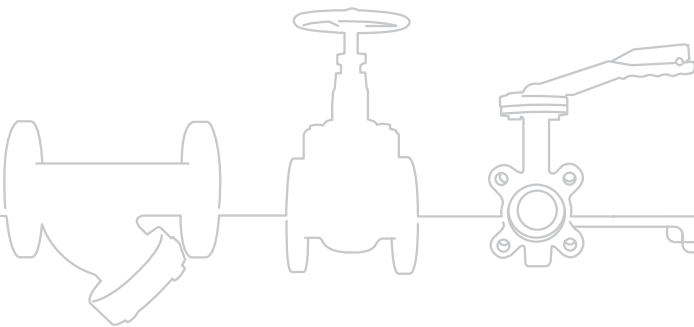
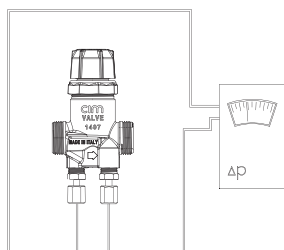
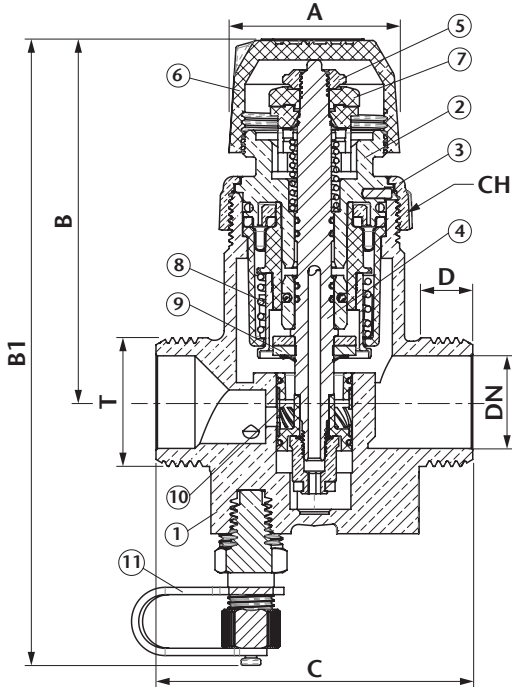


Hydronic Balance & Control Valves



Product Information





$$\Delta p \geq \Delta p_{\min} \rightarrow Q = Q_{\text{nom}}$$

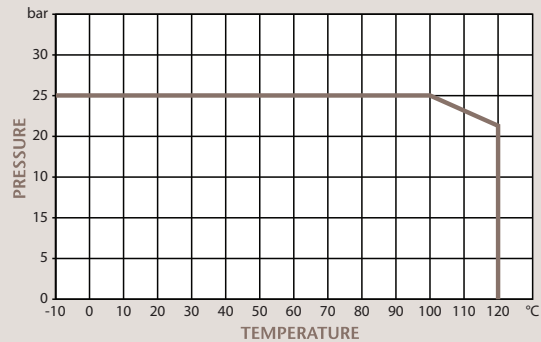
$$\Delta p < \Delta p_{\min} \rightarrow Q = Kvs \sqrt{\Delta p}$$

PN25 Pressure Independent Control Valve (PICV or PIBCV)

Features

- DZR Brass body (CW602N-M)
- Easy Flow selection via preset dial
- Automatic flow balancing with fluctuating pressures
- Flow modulation along whole control actuator stroke (ART C21V, C22V, C23E)
- Reduction of commissioning, improved energy saving
- Phased installation & system future proofing
- Union tall pieces BSPM 2 required per valve

Pressure/Temperature



| DN | 10LF | 10HF | 15LF | 15HF | 20HF | 25HF |
|--------------|-------------|-------------|-------------|-------------|------------|-------------|
| A | 35 | 35 | 35 | 35 | 35 | 35 |
| B | 75 | 75 | 75 | 75 | 85 | 83 |
| B1 | 130 | 130 | 130 | 130 | 150 | 146 |
| C | 53 | 53 | 65 | 65 | 82 | 104 |
| D | 9 | 9 | 11 | 11 | 12 | 13 |
| T | G. 1/2" | G. 1/2" | G. 3/4" | G. 3/4" | G. 1" | G. 1 1/4" |
| CH | 39 | 39 | 39 | 39 | 39 | 39 |
| Kgs | 0.450 | 0.450 | 0.490 | 0.490 | 0.790 | 0.960 |
| Flow (l/s) | 0.012-0.042 | 0.024-0.097 | 0.024-0.097 | 0.027-0.134 | 0.042-0.25 | 0.076-0.447 |
| Min ΔP (kPa) | 15-16 | 13-16.5 | 13-16.5 | 12.5-19.5 | 18-26 | 18-37 |
| Kvs | 0.11-0.37 | 0.24-0.86 | 0.24-0.86 | 0.27-1.09 | 0.35-1.77 | 0.64-2.65 |

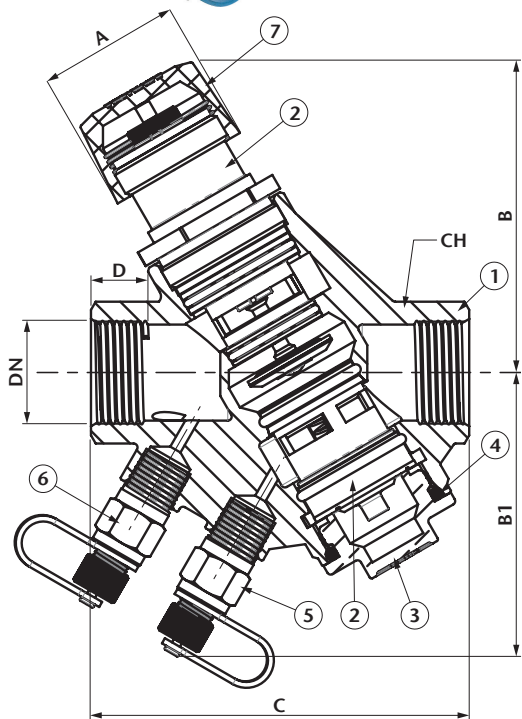
| N. | Part Name | Materials |
|----|----------------|-----------------|
| 1 | Body | DZR Brass |
| 2 | Bonnet | DZR Brass |
| 3 | Fixing Ring | DZR Brass |
| 4 | Stem | Stainless Steel |
| 5 | Locking Nut | Brass |
| 6 | Plastic Cap | Plastic |
| 7 | Dial | Plastic |
| 8 | DPC Controller | DZR Brass |
| 9 | Gasket | EPDM |
| 10 | Regulator | DZR Brass |
| 11 | Binder | DZR Brass |

Technical Data

| | |
|-----------------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |
| Differential Pressure Range | 4 Bar (400 kPa) |

Dimensions in mm

This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.

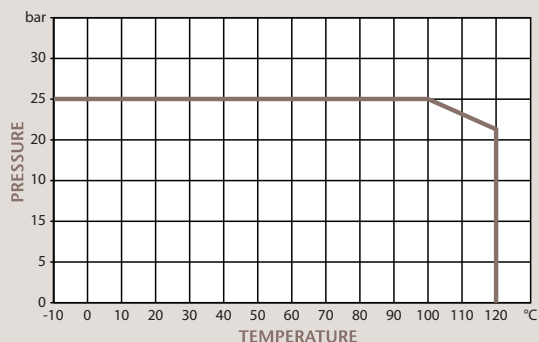


PN25 Pressure Independent Control Valve (PICV or PIBCV)

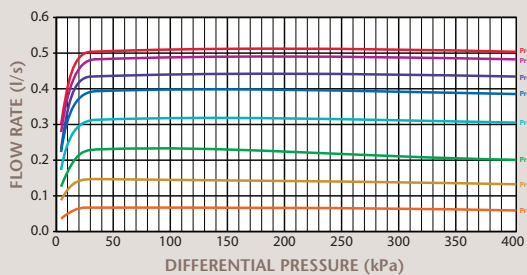
Features

- DZR Brass body (CW602N-M)
- Easy Flow selection via preset dial
- Automatic flow balancing with fluctuating pressures
- Flow modulation along whole control actuator stroke (ART C21V, C22V, C23E)
- Reduction of commissioning, improved energy saving
- Phased installation & system future proofing
- Easy flush due to simple removal of control cartridge

Pressure/Temperature



Flow Rate/Differential Pressure



Technical Data

| | |
|-----------------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |
| Differential Pressure Range | 4 Bar (400 kPa) |

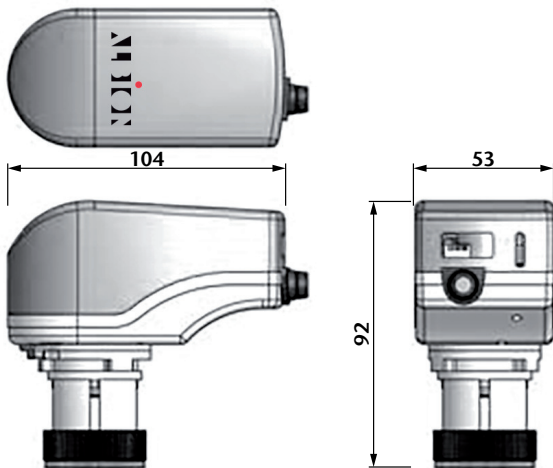
| DN | 15LF | 15HF | 20LF | 20HF | 25LF | 25HF | 32 | 40 | 50 |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| B | 81 | 81 | 81 | 81 | 81 | 81 | 87 | 120 | 130 |
| B1 | 72 | 72 | 72 | 72 | 72 | 72 | 76 | 87 | 93 |
| C | 96 | 96 | 97 | 97 | 103 | 103 | 128 | 144 | 155 |
| D | 14 | 14 | 15 | 15 | 16 | 16 | 19 | 17 | 20 |
| CH | 27 | 27 | 32 | 32 | 39 | 39 | 47 | 54 | 69 |
| Kgs | 0.875 | 0.875 | 0.860 | 0.860 | 1.015 | 1.015 | 1.460 | 2.550 | 3.200 |
| Flow (l/s) | 0.022-0.174 | 0.068-0.479 | 0.036-0.292 | 0.081-0.566 | 0.064-0.478 | 0.081-0.566 | 0.129-0.849 | 0.562-1.974 | 0.612-2.385 |
| Min ΔP(kPa) | 14.5-16 | 14-18 | 14.5-16 | 14-22 | 14-16 | 14-22 | 14.5-18 | 16-26 | 19-32 |
| Kvs | 0.21-1.57 | 0.65-4.06 | 0.34-2.63 | 0.78-4.34 | 0.62-4.30 | 0.78-4.34 | 1.22-7.20 | 5.06-13.94 | 5.05-15.18 |

| N. | Part Name | Materials |
|----|-------------------|-----------|
| 1 | Body | DZR Brass |
| 2 | Bonnet | DZR Brass |
| 3 | Plug | DZR Brass |
| 4 | O-Ring | EPDM |
| 5 | Blue Binder Point | DZR Brass |
| 6 | Red Binder Point | DZR Brass |
| 7 | Plastic Cap | Plastic |

Dimensions in mm

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C21V / C22V / C23E



Control Actuator to fit PICV ART 20C ALL SIZES / ART 20 DN15-32

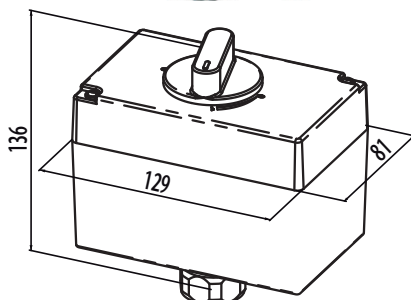
Features

- C21V 24 VAC 3 point control
- C22V 230 VAC 3 point control
- C23E 24 VAC 0-10VDC modulation control
- Easy installation. No tools required
- Manual override
- Indicator Light
- Includes 1M cable (Longer cables can be ordered)
- Stall-proof, maintenance free
- Auto stroke on power-up
- Feedback (C23E only)
- Max. force 250N
- Max stroke 6.5mm
- Weight 0.400Kgs

ACTUATOR



C21VL / C22VL / C23EL



Control Actuator to fit PICV ART 20 DN40-50

Features

- C21VL 24 VAC 3 point control
- C22VL 230 VAC 3 point control
- C23EL 24 VAC 0-10VDC modulation control
- Easy installation. No tools required
- Manual override
- Indicator Light
- Stall-proof, maintenance free
- Feedback (C23EL only)
- Manual operation by adjusting handle
- Max. force 400N
- Max stroke 6.5mm
- Weight 0.450Kgs
- Input impedance >100 k Ohm (DC 0-10V)

