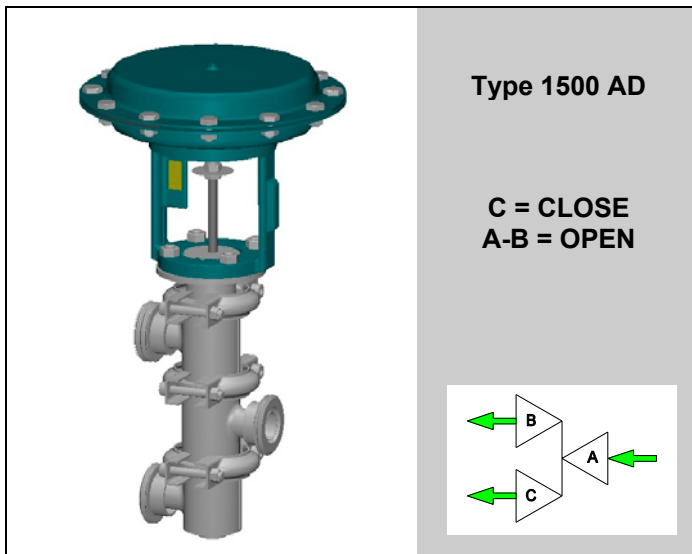


THREE WAY DIVERTING CONTROL VALVES PED 97/23/CE Art.3 Section.3



TYPE 1500 AD

Normally closed port "C" on air failure

DESCRIPTION

The 1500 "HYGIENIC" pneumatic control valves are with three way diverting body with revolving connections. They are suggested for modulating service in food and pharmaceutical where very high levels of flexibility and hygienic conditions are normally required. The three way diverting control valves are with one inlet port and two outlet ports with fluid opens. Modulating plug suitable for control of virtually all line media. Compact construction assembled with "UNIWORLD" multisprings pneumatic actuator having 3 - 15 psi ...6 - 18 psi... 6 - 30 psi standard control signals. On request they can be equipped with a pneumatic or electro-pneumatic pilot positioner.

SIZES : from DN 15 to DN 100

BODY CONNECTIONS :

- Smooth welding caps according to DIN (Standard) A316 L
- Male tapped according to DIN 11851 A316L
- Female screwed according to DIN 11851 A316L
- Complete union according to DIN 11851 A316L
- Snap - clamp system according to DIN 405 A316L
- Flanged UNI 2277/78 PN 10-16 A316L

MATERIALS OF BODY GROUP :

- Stainless steel AISI 316 L - X2 Cr Ni Mo 1712 PN 10
Polished version or satin version

PLUG :

- PL = linear class IV°
- On request reduced bores and microflow

BONNET : Standard for temperature from -5 to + 160 °C

PACKING : N° 2 "O" rings FPM 70 ≤ 160°C

TECHNICAL CHARACTERISTICS OF PNEUMATIC ACTUATOR:

- Actuator : diaphragm type
- Control signals : 3-15 psi ...6-18 psi ...6-30 psi
- Max air supply pressure : 35 psi (2,5 bar)
- Ambient temperature : -20 ... +70 °C
- Painted actuator casing mat. : Fe P11
- S.S. actuator casing material : Stainless steel AISI 304
- Diaphragm material : EPDM 70
- Painted yoke material : GGG 50
- S.S. yoke material : Stainless steel CF8 (AISI 304)
- Pneumatic connections : ISO 7 Rp - 1/8"

MAX WORKING CONDITIONS :

- Max inlet pressure and temperature : 10 bar -15°C...+ 160°C
- Valve sizing : see leaflet 100/VP
- Rangeability : see leaflet GRAFICI/I

ON REQUEST :

- Soft viton insert ≤160°C classe VI°
- Reduced bores (see below table)
- Pneumatic Pilot Positioner 3-15 psi ... 3-9 psi ... 9-15 psi
- Electro pneumatic pilot positioner 4-20 mA...4-12 mA...12-20 mA
- Air filter regulator
- Proximity limit switches
- 3-way solenoid valve
- Top - work manual handwheel

