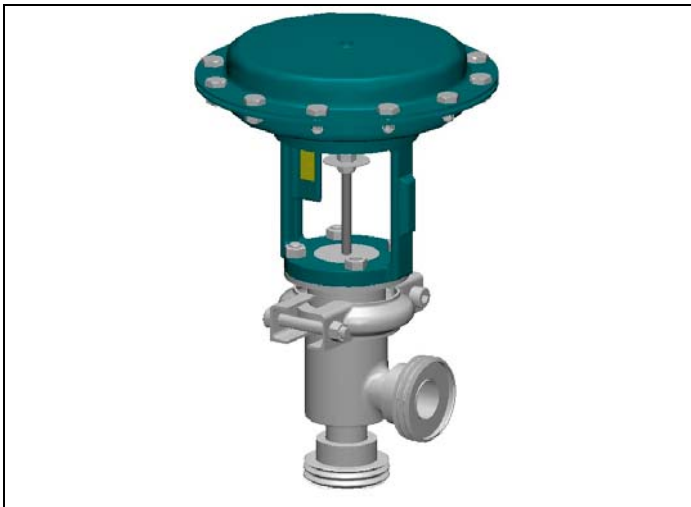


SINGLE SEAT TWO WAYS PED 97/23/CE Art.3 Section 3



TYPE 1200 AD

Normally open – Air closes

DESCRIPTION

The 1200 “HYGIENIC” pneumatic control valves are with two square way 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. Modulating plug suitable for control of virtually all line media. All the valves can be supplied, on request, with viton soft seal on plug for a total shut-off. Compact construction assembled with “UNIWORLD” multisprings pneumatic actuator having 3 - 15 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 (1)
Polished version or satin version
(1) On request PN 16

PLUG :

- PL = linear class IV°
- On request EQP plug 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 ...6-30 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 handweel

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		DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
Full bore		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	4.3	6.8	11.1	15.4	22.2	38.4	61.4	89.6	136.5
EQP	CV	3.4	6.6	10.8	17	23.8	50	70.2	87.9	118.5
	KV	2.9	5.7	9.3	14.7	20.5	43	60.5	75.2	102.1
Reduced bore*		•	• 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”
• DN 15-20-25		MFP 1/8”	MFP 3/16”	MFP 1/4”	MFP 3/8”	MFS1SG 1/4”	MFS2SG 1/4”	MFS1SG 3/8”	MFS2SG 3/8”	
CV		0.26	0.71	1.28	2.62	0.65	1.21	1.22	2.25	
KV		0.22	0.61	1.10	2.26	0.56	1.04	1.05	1.94	

MFP = Linear..MFS = Equal percentage *CV and KV values are referred to the selected diameter and plug type PL / EQP only.

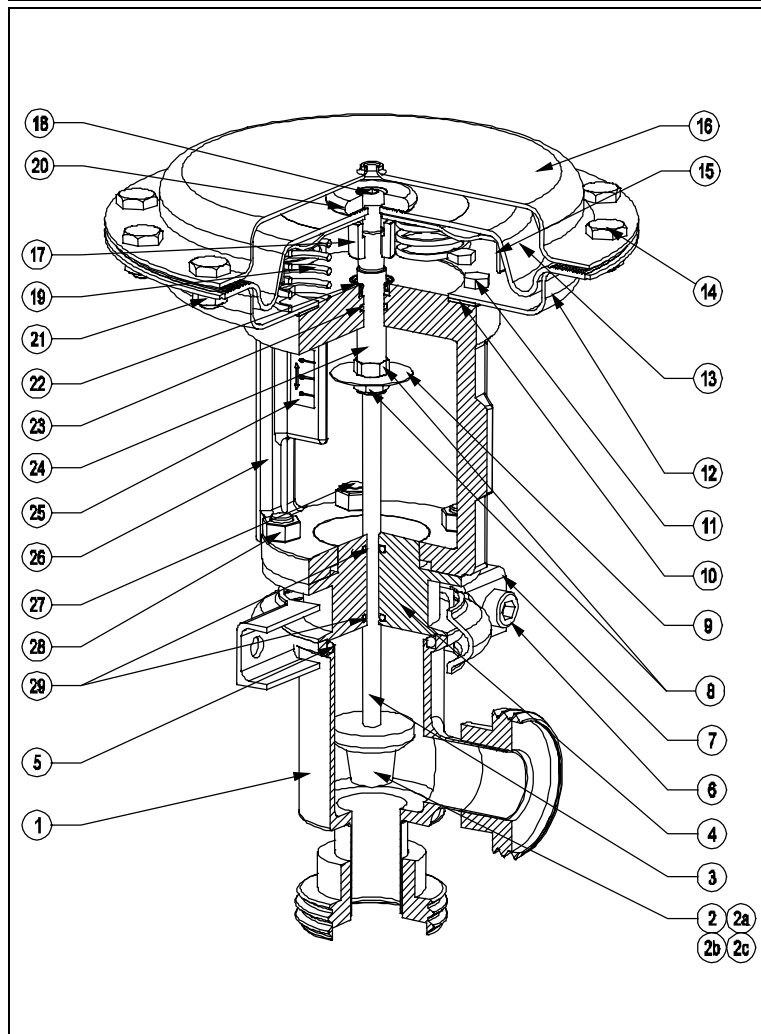
Maximum permissible pressure drops in Kg/cm² (fluid opens) Strokes in mm – Signals in psi

