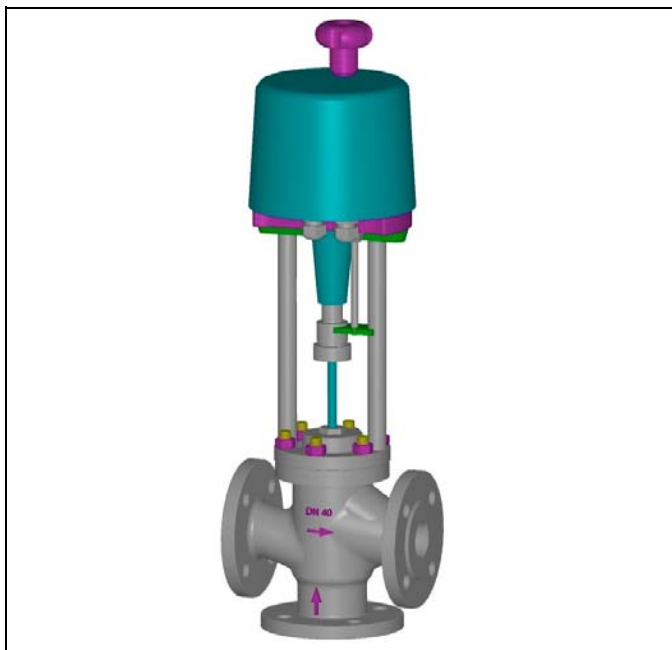


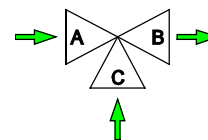
## THREE-WAY MIXING CONTROL VALVES



### TYPE 2600 EP

with tension opens and closes AB and CB

Face-to-face EN 558-1



### DESCRIPTION

The "UNIWORLD" series type 2600 EP are equipped with EN "straight-through" pattern bodies with EN flanges.

Type 2600 EP three-way mixing control valves (two inlet ports and one outlet port with fluid opens) have a modulating plug suitable for control of virtually all line media.

Compact construction assembled with "made in Germany" linear electric actuator fixed to the body by means of two steel columns.

The electric actuator works with standard 3 points modulating control signal or can be equipped with a potentiometer and with a pilot positioner having 0 (4) - 20 mA or 0 (2) - 10 V control signal.

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

**BODY CONNECTIONS :** flanged EN 1092-1 PN16 PN40

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

- **Cast iron EN-GJL-250 UNI EN 1561 PN 16**  
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **SG iron DIN 1693 EN-GJS400-18LT (GGG 40.3)**  
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **Carbon steel 1.0619 PN 16 ... PN 40**  
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **Stainless steel AISI 316 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 ELECTRIC ACTUATOR :

- Standard power supply : 220 V AC
- Degree of protection : IP 65 DIN 40050
- Control signal : 3 points modulating input
- Ambient temperature : -20 ... +60 °C
- Actuator case material : die cast aluminium
- Actuator cover material : polycarbonate
- Manual handwheel : standard included
- Electric connections : cable gland PG13 (2 off)

#### 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 :

- Lapping on seat and plug class V°
- Stellite (degree 6°) on seat and plug
- Stellite (degree 6°) on guide bush
- Power supply 24 V DC - 24 V AC - 110 V AC
- Potentiometer 1000 Ohm, simple or double
- Positioner 0 (4)-20 mA ... 0 (2)-10 V, 2 wires, c/w potentiometer
- Card with mechanical limit switches
- Card for 4-20 mA feedback signal (2 wires system)
- IP 67 DIN 40050 protection
- Heating resistor for ambient temperature up-to -30 °C

**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	99.6	116.2	162.4						
	KV	2.9	5.7	11.9	26.1	33.4	44.8	85.8	100.1	140						
Reduced bore *		n.a.	1/2"	1/2"	3/4"	3/4"	1"	1"	1.1/4"	1.1/2"	1.1/2"	2"	2"	2.1/2"	2.1/2"	3"

n.a. = not applicable

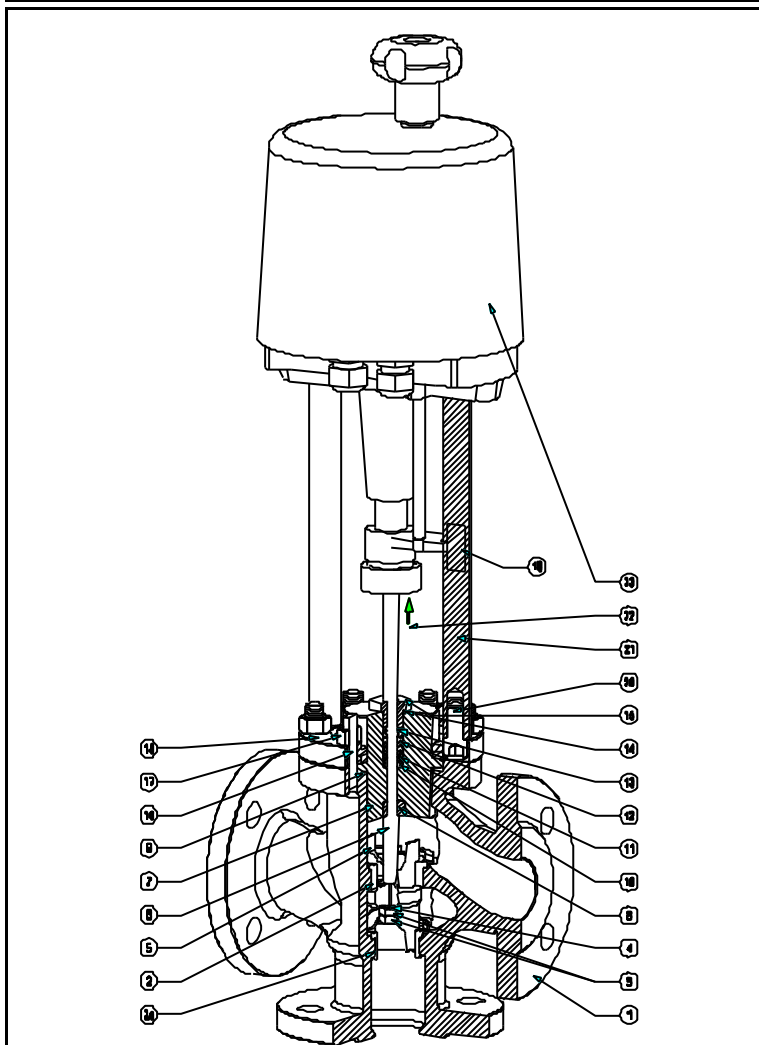
\* CV and KV values are referred to the selected diameter and plug type ( PL/LV only)