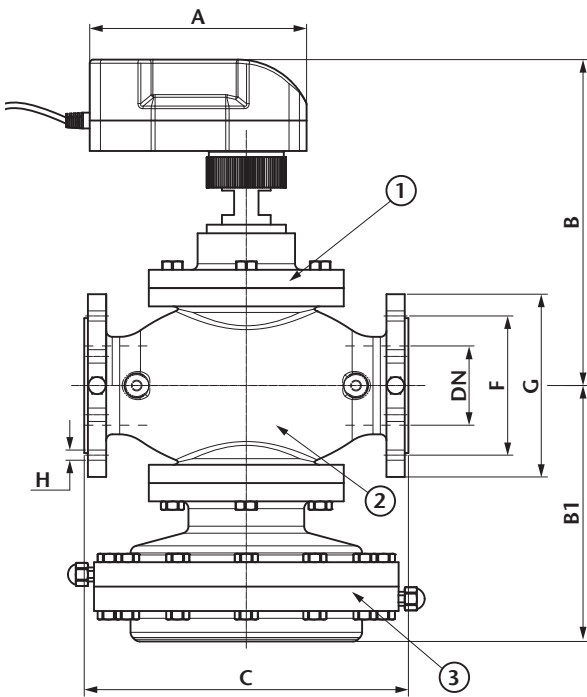
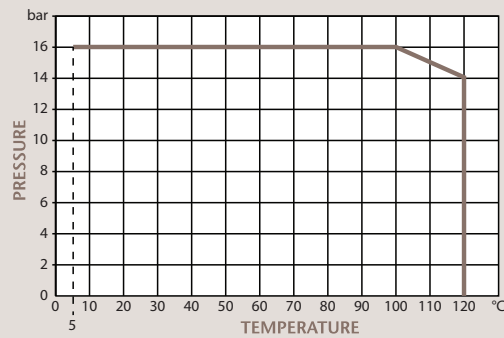


PN16 Pressure Independent Control Valve (PICV or PIBCV)

Features

- Ductile Iron - ASTM A536-65-45-12
- Control actuator mounted & supplied with PICV
- Easy Flow selection via electronic control actuator LED display
- Automatic flow balancing with fluctuating pressures
- Reduction of balancing costs
- Improved energy saving and high environmental comfort
- Reduced installation dimensions eliminating the requirement of straight pipelines to stabilise the flow

Pressure/Temperature



Technical Data

| | |
|-----------------------------|-----------------|
| Max Pressure | 16 Bar |
| Working Temperature | 5°C to +120°C |
| Differential Pressure Range | 4 Bar (400 kPa) |

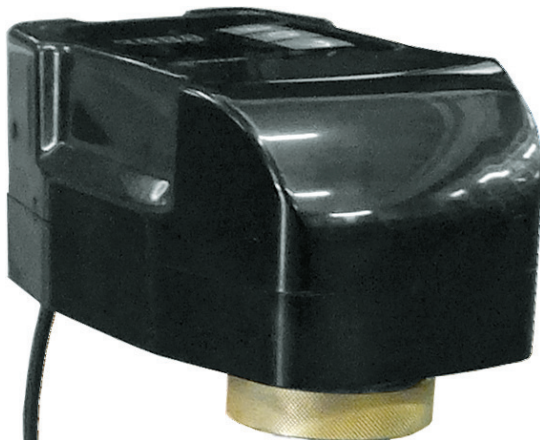
| DN | 50 | 65 | 80 | 100 | 125 | 150 |
|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| A | 178 | 178 | 178 | 178 | 178 | 178 |
| B | 301 | 296 | 324 | 334 | 361 | 396 |
| B1 | 219 | 234 | 239 | 285 | 310 | 350 |
| C | 254 | 276 | 298 | 352 | 400 | 451 |
| F | 125 | 135 | 145 | 160 | 180 | 210 |
| G | 155 | 175 | 185 | 210 | 250 | 280 |
| H | 18x4 | 18x4 | 18x8 | 18x8 | 18x8 | 18x8 |
| Kgs | 38 | 48 | 60 | 102 | 126 | 162 |
| Flow (l/s) | 0.833-5.556 | 1.389-8.333 | 2.778-11.111 | 4.167-15.278 | 4.167-22.222 | 4.167-41.667 |
| Min ΔP(kPa) | 30 | 30 | 30 | 30 | 30 | 50 |
| Kvs | 36.5 | 54.8 | 73 | 100.4 | 146.1 | 273.9 |

N. Part Name Materials

| | | |
|---|-----------|--------------|
| 1 | Body | Ductile Iron |
| 2 | Regulator | Bronze |
| 3 | Diaphragm | EPDM |

Dimensions in mm

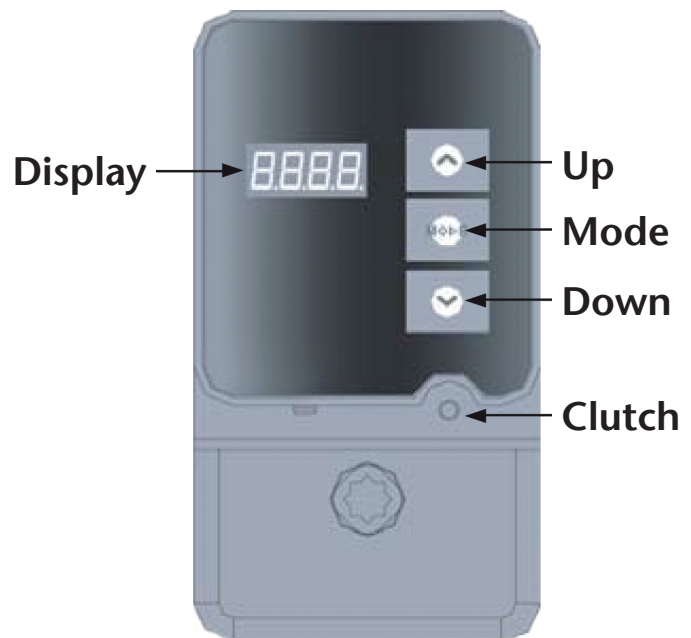
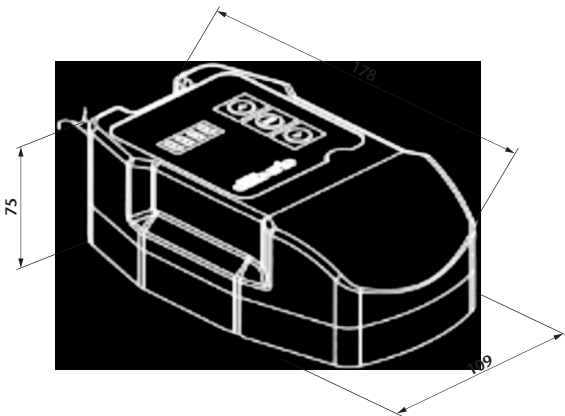
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Control Actuator to fit PICV ART 200 DN50-150

Features

- Single universal actuator
- Proportional, ON/OFF, 3 Positions, PWM Controls
- Swivel nut easy assembling
- Dual supply voltage: 24 V AC/DC
- Electronic adjustment and control system
- Self-calibration
- 4 digit FND display
- Position feedback: 4-20mA or 2-10 V
- Position detector with encoder
- Supplied with PICV pre-mounted

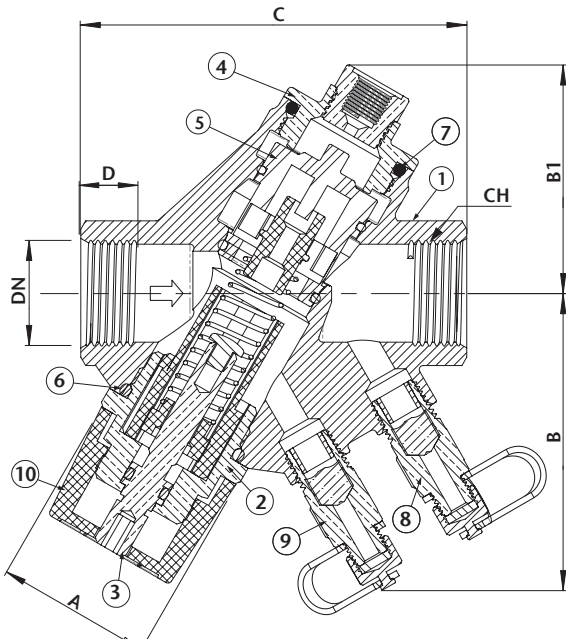


Technical Data

| | |
|----------------------------|---|
| Voltage | 24 V AC or 24 V DC |
| Control Signal | PID Control ON/OFF 3 Point PWM |
| Frequency | 50 Hz |
| Closing & Opening Times | 170 Sec |
| Degree/Class of Protection | IP 54 |
| Actuating Torque | 4 Nm |
| Weight | 0.900 Kgs |

Dimensions in mm

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Technical Data

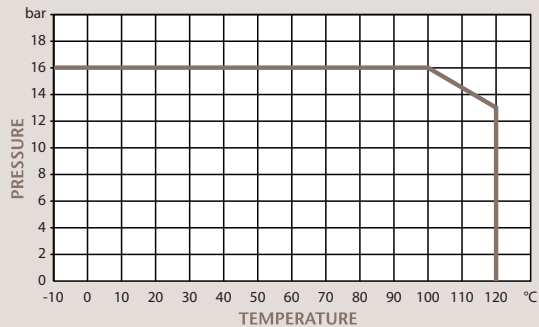
| | |
|---------------------|-----------------|
| Max Pressure | 16 Bar |
| Working Temperature | -10°C to +120°C |

PN16 Differential Pressure Control Valve (DPCV)

Features

- DZR Brass body (CW602N-M)
- Differential pressure can be set and adjusted in situ
- Tamper proof pre-setting device
- Removable differential pressure cartridge allows forward flushing as well as back-flushing
- Reduction of commissioning, improved energy saving
- Phased installation and system future proofing

Pressure/Temperature



| N. | Part Name | Materials |
|----|---------------------------------|-----------|
| 1 | Body | DZR Brass |
| 2 | Bonnet | DZR Brass |
| 3 | Stem | DZR Brass |
| 4 | Screwed End | DZR Brass |
| 5 | Differential Pressure Cartridge | DZR Brass |
| 6 | O-Ring | EPDM |
| 7 | O-Ring | EPDM |
| 8 | Blue Binder Point | DZR Brass |
| 9 | Red Binder Point | DZR Brass |
| 10 | Cap | Plastic |

| DN | 15 Low ΔP | 15High ΔP | 20 Low ΔP | 20 High ΔP | 25 Low ΔP | 25 High ΔP | 32 High ΔP | 40 High ΔP | 50 High ΔP |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A | 40 | 40 | 40 | 40 | 50 | 50 | 50 | 65 | 65 |
| B | 70 | 70 | 72 | 72 | 91 | 91 | 91 | 98 | 105 |
| B1 | 57 | 57 | 57 | 57 | 74 | 74 | 74 | 85 | 90 |
| C | 95.5 | 95.5 | 96.5 | 96.5 | 132 | 132 | 132 | 144.5 | 155 |
| D | 11 | 11 | 13 | 13 | 14.5 | 14.5 | 17 | 17 | 20 |
| CH | 27 | 27 | 32 | 32 | 39 | 39 | 47 | 54 | 67 |
| Kgs | 0.825 | 0.825 | 0.880 | 0.880 | 1.535 | 1.535 | 1.625 | 2.475 | 2.970 |
| Flow (l/s) | 0.014-0.167 | 0.028-0.333 | 0.028-0.278 | 0.042-0.556 | 0.167-0.694 | 0.194-1.167 | 0.278-1.389 | 0.833-2.222 | 1.389-4.167 |
| ΔP vers (kPa) | 5-30 | 20-60 | 5-30 | 20-60 | 5-30 | 20-60 | 20-80 | 20-80 | 20-80 |
| Kvs | 3.6 | 3.6 | 4 | 4 | 9.5 | 9.5 | 11.4 | 16.4 | 17.9 |

Dimensions in mm

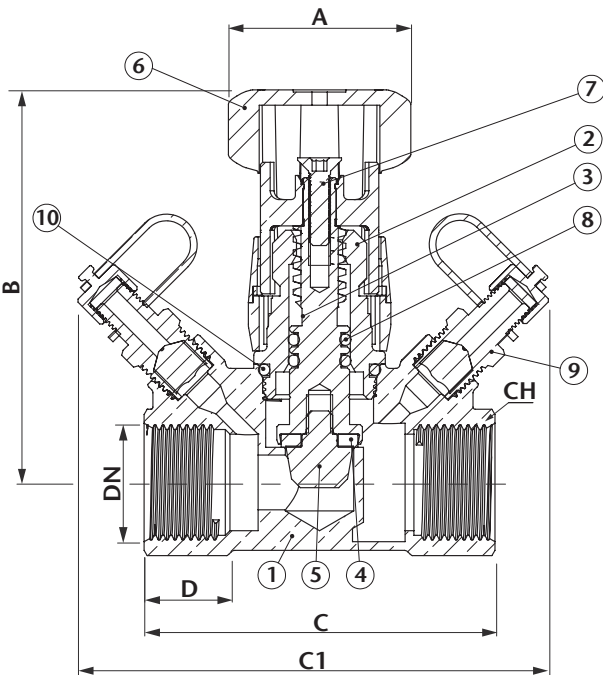
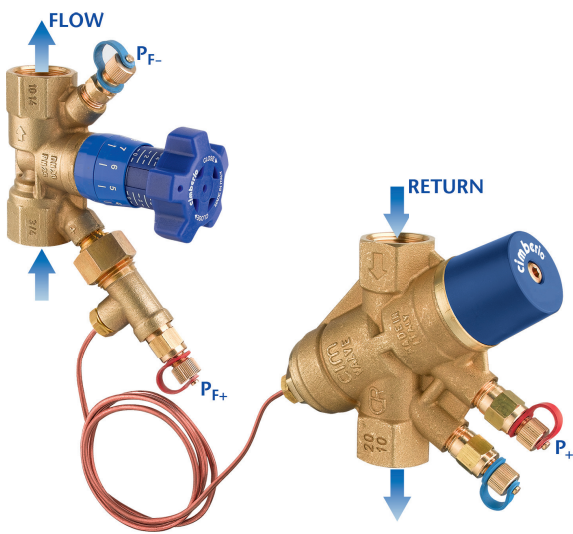
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.

