Hydronic Balance & Control Valves

Product Information

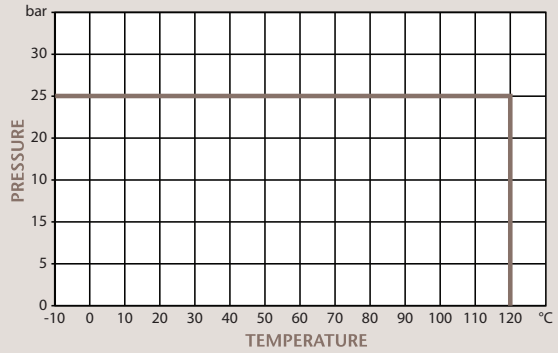
ART 25

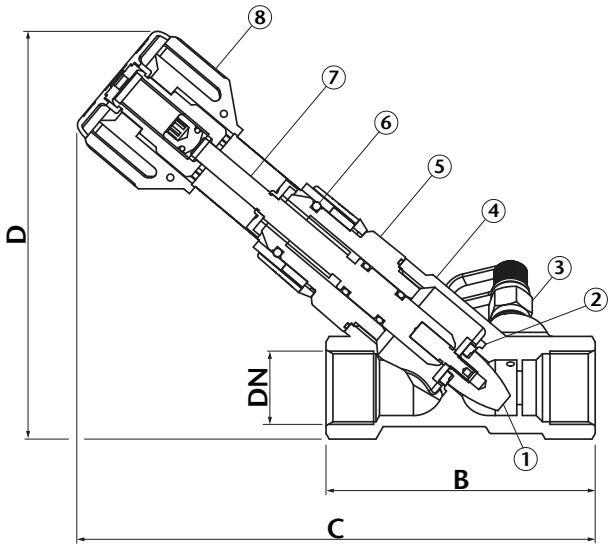
PN25 DZR Fixed Orifice Double Regulating Valve (FODRV)

Features

- BSP parallel (ISO 7/1)
- Fixed orifice with ± 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

Pressure/Temperature





DN	½"	¾"	1"	1¼"	1½"	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

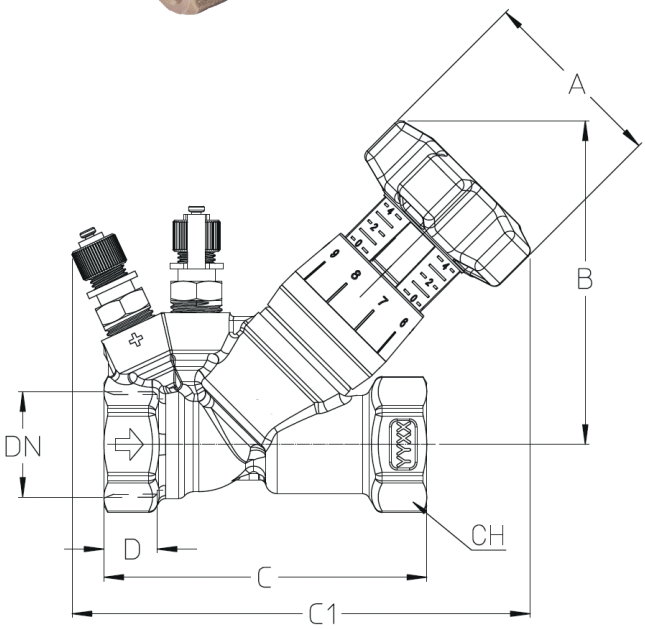
N.	Part Name	Materials
1	Cone	DZR Brass
2	Cone Seat	EPDM Rubber
3	Pressure Test Point	DZR Brass
4	Body	DZR Brass
5	Bonnet	DZR Brass
6	'O' Rings	Nitrile Rubber
7	Stem	DZR Brass
8	Handwheel	Nylon 6

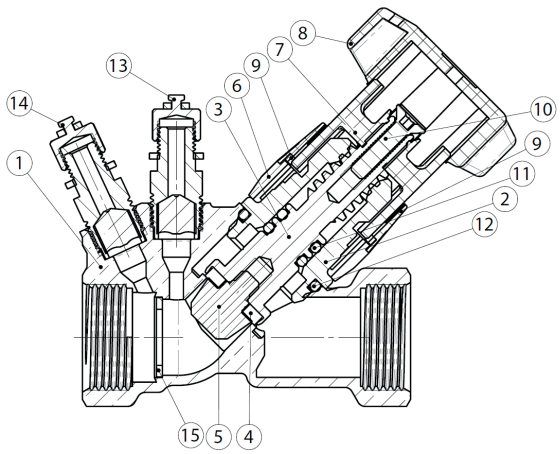
Technical Data

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

Dimensions in mm

ART 22





Technical Data

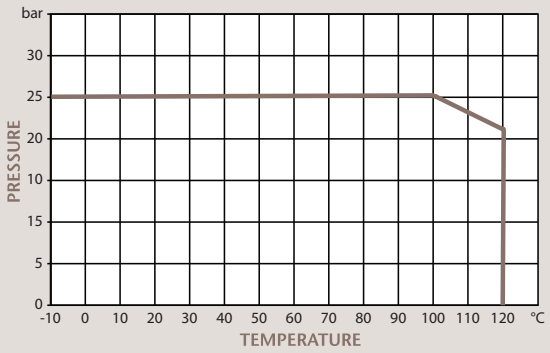
Max Pressure	25 Bar
Working Temperature	-10°C to +120°C

DZR Fixed Orifice Double Regulating Valve (FODRV)

Features

- BSP Parallel (ISO 228/1)
- Handwheel with shut off function and clear 360° reading
- Digital scale with lock function
- Fixed orifice with ± 5% flow measurement accuracy
- Conforms to BS 7350 / BS 5154

Pressure/Temperature



DN	½"L	½"ML	½"	¾"	1"	1¼"	1½"	2"
A	50	50	50	50	50	50	50	50
B	83	83	83	82	84	87	107	103
C	72.5	72.5	72.5	82	95	122	138	161
C1	113	113	113	116.5	130	131	149	164
D	12.5	12.5	12.5	12.5	14.5	16	16	16
CH	25	25	25	31	38	47	55	66
Kv	0.533	0.738	2.00	3.88	7.28	13.39	18.60	30.10
Kvs	0.6	1.1	2.3	5.3	9.2	19.0	22.1	42.3
Kgs	0.38	0.38	0.38	0.43	0.52	0.86	1.34	1.47

N.	Part Name	Materials
1	Valve Body	DZR Brass - CW602N-M
2	Bonnet	DZR Brass - CW602N-M
3	Stem for Shutter	DZR Brass - CW602N-M
4	Shutter Gasket	EPDM
5	Disc	Brass
6	Fixed Index	POM
7	Entrainer	Nylon 6
8	Knob	Nylon 6
9	Tenth Turn Index	POM
10	Memory Screw	Steel
11	Stem O-Ring	EPDM
12	Bonnet O-Ring	EPDM
13	Outlet Binder Point	Brass
14	Inlet Binder Point	Brass
15	Fixed Orifice	DZR Brass - CW602N-M

Dimensions in mm

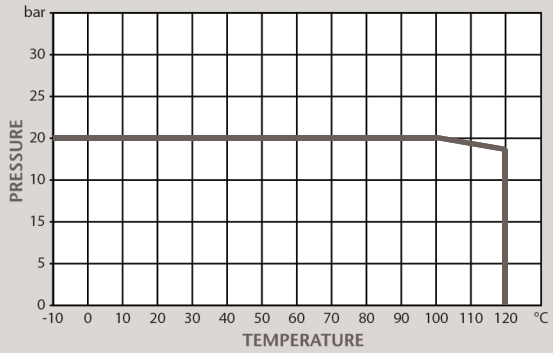
ART 26

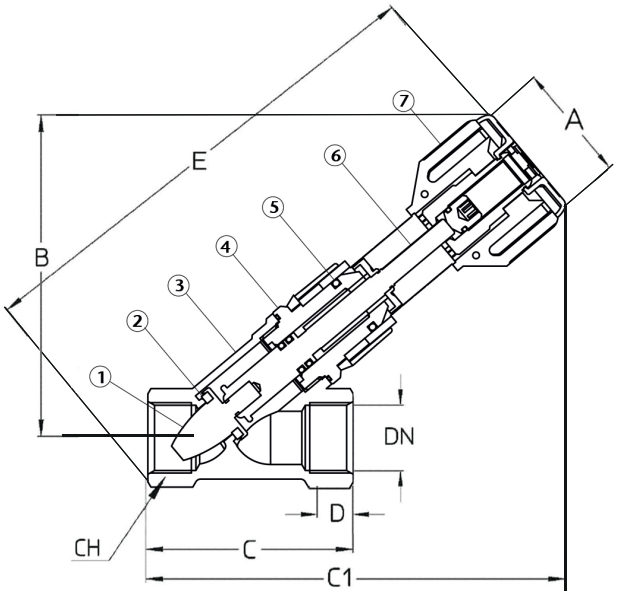
PN20 DZR Double Regulating Valve (DRV)

Features

- BSP parallel (ISO 7/1)
- Position indicator
- Double regulating valve
- Non rising stem
- EPDM disk seating gives tight shut off
- ½" available in Std. and Low flow versions
- Available with 'M' Press ends ART 26 PRS

Pressure/Temperature





DN	½"	¾"	1"	1¼"	1½"	2"
A	51	51	51	51	57	57
B	104	121	133	141	181	190
C	68	77	91	108	116	143
C1	138	156.5	161	172	213	231.5
D	16.5	18	21	23	23	26
E	161	187	200	219	275	300
CH	28	33	40	51	56	71
Kgs	0.48	0.65	0.85	1.28	1.84	2.86