CV = american unit (flowrate in US GPM With 1 psi of differential pressure)

Kv = metric unit (flowrate in m3/h with 1 bar of differential pressure)

Plug Full bore	DN 15		DN 20		DN 25		DN 32		DN 40		DN 50		DN 65		DN 80		DN 100	
	Ø 1/2"	Ø 3/4"	Ø 1"	Ø 1.1/4"	Ø 1.1/2"	Ø 2"	Ø 2.1/2"	Ø 3"	Ø 4"									
PL	CV	5	8	13	18	26	45	72	105	160								
	KV	4.26	6.82	11.08	15.34	22.15	38.34	61.34	89.46	136.32								
Reduced bore*	n.a.	1/2"	1/2"	3/4"	3/4"	1"	1"	1.1/4"	1.1/4"	1.1/2"	1.1/2"	2"	2"	2.1/2"	2.1/2"	3"		

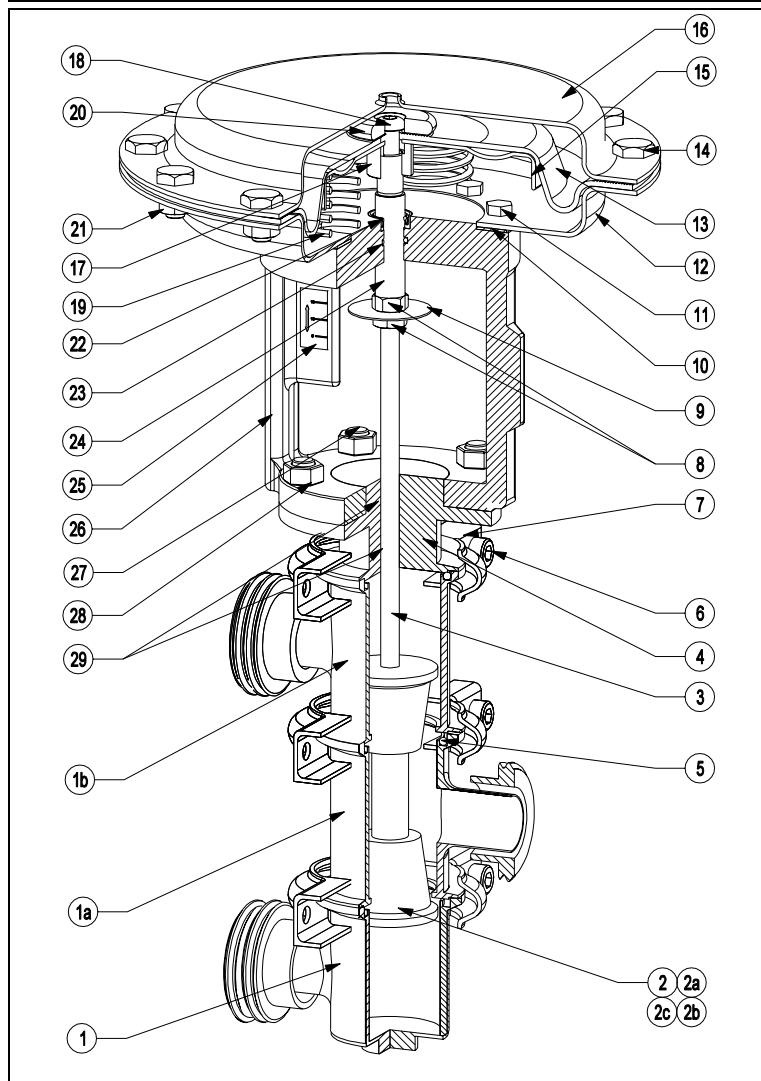
n.a. = not applicable * CV and KV values are referred to the selected diameter and plug time (PL only)

Maximum permissible pressure drops in Kg/cm² (fluid opens) Strokes in mm – Signals in psi

