

PNEUMATIC VALVES **HYGIENIC** series

1400AD/E

07 2014

THREE WAY MIXING CONTROL VALVES PED 2014/68/UE

TIPO **1400 AD**

Normally closed port "A" on air failure

DESCRIPTION

The 1400 "HYGIENIC" pneumatic control valves are with three way mixing 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 mixing control valves are with two inlet ports and one outlet port 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.

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

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

**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)

CONFLOW s.p.a.

 COMPANY WITH
 QUALITY SYSTEM
 CERTIFIED BY DNV GL
 = ISO 9001 =

 Via Lecco, 69/71
 20864 AGRATE BRIANZA (MI)
 Tel. 039/651.705 - 650.397
 Fax 039/654.018
 www.conflo.it

Maximum permissible pressure drops in Kg/cm² (fluid opens)

Strokes in mm – Signals in psi

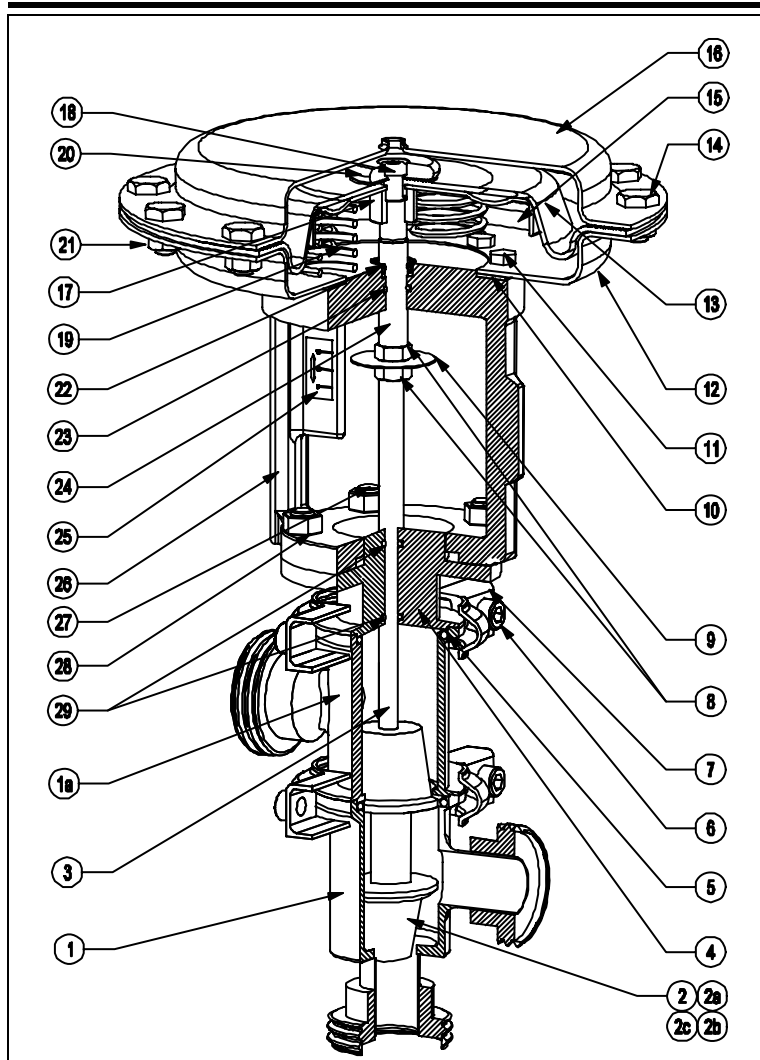
Actuator Type	Signal psi	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
		Stroke 11	Stroke 11	Stroke 11	Stroke 19	Stroke 19	Stroke 19	Stroke 28	Stroke 28	Stroke 28
T200	3-15 psi	12	8	5	3	-	-	-	-	-
	6-18 psi	25	16	9	6	-	-	-	-	-
	6-30 psi	65	40	22	11	-	-	-	-	-
T250	3-15 psi	27	17	9	6	4	2.4	-	-	-
	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. 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
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. SG Iron 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

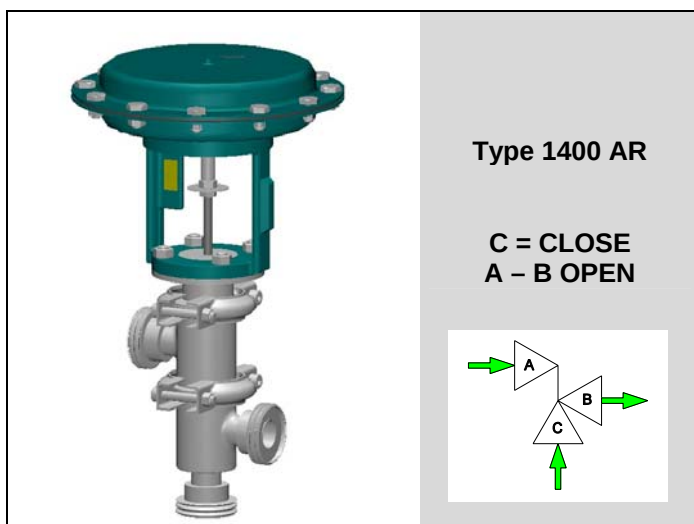
DIMENSIONS (See leaflet DIMHY/II/E)