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	-	-	-	-	-
	6-30 psi	52	32	18	11	-	-	-	-	-
T250	3-15 psi	27	17	9	6	4	2.4	-	-	-
	6-30 psi	113	69	39	25	17	10	-	-	-
T310	3-15 psi	-	-	15.5	10	7	3.5	2.5	1.7	0.9
	6-30 psi	-	-	63	41	28	16	10	7	4
T400	3-15 psi	-	-	-	14.5	10.5	5.5	3.8	2.5	1.4
	6-30 psi	-	-	-	60	42	24	15	10.5	5.9
T500	3-15 psi	-	-	-	24.5	17.5	9.5	6.2	4.2	2.4
	6-30 psi	-	-	-	101	70	40	25.3	17.5	9.9

T200 DN15-20 Microflow	Signal	MFP 1/8 "	MFP 3/16 "	MFP 1/4 "	MFP 3/8 "	MFS1SG 1/4 "	MFS2SG 1/4 "	MFS1SG 3/8 "	MFS2SG 3/8 "
	3-15 psi	200	90	50	30	50	50	30	30
	6-30 psi	1080	470	270	130	270	270	130	130

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) given in the column 3-15 psi are obtained with a thrust of 18 psi
3. The actuator DELTA-PI (PRESSURE DROPS with CLOSED VALVE) given in the column 6-30 psi are obtained with a thrust of 30 psi

COMPONENT LIST AND MATERIALS



COMPONENTS

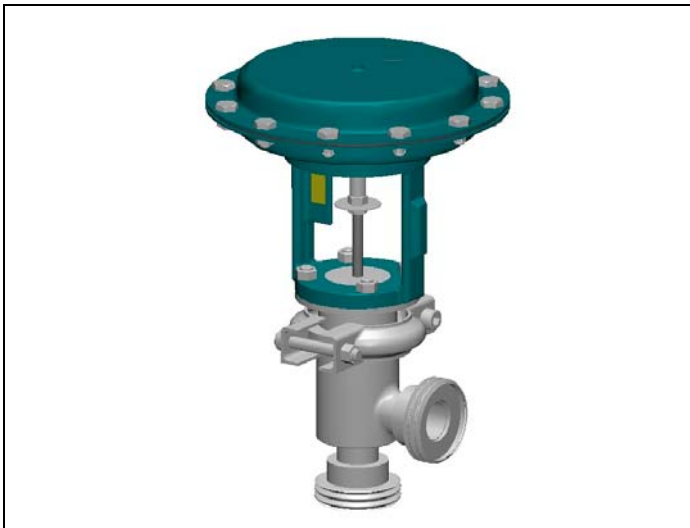
1. Body
2. Metal seal plug
- 2a. Soft seal plug
- 2b. Soft viton insert
- 2c. Upper plug profile
3. Stem
4. Bonnet
5. Body gasket
6. Clamp bolts
7. Clamp
8. Indicator bolts
9. Position indicator
10. Yoke gasket
11. Yoke bolts
12. Lower diaphragm casing
13. Diaphragm
14. Diaphragm casing locknuts
15. 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
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 left DIMHY//E)

SINGLE SEAT TWO WAYS PED 97/23/CE Art.3 Section 3



TYPE 1200 AR
Normally closed – air opens

DESCRIPTION

The 1200 “HYGIENIC” pneumatic control valves are with two square way 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. Modulating plug suitable for control of virtually all line media. All the valves can be supplied, on request, with viton soft seal on plug for a total shut-off. 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 tapered 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 (1)
Polished version or satin version
(1) On request PN 16