Actuator Type	Signal psi	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
		Stroke 11	Stroke 11	Stroke 11	Stroke 19	Stroke 19	Stroke 19	Stroke 28	Stroke 28	Stroke 28
T200	3-15 psi	12	8	5	3	-	-	-	-	-
	6-18 psi	25	16	9	6	-	-	-	-	-
	6-30 psi	65	40	22	11	-	-	-	-	-
T250	3-15 psi	27	17	9	6	4	2.4	-	-	-
	6-18 psi	55	34	19	12	8	3	-	-	-
	6-30 psi	110	68	38	20	14.5	7	-	-	-
T310	3-15 psi	-	-	15.5	10	7	3.5	2.5	1.7	0.9
	6-18 psi	-	-	31	20	14	7	4.5	2.8	1.3
	6-30 psi	-	-	62	30	21	12	6.5	4.7	2.6
T400	3-15 psi	-	-	-	14.5	10.5	5	3.8	2.5	1.4
	6-18 psi	-	-	-	29.5	20.5	12	6.7	4	2.8
	6-30 psi	-	-	-	45	31.5	18	16	11	6.3
T500	3-15 psi	-	-	-	24.5	17.5	10	5.5	4.2	2.4
	6-18 psi	-	-	-	49	34.5	19.5	12.2	7	4.9
	6-30 psi	-	-	-	75	52.5	30.3	26	16	10.5

1. The values given are referred to the force of actuator and they can be used within the limit of the body rating.
2. The actuator DELTA-PI (PRESSURE DROPS with CLOSED VALVE) are obtained without a residual thrust of air into the actuator
3. The actuator DELTA-PI given in the column 6-30 psi are also valid for ON-OFF service with air supply at 30/35 psi

COMPONENT LIST AND MATERIALS



COMPONENTS

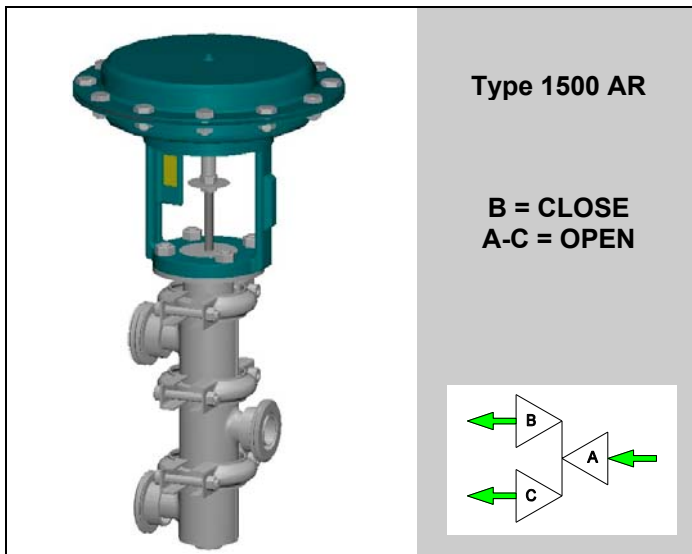
1. Lower body
- 1a. Middle body
- 1b. Upper body
2. Metal seal plug
- 2a. Soft seal plug
- 2b. Soft viton insert
- 2c. Upper plug profile
3. Stem
4. Bonnet
5. Body gasket
6. Clamp bolts
7. Clamp
8. Indicator bolts
9. Position indicator
10. Yoke gasket
11. Yoke bolts
12. Lower diaphragm casing
13. Diaphragm
14. Diaphragm casing locknuts
15. Diaphragm plate
16. Upper diaphragm casing
17. Diaphragm bush
18. Diaphragm locknut
19. Springs
20. Diaphragm spacer
21. Diaphragm casing bolts
22. Airtight
23. "O" ring
24. Diaphragm rod
25. Travel indicator plate
26. Yoke
27. Stud-bolts
28. Yoke bolts
29. "O" rings

