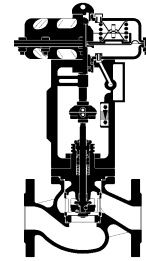


Technical Data Sheet ECOTROL® Control Valve



TD_8C

General Data

| | |
|---|---|
| Series | 8C |
| Nominal size DN / NPS | 15 - 100 / ½" - 4" |
| Nominal pressure PN / ANSI | 16 - 63 / Class 150 - 600 |
| Characteristic | equal percentage or linear |
| Rangeability | 50:1 |
| Plug guide | stem guided option: integrated double guiding (retrofitable) for DN40 - DN100 (1½" - 4") ¹⁾ |
| Seat leakage | metal sealing: IEC 60534-4 leakage class IV (0.01% Kvs value); option: leakage class V as well as soft sealing: IEC 60534-4 leakage class VI |
| Bellows seal (optional) | seamless, double walled, made of 1.4571; option: Hastelloy® and other materials |
| Heating jacket (optional) | connections: flanges DN 15 PN 40 (1/2" ANSI 150/300) |
| Low-temperature version (optional) | down to -196°C, with cover flange if required |

Materials

| | EN | for temperatures | ASTM | for temperatures |
|------------------------|---|------------------------------|---------------------------|----------------------------------|
| Body material | 1.0619 GP240GH | -10 to 400°C | A 216 WCB | -29°C to 425°C |
| | 1.4408 G-X 5 CrNiMo 19 11 2 | -10 to 400°C | A 351 CF8M | -29°C to 400°C |
| | 1.4408 G-X 5 CrNiMo 19 11 2 | -196 to 400°C | A 351 CF8M | -196°C to 400°C |
| | 1.6220 G20Mn5 | -50 to 345°C | A 352 LCC | -46°C to 345°C |
| | 1.7357 G17CrMo5-5 | -10 to 530°C | A 217 WC6 | -29°C to 530°C |
| Bonnet material | ≤ DN 65 (2") 1.4408 but for body material 1.7357: 1.7335 | -10 to 400°C -10 to 530°C | A 351 CF8M A182F12Cl.3 | -29°C to 400°C -29°C to 530°C |
| | ≥ DN 80 (3") same material as body, but for body materials 1.0619/A216WCB, 1.6220 /A352LCC and 1.7357/A217WC6 c/w stuffing box sleeve made of 1.4571 (AISI 316TI) | | | |

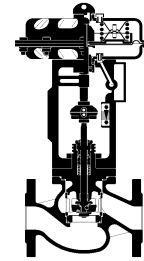
Valve trim materials

| Material no. | Parabolic plug P1 | Double-guided parabolic plug P1 ¹⁾ | Perforated plug L1 | Seat | Seat seal | Max. medium temperature |
|--------------|-------------------|---|--------------------|-----------------|-----------|-------------------------|
| 1 | 1.4571 | 1.4571 | - | 1.4571 | metal | same as stem seal |
| 2 | - | - | 1.4571 | 1.4571 nitrided | metal | same as stem seal |
| 3 | 1.4112 hardened | 1.4112 hardened | 1.4112 hardened | 1.4112 hardened | metal | same as stem seal |
| 4 | 1.4571 | - | - | 1.4571 | PTFE/FKM | -20 ~ 180°C |
| 5 | 1.4571 | - | - | 1.4571 | PTFE/EPDM | -29 ~ 140°C |
| 6 | 1.4571 | - | - | 1.4571 | PTFE | -196 ~ 180°C |

1) only as of nominal size ≥ DN40 (1 1/2") with KVs ≥ 25 (Cvs ≥ 29)



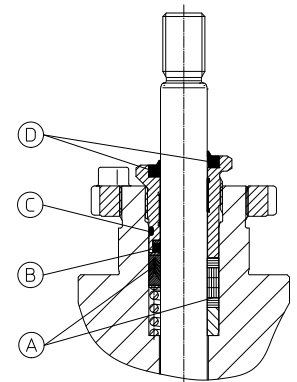
Technical Data Sheet ECOTROL® Control Valve



TD_8C

Stem sealing

| Seal type | Seal (pos. A) | Profile ring (pos. B) | O-ring (pos. C) | Wiper ring (pos. D) | Allowed medium temperature (pressure) | Bonnet flange (DEK) | Comments |
|--|-----------------------------|-----------------------|-----------------|---------------------|---------------------------------------|--------------------------------|---------------------------------------|
| maintenance-free double seal | PTFE V-ring | EPDM | EPDM | NBR | -29 ~ 180°C (≤ PN 63) | 1: standard | preloaded with stainless steel spring |
| maintenance-free double seal | PTFE V-ring | FKM | FKM | NBR | -20 ~ 200°C (≤ PN 63) | 1: standard | preloaded with stainless steel spring |
| adjustable | PTFE braided | - | - | NBR | -196 ~ 250°C | 1: standard 3: cooling fins | manual adjustable |
| adjustable | reinforced graphite/Inconel | - | - | NBR | -29 ~ 400°C | 1: standard 3: cooling fins | manual adjustable |
| adjustable | pure graphite | - | - | NBR | -29 ~ 530°C | 1: standard 3: cooling fins | manual adjustable |
| maintenance free double seal | PTFE V-ring | EPDM | EPDM | NBR | -196 ~ 200°C (≤ PN 63) | 5: insulating column | low temperature |
| bellow sealing made of 1.4571 or Hastelloy C | PTFE V-ring | EPDM (FKM) | EPDM (FKM) | NBR | -100~200°C | 4: bellows | preloaded with stainless steel spring |