PN25 - DPCV Partner Valve

Features

- DZR Brass body (CW602N-M)
- Variable orifice double regulating valve
- Impulse tube connection point for ART 24 DPCV
- Supplied as shown with fitting & measuring nipples
- Handwheel shut-off function & clear 360° reading
- Allen key locking mechanism enabling valve to be closed & re-opened to it's exact pre-set position.

System ΔP is measured from PF- to P+
 System flow may be adjusted on ART 28DP whilst measuring ΔP from PF+ to PF-



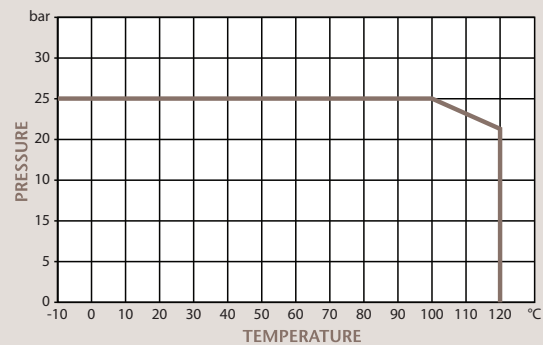
Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

Dimensions in mm

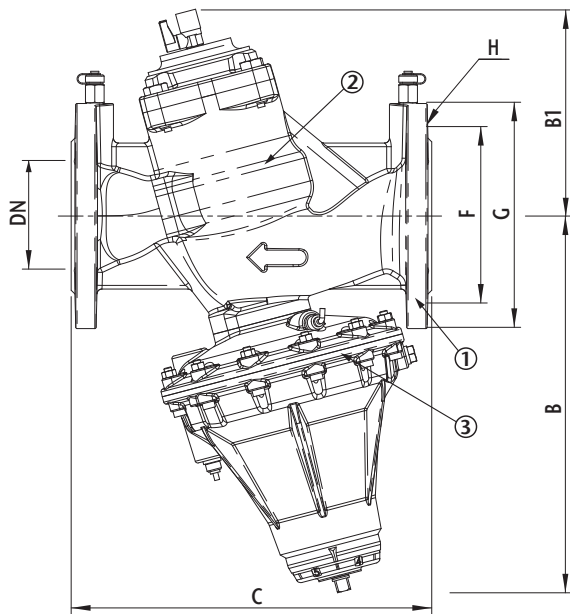
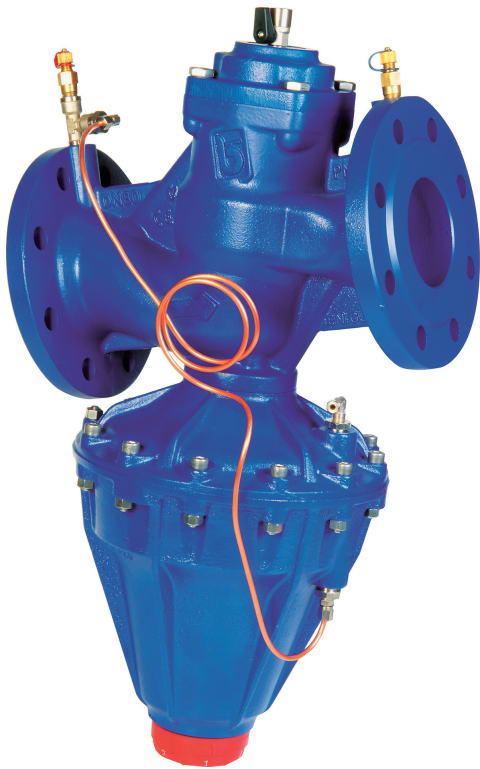
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.

Pressure/Temperature



| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|--------|-------|-------|-------|---------|---------|-------|
| A | 50 | 50 | 50 | 50 | 50 | 50 |
| B | 87.5 | 89.5 | 91.5 | 99 | 99 | 100 |
| C | 77 | 80 | 87 | 108 | 115 | 124 |
| C1 | 106 | 107 | 107 | 123 | 129 | 132 |
| D | 17 | 18.5 | 21 | 22.5 | 23 | 26.5 |
| CH | 25 | 31 | 38 | 48 | 55 | 66 |
| Kgs | 0.380 | 0.440 | 0.535 | 0.960 | 1.120 | 1.350 |
| Thread | ½" Rp | ¾" Rp | 1" Rp | 1 ¼" Rp | 1 ½" Rp | 2" Rp |
| Kvs | 1.75 | 2.87 | 4.08 | 6.71 | 10.4 | 15.06 |

| N. | Part Name | Materials |
|----|--------------|-----------|
| 1 | Body | DZR Brass |
| 2 | Bonnet | DZR Brass |
| 3 | Stem | DZR Brass |
| 4 | Gasket | EPDM |
| 5 | Shutter | DZR Brass |
| 6 | Handwheel | Nylon 6 |
| 7 | Screw | DZR Brass |
| 8 | O-Ring | EPDM |
| 9 | Binder Point | DZR Brass |
| 10 | O-Ring | EPDM |

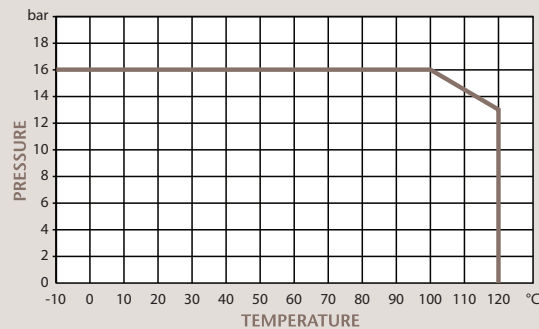


PN16 Differential Pressure Control Valve (DPCV)

Features

- Cast Iron EN GJL 250, Flanged EN 1092-1, F-F EN 558-1
- Flow or Return line mounted
- Differential pressure can be set & adjusted in situ
- Reduction of commissioning, improved energy saving
- Phased installation & system future proofing
- ART 250 partner valve option available when ART 24BV, ART24670B & impulse tube also supplied

Pressure/Temperature



| N. | Part Name | Materials |
|----|-----------|-----------|
| 1 | Body | EN GJL250 |
| 2 | Regulator | CuZn40Pb2 |
| 3 | Diaphragm | EPDM |

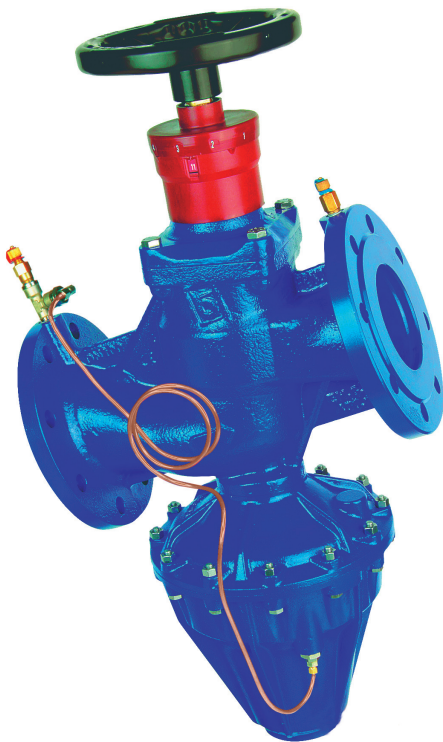
Technical Data

| | |
|-----------------------------|-------------------|
| Max Pressure | 16 Bar |
| Working Temperature | -10°C to +120°C |
| Differential Pressure Range | 16 Bar (1600 kPa) |

| DN | 65 Low ΔP | 65 High ΔP | 80 Low ΔP | 80 High ΔP | 100 Low ΔP | 100 High ΔP | 125 Low ΔP | 150 Low ΔP |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| B | 310 | 310 | 400 | 400 | 414 | 414 | 436 | 460 |
| B1 | 170 | 170 | 182 | 182 | 200 | 200 | 275 | 300 |
| C | 290 | 290 | 310 | 310 | 350 | 350 | 400 | 480 |
| F | 145 | 145 | 160 | 160 | 180 | 180 | 210 | 240 |
| H | 18x4 | 18x4 | 18x8 | 18x8 | 18x8 | 18x8 | 18x8 | 22x8 |
| G | 185 | 185 | 200 | 200 | 220 | 220 | 250 | 285 |
| Kgs | 21.6 | 21.6 | 28.1 | 28.1 | 33.6 | 33.6 | 46.4 | 75.4 |
| Flow (l/s) | 0.278-20.833 | 0.556-20.833 | 0.334-23.611 | 0.834-27.777 | 0.416-33.333 | 0.834-41.667 | 0.834-47.222 | 1.111-63.889 |
| ΔP vers (kPa) | 20-80 | 80-160 | 20-80 | 80-160 | 20-80 | 80-160 | 20-80 | 20-80 |
| Kvs | 44.6 | 52 | 78.3 | 83.7 | 104.8 | 106.7 | 152.3 | 204 |

Dimensions in mm

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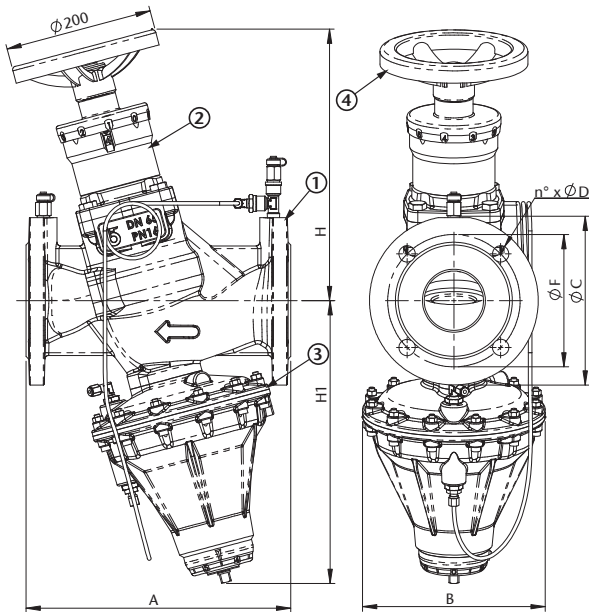
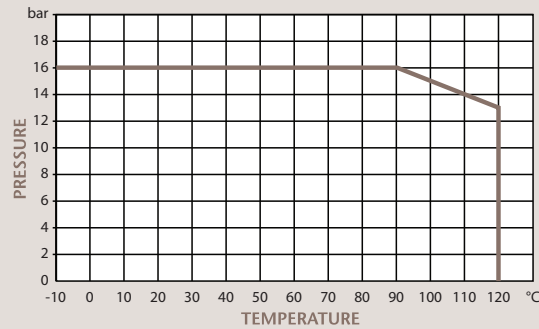


PN16 Differential Pressure Control Valve (DPCV)

Features

- Cast Iron EN GJL 250, Flanged EN 1092-1, F-F EN 558-1
- Flow measurement function. No need for separate commissioning station partner valve.
- Isolation valve function.
- Differential pressure can be set & adjusted in situ
- Reduction of commissioning, improved energy saving
- Phased installation & system future proofing