PLUG :

- PL = linear class IV°
- On request EQP plug 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 handweel

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)

Otturatori	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100			
Pass. pieno	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	160			
	KV	4.3	6.8	11.1	15.4	22.2	38.4	61.4	136.5			
EQP	CV	3.4	6.6	10.8	17	23.8	50	70.2	118.5			
	KV	2.9	5.7	9.3	14.7	20.5	43	60.5	102.1			
Pass.Ridotti*	•	•	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”
• DN 15-20-25	MFP 1/8”	MFP 3/16”	MFP 1/4”	MFP 3/8”	MFS1SG 1/4”	MFS2SG 1/4”	MFS1SG 3/8”	MFS2SG 3/8”				
CV	0.26	0.71	1.28	2.62	0.65	1.21	1.22	2.25				
KV	0.22	0.61	1.10	2.26	0.56	1.04	1.05	1.94				

MFP = Lineare..MFS = Equipercentuale *I valori si riferiscono a CV e KV corrispondenti al Ø ed al tipo di otturatore scelto solo PL / EQP

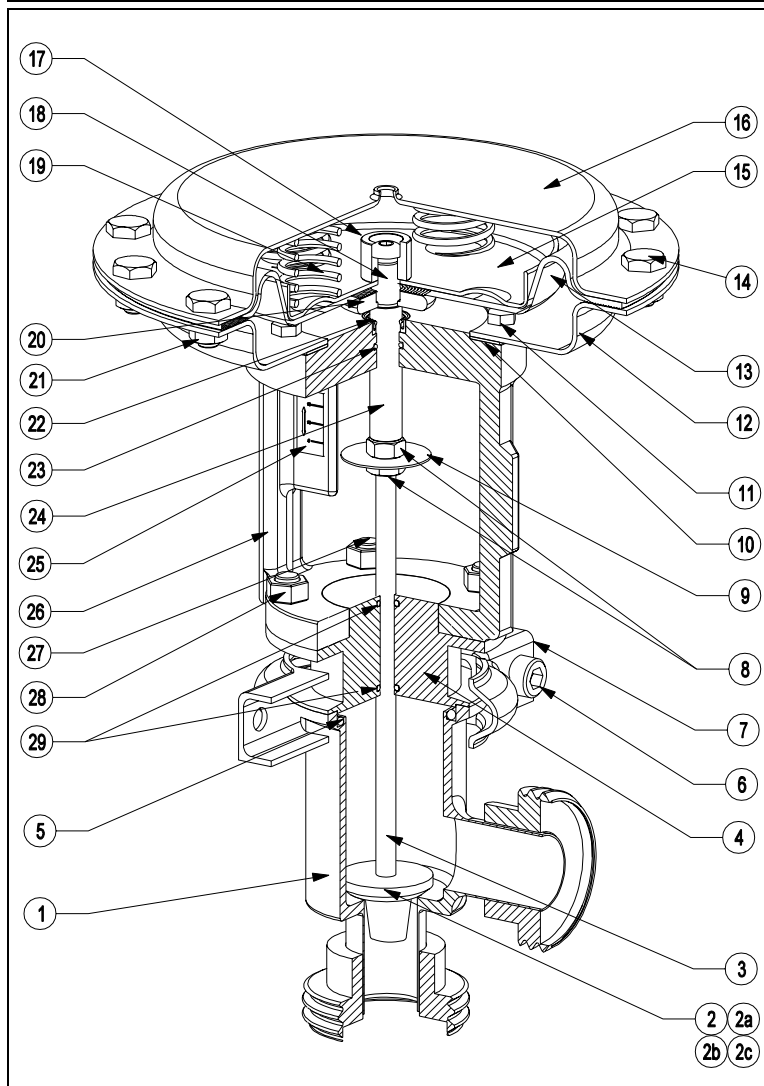
Maximum permissible pressure drops in Kg/cm² (fluid opens) Strokes in mm – Signals in psi

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

T200 DN15-20 Microflow	Signal	MFP 1/8 "	MFP 3/16 "	MFP 1/4 "	MFP 3/8 "	MFS1SG 1/4 "	MFS2SG 1/4 "	MFS1SG 3/8 "	MFS2SG 3/8 "
	3-15 psi	200	90	50	30	50	50	30	30
	6-18 psi	400	180	100	60	100	100	60	60
	6-30 psi	1300	580	340	160	340	340	160	160

