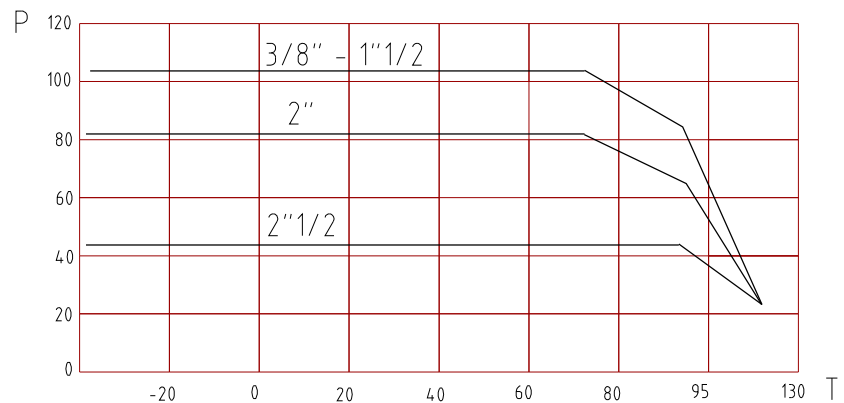


Diagram made with the following analysis:

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

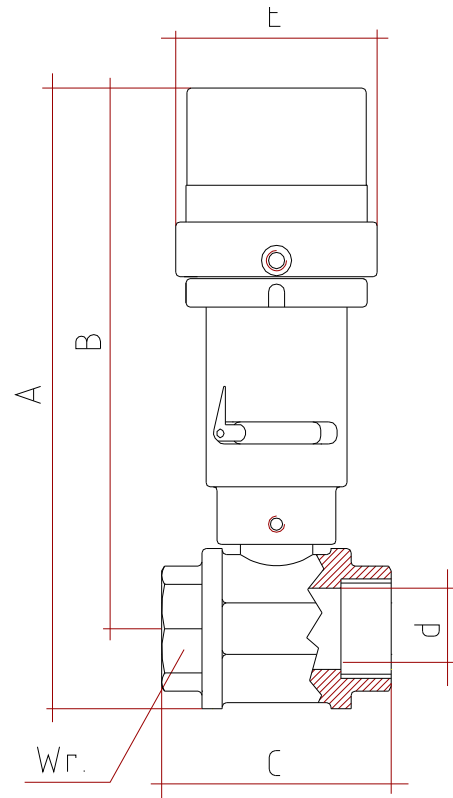
SANC: 3/8" - 1/2" - 3/4" - 1" - 1" 1/4 - 1" 1/2 - 2"

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 !

(2009/09)

Art. "F" - BRASS BALL VALVE - LIGHT MODEL



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.

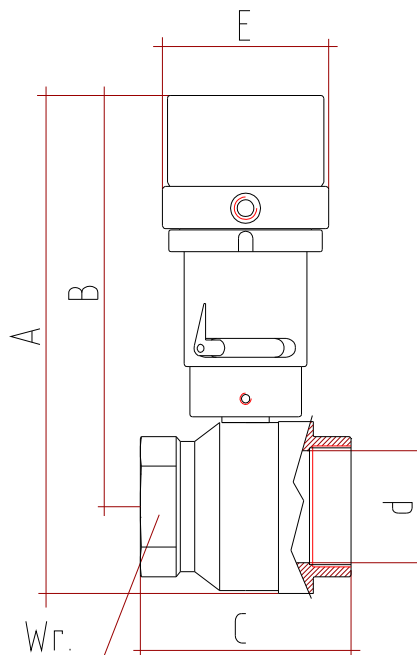
Control air 1/8" GAS connections.

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

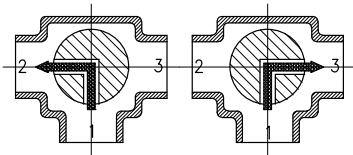
DN	G	ACTUATOR	A	B	C	d	E	Wrench	Kv	Weight
mm.		type	mm.	mm.	mm.	mm.	mm.	mm.	m ³ /h	gr.
80	3"	DE1004	355	293	151	75	120	94	770	6900
100	4"	DE1155	433	358	180	90	134	120	1200	11400

Art. "F3L" - BRASS 3-WAY BALL VALVE - "L" DRILLED BALL

>> Also available in T-drilled version (Art. "F3T")



L - DRILLED BALL



Left deviation 1-2 Right deviation 1-3

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

RATED PRESSURE "PN"

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

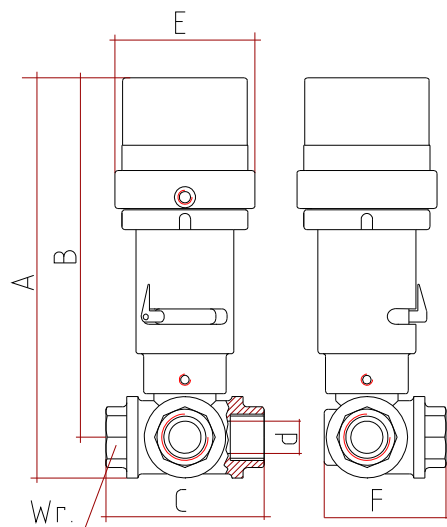
OVERALL DIMENSIONS

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 !