Pressure/Temperature



| N. | Part Name | Materials |
|----|-----------|----------------------------|
| 1 | Body | EN GJL250 |
| 2 | Regulator | cuZn40Pb2 |
| 3 | Diaphragm | EPDM |
| 4 | Handwheel | Carbon Steel, Epoxy Coated |

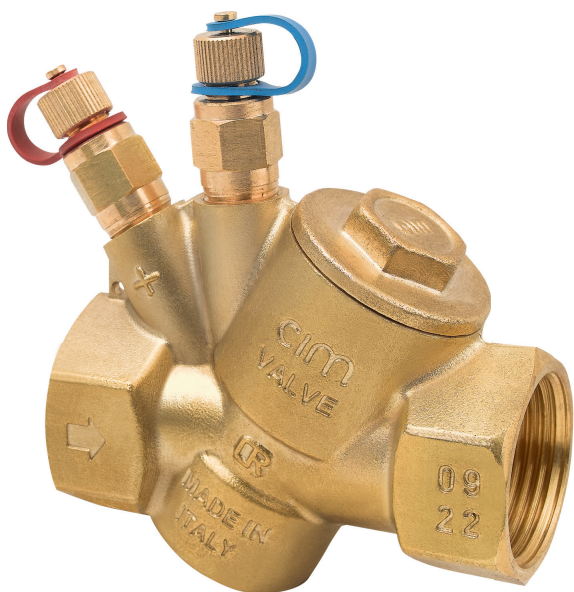
Technical Data

| | |
|-----------------------------|-------------------|
| Max Pressure | 16 Bar |
| Working Temperature | -10°C to +120°C |
| Differential Pressure Range | 16 Bar (1600 kPa) |

| DN | 65 Low ΔP | 65 High ΔP | 80 Low ΔP | 80 High ΔP | 100 Low ΔP | 100 High ΔP | 125 Low ΔP | 150 Low ΔP |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| H1 | 310 | 310 | 400 | 400 | 414 | 414 | 436 | 460 |
| H | 305 | 305 | 316 | 316 | 326 | 326 | 367 | 381 |
| A | 290 | 290 | 310 | 310 | 350 | 350 | 400 | 480 |
| F | 145 | 145 | 160 | 160 | 180 | 180 | 210 | 240 |
| n x D | 4x18 | 4x18 | 8x18 | 8x18 | 8x18 | 8x18 | 8x18 | 8x22 |
| C | 185 | 185 | 200 | 200 | 220 | 220 | 250 | 285 |
| Kgs | 24.2 | 24.2 | 30.6 | 30.6 | 36.1 | 36.1 | 51 | 80 |
| Flow (l/s) | 0.278-20.833 | 0.556-20.833 | 0.334-23.611 | 0.834-27.777 | 0.471-33.333 | 0.834-41.667 | 0.834-47.222 | 1.111-63.889 |
| ΔP vers (kPa) | 20-80 | 80-160 | 20-80 | 80-160 | 20-80 | 80-160 | 20-80 | 20-80 |
| Kvs | 47.6 | 47.6 | 70.0 | 70.0 | 105.5 | 105.5 | 139 | 191 |

Dimensions in mm

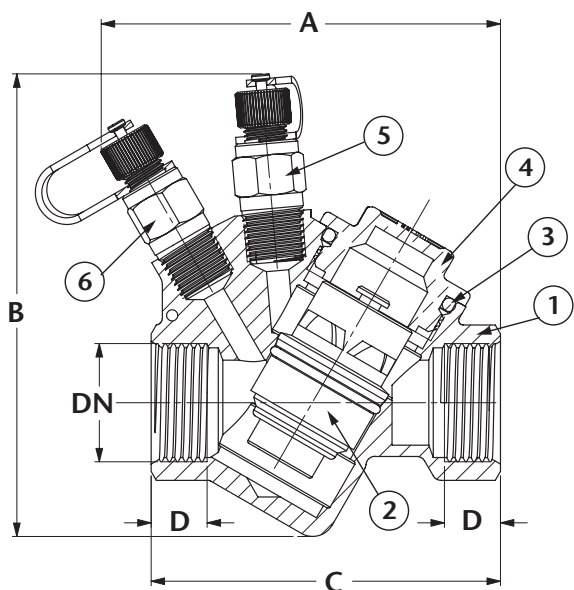
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.



Threaded Automatic Flow Balancing Valves

Features

- DZR Brass body (CW602N-M)
- Wide cartridge selection available
- 0.007 I/S to 3.154 I/S
- Easy removable cartridges for inspection on cleaning
- System balancing is assured automatically even under fluctuating pressures
- Decrease in installation cost due to fewer valves required and no commissioning costs
- DZR Brass Body
- Threaded BSP Parallel
- Self cleaning cartridge design



| DN | 15 | 20 | 25 | 25L | 32 | 40 | 50 |
|-----|------|------|------|------|------|------|------|
| A | 89 | 89 | 93 | 125 | 125 | 125 | 130 |
| B | 103 | 103 | 103 | 141 | 141 | 141 | 141 |
| C | 78 | 78 | 85 | 123 | 123 | 123 | 132 |
| D | 11.5 | 12.5 | 14.5 | 14.5 | 16.8 | 16.8 | 21.1 |
| Kgs | 0.51 | 0.53 | 0.62 | 1.51 | 1.53 | 1.59 | 1.71 |

Note: 25L is 25 Large

This is a 32mm body and cartridge but the valve has a 1" BSP connection for increased flow rates.

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Materials |
|----|-------------------|-----------|
| 1 | Body | DZR Brass |
| 2 | Cartridge | DZR Brass |
| 3 | O-Ring | EPDM |
| 4 | Plug | DZR Brass |
| 5 | Blue Binder Point | DZR Brass |
| 6 | Red Binder Point | DZR Brass |

Dimensions in mm

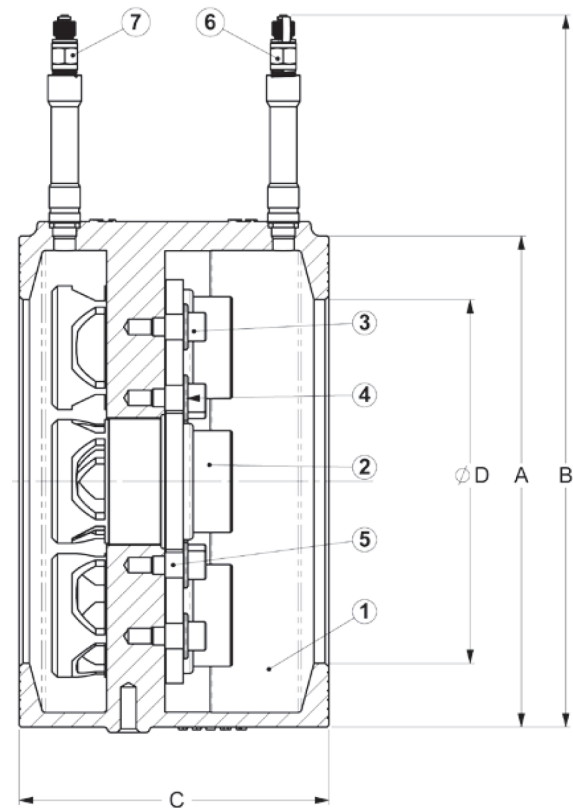
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.



Wafer Automatic Flow Balancing Valve

Features

- Automatic system balance
- Self cleaning cartridge design
- Energy saving due to elimination of excessive flow
- Increased comfort due to accurate flow distribution
- Wafer mount between flanges
- Assures system balance even with fluctuating pressures
- Body ductile iron GGG 40
- Supplied with 100mm test points



| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 |
|-------------|-------|-------|-------|-------|--------|--------|--------|--------|
| ØA | 100 | 119 | 131 | 163 | 193 | 216 | 271 | 326 |
| B | 218 | 237 | 249 | 281 | 311 | 334 | 389 | 440 |
| C | 170 | 170 | 170 | 170 | 170 | 170 | 170 | 170 |
| ØD | 80 | 80 | 80 | 100 | 125 | 150 | 200 | 260 |
| Max cartrs. | 1 | 1 | 1 | 2 | 3 | 4 | 7 | 12 |
| Flow Rate | 3820 | 3820 | 3820 | 3820 | 3820 | 3820 | 3820 | 3820 |
| range (l/h) | 45000 | 45000 | 45000 | 90000 | 135000 | 180000 | 315000 | 540000 |
| Kgs | 3.41 | 4.91 | 4.79 | 6.90 | 9.00 | 11.73 | 18.75 | 23.44 |

| DN | 300 | 350 | 400 | 450 | 500 | 600 | 800 |
|-------------|--------|--------|---------|---------|---------|---------|---------|
| ØA | 383 | 443 | 496 | 545 | 601 | 715 | 880 |
| B | 501 | 561 | 614 | 663 | 719 | 833 | 998 |
| C | 170 | 170 | 170 | 170 | 170 | 170 | 170 |
| ØD | 315 | 355 | 405 | 455 | 508 | 610 | 760 |
| Max cartrs. | 15 | 19 | 26 | 33 | 40 | 56 | 85 |
| Flow Rate | 3820 | 3820 | 3820 | 3820 | 3820 | 3820 | 3820 |
| range (l/h) | 675000 | 855000 | 1170000 | 1485000 | 1800000 | 2520000 | 3825000 |
| Kgs | 33.41 | 44.21 | 51.63 | 57.47 | 67.75 | 88.90 | 127.30 |

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 16 Bar |
| Working Temperature | -20°C to +120°C |

| N. | Part Name | Materials |
|----|-------------------|--------------|
| 1 | Body | Ductile iron |
| 2 | Cartridge | AISI 304 |
| 3 | Screw | AISI 304 |
| 4 | Washer | AISI 304 |
| 5 | Socket | AISI 304 |
| 6 | Red Binder Point | Brass |
| 7 | Blue Binder Point | Brass |

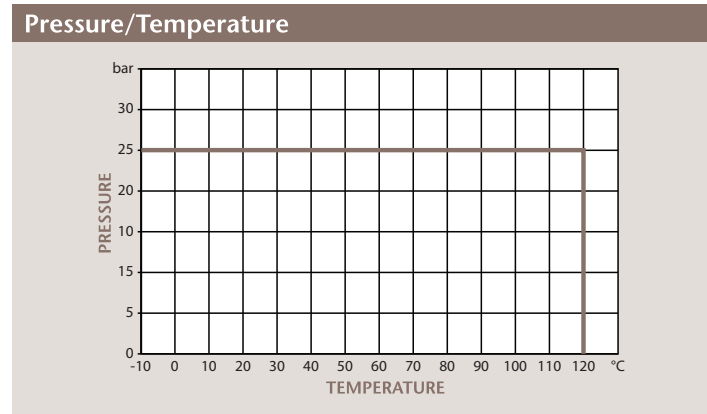
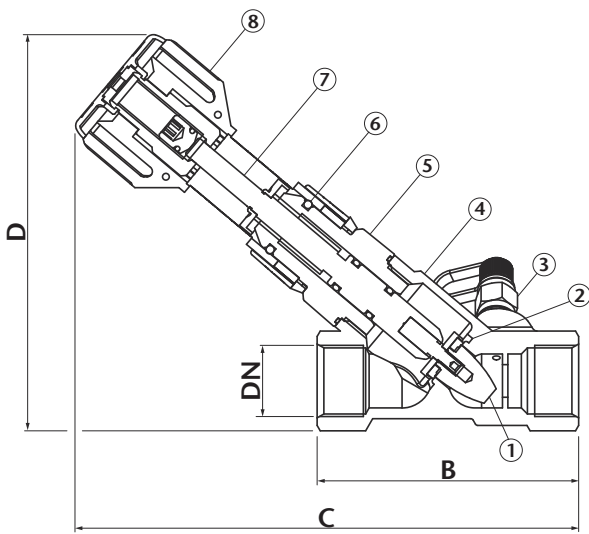
Dimensions in mm

This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.