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

Technical Data

Max Pressure	20 Bar
Working Temperature	-10°C to +120°C

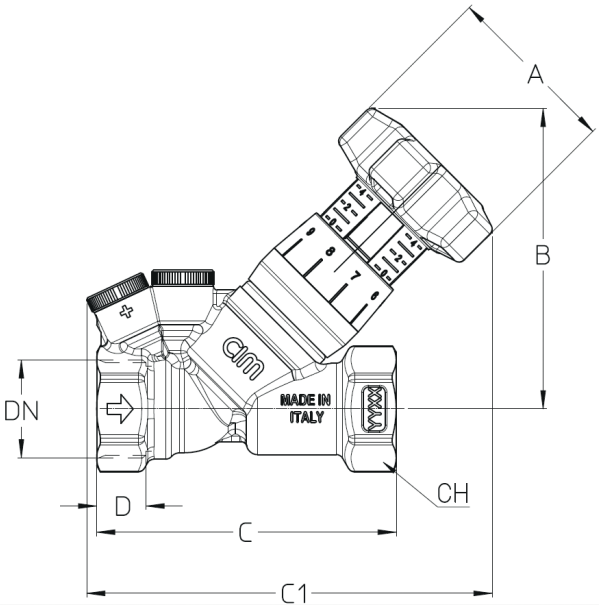
Dimensions in mm

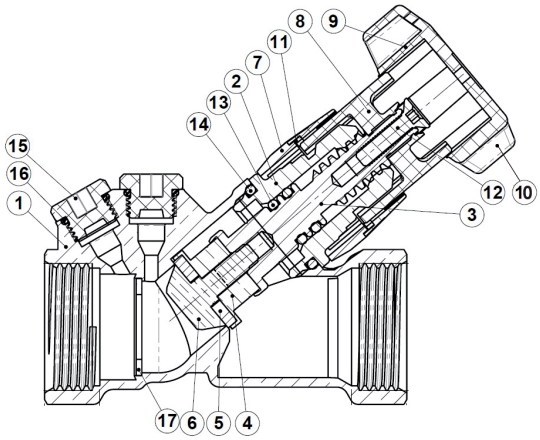
ART 23

DZR Double Regulating Valve (DRV)

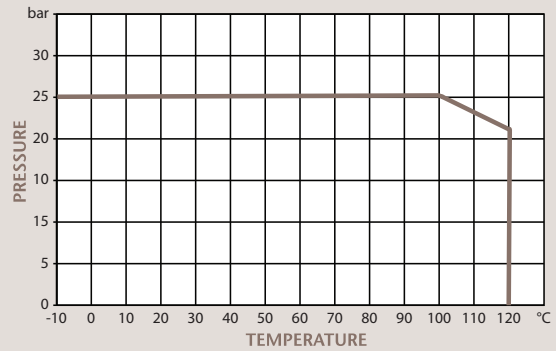
Features

- BSP Parallel (ISO 228/1)
- Handwheel with shut off function and clear 360° reading
- Digital scale with lock function





Pressure/Temperature



DN	½"L	½"	¾"	1"	1¼"	1½"	2"
A	50	50	50	50	50	50	50
B	83	83	82	84	87	107	103
C	72.5	72.5	82	95	122	138	161
C1	107	107	110.5	124	131	149	164
D	12.5	12.5	12.5	14.5	16	16	16
CH	25	25	31	38	47	55	66
Kv	0.533	2.00	3.88	7.28	13.39	18.60	30.10
Kgs	0.36	0.36	0.42	0.50	0.85	1.33	1.46

N.	Part Name	Materials
1	Valve Body	DZR Brass
2	Bonnet	DZR Brass
3	Stem for Shutter	DZR Brass
4	Adapter for Shutter	Brass
5	Shutter Gasket	EPDM
6	Disc	Brass
7	Fixed Index	POM
8	Entrainer	Nylon 6
9	Knob	Nylon 6
10	Handwheel	Plastic
11	Tenth Turn Index	POM
12	Memory Screw	Steel
13	Stem O-Ring	EPDM
14	Bonnet O-Ring	EPDM
15	Cap	Nylon
16	O-Ring	EPDM
17	Fixed Orifice	DZR Brass

Technical Data

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

Dimensions in mm

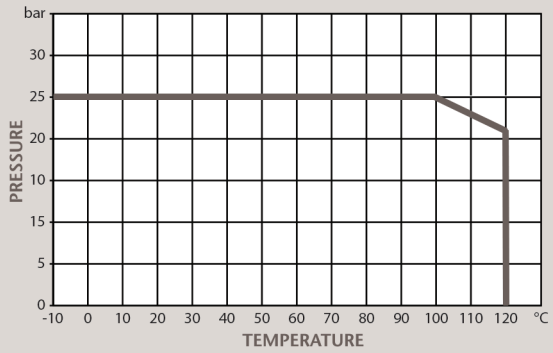
ART 28

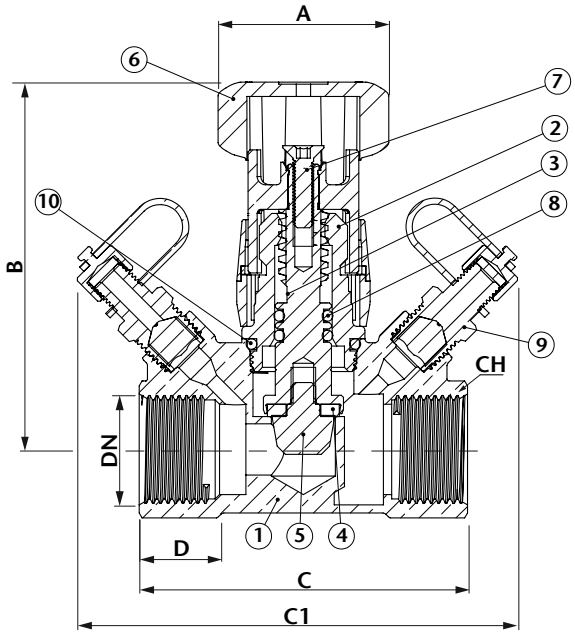
PN25 DZR Variable Orifice Double Regulating Valve (VODRV)

Features

- Brass Body (CW602N-M)
- BSP parallel (ISO 7/1) or NPT (ANSI B1.20.1)
- Position indicator
- Double regulating device
- Supplied with 2 fitted test points
- EPDM cone seating gives tight shut off
- Conforms to BS 7350 / BS 5154

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 - CW602N-M
2	Bonnet	DZR Brass - CW602N-M
3	Stem	DZR Brass - CW602N-M
4	Gasket	EPDM
5	Shutter	DZR Brass - CW602N-M
6	Handwheel	Nylon 6
7	Screw	DZR Brass - CW602N-M
8	O-Ring	EPDM
9	Binder Point	DZR Brass - CW602N-M
10	O-Ring	EPDM

Technical Data

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

Dimensions in mm

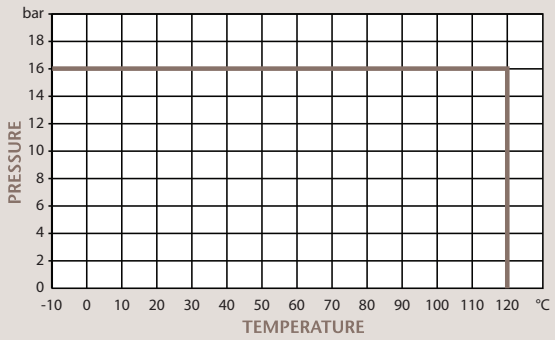
ART 250 PN16

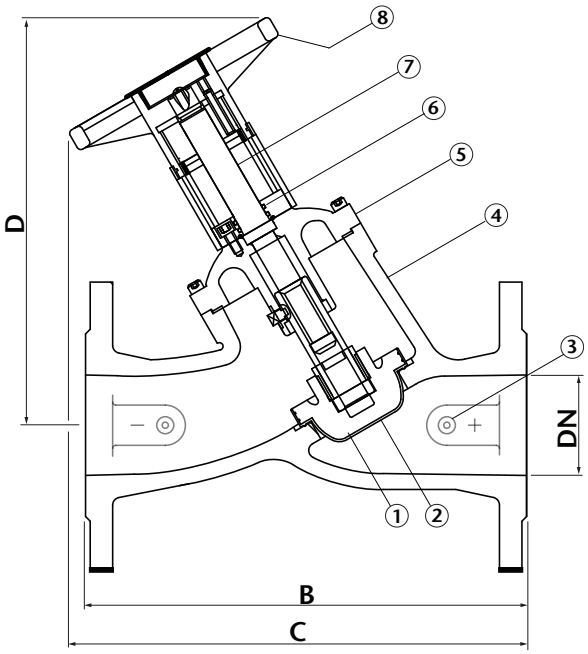
PN16 Ductile Iron Double Regulating Valve (DRV)

Features

- Flange Mounting PN16 Only
- Flange conforms to BS EN1092 PN16
- Position indicator
- Double regulating device
- Supplied with 2 test points and extensions
- EPDM cone seating gives tight shut off
- Body ductile iron
- Conforms to BS 5152 / BS 7350

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

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

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

Dimensions in mm

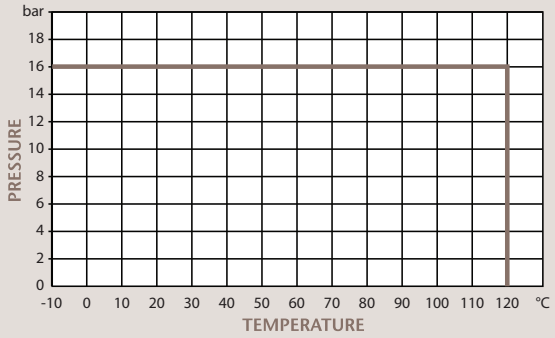
ART 250 PN16 DN350-450

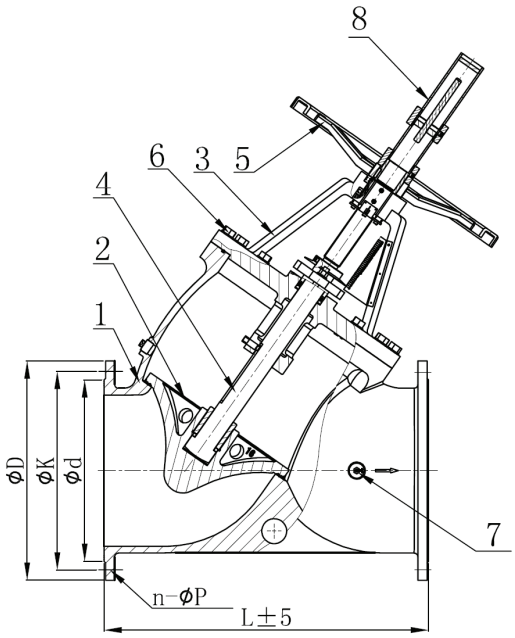
PN16 Ductile Iron Double Regulating Valve (DRV)