MATERIALS

1. AISI 316 L St. steel
- 1a. AISI 316 L St. steel
- 1b. AISI 316 L St. steel
2. AISI 316 L St. steel
- 2a. AISI 316 L St. steel
- 2b. Viton FPM 70
- 2c. AISI 316 L St. steel
3. AISI 316 L St. steel
4. AISI 316 L St. steel
5. Viton FPM 70
6. AISI 304 L St. steel
7. AISI 304 L St. steel
8. AISI 304 L St. steel
9. AISI 304 L St. steel
10. Cork-rubber
11. DIN 933 galvanized steel or AISI 304 L St. steel
12. P11 steel or AISI 304 L St. steel
13. EPDM 70
14. DIN 933 galvanized steel or AISI 304 L St. steel
15. P01 steel
16. P11 steel or AISI 304 L St. steel
17. AISI 303 L St. steel
18. ISO 7380 galvanized steel
19. C98 UNI 3823
20. Galvanized steel
21. DIN 934 galvanized steel or AISI 304 L St. steel
22. NBR
23. NBR
24. AISI 303 L St. steel
25. Polycarbonate
26. GGG50 or AISI 304 L St. steel
27. AISI 304 L St. steel
28. DIN 934 galvanized steel or AISI 304 L St. steel
29. Viton FPM 70

DIMENSIONS (See leaflet DIMHY/I/E)

THREE WAY DIVERTING CONTROL VALVES PED 97/23/CE Art.3 Section.3



TYPE 1500 AR

Normally closed port "B" on air failure

DESCRIPTION

The 1500 "HYGIENIC" pneumatic control valves are with three way diverting body with revolving connections. They are suggested for modulating service in food and pharmaceutical where very high levels of flexibility and hygienic conditions are normally required. The three way diverting control valves are with one inlet port and two outlet ports with fluid opens. Modulating plug suitable for control of virtually all line media. Compact construction assembled with "UNIWORLD" multisprings pneumatic actuator having 3 - 15 psi ...6 -18 psi... 6 - 30 psi standard control signals. On request they can be equipped with a pneumatic or electro-pneumatic pilot positioner.

SIZES : from DN 15 to DN 100

BODY CONNECTIONS :

- Smooth welding caps according to DIN (Standard) A316 L
- Male tapped according to DIN 11851 A316L
- Female screwed according to DIN 11851 A316L
- Complete union according to DIN 11851 A316L
- Snap - clamp system according to DIN 405 A316L
- Flanged UNI 2277/78 PN 10-16 A316L

MATERIALS OF BODY GROUP :

- Stainless steel AISI 316 L - X2 Cr Ni Mo 1712 PN 10
Polished version or satin version

PLUG :

- PL = linear class IV°
- On request reduced bores and microflow

BONNET : Standard for temperature from -5 to + 160 °C

PACKING : N° 2 "O" rings FPM 70 ≤ 160°C

TECHNICAL CHARACTERISTICS OF PNEUMATIC ACTUATOR:

- Actuator : diaphragm type
- Control signals : 3-15 psi...6-18 psi ...6-30 psi
- Max air supply pressure : 35 psi (2,5 bar)
- Ambient temperature : -20 ... +70 °C
- Painted actuator casing mat. : Fe P11
- S.S. actuator casing material : Stainless steel AISI 304
- Diaphragm material : EPDM 70
- Painted yoke material : GGG 50
- S.S. yoke material : Stainless steel CF8 (AISI 304)
- Pneumatic connections : ISO 7 Rp - 1/8"

MAX WORKING CONDITIONS :

- Max inlet pressure and temperature : 10 bar -15°C...+ 160°C
- Valve sizing : see leaflet 100/VP
- Rangeability : see leaflet GRAFICI/I

ON REQUEST :

- Soft viton insert ≤160°C class VI°
- Reduced bores (see below table)
- Pneumatic pilot positioner 3-15 psi ... 3-9 psi ... 9-15 psi
- Electro pneumatic pilot positioner 4-20 mA...4-12 mA...12-20 mA
- Air filter regulator
- Proximity limit switches
- 3-way solenoid valve
- Top - work manual handwheel

CV = american unit (flowrate in US GPM With 1 psi of differential pressure)

Kv = metric unit (flowrate in m3/h with 1 bar of differential pressure)

