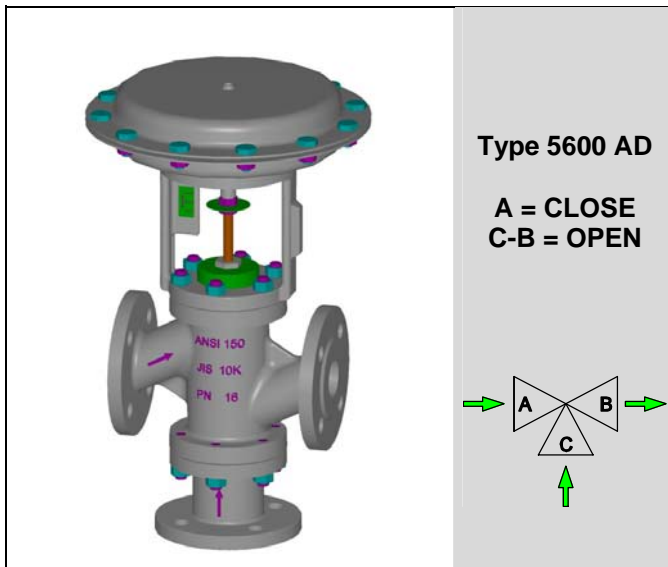


THREE-WAY MIXING CONTROL VALVES

PED 2014/68/UE / ATEX 2014/34/UE / MACHINERY DIRECTIVE 2006/42/CE



Type 5600 AD

A = CLOSE
C-B = OPEN

TYPE 5600 AD DN 15/100

Normally closed port "A" on air failure

Face-to-face ASME / ANSI B16.10

DESCRIPTION

The "UNIWORLD" series type 5600 AD are equipped with "straight-through" pattern bodies having ANSI face-to-face dimensions and EN – ANSI – JIS flanges.

Type 5600 AD 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 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 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 JIS 10
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

- 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)

| PLUG | Full bore | DN15 | DN 20 | DN25 | DN32 | DN40 | DN50 | DN65 | DN80 | DN100 | | | |
|----------------|-----------|--------|--------|------|----------|----------|--------|----------|-------|-------|--------|--------|----|
| | | 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" | 3/4" | 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)

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 *see on request
- Actuator casings material : Fe P11 carbon steel
- Diaphragm material : EPDM 70
- Yoke material : EN-GJS500-7 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
- Lubrificator on finned bonnet for temperatures ≥ 250 °C
- Top-work manual handwheel
- ATEX 94/9/CE dedicated configuration according to the fluid
- Kit diaphragm and actuator seals certified for a.t. ≥ - 50 °C

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

CONFLOW s.p.a.

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

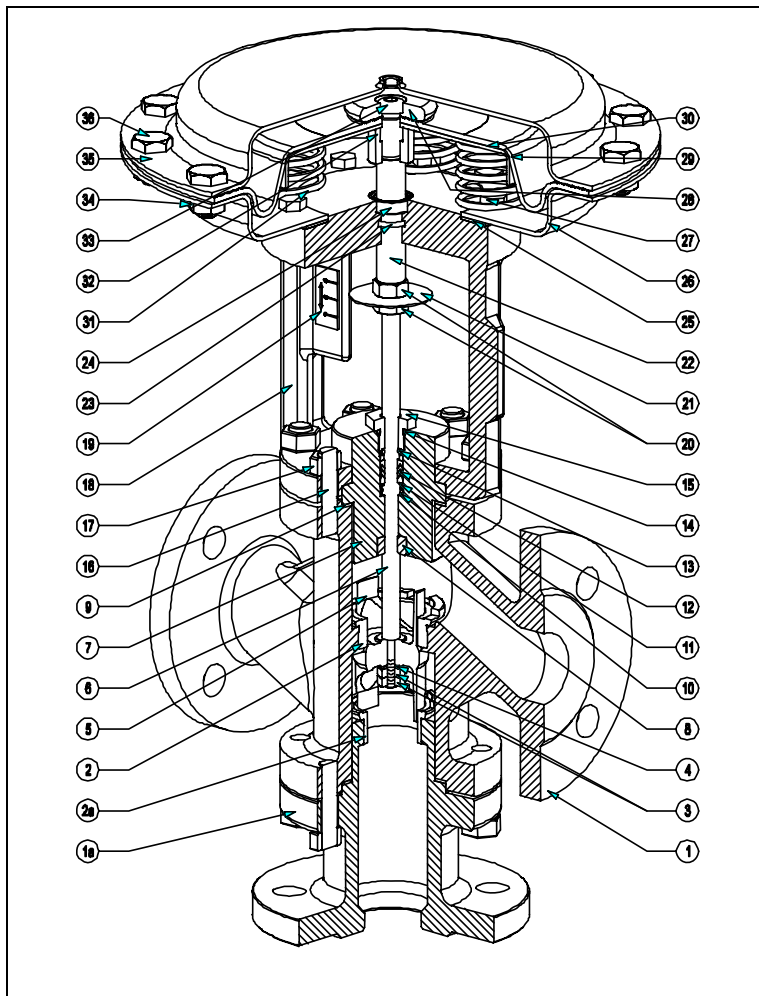
Via Lecco, 69/71
20864 AGRATE BRIANZA (MB)
Tel. 039/651.705 - 650.397
Fax 039/654.018
www.conflow.it