Features

- Flange Mounting PN16 Only
- Flange conforms to BS EN1092 PN16
- Position indicator
- Double regulating device
- Supplied with 2 test points and extensions
- EPDM cone seating gives tight shut off
- Body ductile iron
- Maximum differential pressure 500kPa

Pressure/Temperature





DN	350	400	450
D	520	580	640
K	470	525	585
n-ØP	16-Ø28	16-Ø31	20-Ø31
d	429	480	548
L	772	858	938
Kgs	350	475	810

N.	Part Name	Materials
1	Body	Ductile Iron
2	Disc	Ductile Iron + EPDM
3	Cover	Ductile Iron
4	Shaft	Stainless Steel 410
5	Handwheel	Cast Iron
6	Bolt	Carbon Steel
7	Plug	Carbon Steel
8	Locking Devices	Carbon Steel

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

Dimensions in mm

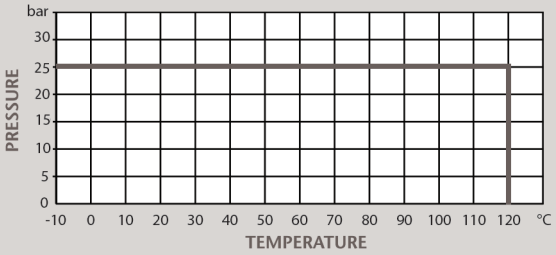
ART 250 HP PN25

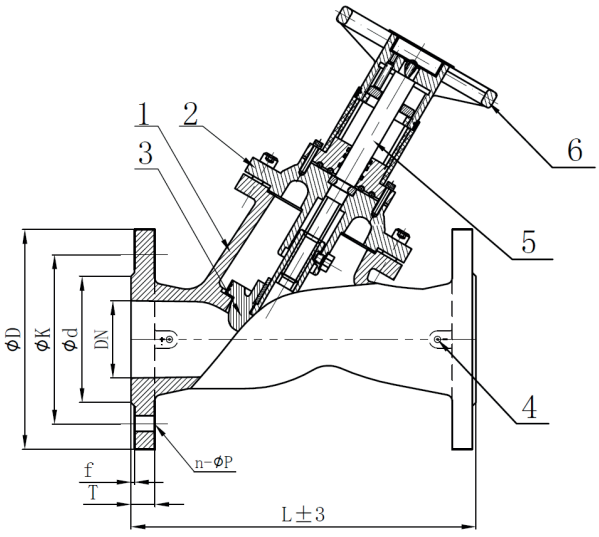
PN25 Ductile Iron Double Regulating Valve (DRV)

Features

- Flange Mounting PN25 Only
- Flange conforms to BS EN1092 PN25
- Position indicator
- Double regulating device
- Supplied with 2 test points and extensions
- EPDM cone seating gives tight shut off
- Body ductile iron
- Conforms to BS 5152 / BS 7350

Pressure/Temperature





DN	50	65	80	100	125	150
L	230	290	310	350	400	480
ØD	165	185	200	235	270	300
ØK	125	145	160	190	220	250
Ød	99	118	132	156	184	211
n-ØP	4-Ø19	8-Ø19	8-Ø19	8-Ø23	8-Ø28	8-Ø28
T	19	19	19	19	19	20
f	3	3	3	3	3	3
Kgs	14.4	18.4	24.2	34.5	48.3	64.4

N.	Part Name	Materials
1	Body	Ductile Iron
2	Cover	Ductile Iron
3	Disc	Ductile Iron + EPDM
4	Plug	Carbon Steel
5	Shaft	Stainless Steel 410
6	Handwheel	Aluminium Alloy / Carbon Steel

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

Dimensions in mm

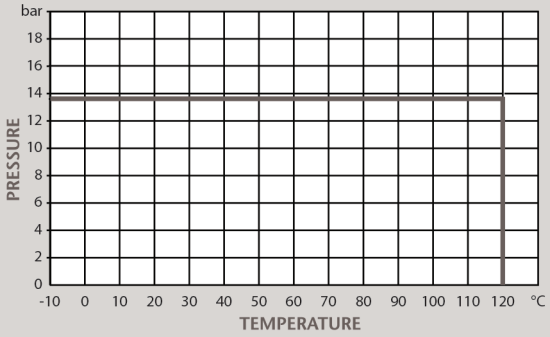
ART 250 ANSI

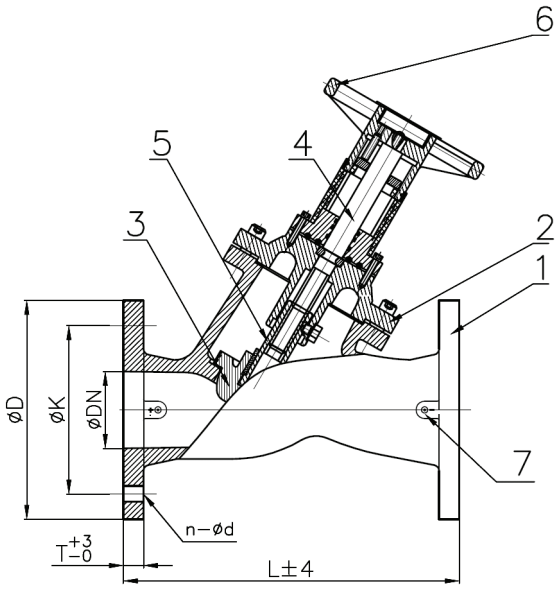
ANSI Ductile Iron Double Regulating Valve (DRV)

Features

- Flanged ANSI 125 (B16.1)
- Position indicator
- Double regulating device
- Supplied with 2 test points and extensions
- EPDM cone seating gives tight shut off
- Body ductile iron
- Conforms to BS 5152 / BS 7350 / API 598

Pressure/Temperature





DN	50	65	80	100	125	150	200	250	300
D	152	178	191	229	254	279	343	406	483
K	121	140	152	191	216	241	299	362	432
n-Ød	4-19	4-19	4-19	8-19	8-22.4	8-22.4	8-22.4	12-25.4	12-25.4
T	16	18	19	24	24	25	29	30	32
L	230	290	310	350	400	480	600	730	850
Kgs	12.5	16.0	21.0	30.0	42.0	56.0	126.0	195.0	289.0

N.	Part Name	Materials
1	Body	Ductile Iron
2	Cover	Cast Iron
3	Disc	Cast Iron + EPDM
4	Stem	Stainless Steel 410
5	Stem Nut	Brass
6	Handwheel	Aluminium Alloy / Carbon Steel
7	Plug	Carbon Steel

Technical Data	
Max Pressure	13.8 Bar
Working Temperature	-10°C to +120°C

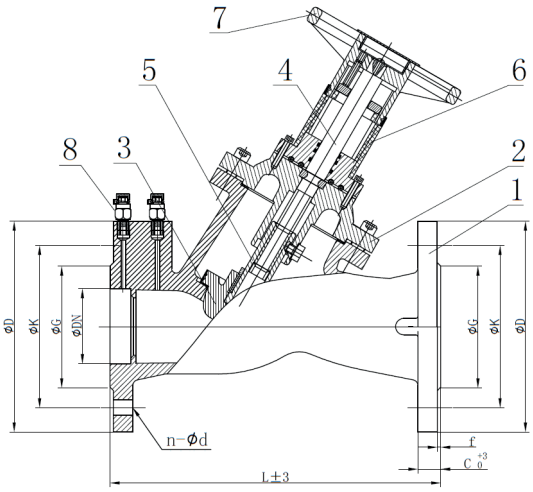
Dimensions in mm

ART 255

Flanged Fixed Orifice Double Regulating Valve (FODRV)

Features

- Flanged PN16
- Position indicator
- Fixed orifice with ± 5% flow measurement accuracy
- Supplied with 2 fitted test points
- Extensions are included but not fitted
- EPDM cone seating gives tight shut off
- Body ductile iron
- Conforms to BS 5152 / BS 7350



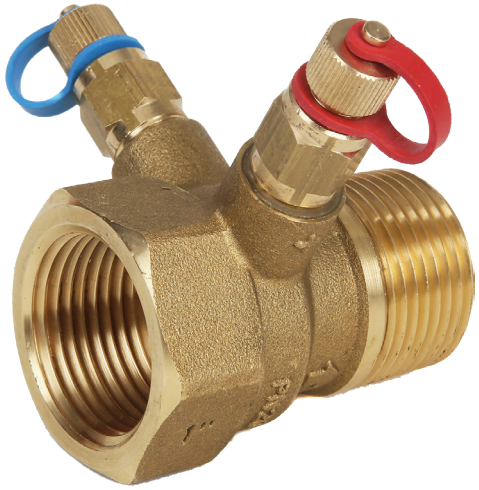
DN	2”	2½”	3”	4”	5”	6”	8”	10”	12”
DN	50	65	80	100	125	150	200	250	300
ØD	165	185	200	220	250	285	340	405	460
ØK	125	145	160	180	210	240	295	355	410
N-Ød	4-Ø19	4-Ø19	8-Ø19	8-Ø19	8-Ø19	8-Ø23	12-Ø23	12-Ø28	12-Ø28
C	19	19	19	19	19	19	20	22	24.5
ØG	99	118	132	156	184	211	266	319	370
f	3	3	3	3	3	3	3	3	4
L	230	290	310	350	400	480	600	730	850

No.	Part Name	Materials
1	Body	Ductile Iron
2	Cover	Cast Iron
3	Disc	Cast Iron + EPDM
4	Stem	Stainless Steel 410
5	Stem Nut	Brass
6	Indicator Kits	ABS
7	Hand Wheel	Aluminium
8	Test Points	Brass

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

Dimensions in mm

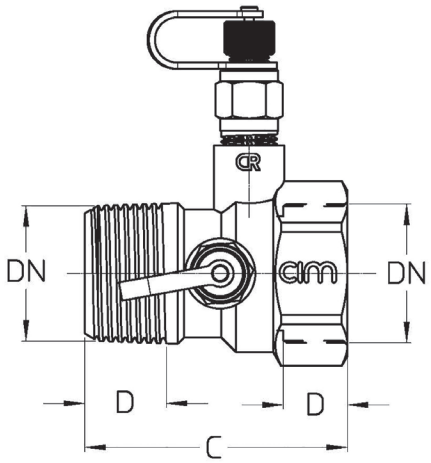
ART 27

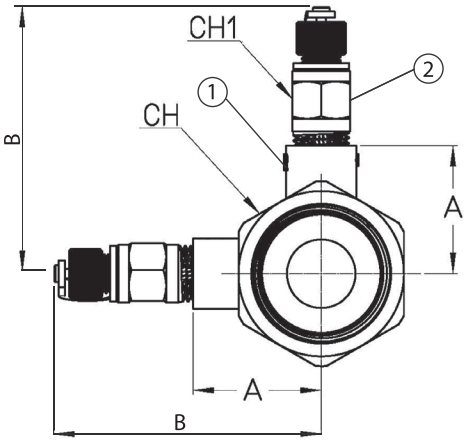


PN20 DZR Brass Orifice Plate (OP)