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	MATERIALS
1. Body	1. AISI 316 L St. steel
2. Metal seal plug	2. AISI 316 L St. steel
2a. Soft seal plug	2a. AISI 316 L St. steel
2b. Soft viton insert	2b. Viton FPM 70
2c. Upper plug profile	2c. AISI 316 L St. steel
3. Stem	3. AISI 316 L St. steel
4. Bonnet	4. AISI 316 L St. steel
5. Body gasket	5. Viton FPM 70
6. Clamp bolts	6. AISI 304 L St. steel
7. Clamp	7. AISI 304 L St. steel
8. Indicator bolts	8. AISI 304 L St. steel
9. Position indicator	9. AISI 304 L St. steel
10. Yoke gasket	10. Cork-rubber
11. Yoke bolts	11. DIN 933 galvanized steel or AISI 304 L St. steel
12. Lower diaphragm casing	12. P11 steel or AISI 304 L St. steel
13. Diaphragm	13. EPDM 70
14. Diaphragm casing locknuts	14. DIN 933 galvanized steel or AISI 304 L St. steel
15. Diaphragm plate	15. P01 steel
16. Upper diaphragm casing	16. P11 steel or AISI 304 L St. steel
17. Diaphragm bush	17. AISI 303 L St. steel
18. Diaphragm locknut	18. ISO 7380 galvanized steel
19. Springs	19. C98 UNI 3823
20. Diaphragm spacer	20. Galvanized steel
21. Diaphragm casing bolts	21. DIN 934 galvanized steel or AISI 304 L St. steel
22. Airtight "O" ring	22. NBR
23. "O" ring	23. NBR
24. Diaphragm rod	24. AISI 303 L St. steel
25. Travel indicator plate	25. Polycarbonate
26. Yoke	26. GGG50 or AISI 304 L St. steel
27. Stud-bolts	27. AISI 304 L St. steel
28. Yoke bolts	28. DIN 934 galvanized steel or AISI 304 L St. steel
29. "O" rings	29. Viton FPM 70

DIMENSIONS (See leaflet DIMHY//E)

SEGGIO SINGOLO 2 VIE – DI REGOLAZIONE / 2 Ways Pneumatic Control Valve TIPO / Type 1200 AD - AR

DIN - A SILDARE DIN - SMOOTH WELDING	VERSIONE FLANGIATA FLANGED VERSION	VERSIONE DIN - MASCHIO DIN - MALE VERSION	VERSIONE DIN - FEMMINA DIN - FE MALE VERSION	TRONCHETTO CLAMP SNAP - CLAMP VERSION													
DN	Ø	A	A1	Ø d	B	B1	C	C1	D	D1	E	E1	V1	Servom.	H	V	Ø F
15	½"	38	66	18	65	66	43	66	47	66	50.7	66	11	T200	70	166	210
20	¾"	38	66	22	70	66	44	66	50	66	50.7	66	11	T250	70	166	292
25	1"	52	68	28	75	68	59	68	66	68	64.7	68	11	T310	95	166	336
32	1 ¼"	56	71	34	90	71	63	71	70	71	68.7	71	19	T400	119	166	408
40	1 ½"	64	75.5	40	95	75.5	70	75.5	77	75.5	76.7	75.5	19	T500	119	166	520
50	2"	72	76	52	105	66	78	66	85	66	84.7	66	19				
65	2 ½"	86	78	70	115	78	93	78	101	78	98.7	78	28				
80	3"	109	89.5	85	125	89.5	116	89.5	125	89.5	121.7	89.5	28				
100	4"	119	98	101.6	135	98	126	98	137	98	131.7	98	28				

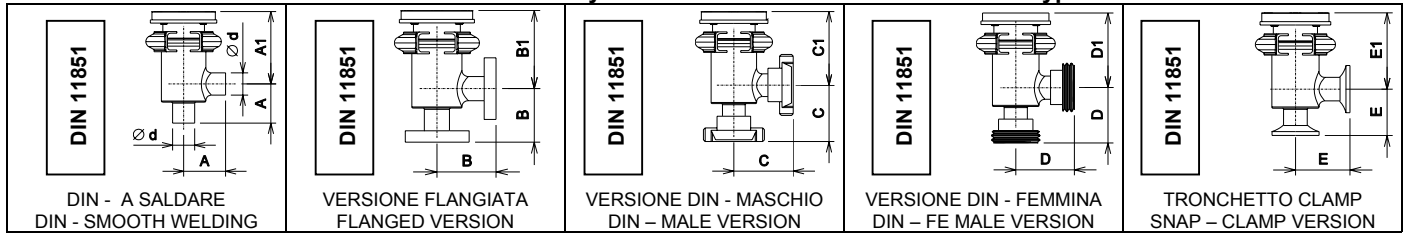
TRE VIE MISCELATRICE – DI REGOLAZIONE / 3 Ways Pneumatic Control Valve Mixing Service TIPO / Type 1400 AD-AR

