

DOUBLE SEAT TWO WAY CONTROL VALVES



TYPE 5800 EP

with tension opens and closes

Face-to-face ASME / ANSI B16.10

DESCRIPTION

The "UNIWORLD" series type 5800 EP are equipped with "straight-through" pattern bodies having ANSI face-to-face dimensions and EN – ANSI – JIS flanges. 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 50 to DN 200

BODY CONNECTIONS : flanged EN 1092-1 PN16 ... PN40
flanged ANSI B 16.5 150 RF 300 RF
flanged JIS B2220 10K 20K

MATERIALS OF BODY GROUP (1) :

- **Cast iron EN-GJL-250 UNI EN 1561 PN 16 ANSI 150 JIS10**
(available from DN 125 to DN 200 only)
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **Carbon steel ASTM A216 WCB PN16/40 ANSI 150/300 JIS10/20**
AISI 316 st. st. trim - C40 nickel plated steel bonnet
- **Stainless steel AISI 316 CF8M PN16/40 ANSI 150/300 JIS10/20**
AISI 316 st. st. trim - AISI 316 st. st. bonnet

PLUG :

- **EQP** (DN50-100) **EQV** (DN125-200) = equal percentage class II°
- **PL** (DN50-200) = linear class II°
- **PT** (DN50-200) = quick lift class II°

BONNET (2) :

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

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 :

- Stellite (degree 6°) on seat and plug and guide bush
- Reduced bore (see below table)
- 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
- Top-work manual handwheel

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

PLUG Full bore	DN50	DN65	DN80	DN100	DN125	DN150	DN200	
	Ø 2"	Ø 2.1/2"	Ø 3"	Ø 4"	Ø 5"	Ø 6"	Ø 8"	
EQP	CV	58.5	81.1	122.5	215.4	301	440	770
	KV	50.4	69.9	105.6	185.7	259.4	379.3	663.7
PL	CV	58.5	98.9	149.9	234.2	366	527	937
	KV	50.4	85.3	129.2	201.9	315.5	454.3	807.7
PT	CV	58.5	98.9	149.9	234.2	366	527	937
	KV	50.4	85.3	129.2	201.9	315.5	454.3	807.7
Reduced bore *	n.a.	2"	2" 2.1/2"	2.1/2" 3"	3" 4"	4" 5"	5" 6"	

n.a. = not applicable

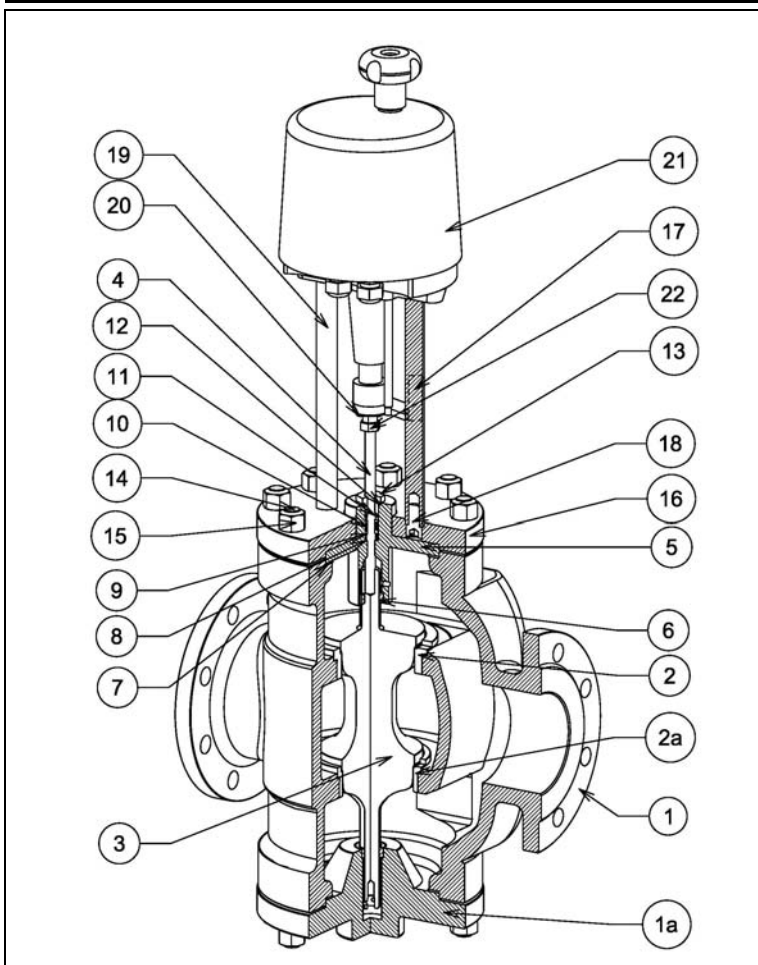
* CV and KV values are referred to the selected diameter and plug type (EQP/EQV–PL only)