Plug Full bore	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	
	Ø 1/2"	Ø 3/4"	Ø 1"	Ø 1.1/4"	Ø 1.1/2"	Ø 2"	Ø 2.1/2"	Ø 3"	Ø 4"	
PL	CV	5	8	13	18	26	45	72	105	160
	KV	4.26	6.82	11.08	15.34	22.15	38.34	61.34	89.46	136.32
Reduced bore*	n.a.	1/2"	1/2" 3/4"	3/4" 1"	1" 1.1/4"	1.1/4" 1.1/2"	1.1/2" 2"	2" 2.1/2"	2.1/2" 3"	

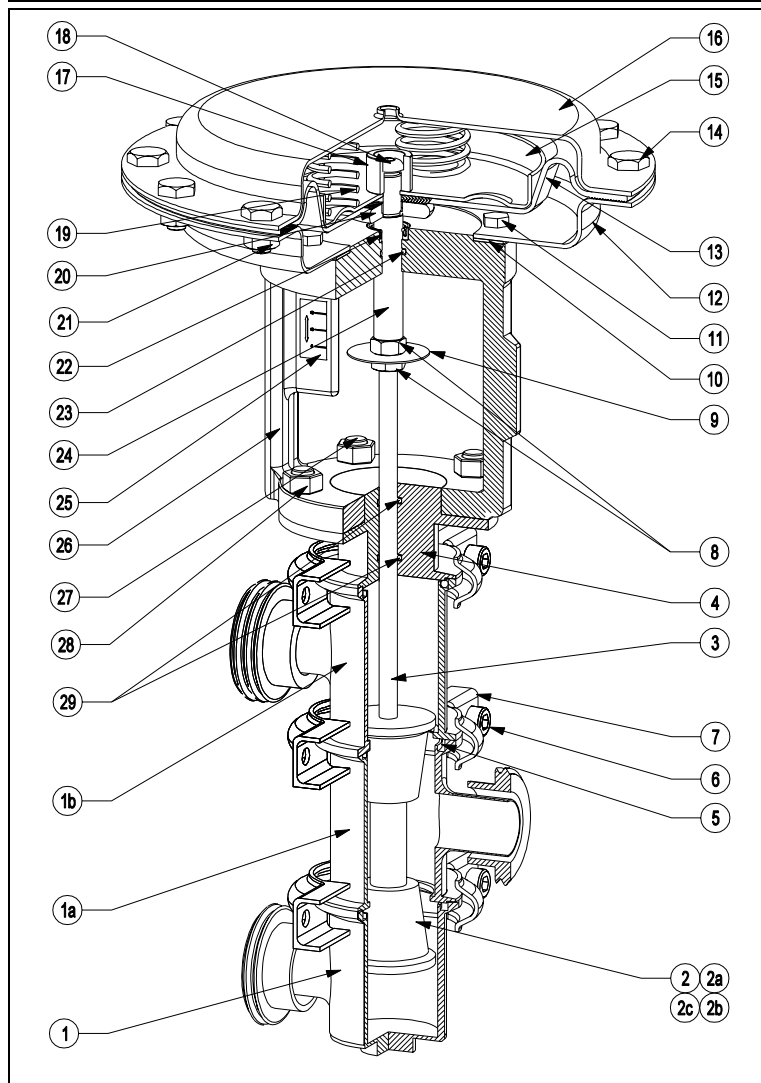
n.a. = not applicable * CV and KV values are referred to the selected diameter and plug time (PL only)

Maximum permissible pressure drops in Kg/cm² (fluid opens) Strokes in mm – Signals in psi