PNEUMATIC CONTROL VALVES **HYGIENIC** series

1400AR/E

07 2016

THREE WAY MIXING CONTROL VALVES PED 2014/68/UE



TYPE **1400 AR**

Normally closed port "C" on air failure

DESCRIPTION

The 1400 "HYGIENIC" pneumatic control valves are with three way mixing 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 mixing control valves are with two inlet ports and one outlet port 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
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- S.S. actuator casing material : Stainless steel AISI 304
- Diaphragm material : EPDM 70
- Painted yoke material : GGG 50
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- Pneumatic connections : ISO 7 Rp - 1/8"

MAX WORKING CONDITIONS :

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- Valve sizing : see leaflet 100/VP
- Rangeability : see leaflet GRAFIC/I/

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**CV = american unit (flowrate in US GPM
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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"
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	KV	4.26	6.82	11.08	15.34	22.15	38.34	61.34	89.46	136.32
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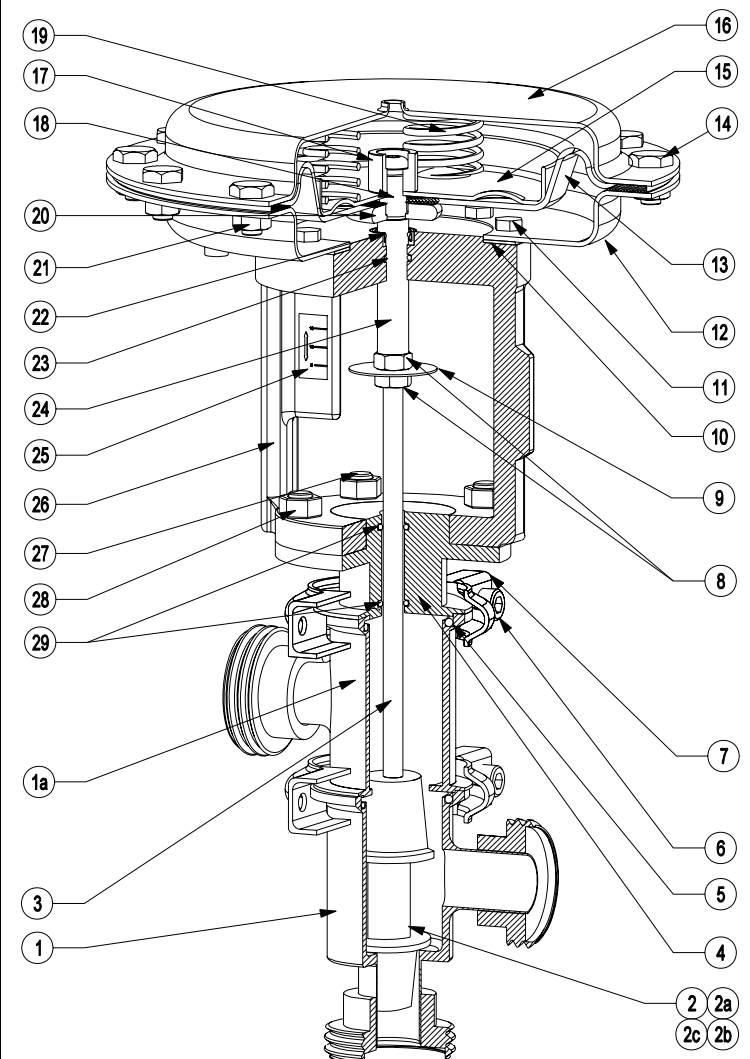
Maximum permissible pressure drops in Kg/cm² (fluid opens)

Strokes in mm – Signals in psi

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		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	-	-	-	-	-
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COMPONENT LIST AND MATERIALS

		COMPONENTS	MATERIALS
	19	1. Lower body	1. AISI 316 L St. steel
	17	1a. Upper body	1a. AISI 316 L St. steel
	18	2. Metal seal plug	2. AISI 316 L St. steel
	20	2a. Soft seal plug	2a. AISI 316 L St. steel
	21	2b. Soft viton insert	2b. Viton FPM 70
	22	2c. Upper plug profile	2c. AISI 316 L St. steel
	23	3. Stem	3. AISI 316 L St. steel
	24	4. Bonnet	4. AISI 316 L St. steel
	25	5. Body gasket	5. Viton FPM 70
	26	6. Clamp bolts	6. AISI 304 L St. steel
	27	7. Clamp	7. AISI 304 L St. steel
	28	8. Indicator bolts	8. AISI 304 L St. steel
	29	9. Position indicator	9. AISI 304 L St. steel
	1a	10. Yoke gasket	10. Cork-rubber
	3	11. Yoke bolts	11. DIN 933 galvanized steel or AISI 304 L St. steel
	1	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	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/II/E)