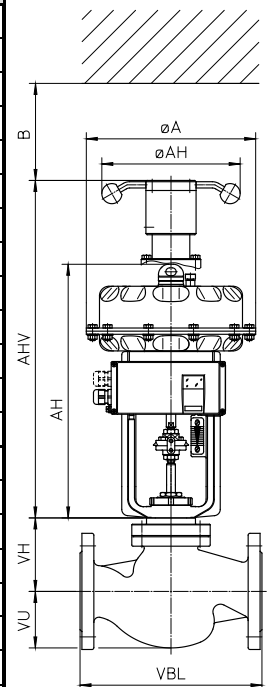


Weight and dimensions

ECOTROL® globe valve with multi-spring actuator type 812 ARCAPAQ®

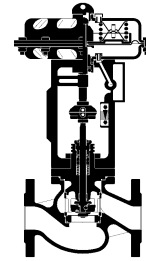
Dimensions (in mm) of valves with flanges acc. to DIN EN 1092-1 resp. ANSI Class 150/300/600 RF/RTJ

| | | DN ANSI NPS | 15 1/2" | 20 - | 25 1" | 32 - | 40 1 1/2" | 50 2" | 65 - | 80 3" | 100 4" |
|------------------------|-------------------|----------------|------------|---------|----------|---------|---------------------|----------|---------|----------|-----------|
| Valve Type 8C | VBL PN16-PN40 | | 130 | 150 | 160 | 180 | 200 | 230 | 290 | 310 | 350 |
| | VBL PN63 | | 210 | 230 | 230 | 260 | 260 | 300 | 340 | 380 | 430 |
| | VBL Class 150 RF | | 184 | - | 184 | - | 222 | 254 | - | 298 | 352 |
| | VBL Class 150 RTJ | | - | - | 197 | - | 235 | 267 | - | 311 | 365 |
| | VBL Class 300 RF | | 190 | - | 197 | - | 235 | 267 | - | 317 | 368 |
| | VBL Class 300 RTJ | | 201 | - | 210 | - | 248 | 283 | - | 333 | 384 |
| | VBL Class 600 RF | | 203 | - | 210 | - | 251 | 286 | - | 337 | 394 |
| | VBL Class 600 RTJ | | 201 | - | 210 | - | 251 | 289 | - | 340 | 397 |
| VH | DEK1/7 | | 115 | | | | DEK1=115 / DEK7=135 | | | 156 | 181 |
| | DEK3/8 | | 170 | | | | | | | 263 | 267 |
| | DEK4 | | 228 | | | | 233 | | | 390 | 390 |
| | DEK5 | | on request | | | | | | | | |
| VU | | | 44 | 51 | 56 | 65 | 74 | 75 | 90 | 101 | 136 |
| Actuator Type 812 | ØA | MFI | 270 | | | | | | | | |
| | | MFIII | | | | | | | 400 | | |
| | AH | MFI | 361 | | | | | | 404 | | |
| | | MFI(v) | | | | | 381 | | | | |
| | | MFIII | | | | | | | 489 | | |
| | | MFIII(v) | | | | | | | | | 551 |
| | AHV | MFI | 508 | | | | | | 551 | | |
| | | MFI(v) | | | | | 528 | | | | |
| | | MFIII | | | | | | | 651 | | |
| | | MFIII(v) | | | | | | | | | 814 |
| Weight * approx. kg | MFI | 21 | 22.5 | 25 | 27 | 33 | 35 | 37 | 75 | 100 | |
| | MFIII | | | | | | | 101 | | 126 | |
| B | | | 150 | | | | | | 200 | | |