DIN - A SILDARE DIN - SMOOTH WELDING	VERSIONE FLANGIATA FLANGED VERSION	VERSIONE DIN - MASCHIO DIN - MALE VERSION	VERSIONE DIN - FEMMINA DIN - FE MALE VERSION	TRONCHETTO CLAMP SNAP - CLAMP VERSION											
DN	Ø	A	B	C	Ø d	D	E	F	I	L	V1	Servom.	H	V	Ø F
15	½"	76	38	66	18	65	66	43	47	50.7	11	T200	70	166	210
20	¾"	76	38	66	22	70	66	44	50	50.7	11	T250	70	166	292
25	1"	104	52	72	28	75	72	59	66	64.7	11	T310	95	166	336
32	1 ¼"	112	56	76	34	90	76	63	70	68.7	19	T400	119	166	408
40	1 ½"	128	64	86	40	95	86	70	77	76.7	19	T500	119	166	520
50	2"	144	72	96	52	105	96	78	85	84.7	19				
65	2 ½"	172	86	114	70	115	114	93	101	98.7	28				
80	3"	218	109	135	85	125	135	116	125	121.7	28				
100	4"	238	119	152	101.6	135	152	126	137	131.7	28				

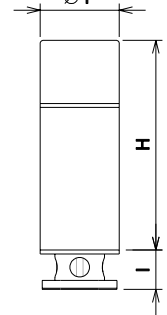
TRE VIE DEVIATRICE – DI REGOLAZIONE / 3 Ways Pneumatic Control Valve Diverting Service TIPO / Type 1500 AD-AR

DIN - A SILDARE DIN - SMOOTH WELDING	VERSIONE FLANGIATA FLANGED VERSION	VERSIONE DIN - MASCHIO DIN - MALE VERSION	VERSIONE DIN - FEMMINA DIN - FE MALE VERSION	TRONCHETTO CLAMP SNAP - CLAMP VERSION										
DN	Ø	A	B	C	Ø d	D	E	F	G	V1	Servom.	H	V	Ø F
15	½"	76	14	66	18	65	43	47	50.7	11	T200	70	166	210
20	¾"	76	16	66	22	70	44	50	50.7	11	T250	70	166	292
25	1"	104	22	72	28	75	59	66	64.7	11	T310	95	166	336
32	1 ¼"	112	25	78	34	90	63	70	68.7	19	T400	119	166	408
40	1 ½"	128	28	86	40	95	70	77	76.7	19	T500	119	166	520
50	2"	144	34	96	52	105	78	85	84.7	19				
65	2 ½"	172	45	114	70	115	93	101	98.7	28				
80	3"	218	54	135	85	125	116	125	121.7	28				
100	4"	238	61	152	101.6	135	126	137	131.7	28				

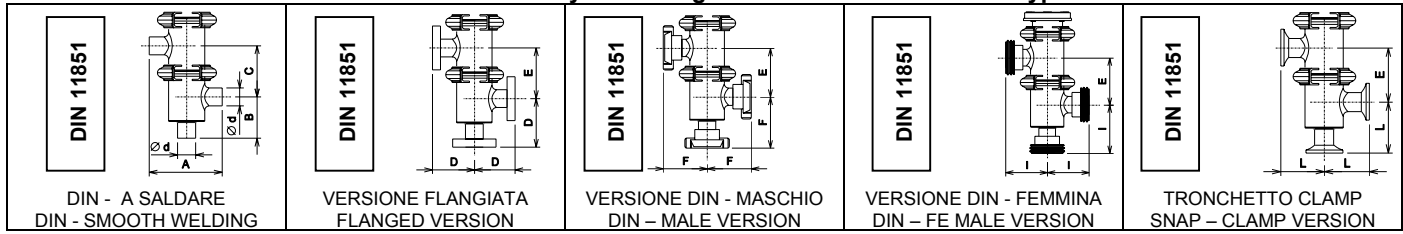
SEGGIO SINGOLO 2 VIE ON - OFF / 2 Ways Pneumatic ON - OFF Valve TIPO / Type 1300 AD - AR - DE



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