PN25 DZR Fixed Orifice Commissioning Valve

Features

- Screwed BSP parallel
- Fixed orifice with $\pm 5\%$ flow measurement accuracy
- Position indicator
- Supplied with 2 fitted test points
- EPDM disk seating gives tight shut off
- Available with 'M' Press ends ART 25 PRS



| DN | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
|-----|------|------|------|--------|--------|------|
| B | 85 | 97 | 113 | 144 | 163 | 193 |
| C | 161 | 185 | 186 | 207 | 260 | 281 |
| D | 125 | 146 | 159 | 169 | 212 | 230 |
| Kgs | 0.68 | 0.93 | 1.13 | 1.66 | 2.47 | 3.73 |

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Materials |
|----|---------------------|----------------|
| 1 | Cone | DZR Brass |
| 2 | Cone Seat | EPDM Rubber |
| 3 | Pressure Test Point | DZR Brass |
| 4 | Body | DZR Brass |
| 5 | Bonnet | DZR Brass |
| 6 | 'O' Rings | Nitrile Rubber |
| 7 | Stem | DZR Brass |
| 8 | Handwheel | Nylon 6 |

Dimensions in mm

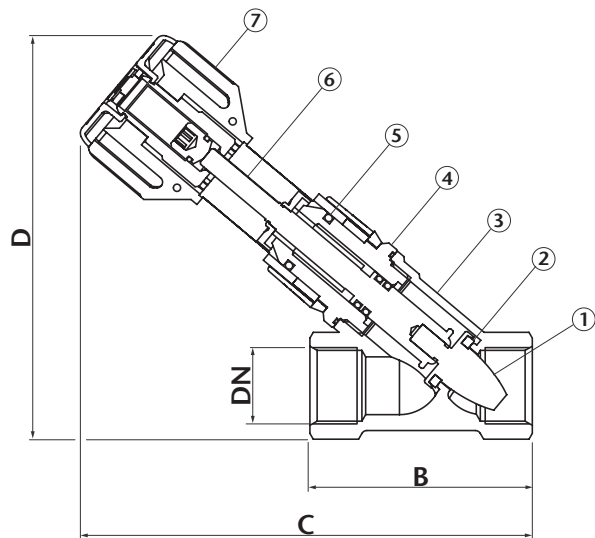
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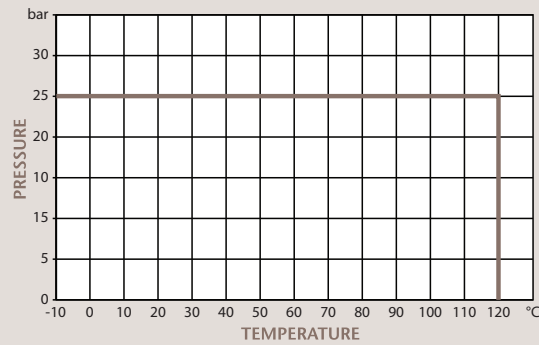
PN25 DZR Double Regulating Valve

Features

- Screwed BSP parallel
- Position indicator
- Double regulating valve
- Non rising stem
- EPDM disk seating gives tight shut off
- 1/2" available in Std. and Low flow versions
- Available with 'M' Press ends ART 26 PRS



Pressure/Temperature



| DN | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
|-----|------|------|------|--------|--------|------|
| B | 68 | 77 | 91 | 108 | 116 | 143 |
| C | 138 | 157 | 160 | 171 | 212 | 231 |
| D | 120 | 140 | 155 | 171 | 212 | 230 |
| Kgs | 0.48 | 0.65 | 0.86 | 1.28 | 1.89 | 2.80 |

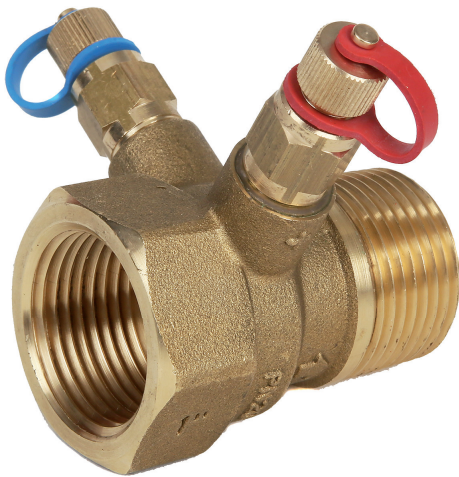
Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Materials |
|----|-----------|----------------|
| 1 | Cone | DZR Brass |
| 2 | Cone Seat | EPDM Rubber |
| 3 | Body | DZR Brass |
| 4 | Bonnet | DZR Brass |
| 5 | 'O' Rings | Nitrile Rubber |
| 6 | Stem | DZR Brass |
| 7 | Handwheel | Nylon 6 |

Dimensions in mm

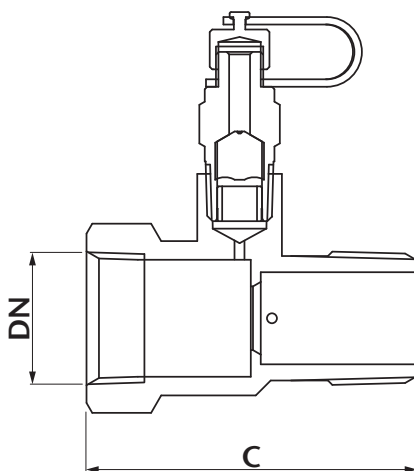
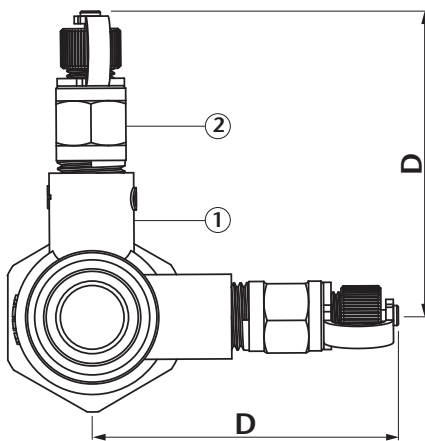
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.



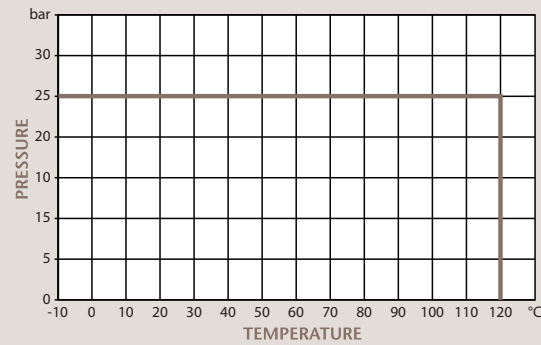
PN25 DZR Metering Station

Features

- Screwed BSP Taper
- Fixing orifice with $\pm 5\%$ flow measurement accuracy
- Can be close coupled to a double regulating valve
- Supplied with 2 fitted test points
- $\frac{1}{2}$ " available in Std., Med., Low, Ultra Low and Ultra Ultra Low flow versions



Pressure/Temperature



| DN | $\frac{1}{2}$ " | $\frac{3}{4}$ " | 1" | 1 $\frac{1}{4}$ " | 1 $\frac{1}{2}$ " | 2" |
|-----|-----------------|-----------------|------|-------------------|-------------------|------|
| C | 67 | 67 | 64 | 71 | 71 | 80 |
| D | 59 | 62 | 65 | 70 | 73 | 79 |
| Kgs | 0.22 | 0.27 | 0.31 | 0.46 | 0.52 | 0.77 |

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Materials |
|----|-------------------|-----------|
| 1 | Body | DZR Brass |
| 2 | Binder Test Point | DZR Brass |

Dimensions in mm

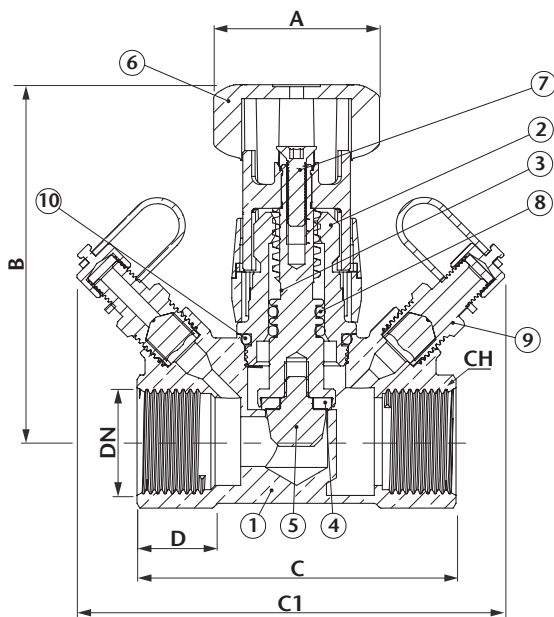
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.



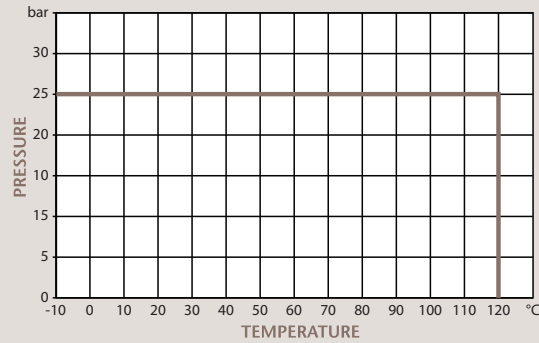
PN25 DZR Variable Orifice Commissioning Valve

Features

- Brass Body (CW602N-M)
- Screwed BSP parallel
- Position indicator
- Double regulating device
- Supplied with 2 fitted test points
- EPDM cone seating gives tight shut off



Pressure/Temperature



| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|--------|-------|-------|-------|---------|---------|-------|
| A | 50 | 50 | 50 | 50 | 50 | 50 |
| B | 87.5 | 89.5 | 91.5 | 99 | 99 | 100 |
| C | 77 | 80 | 87 | 108 | 115 | 124 |
| C1 | 106 | 107 | 107 | 123 | 129 | 132 |
| D | 17 | 18.5 | 21 | 22.5 | 23 | 26.5 |
| CH | 25 | 31 | 38 | 48 | 55 | 66 |
| Kgs | 0.380 | 0.440 | 0.535 | 0.960 | 1.120 | 1.350 |
| Thread | ½" Rp | ¾" Rp | 1" Rp | 1 ¼" Rp | 1 ½" Rp | 2" Rp |
| Kvs | 1.75 | 2.87 | 4.08 | 6.71 | 10.4 | 15.06 |

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Materials |
|----|--------------|-----------|
| 1 | Body | DZR Brass |
| 2 | Bonnet | DZR Brass |
| 3 | Stem | DZR Brass |
| 4 | Gasket | EPDM |
| 5 | Shutter | DZR Brass |
| 6 | Handwheel | Nylon 6 |
| 7 | Screw | DZR Brass |
| 8 | O-Ring | EPDM |
| 9 | Binder Point | DZR Brass |
| 10 | O-Ring | EPDM |

Dimensions in mm

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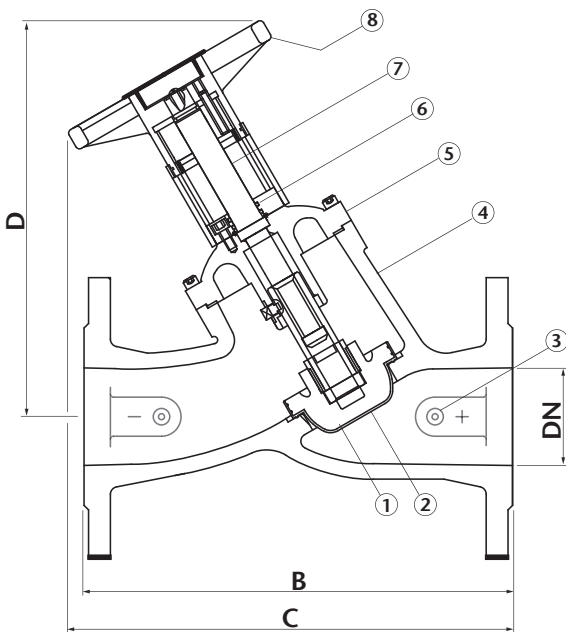
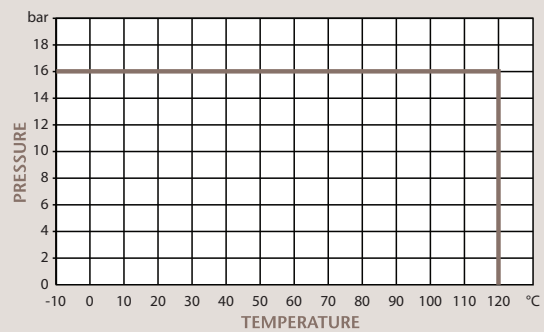


PN16 D Iron Variable Orifice DR Valve

Features

- Flanged PN16
- Position indicator
- Double regulating device
- Supplied with 2 fitted test points and extensions
- EPDM cone seating gives tight shut off
- Body ductile iron

Pressure/Temperature



| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|-----|------|------|-----|-----|-----|-----|-----|-----|-----|
| B | 230 | 290 | 310 | 350 | 400 | 480 | 600 | 730 | 850 |
| C | 285 | 335 | 350 | 370 | 405 | 485 | 605 | 730 | 850 |
| D | 269 | 318 | 320 | 340 | 375 | 403 | 537 | 596 | 695 |
| Kgs | 12.6 | 17.4 | 23 | 30 | 43 | 56 | 129 | 197 | 237 |