* Weight: valve (with DEK1) + actuator without handwheel

Technical Data Sheet ECOTROL® Control Valve



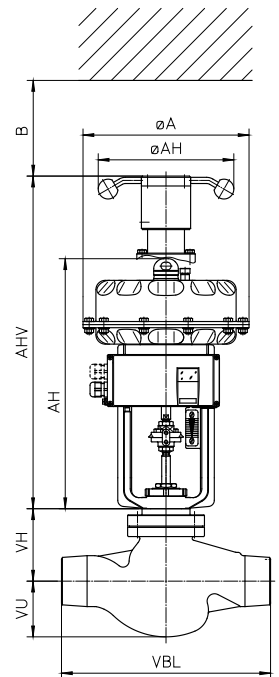
TD_8C

Weight and dimensions

ECOTROL® globe valve with multi-spring actuator type 812 ARCAPAQ®

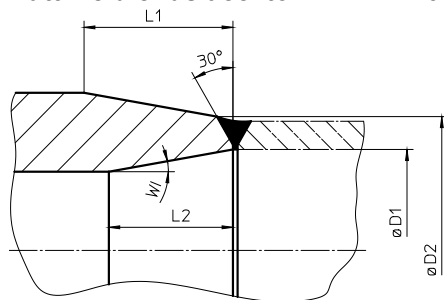
Dimensions (in mm) of valves with butt-weld ends (SE) and butt-weld ends with spool pieces (VE)

| | | DN ANSI NPS | 15 1/2" | 20 - | 25 1" | 32 - | 40 1 1/2" | 50 2" | 65 - | 80 3" | 100 4" | |
|----------------------|--------------------------|----------------|------------|---------|----------|---------|--------------|----------|---------|----------|-----------|--|
| Valve Type 8C | VBL PN16-PN63 SE | | 250 | - | 250 | 250 | 300 | 300 | 340 | 380 | 430 | |
| | VBL PN16-PN63 VE | | 350 | 350 | 350 | 350 | 400 | 400 | 500 | 500 | 600 | |
| | VBL Class 150/300/600 SE | | 250 | - | 250 | - | 300 | 292 | 330 | 356 | 432 | |
| | VBL Class 150/300/600 VE | | 350 | 350 | 350 | 350 | 400 | 400 | 500 | 500 | 600 | |
| | VH | DEK1/7 | | 115 | | | | | | 156 | 181 | |
| | | DEK3/8 | | 170 | | | | | | 263 | 267 | |
| DEK4 | | | 228 | | | | 233 | | 390 | 390 | | |
| DEK5 | | | on request | | | | | | | | | |
| VU | | | 44 | 51 | 56 | 65 | 74 | 75 | 90 | 101 | 136 | |
| Actuator Type 812 | ØA | MFI | 270 | | | | | | | | | |
| | | MFIII | | | | | | | | | 400 | |
| | AH | MFI | 361 | | | | | | 404 | | | |
| | | MFI(v) | | | | | 381 | | | | | |
| | | MFIII | | | | | 489 | | | | | |
| | AHV | MFIII(v) | | | | | | | | | 551 | |
| | | MFI | 508 | | | | | | 551 | | | |
| | | MFI(v) | | | | | 528 | | | | | |
| | | MFIII | | | | | 651 | | | | | |
| | Weight * approx. kg | MFI | 21 | 22.5 | 25 | 27 | 33 | 35 | 37 | 75 | 100 | |
| MFIII | | | | | | | | | | 101 | 126 | |
| B | | | | | | | | | | 150 | 200 | |



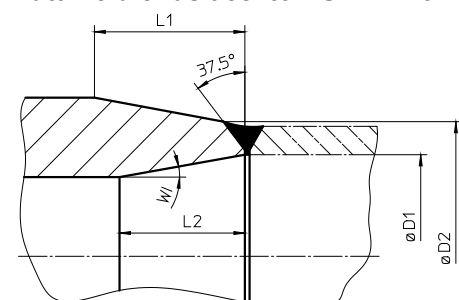
* Weight: valve (with DEK1) + actuator without handwheel

Butt-weld ends acc. to DIN EN 12627



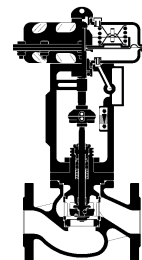
| DN | PN | Pipe AD | ØD1 | ØD2 | L1 | WA | L2 | WI |
|-----|----|---------|-------|------|----|----|-------|------|
| 15 | 40 | 21,3 | 17,3 | 22 | 48 | 0° | >33,6 | 1,9° |
| | 63 | 21,3 | 17,3 | 22 | 48 | 0° | >33,6 | 1,9° |
| 25 | 40 | 33,7 | 28,5 | 35 | 48 | 0° | >33,6 | 2,9° |
| | 63 | 33,7 | 28,5 | 35 | 48 | 0° | >33,6 | 2,9° |
| 40 | 40 | 48,3 | 43,1 | 50 | 50 | 0° | >33,6 | 2,5° |
| | 63 | 48,3 | 42,5 | 50 | 50 | 0° | >33,6 | 2° |
| 50 | 40 | 60,3 | 54,5 | 61,5 | 50 | 5° | >33,6 | 3,5° |
| | 63 | 60,3 | 53,9 | 61,5 | 50 | 5° | >33,6 | 3° |
| 80 | 40 | 88,9 | 82,5 | 91 | 49 | 8° | >33,6 | 2° |
| | 63 | 88,9 | 80,9 | 91 | 49 | 8° | >33,6 | 0,7° |
| 100 | 40 | 114,3 | 107,1 | 116 | 48 | 5° | >33,6 | 5° |
| | 63 | 114,3 | 105,3 | 116 | 48 | 5° | >33,6 | 4° |