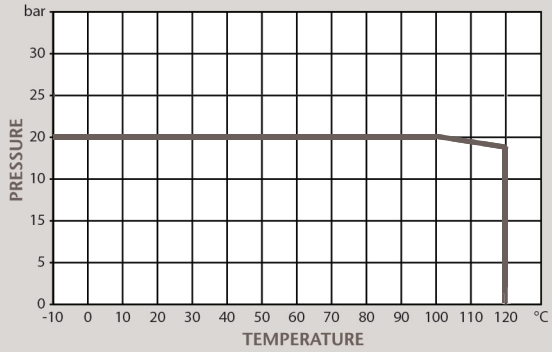
Features

- BSP Parallel (½“) Taper (¾ - 2”) (ISO 7/1)
- Fixing orifice with ± 5% flow measurement accuracy
- Can be close coupled to a double regulating valve
- Supplied with 2 fitted test points
- ½” available in Std, Med, Low, Ultra Low and Ultra Ultra Low flow versions





Pressure/Temperature



DN	½”UUL	½”UL	½”L	½”M	½”
A	25	25	25	25	25
B	59	59	59	59	59
C	66.5	66.5	66.5	66.5	66.5
D	17	17	17	17	17
CH	28	28	28	28	28
CH1	14	14	14	14	14
Kvs	0.10	0.23	0.47	0.98	1.80
Kgs	0.23	0.23	0.23	0.23	0.23

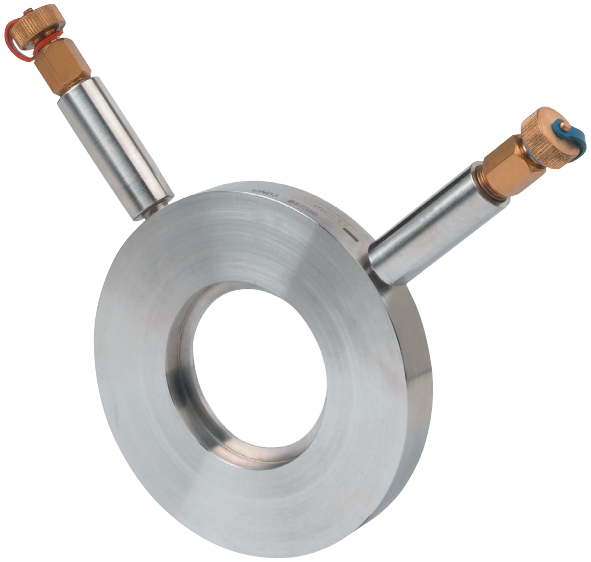
DN	¾”	1”	1¼”	1½”	2”
A	28	31	36	39	45
B	62	65	70	73	79
C	66.5	63.5	71	71	79.5
D	17	19	22	21	26
CH	34	40	51	56	71
CH1	14	14	14	14	14
Kvs	4.06	7.45	16.63	23.00	47.35
Kgs	0.27	0.32	0.47	0.53	0.81

Technical Data	
Max Pressure	20 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

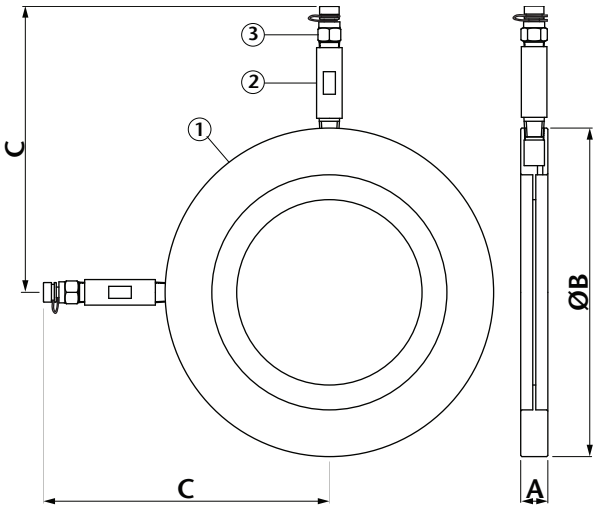
ART 270 PN16



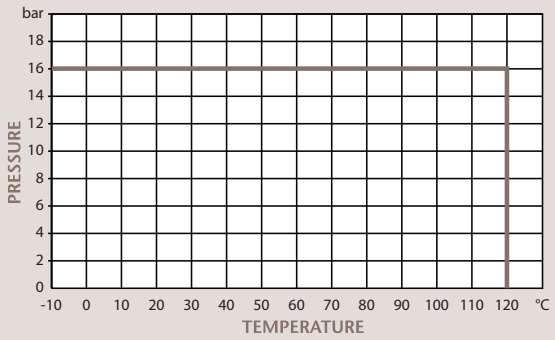
PN16 Stainless Steel Orifice Plate (OP)

Features

- Wafer pattern
- Fits between BS EN1092 flanges PN16
- Flow characteristic confirmed to BS 7350
- Fixed orifice with ± 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	127	144	164	194	220	275	330	385
C	136	145	153	164	178	192	219	248	274
Kgs	1.0	1.2	1.5	2.0	3.0	3.3	5.0	5.5	10.0

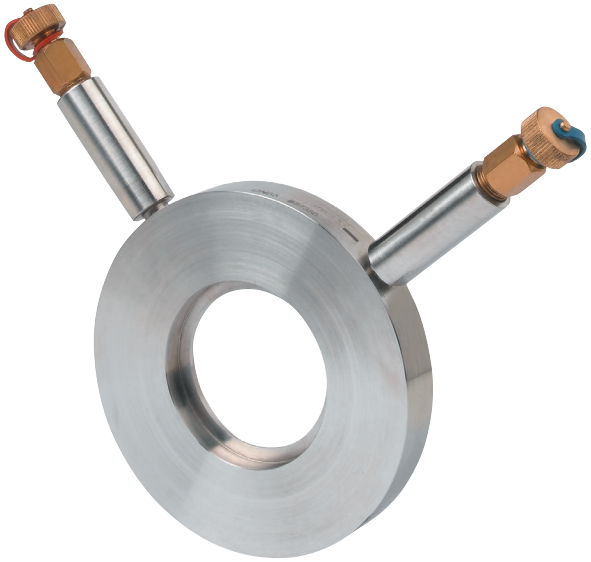
DN	350	400	450	500	600
A	20	20	30	30	30
B	445	495	555	617	734
C	304	329	359	390	449
Kgs	12.5	15.3	28.0	30.0	39.5

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

ART 270 HP PN25

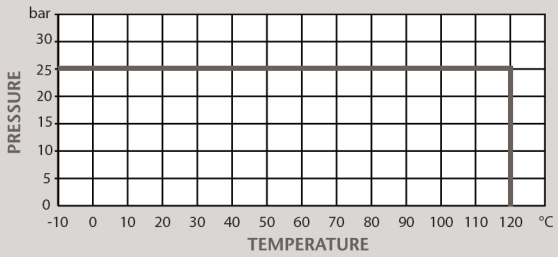


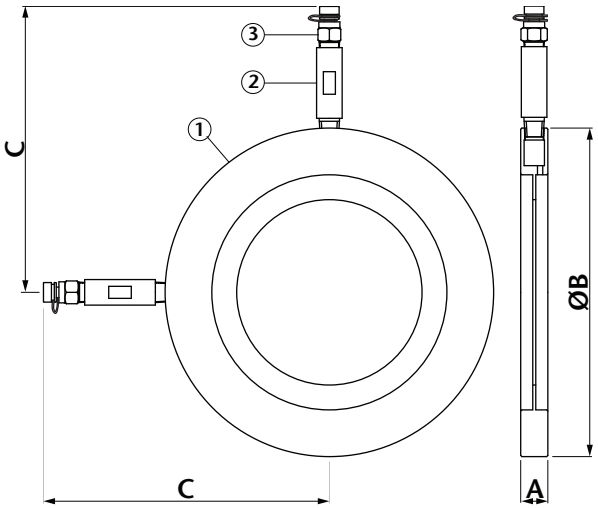
PN25 Stainless Steel Orifice Plate (OP)

Features

- Wafer pattern
- Fits between BS EN1092 flanges PN25
- Flow characteristic confirmed to BS 7350
- Fixed orifice with ± 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	22	22	22	22	22	22	22	22	22
B	108	127	142	168	194	224	284	340	400
C	136	145	153	166	179	194	224	252	282
Kgs	1.1	1.3	1.7	2.2	3.3	3.6	5.5	6.1	11.0

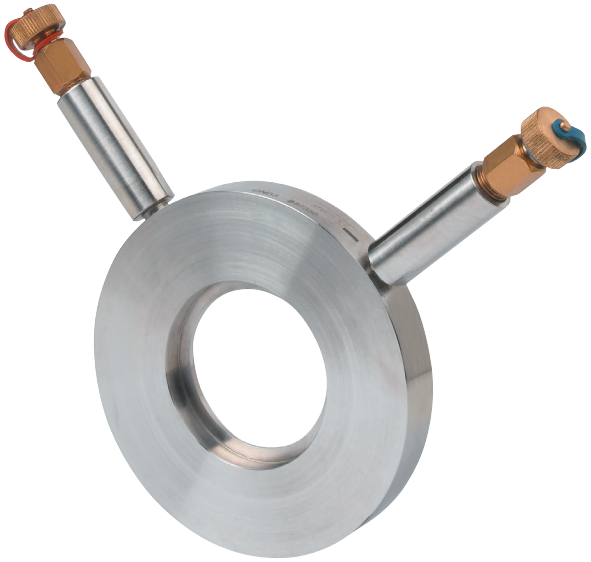
DN	350	400	450	500	600
A	22	22	32	32	32
B	457	514	564	624	730
C	310	339	364	394	447
Kgs	13.8	16.8	30.8	33.0	43.5