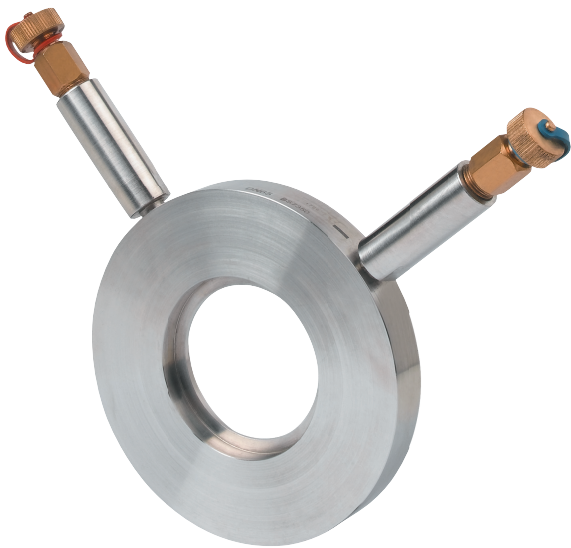
Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 16 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Materials |
|----|---------------------|---------------------|
| 1 | Cone | Cast Iron |
| 2 | Cone Seat | EPDM Rubber |
| 3 | Pressure Test Point | Brass |
| 4 | Body | Ductile Iron |
| 5 | Bonnet | Cast Iron |
| 6 | 'O' Rings | EPDM Rubber |
| 7 | Stem | 304 Stainless Steel |
| 8 | Handwheel | Aluminium Alloy |

Dimensions in mm

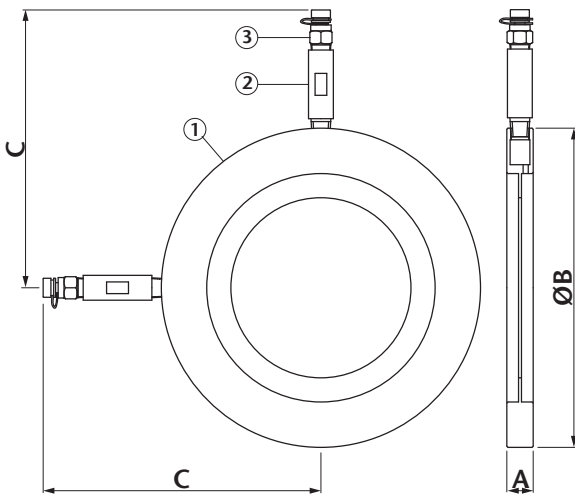
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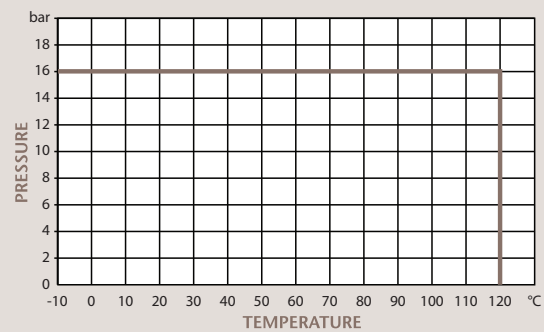
PN16 Stainless Steel Metering Station

Features

- Wafer pattern
- Fits between BS EN1092 flanges PN16
- Flow characteristic confirmed to BS 7350
- Fixed orifice with $\pm 5\%$ flow measurement accuracy
- Can be close coupled to a double regulating valve
- Supplied with 2 extensions and test points



Pressure/Temperature



| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| B | 108 | 125 | 144 | 164 | 194 | 220 | 275 | 333 | 385 |
| C | 136 | 145 | 154 | 164 | 179 | 192 | 219 | 248 | 304 |
| Kgs | 1.400 | 1.900 | 2.200 | 2.400 | 3.100 | 3.400 | 4.700 | 6.000 | 8.000 |

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 16 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Materials |
|----|---------------------|---------------------|
| 1 | Body | 304 Stainless Steel |
| 2 | Extension | 304 Stainless Steel |
| 3 | Pressure Test Point | Brass |

Dimensions in mm

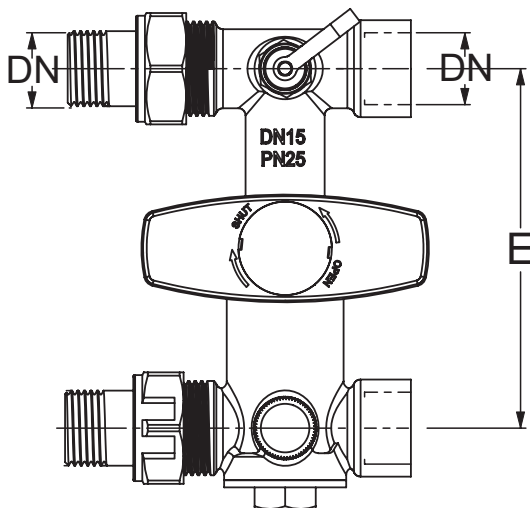
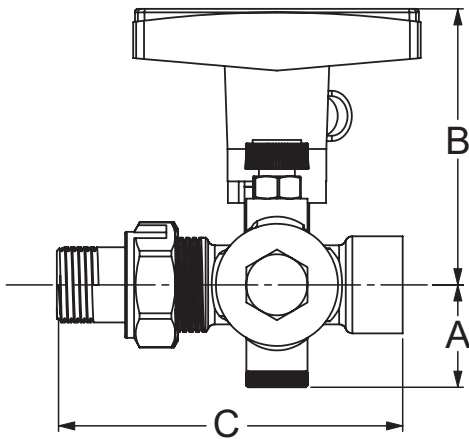
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H Block Screwed

Features

- Screwed BSP F X Union Male
- Body Brass CW 602 N-M
- 5 year guarantee
- Tested to EN12266-1:2003
- Complete with test point & Air vent



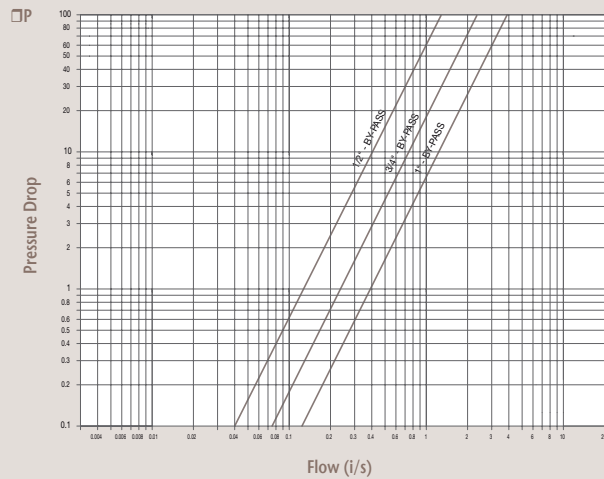
Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

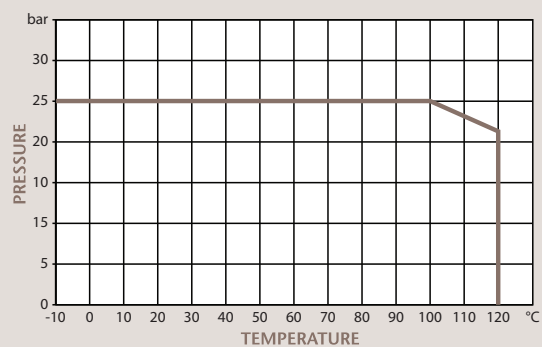
Dimensions in mm

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Flow and Pressure Drop



Pressure/Temperature



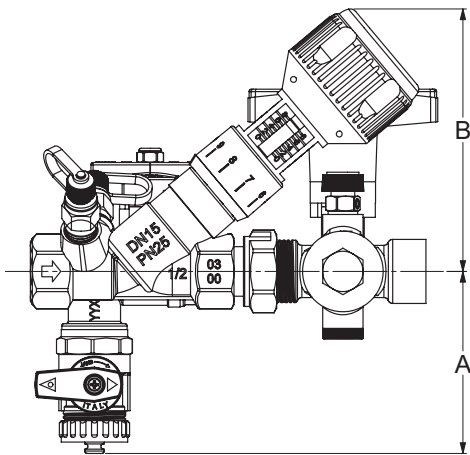
| DN | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" |
|-----|------|------|------|--------|--------|
| Ø | 15 | 20 | 25 | 32 | 46 |
| A | 29 | 33 | 35 | 37.5 | 37.5 |
| B | 77 | 81 | 85 | 85 | 85 |
| C | 96 | 119 | 143 | 157 | 165 |
| E | 100 | 100 | 150 | 175 | 175 |
| Kgs | 0.79 | 1.17 | 1.58 | 2.86 | 3.50 |



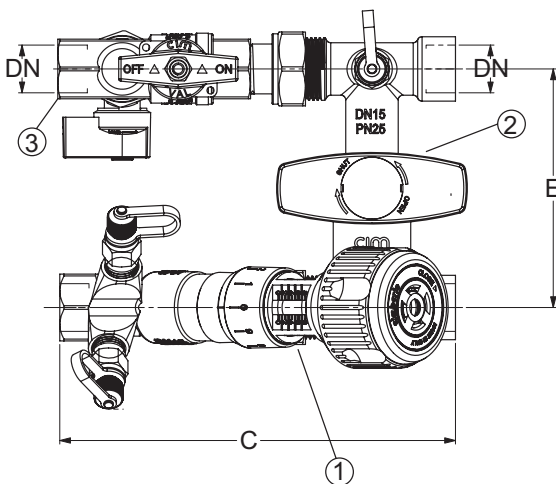
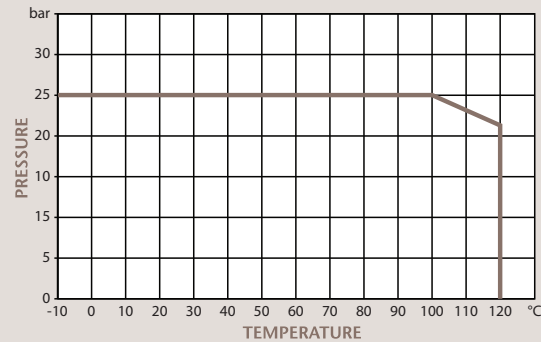
'H' Block Complete with Art 25

Features

- Available in BSP & M Press
- Material Brass
- Tested in accordance with EN 12266-1:2003
- 5 year guarantee



Pressure/Temperature



| DN | 1/2" | 3/4" | 1" |
|-----|------|------|------|
| Ø | 15 | 20 | 25 |
| A | 77 | 81 | 91 |
| B | 110 | 129 | 138 |
| C | 170 | 205 | 245 |
| E | 100 | 100 | 150 |
| Kgs | 2.06 | 2.82 | 4.19 |

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Material |
|----|-----------|-----------------------------------|
| 1 | Art 25 | FODRV |
| 2 | Art 731 | 'H' Block |
| 3 | Art 630 | Ball Valve, Strainer & Drain Cock |

Dimensions in mm

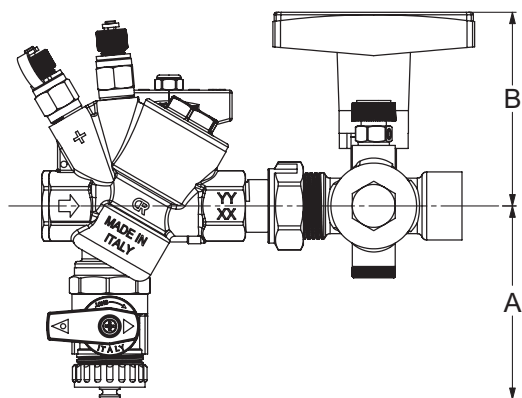
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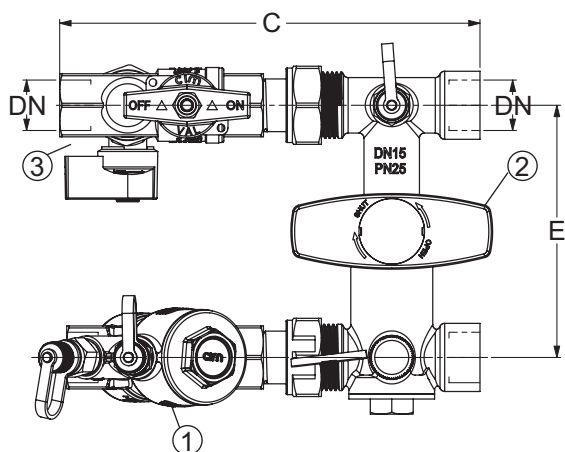
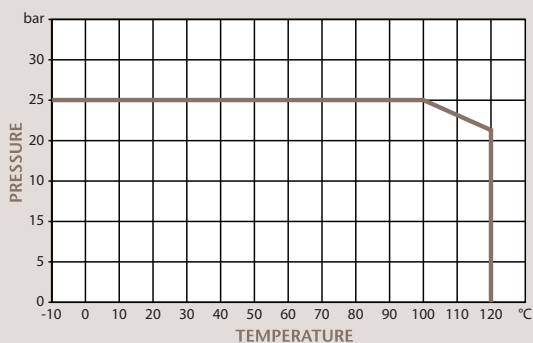
'H' Block complete with Art 29 Automatic flow Balancing Valve