Butt-weld ends acc. to ASME B16.25



| NPS | Class | Pipe AD | D1 | D2 | L1 | WA | L2 | WI |
|-------|-------|---------|--------|------|------|----|-------|------|
| 1/2 | 300 | 21,3 | 15,76 | 22 | 48 | 0° | >33,6 | 0,6° |
| | 600 | 21,3 | 13,84 | 22 | 48 | 0° | >33,6 | 0° |
| 1 | 300 | 33,7 | 26,94 | 35 | 48 | 0° | >33,6 | 1,5° |
| | 600 | 33,7 | 24,6 | 35 | 48 | 0° | >33,6 | 0° |
| 1 1/2 | 300 | 48,3 | 40,94 | 50 | 50 | 0° | >33,6 | 0,7° |
| | 600 | 48,3 | 38,14 | 50 | 50 | 0° | >33,6 | 0° |
| 2 | 300 | 60,3 | 52,48 | 61,5 | 48 | 5° | >33,6 | 2° |
| | 600 | 60,3 | 49,22 | 61,5 | 48 | 5° | >33,6 | 0° |
| 3 | 300 | 88,9 | 77,92 | 91 | 48 | 8° | >33,6 | 3° |
| | 600 | 88,9 | 73,66 | 91 | 48 | 8° | >33,6 | 0° |
| 4 | 300 | 114,3 | 102,26 | 116 | 51,8 | 5° | >33,6 | 1,8° |
| | 600 | 114,3 | 97,18 | 116 | 51,8 | 5° | >33,6 | 0° |

Technical Data Sheet ECOTROL® Control Valve



TD_8C

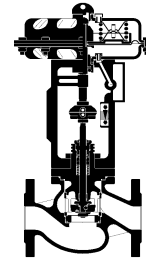
Max. shut off differential pressure in bar

