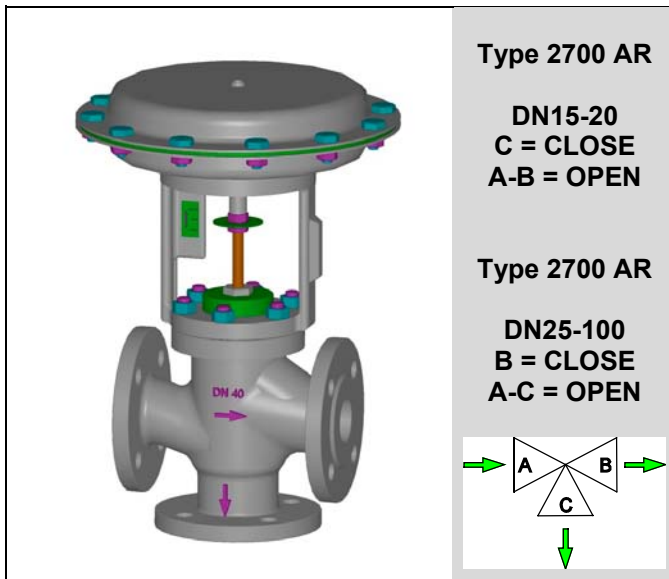


## THREE-WAY DIVERTING CONTROL VALVES



Type 2700 AR

DN15-20  
C = CLOSE  
A-B = OPEN

Type 2700 AR

DN25-100  
B = CLOSE  
A-C = OPEN

### TYPE 2700 AR

DN15-20 : Normally closed port "C"

DN25-100 : Normally closed port "B"

Face-to-face EN 558-1 (DIN 3202)

### DESCRIPTION

The "UNIWORLD" series type 2700 AR are equipped with DIN "straight-through" pattern bodies with UNI / DIN flanges. Type 2700 AR three-way diverting control valves (one inlet port and two outlet ports with fluids opens) have a modulating plug suitable for control of virtually all line media. Compact construction assembled with multisprings pneumatic actuator having 3-15 psi ... 6-18 psi ... 6-30 psi standard control signals. On request can be equipped with a pneumatic or electro-pneumatic pilot positioner.

**SIZES :** from DN 15 to DN 100

**BODY CONNECTIONS :** flanged UNI 2223 – DIN 2501 PN16 PN40

**MATERIALS OF BODY GROUP (1) :**

- **Cast iron G25 PN 16**  
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **SG iron DIN 1693 GGG 40.3**  
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **Carbon steel GS-C25 (1.0619) PN 16 ... PN 40**  
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **Stainless steel AISI 316 CF8M (1.4408) PN 16 ... PN 40**  
AISI 316 st. st. trim - AISI 316 st. st. bonnet

**PLUG :**

- **PL** (DN15-20) **LV** (DN25-100) = linear class IV°
- **PT** (DN15-20) **VPT** (DN25-100) = quick lift class IV°

**BONNET (2) :**

- Standard : -5 to + 200 °C
- Finned : > 200 °C
- Extended : below - 5 °C
- Bellows sealed : for thermal oil or hazardous media with standard safety gland arrangement (PN 16 - 25 - 40)

**GLAND ARRANGEMENT (PACKING) (3) with safety "0-rings" :**

- PTFE 100% for temperatures ≤150 °C
- PTFE 85% + GRAPHITE 15% for temperatures ≤ 200 °C
- PURE GRAPHITE 100% for temperatures from 200° to 400 °C to be used with finned bonnet

**CV = american unit (flowrate in USGPM with 1 psi of differential pressure)**

**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
- Actuator casings material : Fe P11 carbon steel
- Diaphragm material : EPDM 70
- Yoke material : GGG 50 Spheroidal cast iron
- Pneumatic connections : ISO 7 Rp – 1/8"

**MAX WORKING CONDITIONS :**

- Max inlet pressure and temperature : see leaflet n° 101/VP
- Valve sizing : see leaflet n° 100/VP
- Rangeability : see leaflet n° GRAFICI/I

**ON REQUEST :**

- PTFE/GR soft seal ≤190°C class VI°
- PTFE soft seal ≤150°C class VI°
- Lapping on seat and plug class V°
- Stellite (degree 6°) on seat and plug and guide bush
- Reduced bore (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
- Lubrifier on finned bonnet for temperatures ≥ 250 °C
- Top-work manual handwheel

**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	3.4	6.6	10	23.4	28	36.4	72.7	89.3	123.8
	KV	2.9	5.7	8.6	20.1	24.1	31.4	62.7	77	106.7
PT	CV	3.4	6.6	13.8	30.3	38.7	52	107.3	129.3	175.4
	KV	2.9	5.7	11.9	26.1	33.4	44.8	92.5	111.5	151.2
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