Actuator Type	Signal psi	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
		Stroke 11	Stroke 11	Stroke 11	Stroke 19	Stroke 19	Stroke 19	Stroke 28	Stroke 28	Stroke 28
T200	3-15 psi	12	8	5	3	-	-	-	-	-
	6-18 psi	25	16	9	6	-	-	-	-	-
	6-30 psi	65	40	22	11	-	-	-	-	-
T250	3-15 psi	27	17	9	6	4	2.4	-	-	-
	6-18 psi	55	34	19	12	8	3	-	-	-
	6-30 psi	110	68	38	20	14.5	7	-	-	-
T310	3-15 psi	-	-	15.5	10	7	3.5	2.5	1.7	0.9
	6-18 psi	-	-	31	20	14	7	4.2	2.8	1.3
	6-30 psi	-	-	62	30	21	12	6.5	4.7	2.6
T400	3-15 psi	-	-	-	14.5	10.5	5	3.8	2.5	1.4
	6-18 psi	-	-	-	29.5	20.5	12	6.7	4	2.8
	6-30 psi	-	-	-	45	31.5	18	16	11	6.3
T500	3-15 psi	-	-	-	24.5	17.5	9.5	5.5	4.2	2.4
	6-18 psi	-	-	-	49	34.5	19.5	12.2	7	4.9
	6-30 psi	-	-	-	75	52.5	30.3	26	16	10.5

1. The values given are referred to the force of actuator and they can be used within the limit of the body rating.
2. The actuator DELTA-PI (PRESSURE DROPS with CLOSED VALVE) are obtained without a residual thrust of air into the actuator
3. The actuator DELTA-PI given in the column 6-30 psi are also valid for ON-OFF service with air supply at 30/35 psi

COMPONENT LIST AND MATERIALS



COMPONENTS

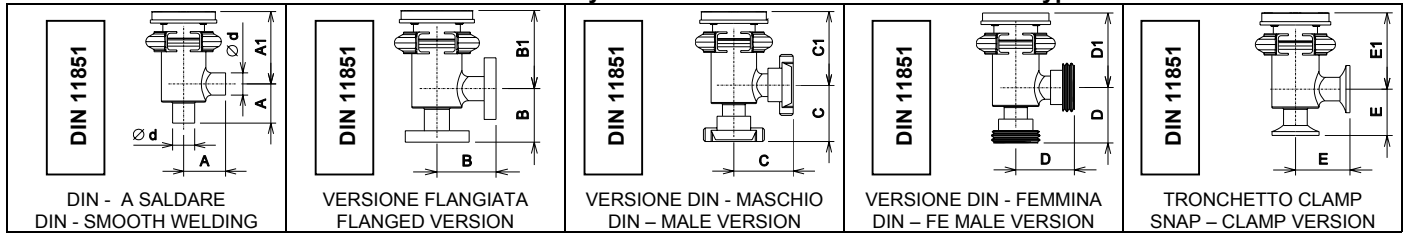
1. Lower body
- 1a. Middle body
- 1b. Upper body
2. Metal seal plug
- 2a. Soft seal plug
- 2b. Soft viton insert
- 2c. Upper plug profile
3. Stem
4. Bonnet
5. Body gasket
6. Clamp bolts
7. Clamp
8. Indicator bolts
9. Position indicator
10. Yoke gasket
11. Yoke bolts
12. Lower diaphragm casing
13. Diaphragm
14. Diaphragm casing locknuts
15. Diaphragm plate
16. Upper diaphragm casing
17. Diaphragm bush
18. Diaphragm locknut
19. Springs
20. Diaphragm spacer
21. Diaphragm casing bolts
22. Airtight
23. "O" ring
24. Diaphragm rod
25. Travel indicator plate
26. yoke
27. Stud-bolts
28. Yoke bolts
29. "O" rings

MATERIALS

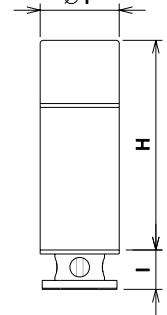
1. AISI 316 L St. steel
- 1a. AISI 316 L St. steel
- 1b. AISI 316 L St. steel
2. AISI 316 L St. steel
- 2a. AISI 316 L St. steel
- 2b. Viton FPM 70
- 2c. AISI 316 L St. steel
3. AISI 316 L St. steel
4. AISI 316 L St. steel
5. Viton FPM 70
6. AISI 304 L St. steel
7. AISI 304 L St. steel
8. AISI 304 L St. steel
9. AISI 304 L St. steel
10. Cork-rubber
11. DIN 933 galvanized steel or AISI 304 L St. steel
12. P11 steel or AISI 304 L St. steel
13. EPDM 70
14. DIN 933 galvanized steel or AISI 304 L St. steel
15. P01 steel
16. P11 steel or AISI 304 L St. steel
17. AISI 303 L St. steel
18. ISO 7380 galvanized steel
19. C98 UNI 3823
20. Galvanized steel
21. DIN 934 galvanized steel or AISI 304 L St. steel
22. NBR
23. NBR
24. AISI 303 L St. steel
25. Polycarbonate
26. GGG50 or AISI 304 L St. steel
27. AISI 304 L St. steel
28. DIN 934 galvanized steel or AISI 304 L St. steel
29. Viton FPM 70