| ECOTROL® 8C PN16 - PN63 as well as ANSI Class 150 - 600 Valid for valves w/o pressure balancing c/w PTFE-packing and for leakage class IV Flow to open (FTO) (at p ₂ = 0 bar g) | | | | | | | | | | | | | | | | | | | |
|---|----------------|--|------|------|--------|-----|-------|------|----------------|---|------|------|-----|---|------|------|------|------|-----|
| Actuator series 812 | | | | | | | | | | Air to open/ Spring to close No. of springs | | | | Air to close/ Spring to open No. of springs | | | | | |
| | | | | | | | | | | 3 | 6 | 9 | 12 | 3 | 3 | 3 | 6 | 6 | |
| DN | Stroke (mm) | Actuator size | P1 | | L1 lin | | L1 =% | | Seat-Ø (mm) | Min. air supply (bar) | | | | | | | | | |
| | | | Kv | Cv | Kv | Cv | Kv | Cv | | bar | bar | bar | bar | 3,0 | 4,5 | 6,0 | 4,5 | 6,0 | |
| 15 1/2" | 20 | MFI-20 (320 cm ²) 812-213.. | 4,0 | 4,6 | 2,5 | 2,9 | 2,5 | 2,9 | 16 | 80,9 | 100 | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | 1,6 | 1,9 | - | - | - | - | 10 | 100 | 100 | - | - | 100 | 100 | - | 100 | 100 | 100 |
| | | | 0,63 | 0,73 | - | - | - | - | 5 | 100 | - | - | - | - | 100 | - | - | 100 | 100 |
| 20 | 20 | MFI-20 (320 cm ²) 812-213.. | 4,0 | 4,6 | 2,5 | 2,9 | 2,5 | 2,9 | 16 | 80,9 | 100 | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| | | | 1,6 | 1,9 | - | - | - | - | 10 | 100 | 100 | - | - | 100 | 100 | - | 100 | 100 | 100 |
| | | | 0,63 | 0,73 | - | - | - | - | 5 | 100 | - | - | - | - | 100 | - | - | 100 | 100 |
| 25 1" | 20 | MFI-20 (320 cm ²) 812-213.. | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 30,2 | 76,6 | - | - | 76,6 | 100 | 100 | 76,6 | 100 | |
| | | | 4,0 | 4,6 | 2,5 | 2,9 | 2,5 | 2,9 | 16 | 80,9 | 100 | - | - | 100 | 100 | 100 | 100 | 100 | |
| | | | 1,6 | 1,9 | - | - | - | - | 10 | 100 | 100 | - | - | 100 | 100 | - | 100 | 100 | |
| 32 | 20 | MFI-20 (320 cm ²) 812-213.. | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 30,2 | 76,6 | - | - | 76,6 | 100 | 100 | 76,6 | 100 | |
| | | | 4,0 | 4,6 | 2,5 | 2,9 | 2,5 | 2,9 | 16 | 80,9 | 100 | - | - | 100 | 100 | 100 | 100 | 100 | |
| | | | 1,6 | 1,9 | - | - | - | - | 10 | 100 | 100 | - | - | 100 | 100 | - | 100 | 100 | |
| 40 1 1/2" | 20 | MFI-20 (320 cm ²) 812-223.. | 25 | 29 | 25 | 29 | 18 | 21 | 37 | 12,0 | 33,2 | - | - | 33,2 | 75,6 | 100 | 33,2 | 75,6 | |
| | | | 16 | 19 | 12 | 14 | 10 | 11,6 | 30 | 19,8 | 52,1 | - | - | 52,1 | 100 | 100 | 52,1 | 100 | |
| | | | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 30,2 | 76,6 | - | - | 76,6 | 100 | 100 | 76,6 | 100 | |
| 40 1 1/2" | 20 | MFI-20(v) (320 cm ²) 812-224.. | 25 | 29 | 25 | 29 | 18 | 21 | 37 | 19,0 | 47,3 | - | - | 33,2 | 75,6 | 100 | 33,2 | 75,6 | |
| | | | 16 | 19 | 12 | 14 | 10 | 11,6 | 30 | 30,6 | 73,6 | - | - | 52,1 | 100 | 100 | 52,1 | 100 | |
| | | | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 45,7 | 100 | - | - | 76,6 | 100 | 100 | 76,6 | 100 | |
| 40 1 1/2" | 20 | MFIII-30 (720 cm ²) 812-334.. | 25 | 29 | 25 | 29 | 18 | 21 | 37 | 54,4 | 100 | 100 | - | 86,2 | 100 | 100 | 86,2 | 100 | |
| | | | 16 | 19 | 12 | 14 | 10 | 11,6 | 30 | 84,3 | 100 | - | - | 100 | 100 | - | 100 | 100 | |
| | | | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 100 | - | - | - | 100 | - | - | 100 | 100 | |
| 50 2" 65 | 20 | MFI-20 (320 cm ²) 812-223.. | 40 | 46 | 35 | 41 | 20 | 23 | 48 | 6,1 | 18,7 | - | - | 18,7 | 43,9 | 69,1 | 18,7 | 43,9 | |
| | | | 25 | 29 | 25 | 29 | 18 | 21 | 37 | 12,0 | 33,2 | - | - | 33,2 | 75,6 | 100 | 33,2 | 75,6 | |
| | | | 16 | 19 | 12 | 14 | 10 | 11,6 | 30 | 19,8 | 52,1 | - | - | 52,1 | 100 | 100 | 52,1 | 100 | |
| | | | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 30,2 | 76,6 | - | - | 76,6 | 100 | 100 | 76,6 | 100 | |
| | | MFI-20(v) (320 cm ²) 812-224.. | 40 | 46 | 35 | 41 | 20 | 23 | 48 | 10,3 | 27,1 | - | - | 18,7 | 43,9 | 69,1 | 18,7 | 43,9 | |
| | | | 25 | 29 | 25 | 29 | 18 | 21 | 37 | 19,0 | 47,3 | - | - | 33,2 | 75,6 | 100 | 33,2 | 75,6 | |
| | | | 16 | 19 | 12 | 14 | 10 | 11,6 | 30 | 30,6 | 73,6 | - | - | 52,1 | 100 | 100 | 52,1 | 100 | |
| | | | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 45,7 | 100 | - | - | 76,6 | 100 | 100 | 76,6 | 100 | |
| | | MFIII-30 (720 cm ²) 812-334.. | 40 | 46 | 35 | 41 | 20 | 23 | 48 | 30,2 | 69,1 | 85,8 | 100 | 50,2 | 100 | 100 | 50,2 | 100 | |
| | | | 25 | 29 | 25 | 29 | 18 | 21 | 37 | 52,5 | 100 | 100 | - | 86,2 | 100 | 100 | 86,2 | 100 | |
| | | | 16 | 19 | 12 | 14 | 10 | 11,6 | 30 | 81,4 | 100 | - | - | 100 | 100 | - | 100 | 100 | |
| | | | 10 | 11,6 | 8,0 | 9,3 | 7,5 | 8,7 | 25 | 100 | - | - | - | 100 | - | - | 100 | 100 | |

Please pay attention to the pressure / temperature rating of the valve body!

For other valve/packing versions, refer to ARCA-VENA valve sizing.