**Maximum permissible pressure drops in Kg/cm2 (fluid opens)
Strokes in mm – Signals in psi**

| Actuator type | Signal psi | DN15 | DN20 | DN25 | DN32 | DN40 | DN50 | DN65 | DN80 | DN100 |
|---------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | 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 | 5.2 | - | - | - | - | - |
| | 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



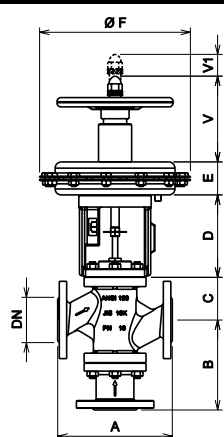
COMPONENTS LIST

1. Body
- 1a. Stud pipe
2. Upper seat
- 2a. Lower seat
3. Plug locknuts
4. Spring washer
5. Plug
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
- 1a. C40 carbon steel
2. AISI 316 stainless steel
- 2a. AISI 316 stainless steel
3. AISI 304 stainless steel
4. AISI 304 stainless steel
5. AISI 316 stainless steel
6. AISI 316 stainless steel
7. See note (1)-(2) at page 1
8. AISI 304 stainless steel
9. Europil WS 3640 or PTFE
10. AISI 302 stainless steel
11. AISI 304 stainless steel
12. See note (3) at page 1
13. Viton FPM 70
14. Viton FPM 70
15. AISI 303 stainless steel
16. Galvanized steel
17. DIN 934 galvanized steel
18. GGG50 spheroidal c. iron
19. Polycarbonate
20. DIN 936 galvanized steel
21. Aluminium
22. AISI 303 stainless steel
23. NBR
24. NBR
25. Cork – rubber
26. P11 steel
27. DIN 933 galvanized steel
28. Galvanized steel
29. EPDM 70
30. P01 steel
31. C98 UNI 3823
32. AISI 303 stainless steel
33. ISO 7380 galvanized steel
34. DIN 934 galvanized steel
35. P11 steel
36. DIN 933 galvanized steel

DIMENSIONS in mm.



| DN | Ø | A(1) | A(2) | B | C - Bonnet | | | D | V | V1 |
|-----|---------|------|------|-----|------------|--------|---------|-----|-----|----|
| | | | | | Std | Finned | Bellows | | | |
| 15 | 1/2 " | 184 | 190 | 132 | 49 | 181 | 181 | 147 | 166 | 11 |
| 20 | 3/4 " | 184 | 194 | 134 | 58 | 190 | 190 | 147 | 166 | 11 |
| 25 | 1 " | 184 | 197 | 135 | 68 | 200 | 200 | 147 | 166 | 11 |
| 32 | 1.1/4 " | 200 | 212 | 134 | 70 | 202 | 202 | 147 | 166 | 19 |
| 40 | 1.1/2 " | 222 | 235 | 165 | 82 | 214 | 214 | 160 | 166 | 19 |
| 50 | 2 " | 254 | 267 | 185 | 86 | 218 | 218 | 160 | 166 | 19 |
| 65 | 2.1/2 " | 276 | 292 | 220 | 111 | 309 | 309 | 160 | 166 | 28 |
| 80 | 3 " | 298 | 317 | 222 | 135 | 333 | 333 | 160 | 166 | 28 |
| 100 | 4 " | 352 | 368 | 241 | 160 | 363 | 363 | 204 | 166 | 28 |

| Actuator | E | Ø F |
|----------|-----|-----|
| 200 | 70 | 210 |
| 250 | 70 | 292 |
| 310 | 95 | 336 |
| 400 | 119 | 408 |
| 500 | 119 | 520 |

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.