Features

- Available in BSP & M Press
- Material Brass
- Tested in accordance with EN 12266-1:2003
- 5 year guarantee



Pressure/Temperature



| DN | 1/2" | 3/4" | 1" |
|-----|------|------|------|
| Ø | 15 | 20 | 25 |
| A | 77 | 81 | 91 |
| B | 77 | 82 | 86 |
| C | 165 | 200 | 245 |
| E | 100 | 100 | 150 |
| Kgs | 1.87 | 2.37 | 3.67 |

Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Material |
|----|-----------|-----------------------------------|
| 1 | Art 29 | Automatic flow balancing valve |
| 2 | Art 731 | 'H' Block |
| 3 | Art 630 | Ball Valve, Strainer & Drain Cock |

Dimensions in mm

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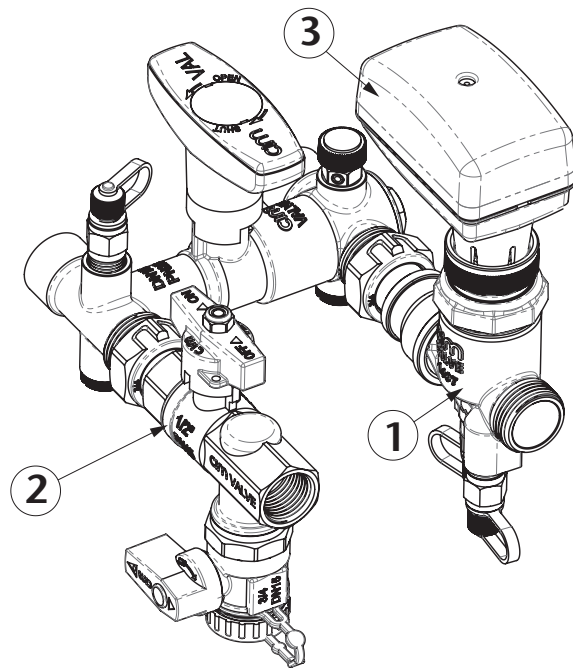
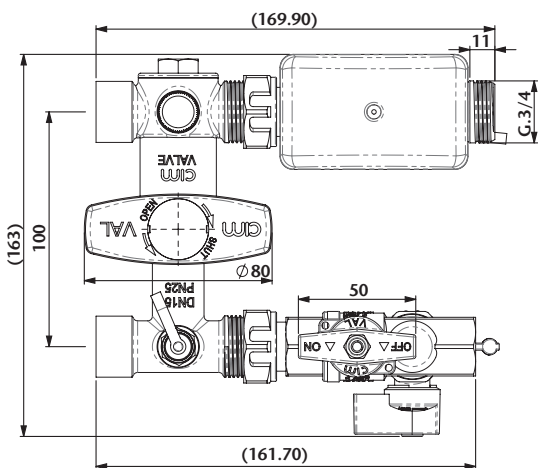
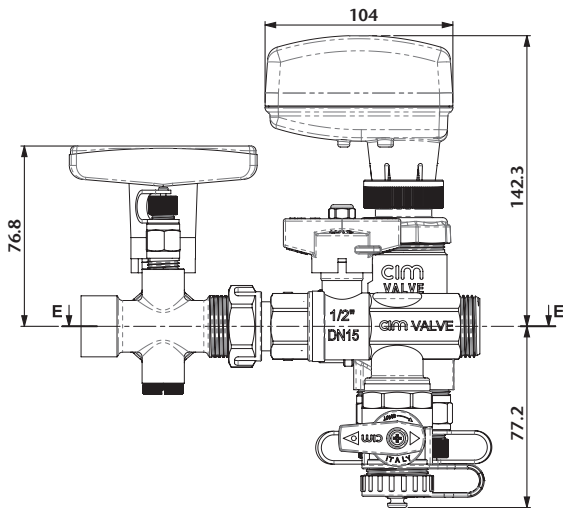
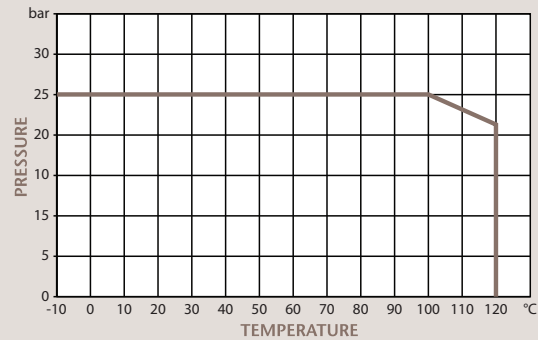


'H' Block complete with Art 20 or Art 20C Pressure Independent Control Valve (PICV)

Features

- Available in BSP & M Press
- Material Brass
- Tested in accordance with EN 12266-1:2003
- 5 year guarantee
- Available in sizes 1/2", 3/4", 1", 1 1/4" & 1 1/2"

Pressure/Temperature



Technical Data

| | |
|---------------------|-----------------|
| Max Pressure | 25 Bar |
| Working Temperature | -10°C to +120°C |

| N. | Part Name | Material |
|----|--------------------|------------------|
| 1 | Art 20C/20 | PICV |
| 2 | Art 731 | 'H' Block |
| 3 | Art C21V/C22V/C23E | Control Actuator |

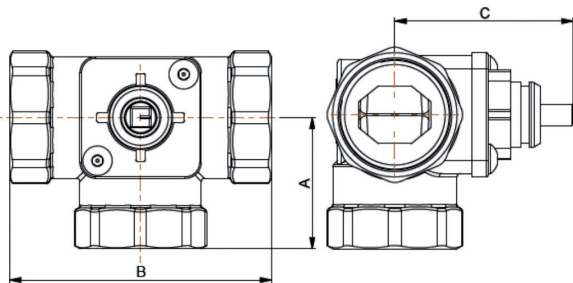
Dimensions in mm

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3 Port Rotary Control Brass Valve

Features

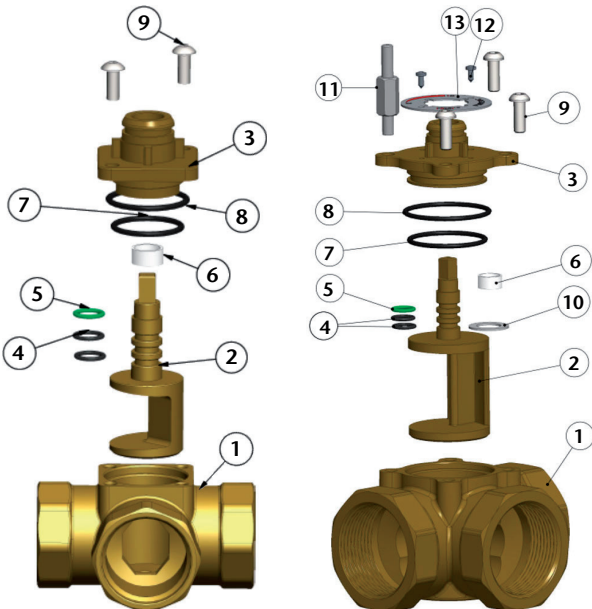
- 3-way valve suitable for mixing or diverting
- Designed to suit CLIP System actuators CRV(E)
- Max working pressure 6 bar
- Suitable for Heating or Cooling applications
- Spindle groove identifies rotor position
- Max spindle operating torque <2Nm



| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------------|----------------|----------------|--------------|------------------|------------------|--------------|
| Type | 1/2" CRM15 FFF | 3/4" CRM15 FFF | 1" CRM15 FFF | 1 1/4" CRM32 FFF | 1 1/2" CRM40 FFF | 2" CRM50 FFF |
| A | 36 | 36 | 41 | 47 | 53 | 60 |
| B | 72 | 72 | 82 | 94 | 106 | 120 |
| C | 45 | 45 | 45 | 48 | 65 | 66 |
| Connection | Rp 1/2" | Rp 3/4" | Rp 1" | Rp 1 1/4" | Rp 1 1/2" | Rp 2" |
| Kvs | 3 | 7 | 11 | 15 | 25 | 40 |
| Kgs | 0.49 | 0.55 | 0.59 | 0.92 | 1.62 | 2.20 |

DN15-DN25

DN32-DN50



Technical Data

| | |
|-----------------------------|---|
| Max Pressure | 10 Bar |
| Working Temperature | -10°C to +110°C |
| Differential Pressure Range | Mixing 100 kPa (1 Bar) Diverting 200 kPa (2 Bar) |

| N. | Part Name | Qty | Materials |
|-------------|--------------------|-----|---------------------|
| 1 | Body | 1 | Brass CW617N |
| 2 | Rotor | 1 | Brass CW617N |
| 3 | Cover | 1 | Brass CW617N |
| 4 | 'O' Ring 8.73x1.78 | 2 | EPDM |
| 5 | 'O' Ring 8.73x1.78 | 1 | FKM |
| 6 | Washer | 1 | PTFE |
| 7 | 'O' Ring 23.3x2.4 | 1 | EPDM |
| 8 | 'O' Ring 27x2.5 | 1 | EPDM |
| 9 (DN15-25) | Screw M5x10 | 2 | Steel / Zinc Plated |
| 9 (DN32-50) | Screw M6x16 | 3 | Steel / Zinc Plated |
| 10 | Washer | 1 | PTFE |
| 11 | Spacer | 1 | Steel / Zinc Plated |
| 12 | Screw 2.9x6.5 | 2 | DIN7981 A2k |
| 13 | Index Plate | 1 | Al |

Dimensions in mm

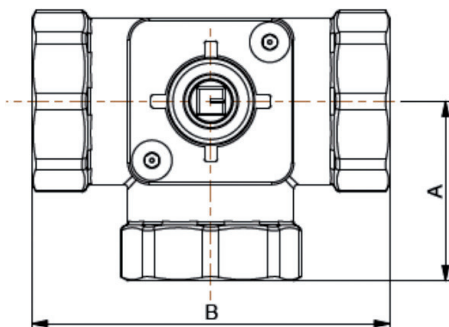
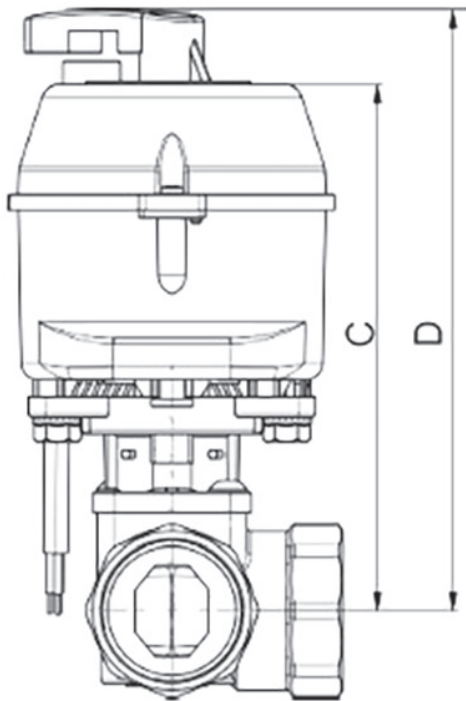
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Actuator to Fit Rotary CRM Valves

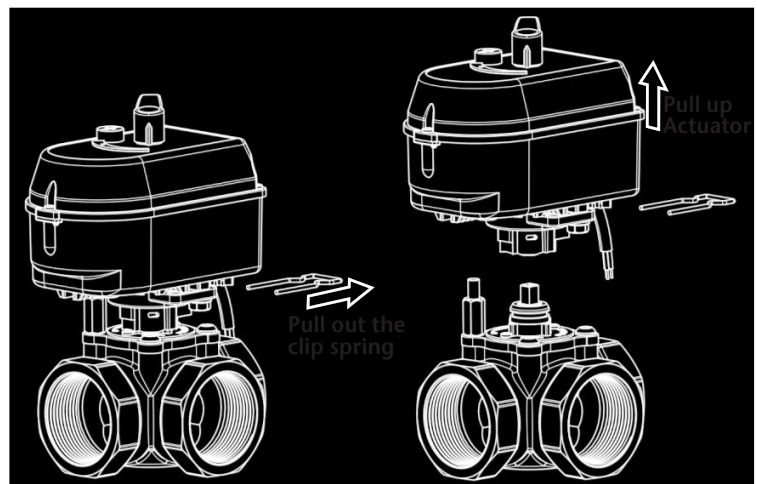
Features

- Quick connection/release CLIP system utilised
- Synchronous motor with defined rotation direction
- CRV24 (24VAC) & CRV230 (230VAC) offers 3pt control
- CRE (24VAC) offers 0-10V, 4-20mA modulating control
- Auto/Man button with Handle for Manual operation
- Auxillary switches as standard on CRV
- 0-10VDC Feedback signal as standard on CRE



| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------------|-----------|-----------|----------|-----------|-----------|----------|
| Type | CRM15/3.0 | CRM20/7.0 | CRM25/11 | CRM32/15 | CRM40/25 | CRM50/40 |
| A | 36 | 36 | 41 | 47 | 53 | 60 |
| B | 72 | 72 | 82 | 94 | 106 | 120 |
| C | 126 | 126 | 126 | 132 | 139 | 140 |
| D | 144 | 144 | 144 | 149 | 156 | 158 |
| Connection | Rp 1/2" | Rp 3/4" | Rp 1" | Rp 1 1/4" | Rp 1 1/2" | Rp 2" |
| Kvs | 3 | 7 | 11 | 15 | 25 | 40 |
| Kgs | 1.22 | 1.28 | 1.32 | 1.65 | 2.35 | 2.93 |

Disconnection / Reconnection



Technical Data

| | |
|--------------------|--------------|
| Max Torque | 15 Nm |
| Ingress Protection | IP44 |
| Running Time | 73 Sec / 90° |

For reconnection, insert clip spring into clip adapter on actuator and push actuator onto valve to hear 'click'.