Technical Data Sheet ECOTROL® Control Valve



TD_8C

ECOTROL® 8C PN16 - PN63 as well as ANSI Class 150 - 600

Valid for valves **w/o pressure balancing** c/w PTFE-packing and for leakage class IV

Flow to open (FTO) (at p₂ = 0 bar g)

| Actuator series 812 | | | | | | | | | | Air to open/ Spring to close No. of springs | | | | Air to close/ Spring to open No. of springs | | | | | | |
|---------------------|----------------|--|-----|-----|--------|-----|-------|-----|----------------|---|------|------|------|---|------|------|------|------|------|------|
| | | | | | | | | | | 3 | 6 | 9 | 12 | 3 | 3 | 3 | 6 | 6 | | |
| DN | Stroke (mm) | Actuator size | P1 | | L1 lin | | L1 =% | | Seat-Ø (mm) | Min. air supply (bar) | | | | | | | | | | |
| | | | Kv | Cv | Kv | Cv | Kv | Cv | | bar | bar | bar | bar | 3,0 | 4,5 | 6,0 | 4,5 | 6,0 | | |
| 80 3" | 30 | MFI-30 (320 cm ²) 812-234.. | 100 | 116 | 80 | 93 | 70 | 83 | 80 | - | 5,5 | - | - | 5,5 | 14,5 | 23,6 | 5,5 | 14,5 | | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 62 | 2,6 | 10,1 | - | - | 10,1 | 25,2 | 40,3 | 10,1 | 25,2 | | |
| | | | 40 | 46 | 40 | 46 | 20 | 23 | 48 | 5,6 | 18,2 | - | - | 18,2 | 43,4 | 68,6 | 18,2 | 43,4 | | |
| | | MFIII-30 (720 cm ²) 812-334.. | 100 | 116 | 80 | 93 | 70 | 83 | 80 | 5,9 | 15,5 | 21,0 | 26,6 | 16,8 | 37,2 | 57,6 | 16,8 | 37,2 | | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 62 | 10,9 | 26,7 | 35,9 | 45,3 | 29,0 | 63,0 | 97,0 | 29,0 | 63,0 | | |
| | | | 40 | 46 | 40 | 46 | 20 | 23 | 48 | 19,4 | 45,9 | 61,2 | 76,9 | 49,7 | 100 | 100 | 49,7 | 100 | | |
| | | MFIII-30(v) (720 cm ²) 812-336.. | 100 | 116 | 80 | 93 | 70 | 83 | 80 | 11,4 | 26,3 | 33,1 | 40,0 | 16,8 | 37,2 | 57,6 | 16,8 | 37,2 | | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 62 | 16,2 | 37,3 | 56,2 | 67,5 | 29,0 | 63,0 | 97,0 | 29,0 | 63,0 | | |
| | | | 40 | 46 | 40 | 46 | 20 | 23 | 48 | 28,2 | 63,5 | 95,0 | 100 | 49,7 | 100 | 100 | 49,7 | 100 | | |
| 100 4" | 30 | MFI-30 (320 cm ²) 812-234.. | 160 | 186 | 120 | 140 | 80 | 93 | 100 | - | 3,1 | - | - | 3,1 | 8,9 | 14,7 | 3,1 | 8,9 | | |
| | | | 100 | 116 | 80 | 93 | 70 | 83 | 80 | - | 5,5 | - | - | 5,5 | 14,5 | 23,6 | 5,5 | 14,5 | | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 62 | 2,6 | 10,1 | - | - | 10,1 | 25,2 | 40,3 | 10,1 | 25,2 | | |
| | | MFIII-30 (720 cm ²) 812-334.. | 160 | 186 | 120 | 140 | 80 | 93 | 100 | 3,4 | 9,5 | 13,0 | 16,6 | 10,3 | 23,4 | 36,5 | 10,3 | 23,4 | | |
| | | | 100 | 116 | 80 | 93 | 70 | 83 | 80 | 5,9 | 15,5 | 21,0 | 26,6 | 16,8 | 37,2 | 57,6 | 16,8 | 37,2 | | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 62 | 10,9 | 26,7 | 35,9 | 45,3 | 29,0 | 63,0 | 97,0 | 29,0 | 63,0 | | |
| | | MFIII-30(v) (720 cm ²) 812-336.. | 160 | 186 | 120 | 140 | 80 | 93 | 100 | 19,4 | 45,9 | 61,2 | 76,9 | 49,7 | 100 | 100 | 49,7 | 100 | | |
| | | | 100 | 116 | 80 | 93 | 70 | 83 | 80 | 6,8 | 16,4 | 20,8 | 25,1 | 10,3 | 23,4 | 36,5 | 10,3 | 23,4 | | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 62 | 11,4 | 26,3 | 33,1 | 40,0 | 16,8 | 37,2 | 57,6 | 16,8 | 37,2 | | |
| | | | | | 160 | 186 | 120 | 140 | 80 | 93 | 100 | 19,9 | 44,9 | 56,2 | 67,5 | 29,0 | 63,0 | 97,0 | 29,0 | 63,0 |
| | | | | | 100 | 116 | 80 | 93 | 70 | 83 | 80 | 34,5 | 76,1 | 95,0 | 100 | 49,7 | 100 | 100 | 49,7 | 100 |
| | | | | | 40 | 46 | 40 | 46 | 20 | 23 | 48 | | | | | | | | | |

