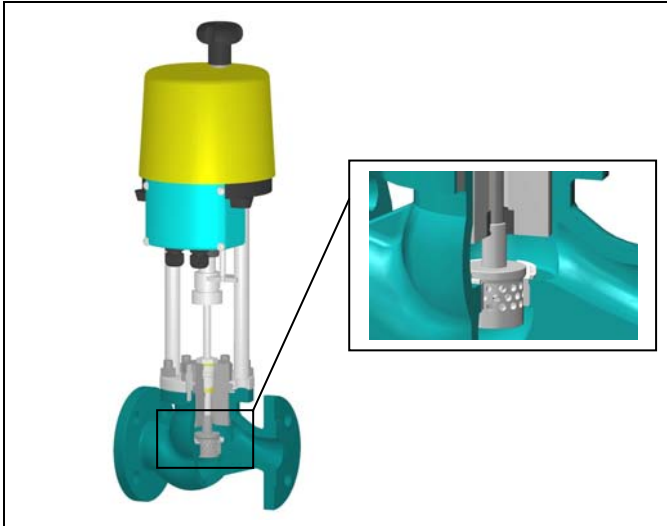


SINGLE SEAT TWO WAY CONTROL VALVES – LOW NOISE



TYPE 2200 EP / 2200 AMS

Simple Cage

With tension opens and closes

Face-to-face EN 558-1

DESCRIPTION

The "UNIWORLD" series type 2200 EP/2200 AMS are equipped with EN "straight-through" pattern bodies with EN flanges.

Modulating integral cage plug (low-noise) for control of virtually all line media.

Type 2200 EP is with linear actuator.

Type 2200 AMS is with SMART actuator.

Modulating plug is suitable for control of virtually all pipeline media.

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

Signals Type 2200 EP : 3 points modulating / 4-20 mA / 0-10 V

Signals Type 2200 AMS : 4-20 mA / 0-10 V

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 PN16 internal AISI 316
- Carbon steel 1.0619 PN 16 - PN 40 internal AISI 316
- St. Steel AISI 316 1.4408 PN 16 - PN 40 internal AISI 316 - bonnet st. steel AISI316

PLUGS :

- **SIMPLE CAGE** = linear class IV°
- **RANGEABILITY DN15/25** = 1/75
- **RANGEABILITY DN32/50** = 1/160

BONNET (2) :

- Standard for temperatures from -5 to + 200 °C
- Finned for temperatures > 200 °C
- Extended for temperatures < -5 °C
- Bellow sealed for thermal oil or hazardous media PN16 – 25 - 40 and safety gland arrangement

GLAND ARRANGEMENT (PACKING) (3) :

- PTFE 100% rings for temperatures ≤150 °C
- PTFE 85% + graphite 15% for temperatures ≤ 200 °C
- 100% pure graphite rings for temperatures from 200 to 400 °C with finned bonnet

MAX WORKING CONDITIONS :

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

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

TECHNICAL CHARACTERISTICS OF ELECTRIC ACTUATORS :

	2200 EP	2200 AMS
Std power supply	220 V AC	
Protection degree	IP65 EN 60529	
Control signal	3 points modulating	4-20 mA / 0-10 V
Ambient temp.	-20 / +60 °C	
Cover material	Polycarbonate	
Electric connections	2 x PG13	

2200EP	PSL201	PSL202	PSL204	PSL210
Power VA	25,9	37 / 40	44 / 47	51 / 53
Velocity mm/s	0,25	0,5	0,5	0,45

2200 AMS	PSL202AMS11	PSL204AMS11	PSL210AMS11
Power VA	30	30	30
Velocity mm/s	0,45 – 0,9	0,45 – 0,9	0,2 - 0,35

ON REQUEST :

	2200 EP	2200 AMS
Seal	PTFE/GR ≤190°C class VI°	
	PTFE ≤150°C class VI°	
Lapping	Seat – plug class V°	
Stellite	degree 6 on seat-plug and bush	
Reduced bores	(see table CV and KV)	
Power supply	24Vdc – 2VAC – 110 V AC	
Potentiometer	1000 Ohm 1 o 2	Included
Positioner	4-20 mA / 0-10 V	Included
Trasmitter	4-20 mA	Included
Protection degree	IP67	
Limit switches	2 x SPDT mechanical – silver contacts	
Wire and Software	Not applicable	Required