Dimensions in mm

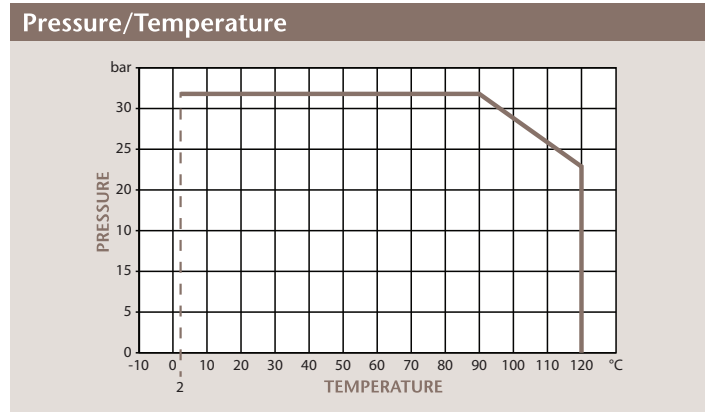
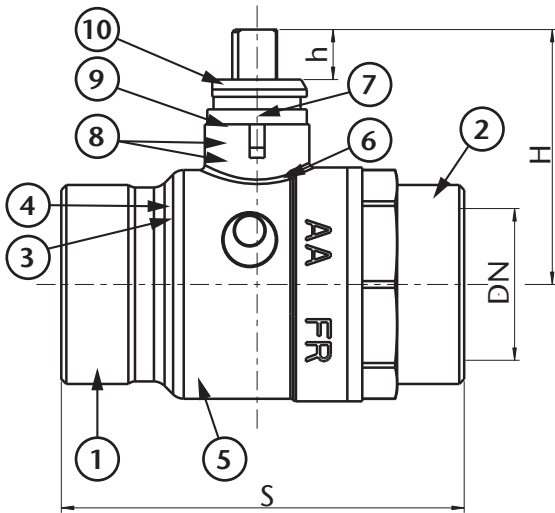
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.



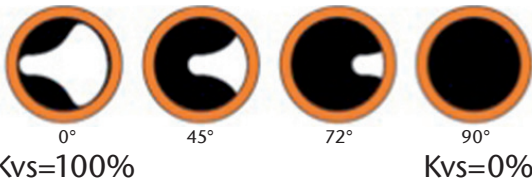
2 Port Brass Zone/Control Valve

Features

- Quick connection/release CLIP system utilised
- Zone and Isolation with ON-OFF (2 point control)
- WRAS approval DN15-32
- Optional Equal percentage control characteristic insert
- Anti-Legionella design ball
- Frost Proof ball and valve shape
- Raise/Lower (3 Point Control) or Modulating (0-10V) available



Equal Percentage Control valve opening angle



| Technical Data | |
|-----------------------|---------------|
| Max Pressure PN Class | 32 Bar |
| Working Temperature | 2°C to +120°C |
| Max ΔP Valve | 6 Bar |

| DN | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
|------------|------|------|------|--------|--------|------|
| Ø | 17 | 20 | 25 | 32 | 40 | 50 |
| S | 62 | 68 | 81 | 86 | 102 | 122 |
| H | 41 | 47 | 51 | 56 | 51 | 59 |
| h | 8 | 10 | 10 | 10 | 11 | 11 |
| Connection | Clip | Clip | Clip | Clip | Iso | Iso |
| Kvs (m³/h) | 20 | 45 | 60 | 100 | 170 | 265 |
| Kg | 0.23 | 0.35 | 0.54 | 0.70 | 1.08 | 1.70 |

| N. | Part Name | Materials |
|----|-----------|--------------|
| 1 | Body | Brass CW617N |
| 2 | Body End | Brass CW617N |
| 3 | Seat | PTFE |
| 4 | O-Ring | EPDM |
| 5 | Ball | Brass |
| 6 | Washer | PTFE |
| 7 | Stem | Brass CW617N |
| 8 | O-Ring | EPDM |
| 9 | O-Ring | FPM |
| 10 | Washer | PTFE |

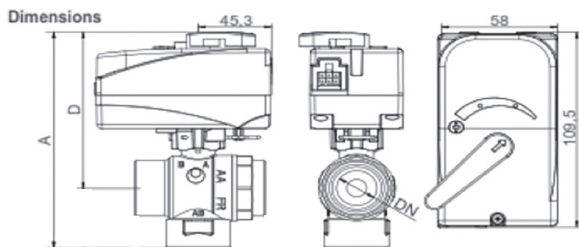
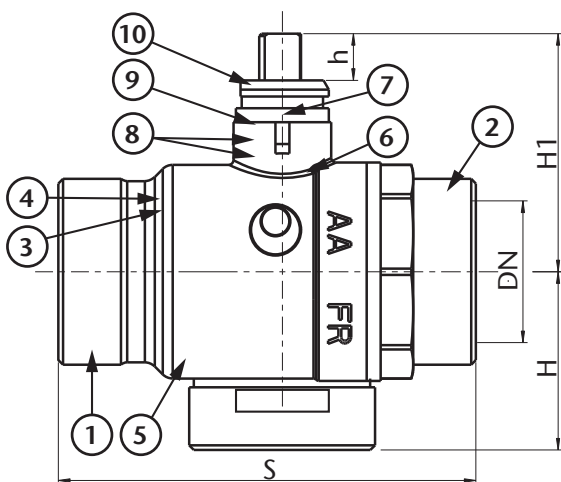
Dimensions in mm

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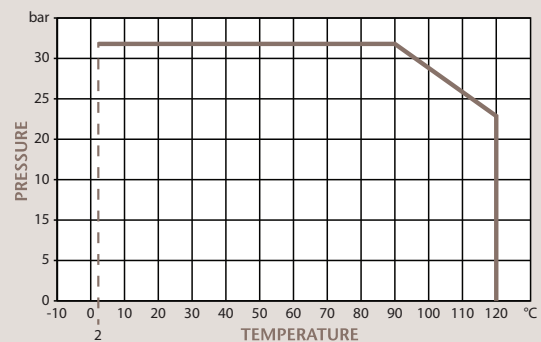
3 Port Brass Zone/Control Valve

Features

- Offers ON-Off Zone, Isolation and control
- Priority Control of Hot Water (diverting function)
- Priority Control of renewable energy and boiler installations



Pressure/Temperature



| DN | 3/4" | 1" | 1 1/4" |
|-------------------------|------|------|--------|
| Ø | 20 | 25 | 32 |
| S | 68 | 81 | 86 |
| h | 10 | 10 | 10 |
| H | 40 | 43 | 52 |
| H1 | 47 | 51 | 56 |
| A | 144 | 150 | 165.5 |
| D | 104 | 107 | 113.5 |
| Kvs (m ³ /h) | 9.6 | 11.3 | 25 |
| Kgs | 0.42 | 0.62 | 0.91 |

Technical Data

| | |
|-----------------------|---------------|
| Max Pressure PN Class | 32 Bar |
| Working Temperature | 2°C to +120°C |
| Max ΔP Valve | 6 Bar |

| N. | Part Name | Materials |
|----|-----------|--------------|
| 1 | Body | Brass CW617N |
| 2 | Body End | Brass CW617N |
| 3 | Seat | PTFE |
| 4 | O-Ring | EPDM |
| 5 | Ball | Brass |
| 6 | Washer | PTFE |
| 7 | Stem | Brass CW617N |
| 8 | O-Ring | EPDM |
| 9 | O-Ring | FPM |
| 10 | Washer | PTFE |

Dimensions in mm

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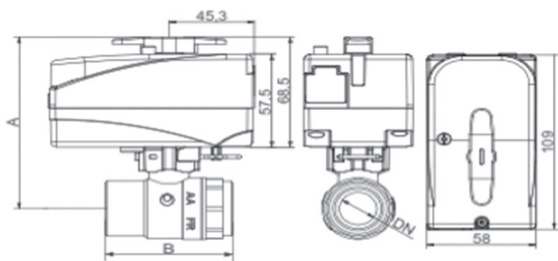


Actuator to Fit CRZ2 / CRZ3 Valves

Features

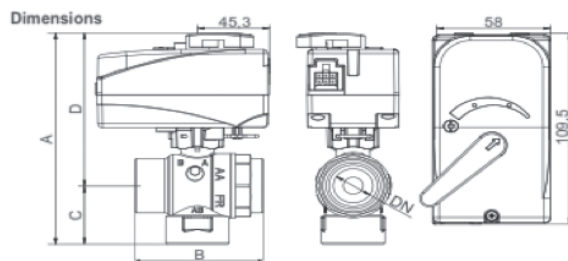
- Quick connection/release CLIP system utilised
- ON-OFF Control via Most Room Thermostats
- Controlled via SPST or SPDT switch
- Auxiliary switch for start/stop of pump etc
- Manual Control/override
- 24V/230V options

CRI2



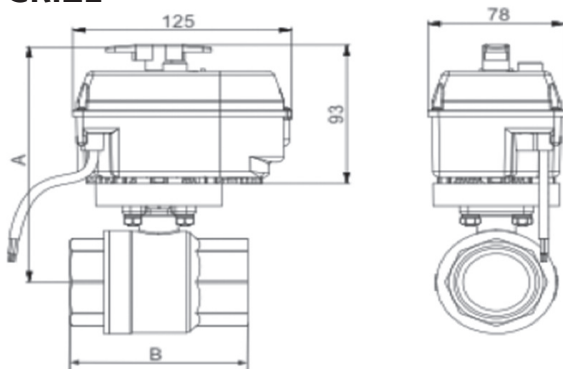
| DN | 1/2" | 3/4" | 1" | 1 1/4" |
|----|------|------|-----|--------|
| Ø | 15 | 20 | 25 | 32 |
| A | 104 | 107 | 112 | 117 |
| B | 62 | 68 | 81 | 86 |

CRI3



| DN | 3/4" | 1" | 1 1/4" |
|----|------|-----|--------|
| Ø | 20 | 25 | 32 |
| A | 144 | 150 | 165.5 |
| B | 68 | 81 | 86 |
| C | 40 | 43 | 52 |
| D | 104 | 107 | 113.5 |

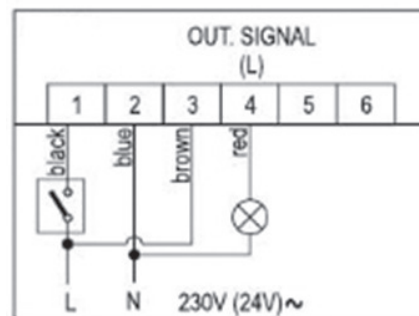
CRI2L



| DN | 1 1/2" | 2" |
|----|--------|-----|
| Ø | 40 | 50 |
| A | 158 | 178 |
| B | 102 | 122 |

Technical Data

| | |
|--------------------|--------------|
| Max Torque | 8/15 Nm |
| Ingress Protection | IP44 |
| Running Time | 30 Sec / 90° |



Dimensions in mm

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