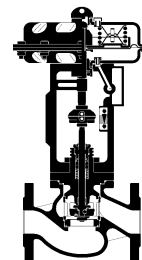
ECOTROL® 8C PN16 - PN63 as well as ANSI Class 150 - 600

Valid for valves **with pressure balancing** EPDM or FKM c/w PTFE-packing and for leakage class IV

Flow to open (FTO) (at p₂ = 0 bar g)

| Actuator series 812 | | | | | | | | | | Air to open/ Spring to close No. of springs | | | | Air to close/ Spring to open No. of springs | | | | | |
|---------------------|----------------|---|-----|-----|--------|-----|-------|----|----------------|---|------|-----|-----|---|-----|-----|------|-----|--|
| | | | | | | | | | | 3 | 6 | 9 | 12 | 3 | 3 | 3 | 6 | 6 | |
| DN | Stroke (mm) | Actuator size | P1 | | L1 lin | | L1 =% | | Seat-Ø (mm) | Min. air supply (bar) | | | | | | | | | |
| | | | Kv | Cv | Kv | Cv | Kv | Cv | | bar | bar | bar | bar | 3,0 | 4,5 | 6,0 | 4,5 | 6,0 | |
| 80 3" | 30 | MFI-30 (320 cm ²) 812-234.. | 100 | 116 | 80 | 93 | 70 | 83 | 80 | - | 65,9 | - | - | 65,9 | 100 | 100 | 65,9 | 100 | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 80 | - | 65,9 | - | - | 65,9 | 100 | 100 | 65,9 | 100 | |
| | | | 40 | 46 | 40 | 46 | 20 | 23 | 80 | - | 65,9 | - | - | 65,9 | 100 | 100 | 65,9 | 100 | |
| | | MFIII-30 (720 cm ²) 812-334.. | 100 | 116 | 80 | 93 | 70 | 83 | 80 | 73,1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 80 | 73,1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | | 40 | 46 | 40 | 46 | 20 | 23 | 80 | 73,1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 100 4" | 30 | MFI-30 (320 cm ²) 812-234.. | 160 | 186 | 120 | 140 | 80 | 93 | 100 | - | 49,7 | - | - | 49,7 | 100 | 100 | 49,7 | 100 | |
| | | | 100 | 116 | 80 | 93 | 70 | 83 | 100 | - | 49,7 | - | - | 49,7 | 100 | 100 | 49,7 | 100 | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 100 | - | 49,7 | - | - | 49,7 | 100 | 100 | 49,7 | 100 | |
| | | MFIII-30 (720 cm ²) 812-334.. | 160 | 186 | 120 | 140 | 80 | 93 | 100 | 56,9 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | | 100 | 116 | 80 | 93 | 70 | 83 | 100 | 56,9 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| | | | 63 | 73 | 63 | 73 | 55 | 64 | 100 | 56,9 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