Technical Data	
Max Pressure	25 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

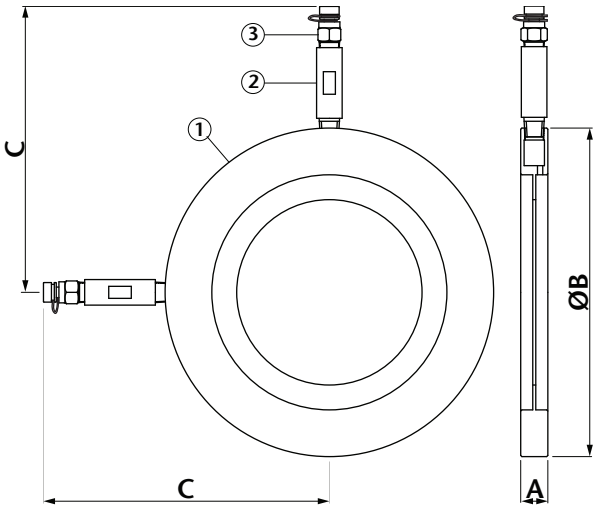
ART 270 ANSI



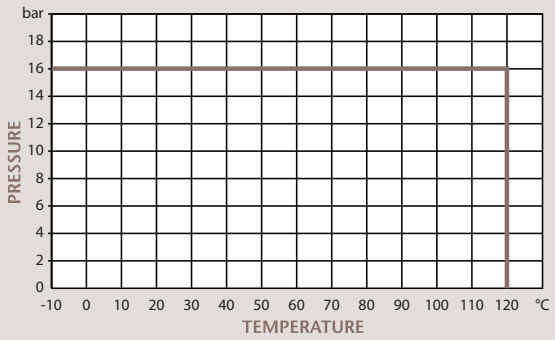
ANSI Stainless Steel Orifice Plate (OP)

Features

- Wafer pattern
- Fits between ANSI 150 flanges
- Flow characteristic confirmed to BS 7350
- Fixed orifice with ± 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	104	123	136	174	195	221	278	337	407
C	136	145	153	164	178	192	219	248	274
Kgs	1.1	1.3	1.7	2.5	3.5	4.0	5.8	6.5	11.4

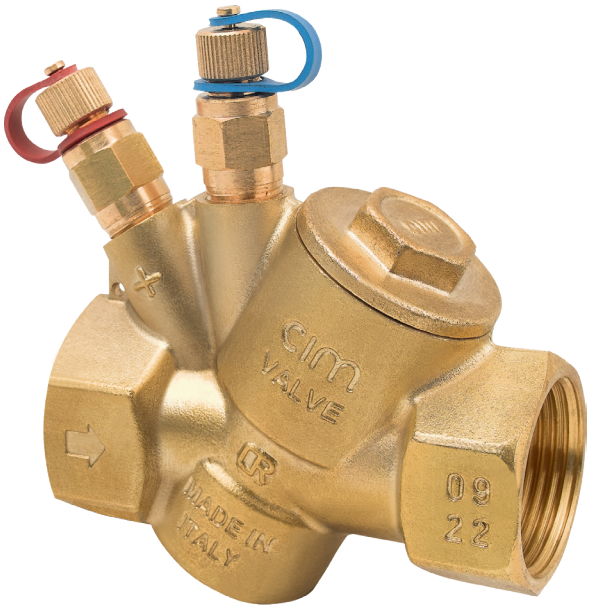
DN	350	400	450	500	600
A	20	20	30	30	30
B	449	512	547	604	716
C	304	329	359	390	449
Kgs	14.2	17	30.8	33	43.5

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

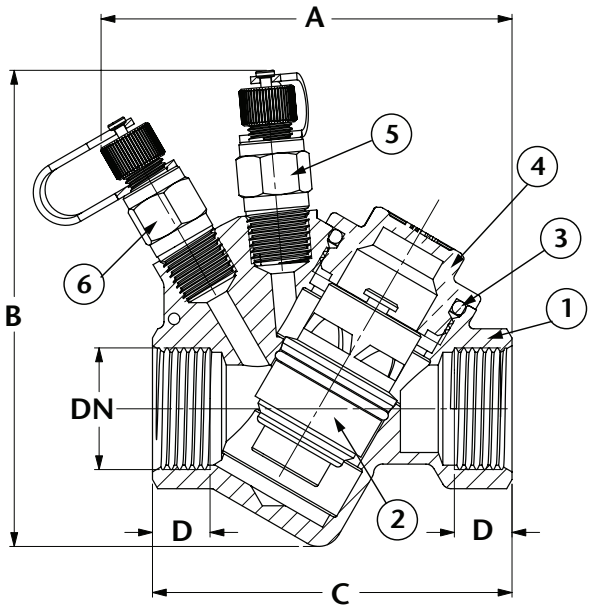
ART 29



Threaded Automatic Flow Balancing Valve - Constant Flow Regulator (CFR)

Features

- DZR Brass body (CW602N-M)
- BSP Parallel (ISO 7/1)
- Wide cartridge selection available
- 0.007 l/S to 3.154 l/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
- 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

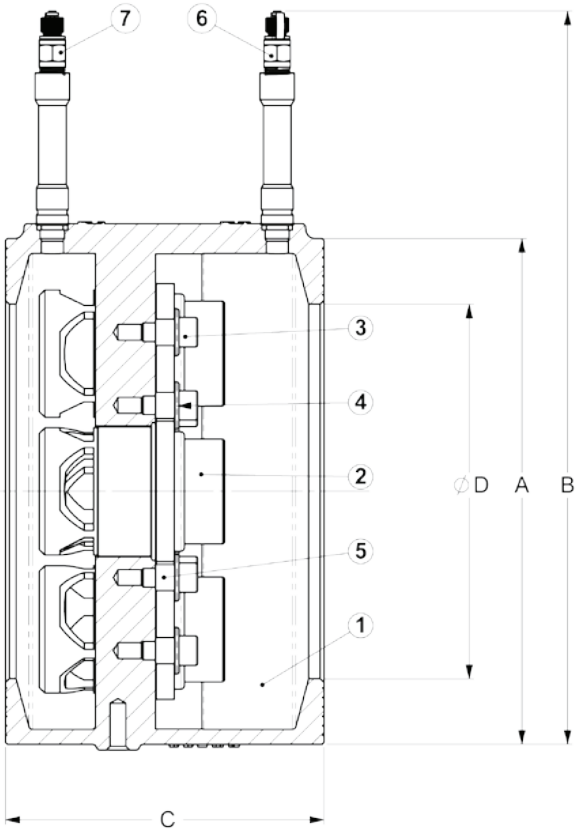
This is a 32mm body and cartridge but the valve has a 1” BSP connection for increased flow rates.

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

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

Dimensions in mm

ART 229



Technical Data

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

Wafer Automatic Flow Balancing Valve - Constant Flow Regulator (CFR)

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

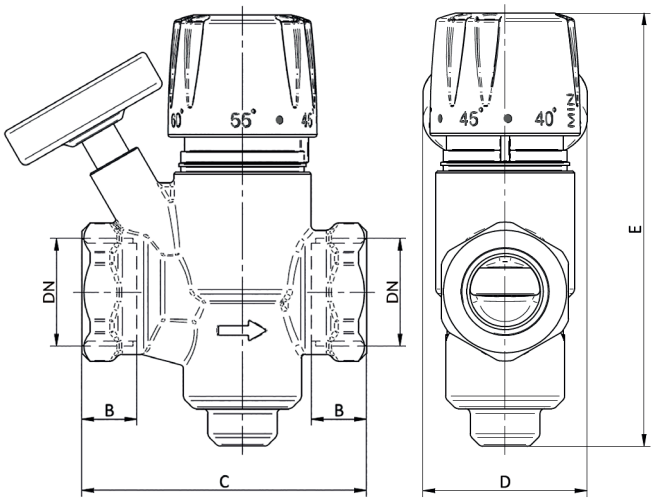
DN	50	65	80	100	125	150	200	250
ØA	100	119	131	163	193	216	271	326
B	218	237	249	281	311	334	389	440
C	170	170	170	170	170	170	170	170
ØD	80	80	80	100	125	150	200	260
Max cartrs.	1	1	1	2	3	4	7	12
Flow Rate	3820	3820	3820	3820	3820	3820	3820	3820
range (l/h)	45000	45000	45000	90000	135000	180000	315000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

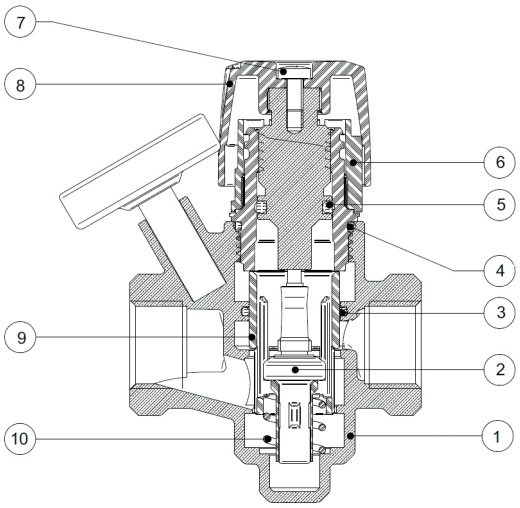
DN	300	350	400	450	500	600	800
ØA	383	443	496	545	601	715	880
B	501	561	614	663	719	833	998
C	170	170	170	170	170	170	170
ØD	315	355	405	455	508	610	760
Max cartrs.	15	19	26	33	40	56	85
Flow Rate	3820	3820	3820	3820	3820	3820	3820
range (l/h)	675000	855000	1170000	1485000	1800000	2520000	3825000
Kgs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

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

ART 31





Technical Data

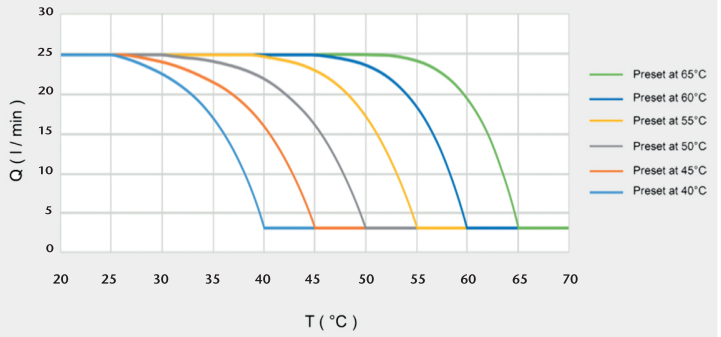
Max Working Pressure (Static)	10 Bar
Max Working Pressure (Dynamic)	5 Bar
Working Temperature	40°C to 65°C
Maximum Inlet Temperature	90°C