**Maximum permissible pressure drops in Kg/cm² (fluid opens) with alive motor
Power and Current absorbed – Speed in second for total stroke in mm**

Actuator Type Power absorbed		NOMINAL DIAMETER						
		DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200
PSL201 50/60 Hz 26 VA	Kg/cm ²	27	-	-	-	-	-	-
	speed sec	76	-	-	-	-	-	-
	stroke mm	19	-	-	-	-	-	-
PSL202 50/60 Hz 37/40 VA	Kg/cm ²	51	32	26	12	-	-	-
	speed sec	38	56	56	56	-	-	-
	stroke mm	19	28	28	28	-	-	-
PSL204 50/60 Hz 44/47 VA	Kg/cm ²	116	73	60	24.5	-	-	-
	speed sec	38	56	56	56	-	-	-
	stroke mm	19	28	28	28	-	-	-
PSL210 50/60 Hz 72/68 VA	Kg/cm ²	258	162	133	54.5	-	-	-
	speed sec	57	84	84	84	-	-	-
	stroke mm	19	28	28	28	-	-	-
PSL214 50/60 Hz 88/73 VA	Kg/cm ²	-	-	-	-	91	78	63
	speed sec	-	-	-	-	84	84	84
	stroke mm	-	-	-	-	50	50	50

- 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

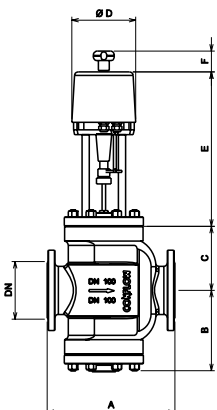


COMPONENTS LIST

MATERIALS

- | | |
|-----------------------------|---------------------------------------|
| 1. Body | 1. See note (1) at page 1 |
| 1a Bottom flange | 1a C40 carbon steel |
| 2. Upper seat | 2. AISI 316 stainless steel |
| 2a Lower seat | 2a AISI 316 stainless steel |
| 3. Plug | 3. AISI 316 stainless steel |
| 4. Stem | 4. AISI 316 stainless steel |
| 5. Bonnet | 5. See notes (1)(2) at page 1 |
| 6. Guide bush | 6. AISI 304 stainless steel |
| 7. Body gasket | 7. Europil WS 3640 or PTFE on request |
| 8. Packing spring | 8. AISI 302 stainless steel |
| 9. Packing washer | 9. AISI 304 stainless steel |
| 10. Packing rings | 10. See note (3) at page 1 |
| 11. Internal "O" ring | 11. Viton FPM 70 |
| 12. External "O" | 12. Viton FPM 70 |
| 13. Packing adjusting nut | 13. AISI 303 stainless steel |
| 14. Stud-bolts | 14. Galvanized steel |
| 15. Body locknuts | 15. DIN 934 galvanized steel |
| 16. Upper bonnet flange | 16. C40 nickel plated steel |
| 17. Travel indicator plate | 17. Polycarbonate |
| 18. Column fixing screws | 18. DIN 912 galvanized steel |
| 19. Actuator columns | 19. AISI 430 stainless steel |
| 20. Flange + locking screws | 20. A2 stainless steel |
| 21. Electric actuator | 21. See technical data at page 1 |
| 22. Stem nut | 22. DIN 936 galvanized steel |

DIMENSIONS in mm.



BODY GROUP

DN	Ø	A(1)	A(2)	B	C - Bonnet		
					Std	Finned	Bellows
50	2"	254	266	144	86	218	218
65	2.1/2"	276	292	184	111	309	309
80	3"	298	317	194	135	333	333
100	4"	352	368	224	160	363	363
125	5"	403	425	271	252	435	435
150	6"	450	472	297	258	442	442
200	8"	543	568	351	283	465	465

ACTUATOR

PSL201-202-204-210-214		
Ø D	E	F
176	410	50
176	417	50
176	417	50
176	419	50
176	430	50
176	430	50
176	430	50

A(1) cast iron = PN16 – ANSI150 – JIS10K
A(2) carbon and st. steel = PN16 – PN40 – ANSI150 – ANSI300 – JIS10K – JIS20K

Specifications given are only indicative and not binding for the manufacturer who reserve the right to carry-out any modifications deemed necessary without prior notice. **All data sheets by CONFLOW SpA, are available last update on our internet web site www.conflo.it.**