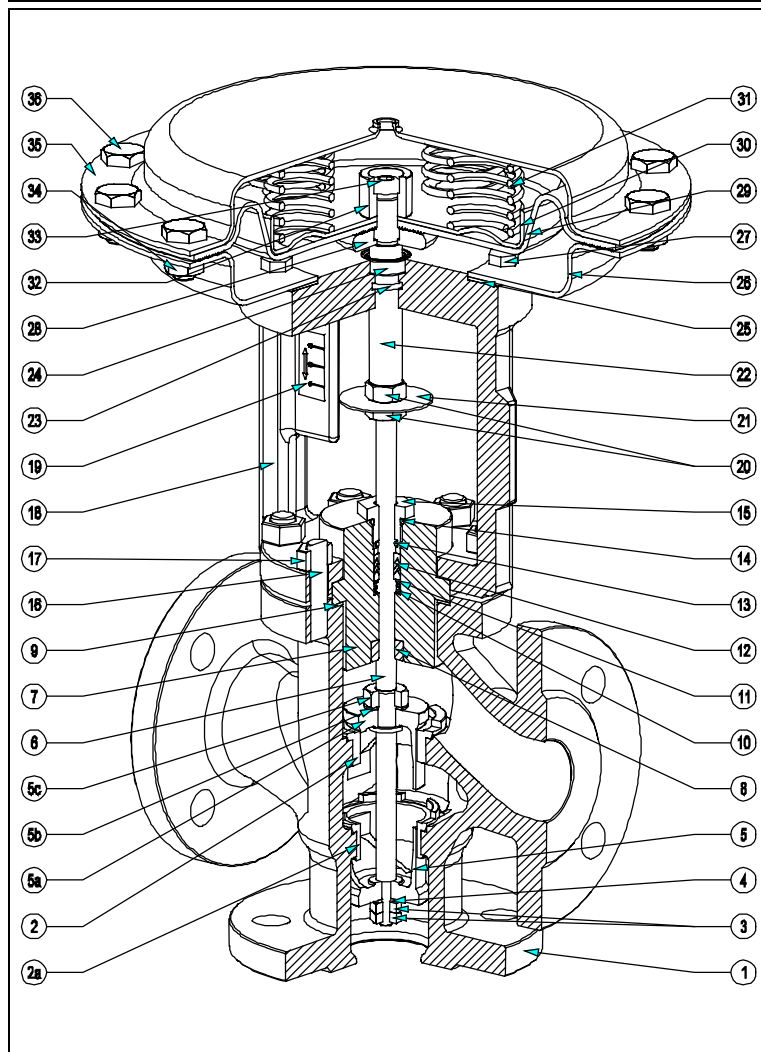
\* CV and KV values are referred to the selected diameter and plug type ( PL/LV only)

# Maximum permissible pressure drops in Kg/cm<sup>2</sup> (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

## COMPONENTS LIST AND MATERIALS



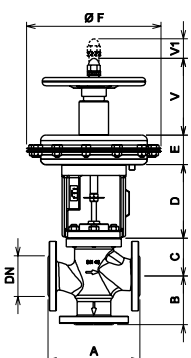
### COMPONENTS LIST

1. Body
2. Upper seat
- 2a. Lower seat
3. Lower plug locknuts
4. Lower spring washer
5. Lower plug
- 5a. Upper plug
- 5b. Upper spring washer
- 5c. Upper plug locknuts
6. Stem
7. Bonnet
8. Guide bush
9. Body gasket
10. Packing spring
11. Packing washer
12. Packing rings
13. Internal "O" ring
14. External "O" ring
15. Packing adjusting nut
16. Stud-bolts
17. Body locknuts
18. Yoke
19. Travel indicator plate
20. Position indicator locknuts
21. Position indicator
22. Diaphragm rod
23. "O" ring
24. Airtight
25. Yoke gasket
26. Lower diaphragm casing
27. Lower diaphragm casing internal bolts
28. Diaphragm spacer
29. Diaphragm
30. Diaphragm plate
31. Springs
32. Diaphragm bush
33. Diaphragm locknut
34. Diaphragm casing bolts
35. Upper diaphragm casing
36. Diaphragm casing locknuts

### MATERIALS

1. See note (1) at page 1
- AISI 316 stainless steel
- AISI 316 stainless steel
- AISI 304 stainless steel
- AISI 304 stainless steel
- AISI 316 stainless steel
- AISI 316 stainless steel
- AISI 304 stainless steel
- AISI 304 stainless steel
- AISI 316 stainless steel
- See notes (1)-(2) at page 1
- AISI 304 stainless steel
- Europil WS 3640 or PTFE
- AISI 302 stainless steel
- AISI 304 stainless steel
- See note (3) at page 1
- Viton FPM 70
- Viton FPM 70
- AISI 303 stainless steel
- Galvanized steel
- DIN 934 galvanized steel
- GGG50 spheroidal c. iron
- Policarbonate
- DIN 936 galvanized steel
- Aluminium
- AISI 303 stainless steel
- NBR
- NBR
- Cork – rubber
- P11 steel
- DIN 933 galvanized steel
- Galvanized steel
- EPDM 70
- P01 steel
- C98 UNI 3823
- AISI 303 stainless steel
- ISO 7380 galvanized steel
- DIN 934 galvanized steel
- P11 steel
- DIN 933 galvanized steel

## DIMENSIONS in mm.



DN	Ø	A	B	C - Bonnet			D	V	V1
				Std	Finned.	Bellows			
15	1/2"	130	70	49	181	181	147	166	11
20	3/4"	150	80	58	190	190	147	166	11
25	1"	160	85	68	200	200	147	166	11
32	1.1/4"	180	100	70	202	202	147	166	19
40	1.1/2"	200	105	82	214	214	160	166	19
50	2"	230	120	86	218	218	160	166	19
65	2.1/2"	290	130	111	309	309	160	166	28
80	3"	310	140	135	333	333	160	166	28
100	4"	350	150	160	363	363	204	166	28

Actuator.	E	Ø F
T200	70	210
T250	70	292
T310	95	336
T400	119	408
T500	119	520

Specifications given are only indicative and not binding for the manufacturer who reserve the right to carry-out any modification deemed necessary without prior notice.