Technical Data Sheet ECOTROL® Control Valve



TD_8C

ECOTROL® 8C model code

| | | | | | |
|---|--|--|---------------------------|--|---|
| 0. Operating conditions | | 7. Body material (cont.) | | 15. Seat wear / tear protection (cont.) | |
| Medium: | | 4 | 1.7357 | 5 | Colsterised |
| Temp.: | °C | 5 | 1.6620 | 9 | Acc. to spec. |
| Press. P ₁ : | bar abs. | 6 | A216WCB | 16. Seat/ Plug seal ¹⁾ | |
| Press. P ₂ : | bar abs. | 7 | A351CF8M | 0 | Leakage Class IV (metal to metal) |
| P Design | bar g | 8 | A217WC6 | 1 | Leakage Class V (metal to metal) |
| T Design | °C | 9 | Acc. to spec. | 2 | Leakage Class VI soft sealing PTFE/EPDM |
| 1. Series | | 8. Guide ¹⁾ | | 3 | Leakage Class VI soft sealing PTFE/FKM |
| 8C | Single Seat Globe Control Valve ECOTROL® 8C | 0 | Stem guided (Standard) | 4 | Leakage Class VI soft sealing PTFE/Trapezium |
| 2. Top flange | | 1 | Double guided | 9 | Acc. to spec. |
| 1 | Standard | 9 | Acc. to spec. | 17. Cage retainer ¹⁾ | |
| 3 | Cooling fins | 9. KVs Value | | 0 | Standard |
| 4 | Bellows sealing | xxx | Acc. to spec. | 1 | LN (low noise) not controlled |
| 5 | Extended bonnet (insulating column) | KVs values acc. to table | | 2 | LN (low noise) controlled |
| 7 | Standard c/w balancing (DN≥80) | 10. Performance curve characteristic | | 9 | Acc. to spec. |
| 8 | Cooling fins c/w balancing (DN≥80) | g | =% | 18. Seat retainer ¹⁾ | |
| 9 | Special design acc. to spec. | l | linear | 0 | Without |
| 3. Plug design | | m | modified | 1 | LK1 |
| P1, P3 | Parabolic plug (1-step resp. 3-steps) | 11. Plug materials ¹⁾ | | 2 | LK2 |
| L1-L2-L3 | Perforated plug (1-2-3 steps) | 1 | 1.4571 | 5 | SLK1 |
| 4. Nominal diameter (DN) – DIN/ ANSI | | 3 | 1.4112 | 6 | SLK2 |
| 15 | DN 15 / ANSI ½" | 9 | Acc. to spec. | 19. Stem seal ¹⁾ | |
| 20 | DN 20 (only with DIN flanges and FTF) | 12. Plug wear / tear protection ¹⁾ | | 1 | PTFE/V-Ring/EPDM square ring |
| 25 | DN 25 / ANSI 1" | 0 | Standard (w/o) | 2 | PTFE/V-Ring/ITON square ring |
| 32 | DN 32 (only with DIN flanges and FTF) | 1 | Nitrided | 3 | Latty 6118/ETF Inconel |
| 40 | DN 40 / ANSI 1½" | 2 | Hardened | 4 | Graphite 0901 |
| 50 | DN 50 / ANSI 2" | 3 | Sealing surface stellited | 5 | Graphite/PTFE 6226/6232 |
| 65 | DN 65 (only with DIN flanges and FTF) | 4 | Completely stellited | 9 | Special design acc. to spec. |
| 80 | DN 80 / ANSI 3" | 5 | Colsterised | 20. Special designs | |
| 100 | DN 100 / ANSI 4" | 9 | Others (acc. to spec.) | 0 | Standard |
| 5. Pressure rating (PN) | | 13. Pressure Balancing ¹⁾ | | 1 | AD2000 |
| 16 | PN 16 | 0 | Standard (w/o) | 2 | NACE |
| 40 | PN 40 | 1 | Piston rings | 3 | Oxygen version |
| 63 | PN 63 | 2 | EPDM-Quadrang | 9 | Others (acc. to spec.) |
| 150 | Class 150 acc. to ANSI B16.10 | 3 | FKM-Quadrang | 21. Material inspections (pressure retaining parts) | |
| 300 | Class 300 acc. to ANSI B16.10 | 5 | PTFE spring loaded | 0 | w/o |
| 600 | Class 600 acc. to ANSI B16.10 | 9 | Others (acc. to spec.) | 1 | EN 10204-2.1 |
| 6. Connections | | 14. Seat materials ¹⁾ | | 2 | EN 10204-3.1 |
| 0 | Flanges with raised face (standard) | 1 | 1.4571 | 3 | EN 10204-3.2 |
| 1 | Flanges c/w groove | 3 | 1.4112 | 9 | Others (on request) |
| 2 | Flanges c/w tongue | 9 | Others (acc. to spec.) | 22. Final inspections | |
| 3 | Flanges c/w projection/recess | 15. Seat wear/tear protection ¹⁾ | | 0 | None |
| 4 | Butt-weld ends | 0 | Standard (w/o) | 1 | EN 10204-2.1 |
| 5 | Butt-weld ends c/w spool pieces | 1 | Nitrided | 2 | EN 10204-2.2 |
| 7 | RTJ | 2 | Hardened | 3 | EN 10204-3.1 |
| 9 | Others (acc. to spec.) | 3 | Sealing surface stellited | 4 | EN 10204-3.2 |
| 7. Body materials ¹⁾ | | 4 | Completely stellited | 9 | Others (on request) |
| 2 | 1.0619 | | | | |
| 3 | 1.4408 | | | | |

¹⁾ In accordance with customer specifications, or selected by the manufacturer in accordance with customer specifications (medium, pressure, temperature, etc.).

Blue letters: Standard design, at most 3 pieces, available 48 hours ex factory Germany. Delivery to South Africa airfreight within 2 weeks

Example:

| | |
|---|--------------------------------------|
| 8C - 1 - P1 - 15 - 40 - 0 - 2 | Position 1-7 / basic data |
| Series 8C - with standard bonnet – one-step parabolic plug - DN15 – PN40 – flange EN1092 B1 – body 1.0619 | |
| 0 - 4,0 - g - 1 - 0 - 0 - 1 - 0 - 0 - 0 - 0 - 1 | Position 8-19 / valve trims |
| Single stem guide – KVs 4.0 – equal percentage – plug made of 1.4571 – no wear/tear protection – not balanced – seat made of 1.4571 – no wear/tear protection – leakage class IV – standard cage retainer – no seat retainer – stem seal PTFE V-ring / EPDM quad ring | |
| 0 - 1 - 1 | Position 20-22 / version/inspections |
| Standard version – material inspection EN 10204 3.1 – final specification EN 10204 3.1 | |