DZR Brass Thermostatic Balancing Valve

Features

- BSP Parallel (ISO 228/1)
- Accuracy +/- 2°C
- Fluid: Water
- WRAS Approved
- Improves efficiency of DHW systems
- Automatically responds to changes in system temperature and flow requirements
- Reduces heat loss through lower circulation of hot water
- Helps to keep temperature evenly distributed and reduces dead-legs

Flow



DN	½"	¾"
B	13.5	13.5
C	70	73
D	40	40
E	Max 113	Max 113
Kv	1.5	1.5

N.	Part Name	Materials
1	Valve body	DZR Brass
2	Element	Thermostatic Element
3	O-Ring	EPDM
4	O-Ring	EPDM
5	O-Ring	EPDM
6	Locking ring	ABS
7	Screw	Stainless Steel
8	Cap	ABS
9	Regulator	Plastic S2010 G4
10	Spring	Stainless Steel

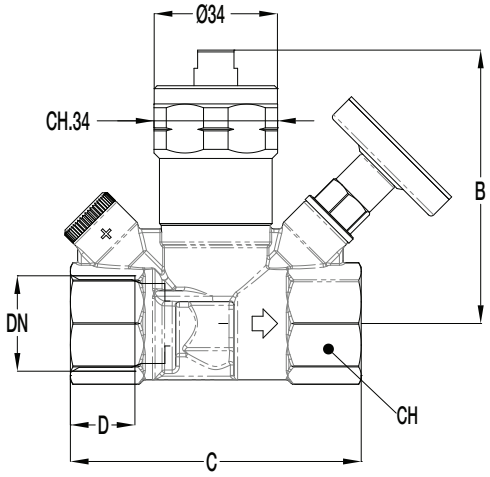
Dimensions in mm

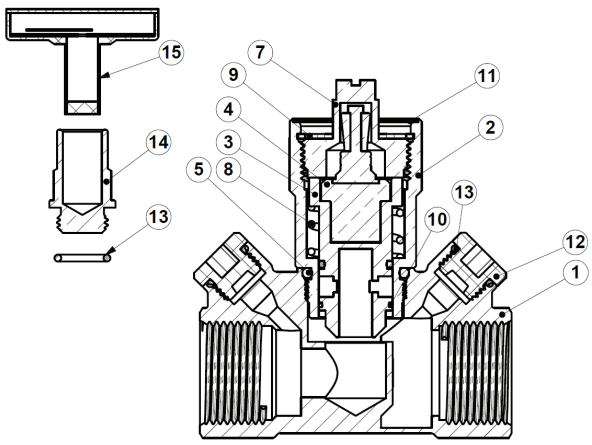
ART 32

DZR Brass Thermostatic Balancing Valve with Anti Legionella Device

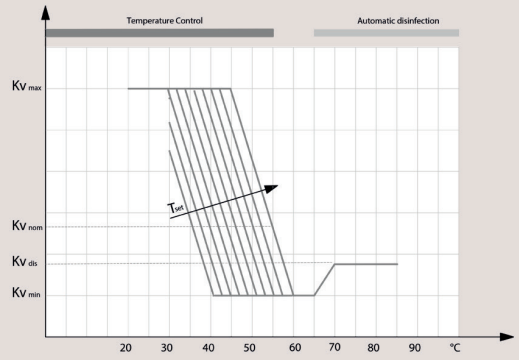
Features

- BSP Parallel (ISO 7 Rp)
- Fluid: Water
- WRAS Approved
- Automatic Legionella Disinfectant Feature
- Improves efficiency of DHW systems
- Automatic Regulation
- Reduces heat loss through lower circulation of hot water
- Keeps temperature evenly distributed & reduces dead-legs





Regulating Characteristics



DN	½"	¾"	1"
B	73	75	77
C	77	80	87
D	17	18.5	21
CH	25	31	38
KV Max	1.5	3.1	3.6
KV Nom	0.6	0.7	0.8
KV Dis	0.5	0.5	0.5
KV Min	0.25	0.25	0.25
Kgs	0.49	0.55	0.65

N.	Part Name	Materials
1	Body	DZR Brass CW602N-M
2	Bonnet	Brass CW510L-DW
3	Shutter	Brass CW510L-DW
4	Thermostatic Element	
5	O-Ring	EPDM PEROX
6	O-Ring	EPDM PEROX
7	Ring Nut	Brass CW617N-DW
8	Spring	INOX AISI 302
9	Seeger	Steel
10	O-Ring	EPDM PEROX
11	Index	Aluminium
12	Plug	Nylon 6.6
13	O-Ring	EPDM PEROX
14	Temperature Gauge Sheath	Brass CW501L-DW
15	Temperature Gauge	Brass CW501L-DW

Technical Data

Max Working Pressure (Static)	25 Bar
Working Temperature	-10°C to +90°C

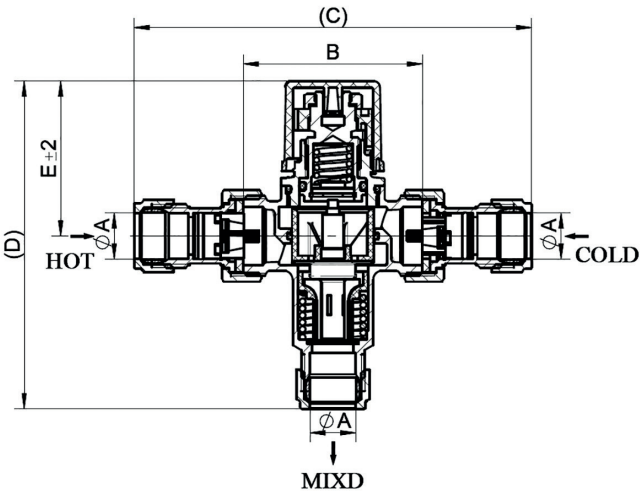
Dimensions in mm

ART 33

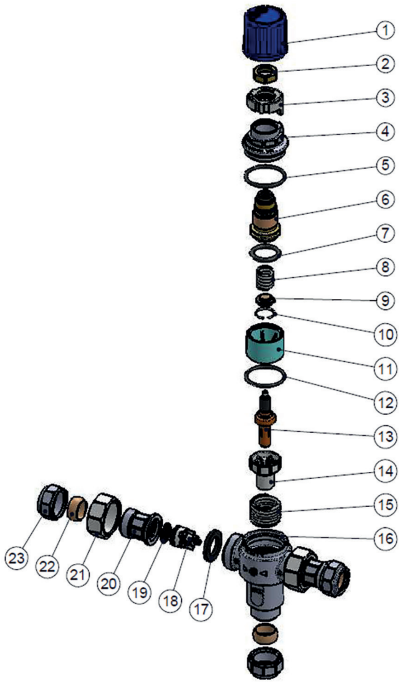
Thermostatic Mixing Valve (TMV)

Features

- Cold water supply temperature 5°C - 25°C
- Hot water supply temperature 55°C - 65°C
- Temperature adjustment range 30°C - 48°C
- Factory set thermostatic controller 42°C 0/2°C
- Accuracy of outlet temperature ±2°C
- Min. temperature differential 12°C
  (between hot supply and outlet temp)
- Supply pressure imbalance dynamic 2:1
- Flow rate minimum 5 Litres/min
- WRAS Approved
- Certified to TMV2 and TMV3



DN	15	22
A	Ø15.1	Ø22.1
B	59	61
C	130.7	154.7
D	107.8	109.7
E	50.9	50.9
Kgs	0.47	0.68



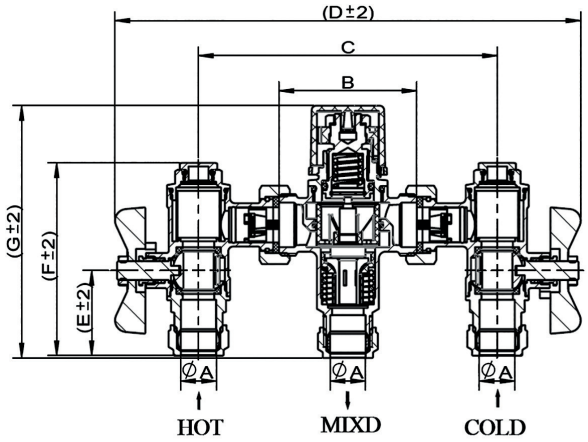
N.	Part Name	Materials
1	Cap	ABS
2	Locking Cap	CW617N
3	Locating Ring	POM+25%GF
4	Bonnet*	CW602N chrome plated
5	O-ring*	EPDM WRAS Approved
6	Stem*	CW602N
7	O-ring*	EPDM WRAS Approved
8	Spring*	Stainless Steel
9	Block*	CW602N
10	Circlip*	Stainless Steel
11	Piston*	PSU
12	O-ring*	EPDM WRAS Approved
13	Thermostat*	Subassembly
14	Water Flow Directors*	PSU
15	Spring*	Stainless Steel
16	Valve Body*	CW602N chrome plated
17	Gasket*	EPDM WRAS Approved
18	Check Valve*	Element WRAS Approved
19	Strainer	Stainless Steel
20	Connect Pipe*	CW602N chrome plated
21	Union Nut	CW617N chrome plated
22	Sleeve*	CW507L
23	Union Nut	CW602N chrome plated

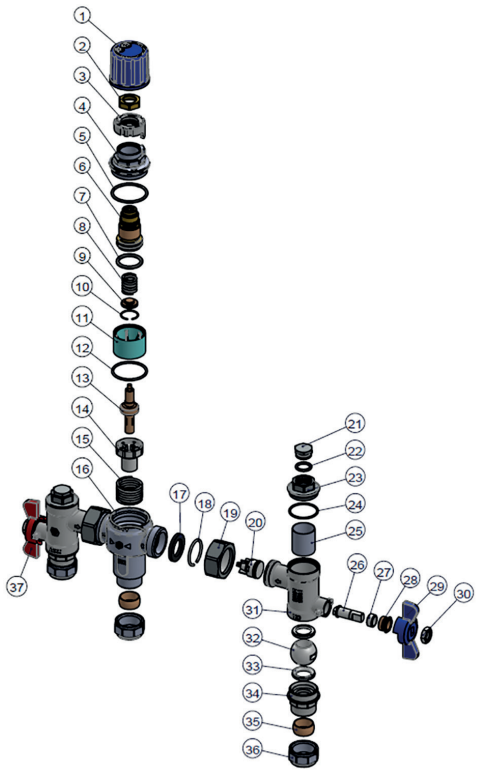
* Parts that have contact with water

Technical Data	
Max Pressure (Static)	10 Bar
Max Pressure (Dynamic)	5 Bar
Temperature Adjustment Range	30°C - 48°C