(2009/09)

Art. "DV" - SHUTTER ANGLE VALVE FOR STEAM AND HIGH TEMPERATURE



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

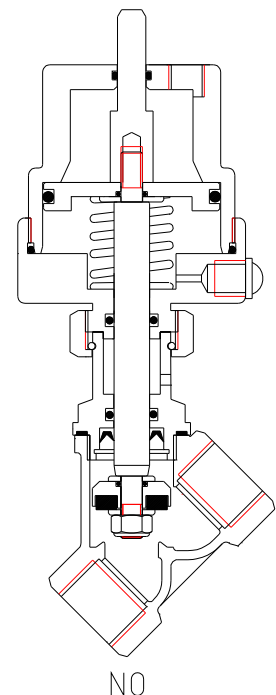
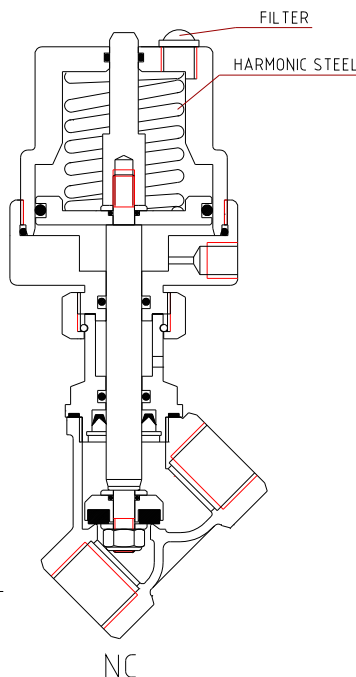
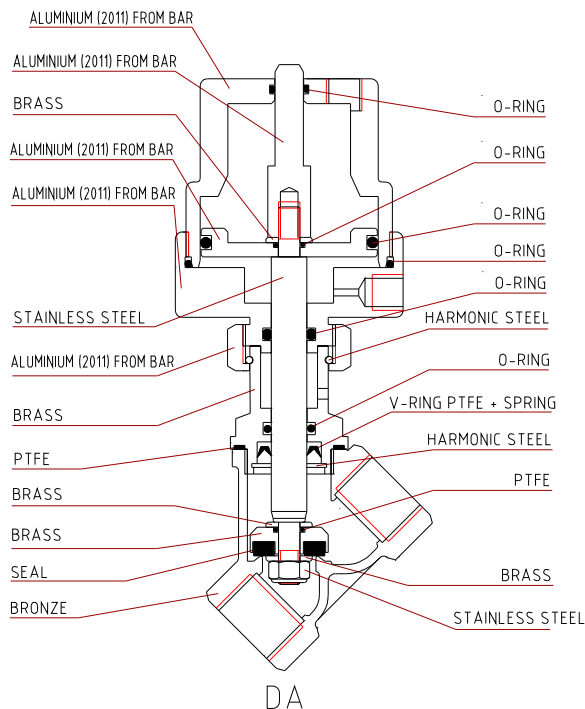
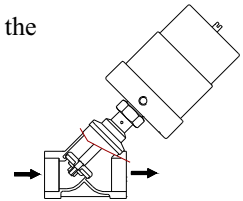
MADE IN ALUMINIUM

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 !

(2010/07)

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

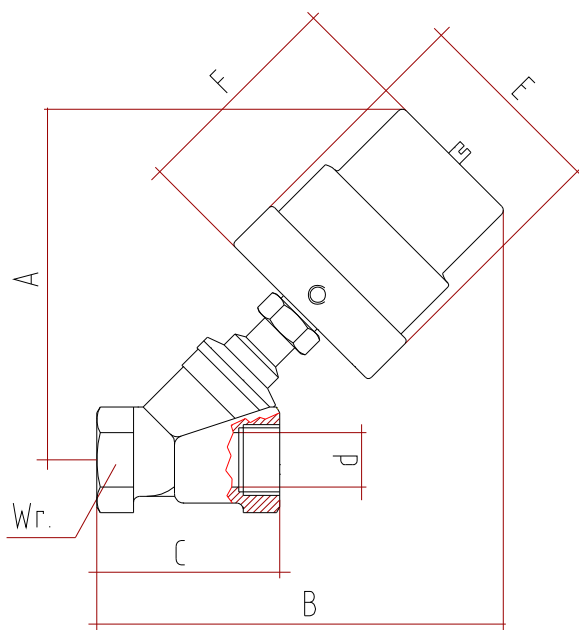
DIFFERENTIAL PRESSURE CHART

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 !

(2010/07)