DIMENSIONS (See leaflet DIMHY/II/E)

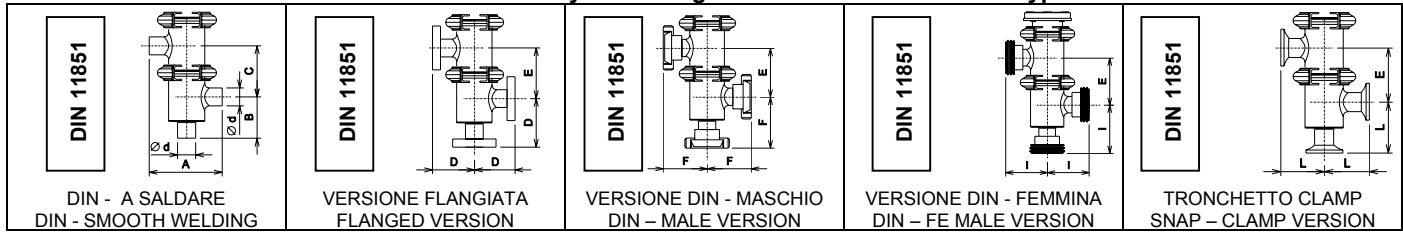
SEGGIO SINGOLO 2 VIE ON - OFF / 2 Ways Pneumatic ON - OFF Valve TIPO / Type 1300 AD - AR - DE



DN	Ø	A	A1	Ø d	B	B1	C	C1	D	D1	E	E1	Ø F	H	I
15	1/2"	38	66	18	65	66	43	66	47	66	50.7	66	70	230	25
20	3/4"	38	66	22	70	66	44	66	50	66	50.7	66	70	230	25
25	1"	52	68	28	75	68	59	68	66	68	64.7	68	70	230	29
32	1 1/4"	56	71	34	90	71	63	71	70	71	68.7	71	88.9	272	42
40	1 1/2"	64	75.5	40	95	75.5	70	75.5	77	75.5	76.7	75.5	88.9	272	42
50	2"	72	76	52	105	66	78	66	85	66	84.7	66	88.9	272	42
65	2 1/2"	86	78	70	115	78	93	78	101	78	98.7	78	101.6	291	42
80	3"	109	89.5	85	125	89.5	116	89.5	125	89.5	121.7	89.5	141.3	315	55
100	4"	119	98	101.6	135	98	126	98	137	98	131.7	98	141.3	315	55



TRE VIE DEVIATRICE ON - OFF / 3 Ways Diverting Service ON - OFF TIPO / Type 1800 AD - AR - DE



DN	Ø	A	B	C	Ø d	D	E	F	I	L	Ø F	M	N
15	1/2"	76	38	66	18	65	66	43	47	50.7	70	230	25
20	3/4"	76	38	66	22	70	66	44	50	50.7	70	230	25
25	1"	104	52	72	28	75	72	59	66	64.7	70	230	29
32	1 1/4"	112	56	76	34	90	76	63	70	68.7	88.9	272	42
40	1 1/2"	128	64	86	40	95	86	70	77	76.7	88.9	272	42
50	2"	144	72	96	52	105	96	78	85	84.7	88.9	272	42
65	2 1/2"	172	86	114	70	115	114	93	101	98.7	101.6	291	42
80	3"	218	109	135	85	125	135	116	125	121.7	141.3	315	55
100	4"	238	119	152	101.6	135	152	126	137	131.7	141.3	315	55