Dimensions in mm

ART 33SV





Technical Data

Max Pressure (Static)	10 Bar
Max Pressure (Dynamic)	5 Bar
Temperature Adjustment Range	30°C - 48°C

Thermostatic Mixing Valve (TMV)

Features

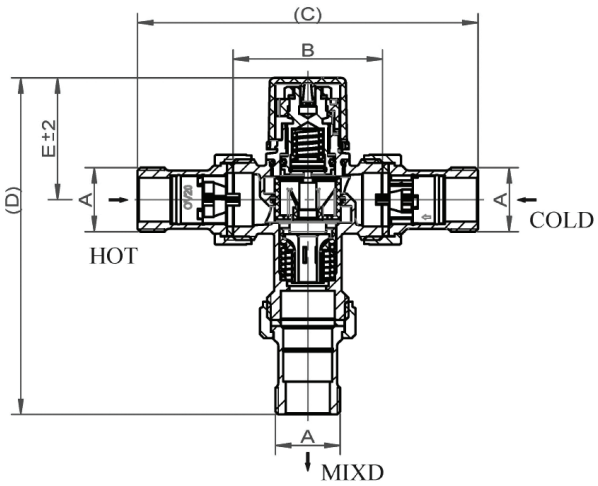
- Cold water supply temperature 5°C - 25°C
- Hot water supply temperature 55°C - 65°C
- Temperature adjustment range 30°C - 48°C
- Factory set thermostatic controller 42°C 0/2°C
- Accuracy of outlet temperature ±2°C
- Min. temperature differential 12°C
  (between hot supply and outlet temp)
- Supply pressure imbalance dynamic 2:1
- Flow rate minimum 5 Litres/min
- WRAS Approved
- Certified to TMV2 and TMV3

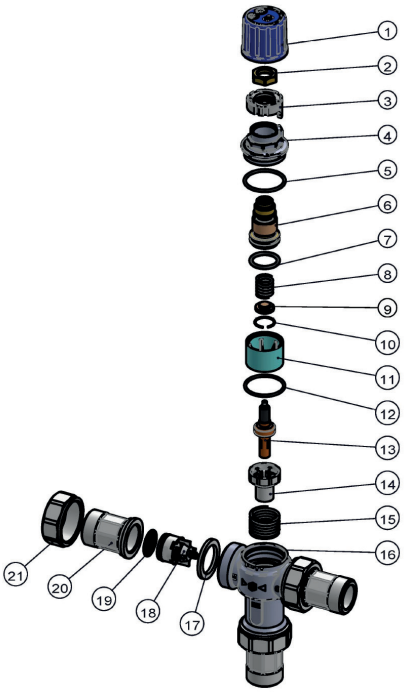
DN	15	22
A	Ø15.1	Ø22.1
B	59	61
C	128	129
D	200	201
E	36	38
F	82	86
G	108	110
Kgs	0.82	1.01

N.	Part Name	Materials
1	Cap	ABS
2	Locking Cap	CW617N
3	Locating Ring	POM+25%GF
4, 23, 34	Bonnet	CW602N chrome plated
5, 7, 12, 22, 24	O-ring	EPDM WRAS Approved
6, 26	Stem	CW602N
8, 15	Spring	Stainless Steel
9	Block	CW602N
10, 18	Circlip	Stainless Steel
11	Piston	PSU
13	Thermostat	Subassembly
14	Water Flow Directors	PSU
16	Valve Body	CW602N chrome plated
17	Gasket	EPDM WRAS Approved
19	Union Nut	CW617N chrome plated
20	Check Valve	Element WRAS Approved
21	Plug	CW602N chrome plated
25	Screen	Stainless Steel
27	Packing	PTFE WRAS Approved
28	Packing Nut	CW617N
29, 37	Lever	Aluminium Alloy
30	Locknut	Steel dacromet plated
31	Body	CW602N chrome plated
32	Ball	CW602N chrome plated
33	Seat	PTFE WRAS Approved
35	Sleeve	CW507L
36	Union Nut	CW602N chrome plated

Dimensions in mm

ART 33MBSP





Technical Data

Max Pressure (Static)	10 Bar
Max Pressure (Dynamic)	5 Bar
Temperature Adjustment Range	30°C - 50°C

Thermostatic Mixing Valve (TMV)

Features

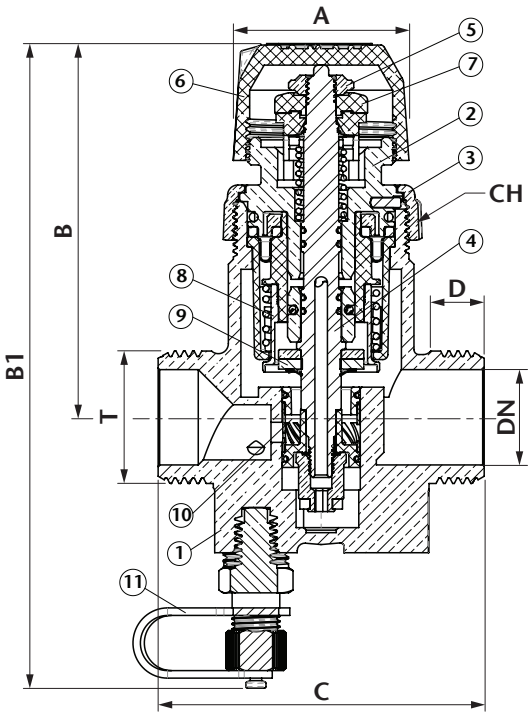
- Cold water supply temperature 5°C - 25°C
- Hot water supply temperature 55°C - 65°C
- Temperature adjustment range 30°C - 50°C
- Pre-set thermostatic controller 41°C
- Accuracy of outlet temperature ±2°C
- Min. temperature differential 12°C
  (between hot supply and outlet temp)
- Supply pressure imbalance dynamic 2:1
- Flow rate minimum 5 Litres/min
- WRAS Approved
- Certified to TMV2 and TMV3

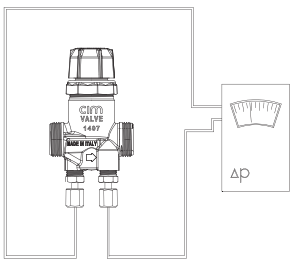
DN	½"	¾"
A	G½"	G¾"
B	59	61
C	114	135
D	126	137
E	50.9	50.9
Kgs	0.51	0.73

N.	Part Name	Materials
1	Cap	ABS
2	Locking Cap	CW617N
3	Locating Ring	POM+25%GF
4	Bonnet	CW602N chrome plated
5	O-ring	EPDM WRAS Approved
6	Stem	CW602N
7	O-ring	EPDM WRAS Approved
8	Spring	Stainless Steel
9	Block	CW602N
10	Circlip	Stainless Steel
11	Piston	PSU
12	O-ring	EPDM WRAS Approved
13	Thermostat	Subassembly
14	Water Flow Directors	PSU
15	Spring	Stainless Steel
16	Valve Body	CW602N chrome plated
17	Gasket	EPDM WRAS Approved
18	Check Valve	Element WRAS Approved
19	Strainer	Stainless Steel
20	Connect Pipe	CW602N chrome plated
21	Union Nut	CW617N chrome plated

Dimensions in mm

ART 20C (Compact)





$\Delta p \geq \Delta p_{min}$ --> $Q = Q_{nom}$

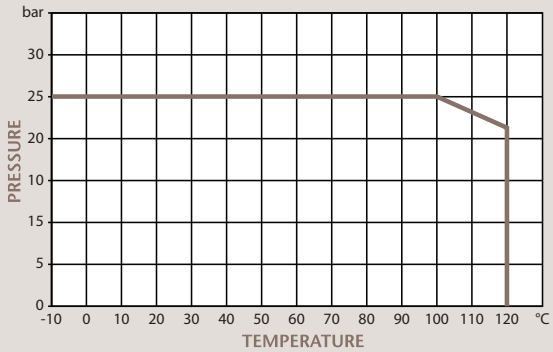
$\Delta p < \Delta p_{min}$ --> $Q = Kvs \sqrt{\Delta p}$

PN25 Pressure Independent Control & Balancing Valve (PICV or PIBCV)

Features

- DZR Brass body (CW602N-M)
- BSP Parallel (ISO 228/1)
- 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. ½"	G. ½"	G. ¾"	G. ¾"	G. 1"	G.1"¼
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	0.042-0.250	0.076-0.447
Min ΔP(kPa)	15-161	3-16.5	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

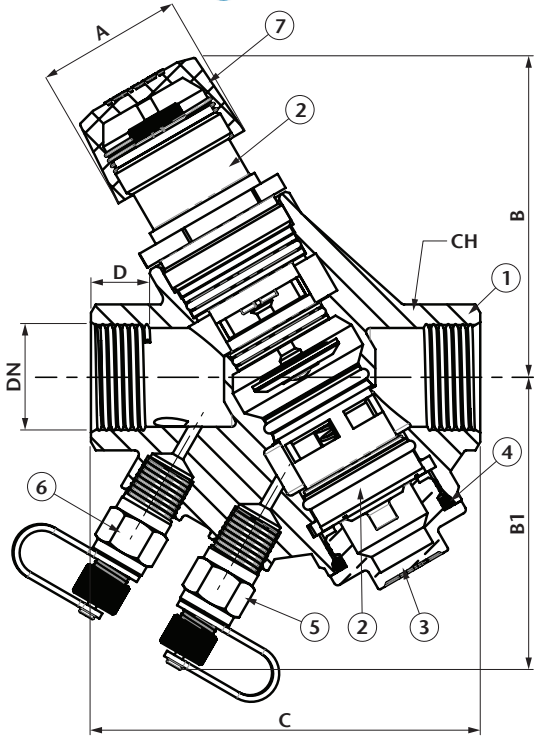
N.	Part Name	Materials
1	Body	DZR Brass
2	Bonnet	DZR Brass
3	Fixing Ring	DZR Brass
4	Stem	Stainless Steel
5	Locking Nut	Brass
6	Plastic Cap	Plastic
7	Dial	Plastic
8	DPC Controller	DZR Brass
9	Gasket	EPDM
10	Regulator	DZR Brass
11	Binder	DZR Brass