**Maximum permissible pressure drops in Kg/cm<sup>2</sup> (fluid opens) with alive motor  
Power and Current absorbed – Speed in second for total stroke in mm**

Actuator Type Power absorbed		NOMINAL DIAMETER								
		DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
PSL201 50/60 Hz 26 VA	Kg/cm <sup>2</sup>	50	31	18	12	8	4,5	-	-	-
	speed sec	44	44	44	76	76	76	-	-	-
	stroke mm	11	11	11	19	19	19	-	-	-
PSL202 50/60 Hz 37/40 VA	Kg/cm <sup>2</sup>	-	62	36	24	16	9	6	4	2,2
	speed sec	-	22	22	38	38	38	56	56	56
	stroke mm	-	11	11	19	19	19	28	28	28
PSL204 50/60 Hz 44/47 VA	Kg/cm <sup>2</sup>	-	-	85	55	38	22	13,5	9,5	5,2
	speed sec	-	-	22	38	38	38	56	56	56
	stroke mm	-	-	11	19	19	19	28	28	28
PSL210 50/60 Hz 72/68 VA	Kg/cm <sup>2</sup>	-	-	-	-	94	54	33,5	23,5	13
	speed sec	-	-	-	-	38	57	84	84	84
	stroke mm	-	-	-	-	19	19	28	28	28

- The values given are referred to the force of the actuator and they can be used within the limit of the body rating.
- Electric actuators suitable for operating force up-to 25 kN are available on request.

**COMPONENTS LIST and MATERIALS**

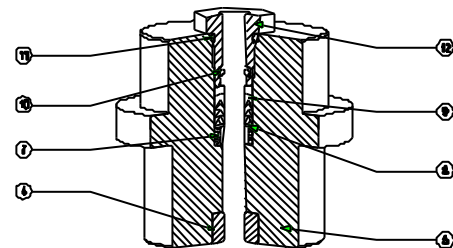


**COMPONENTS LIST**

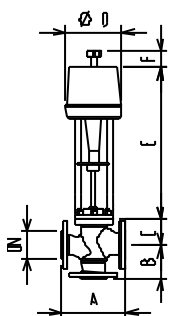
**MATERIALS**

- |                            |                                       |
|----------------------------|---------------------------------------|
| 1. Body                    | 1. See note (1) at page 1             |
| 2. Upper seat              | 2. AISI 316 stainless steel           |
| 2a. Lower seat             | 2a. AISI 316 stainless steel          |
| 3. Plug locknuts           | 3. AISI 304 stainless steel           |
| 4. Spring washer           | 4. AISI 304 stainless steel           |
| 5. Plug                    | 5. AISI 316 stainless steel           |
| 6. Stem                    | 6. AISI 316 stainless steel           |
| 7. Bonnet                  | 7. See notes (1)(2) at page 1         |
| 8. Guide bush              | 8. AISI 304 stainless steel           |
| 9. Body gasket             | 9. Europil WS 3640 or PTFE on request |
| 10. Packing spring         | 10. AISI 302 stainless steel          |
| 11. Packing washer         | 11. AISI 304 stainless steel          |
| 12. Packing rings          | 12. See note (3) at page 1            |
| 13. Internal "O" ring      | 13. Viton FPM 70                      |
| 14. External "O" ring      | 14. Viton FPM 70                      |
| 15. Packing adjusting nut  | 15. AISI 303 stainless steel          |
| 16. Stud-bolts             | 16. Galvanized steel                  |
| 17. Body locknuts          | 17. DIN 934 galvanized steel          |
| 18. Upper bonnet flange    | 18. C40 nickel plated steel           |
| 19. Travel indicator plate | 19. Polycarbonate                     |
| 20. Column fixing screws   | 20. DIN 912 galvanized steel          |
| 21. Actuator columns       | 21. AISI 430 stainless steel          |
| 22. Grub screw             | 22. DIN 914 galvanized steel          |
| 23. Electric actuator      | 23. See technical data at page 1      |

**BONNET DETAILS**



**DIMENSIONS in mm.**



**BODY GROUP**

DN	Ø	A	B	C - Bonnet		
				Std	Finned	Bellows
15	1/2"	130	70	49	129	181
20	3/4"	150	80	58	138	190
25	1"	160	85	68	148	200
32	1.1/4"	180	100	70	150	202
40	1.1/2"	200	105	82	162	214
50	2"	230	120	86	166	218
65	2.1/2"	290	130	111	211	309
80	3"	310	140	135	235	333
100	4"	350	150	160	260	363

**ACTUATOR**

PSL201 – PSL202 PSL204 – PSL 210		
Ø D	E	F
176	410	50
176	410	50
176	410	50
176	410	50
176	410	50
176	410	50
176	417	50
176	417	50
176	419	50

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.