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

Plugs Full bore	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
	Ø 1/2"	Ø 3/4"	Ø 1"	Ø 1.1/4"	Ø 1.1/2"	Ø 2"
CV	3,13	5,11	9,68	16,77	24,15	40,82
KV	2,67	4,36	8,26	14,30	20,60	34,82
CV		(Ø 1/2") 3,13	(Ø 3/4") 5,11	(Ø 1") 9,68	(Ø 1.1/4") 16,77	(Ø 1.1/2") 24,15
KV		(Ø 1/2") 2,67	(Ø 3/4") 4,36	(Ø 1") 8,26	(Ø 1.1/4") 14,30	(Ø 1.1/2") 20,60
CV			(Ø 1/2") 3,13	(Ø 3/4") 5,11	(Ø 1") 9,68	(Ø 1.1/4") 16,77
KV			(Ø 1/2") 2,67	(Ø 3/4") 4,36	(Ø 1") 8,26	(Ø 1.1/4") 14,30
CV				(Ø 1/2") 3,13	(Ø 3/4") 5,11	(Ø 1") 9,68
KV				(Ø 1/2") 2,67	(Ø 3/4") 4,36	(Ø 1") 8,26
CV					(Ø 1/2") 3,13	(Ø 3/4") 5,11
KV					(Ø 1/2") 3,67	(Ø 3/4") 4,36
CV						(Ø 1/2") 3,13
KV						(Ø 1/2") 2,67

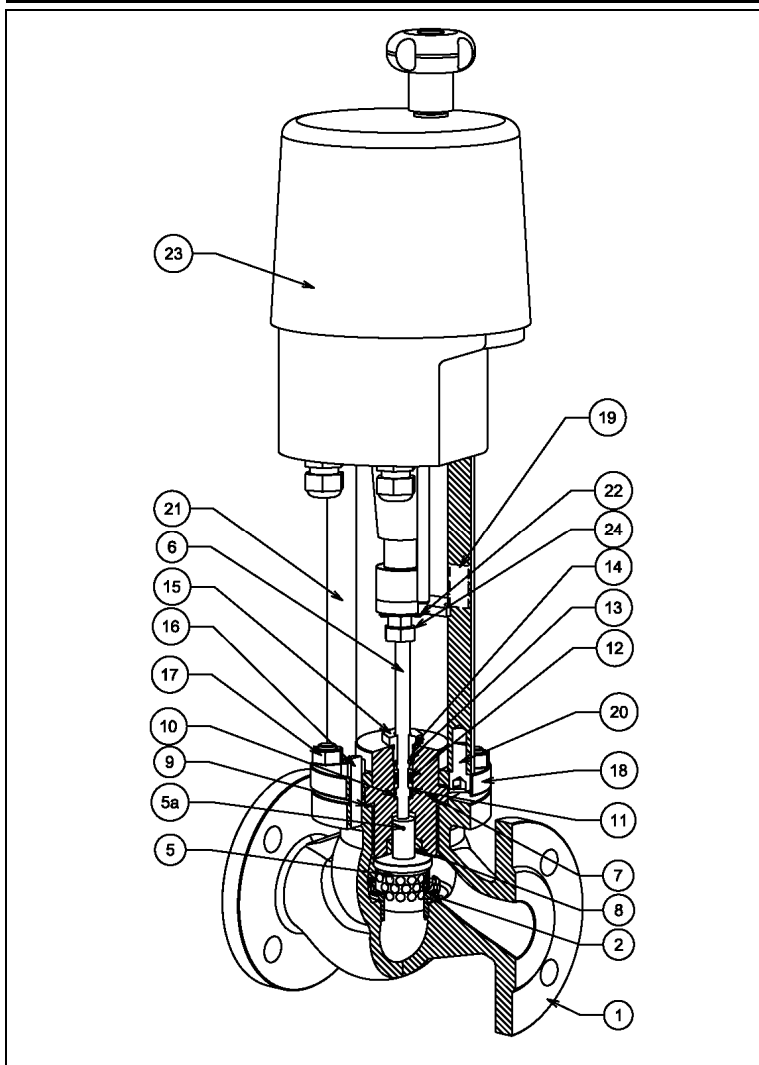
Microflow passage
From DN 15 to DN 25
(on request)

Maximum permissible pressure drops in Kg/cm² (fluid opens) with alive motor Speed in second for total stroke in mm

DN		15	20	25	32	40	50	
stroke mm			11			19		
EP	PSL201	Kg/cm ²	50	31,3	17,6	11,3	8	4,6
		Vel. sec	44	44	44	76	76	76
	PSL202	Kg/cm ²	n.a.	62,7	35,2	22,6	15,7	9,1
		Vel. sec	n.a.	22	22	38	38	38
	PSL204	Kg/cm ²	n.a.	n.a.	70,3	45,2	31,5	18,2
		Vel. sec	n.a.	n.a.	22	38	38	38
PSL210	Kg/cm ²	n.a.	n.a.	n.a.	n.a.	78,7	45,5	
	Vel. sec	n.a.	n.a.	n.a.	n.a.	38	57	
AMS	PSL202	Kg/cm ²	115	72	40	26	18	9,5
		Vel. sec	25 .. 12,5	25 .. 12,5	25 .. 12,5	42 .. 21	42 .. 21	42 .. 21
	PSL204	Kg/cm ²	n.a.	n.a.	n.a.	50	35	18,6
		Vel. sec	n.a.	n.a.	n.a.	42 .. 21	42 .. 21	42 .. 21
	PSL210	Kg/cm ²	n.a.	n.a.	n.a.	n.a.	78	45,5
		Vel. sec	n.a.	n.a.	n.a.	n.a.	95 .. 54	95 .. 54

- 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



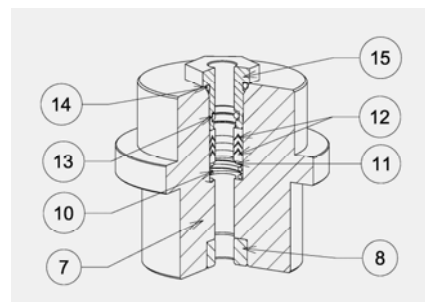
COMPONENTS LIST

- Body
- Seat
- Plug
- Pin
- Stem
- Bonnet
- Guide bush
- Body gasket
- Packing spring
- Packing washer
- Packing rings
- Internal "O" ring
- External "O" ring
- Packing adjusting nut
- Stud-bolts
- Body locknuts
- Upper bonnet flange
- Travel indicator plate
- N°2 Column fixing screws
- Actuator columns
- Flange + locking screws
- Electric actuator
- Stem nut

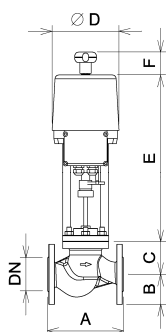
MATERIALS

- See note (1) I° pag.
- St. steel AISI 316
- St. steel AISI 316
- Carbon steel
- St. steel AISI 316
- See note (1) (2) I° pag.
- St. steel AISI 304
- Europil WS 3640 or PTFE
- St. steel AISI 302
- St. steel AISI 304
- See note (3) I° pag.
- Viton FPM 70
- Viton FPM 70
- St. steel AISI 303
- Galvanized steel
- Galv. steel DIN 934
- C40 nickel plated steel
- Polycarbonate
- Galv. steel DIN 912
- St. steel AISI 430
- St. steel AISI A2
- See technical data at page 1
- Galv. steel DIN 936

BONNET DETAIL



DIMENSIONS in mm.



BODY GROUP

DN	Ø	A	B	C - Bonnet		
				Std	Finned	Bellows
15	1/2"	130	47,5	49	181	181
20	3/4"	150	52,5	58	190	190
25	1"	160	57,5	68	200	200
32	1.1/4"	180	70	70	202	202
40	1.1/2"	200	75	82	214	214
50	2"	230	82,5	86	218	218
65	2.1/2"	290	92,5	111	309	309
80	3"	310	100	135	333	333
100	4"	350	118	160	363	363

ACTUATOR

PSL201 - PSL202 PSL204 - PSL210		
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