Technical Data

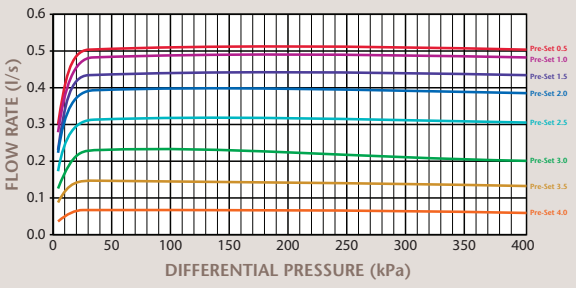
Max Pressure	25 Bar
Working Temperature	-10°C to +120°C
Differential Pressure Range	4 Bar (400 kPa)

Dimensions in mm

ART 20



Flow Rate/Differential Pressure



Technical Data

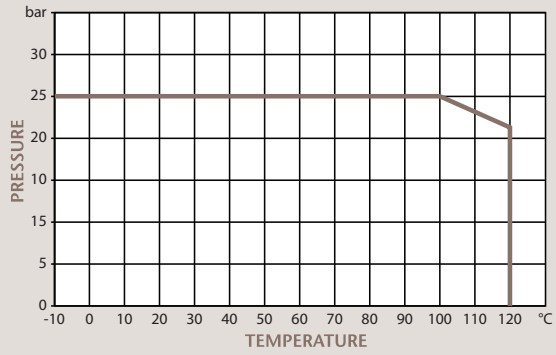
Max Pressure	25 Bar
Working Temperature	-10°C to +120°C
Differential Pressure Range	4 Bar (400 kPa)

PN25 Pressure Independent Control & Balancing Valve (PICV or PIBCV)

Features

- DZR Brass body (CW602N-M)
- BSP Parallel (ISO 228/1)
- 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



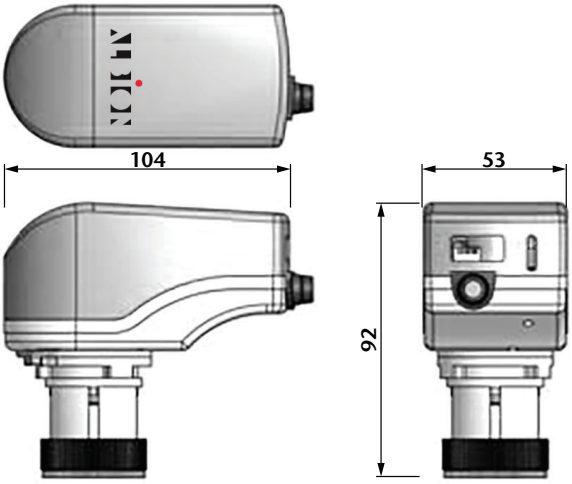
DN	15LF	15HF	20LF	20HF	25LF	25HF	32	40	50
A	35	35	35	35	35	35	35	35	35
B	81	81	81	81	81	81	87	120	130
B1	72	72	72	72	72	72	76	87	93
C	96	96	97	97	103	103	128	144	155
D	14	14	15	15	16	16	19	17	20
CH	27	27	32	32	39	39	47	54	69
Kgs	0.875	0.875	0.860	0.860	1.015	1.015	1.460	2.550	3.200
Flow (l/s)	0.022-0.174	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

ART C21V/C22V/C23E

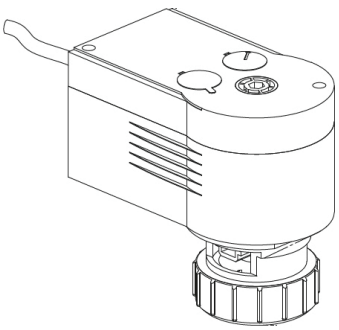
C21V / C22V / C23E



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

Features			
Model	C23E	C21V	C22V
Technical code	ADPI20C23EN	ADPI20C21VN	ADPI20C22VN
Voltage	24 V AC	24 V AC	230 V AC
Control signal	0-10Vdc/4-20mA	3 Position	3 Position
Frequency	50 Hz	50 Hz	50 Hz
Power	5 VA	5 VA	5 VA
Closing and opening times	18.5 sec/mm	18.5 sec/mm	18.5 sec/mm
Degree/Class of protection	IP54	IP54	IP54
Actuator stroke	6.5 mm	6.5 mm	6.5 mm
Actuating force	200 N	200 N	200 N
Cable length	1 m	1 m	1 m
Connection	M30x1.5	M30x1.5	M30x1.5

C21VL / C22VL / C23EL



Control Actuator to fit PICV
ART 20 DN40-50

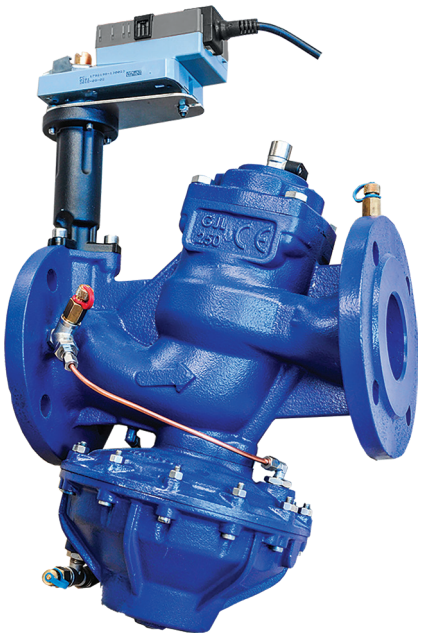
Features			
Model	C23EL		C22VL
Technical code	ADPI20C23ELC		ADPI20C22VLC
Voltage	24 V AC/DC	24 V AC/DC	230 V AC
Control signal	0-10 V DC*	3 Positions	3 Positions
Frequency	50…60 Hz	50…60 Hz	50…60 Hz
Closing and opening times	60/120 sec	60/120 sec	120 sec
Degree/Class of protection	IP 54	IP 54	IP 54
Actuator stroke	0…8mm	0…8mm	8mm
Actuating force	500 N	500 N	500 N
Cable length	1.2 m	1.2 m	1.2 m
Connection	M30	M30	M30

* linear flow characteristic

Dimensions in mm

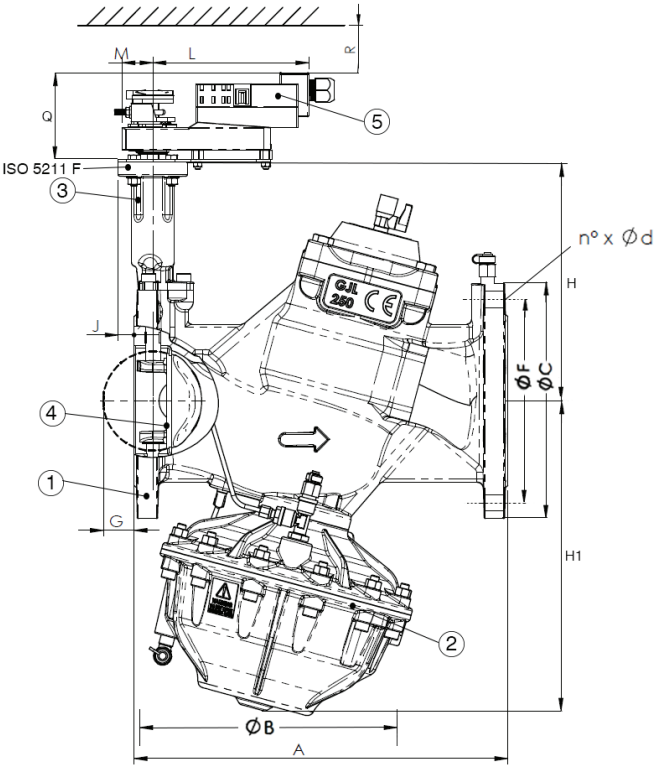
ART 200

Pressure Independent Control & Balancing Valve (PICV or PIBCV)

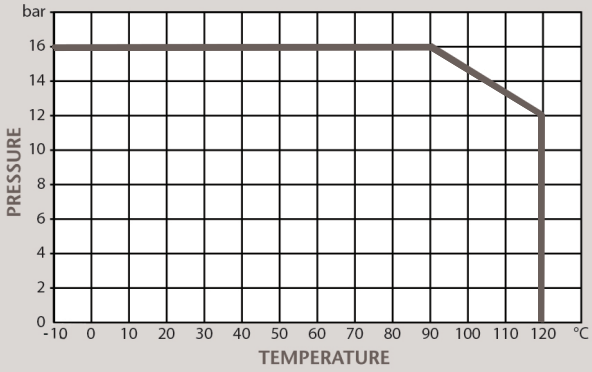


Features

- Cast Iron EN GJL 250
- Available as Actuated PICV or Manual CFR
- Automatic flow balancing in the event of fluctuating pressure conditions in system branches
- Linear Regulation with Equal Percentage option
- Flow rate measurement incorporated
- Isolation Shut-off facility
- Water Hammer protection features for valve and actuator
- Gearbox allows position lock and flow reading



Pressure/Temperature



DN	65	80	100	125	150
A	290	310	350	400	480
H	205	214	224	272	301
H1	217	281	295	317	341
B	200	242	242	242	242
J	15	15	15	28	28
G	17	25	30	46	56
C	185	200	220	250	285
F	145	160	180	210	240
n x D	4 x 18	8 x 18	8 x 18	8 x 18	8 x 22
ISO 5211	F05	F05	F05	F07	F07
R	>100	>100	>100	>100	>100
L	160	160	160	160	160
M	35	35	35	35	35
Q	84	84	84	84	84
Kgs	23.3	29.8	35.3	48.1	77.1
Flow (l/s)	1.222-7.222	1.306-10	3.167-22.917	3.639-34.722	5.278-44.444
MinΔP (kPa)	30 (50)	30 (50)	30 (70)	30 (70)	30 (70)
Kvs (M^3/hr)	66.3	96.6	278	332.1	427.5

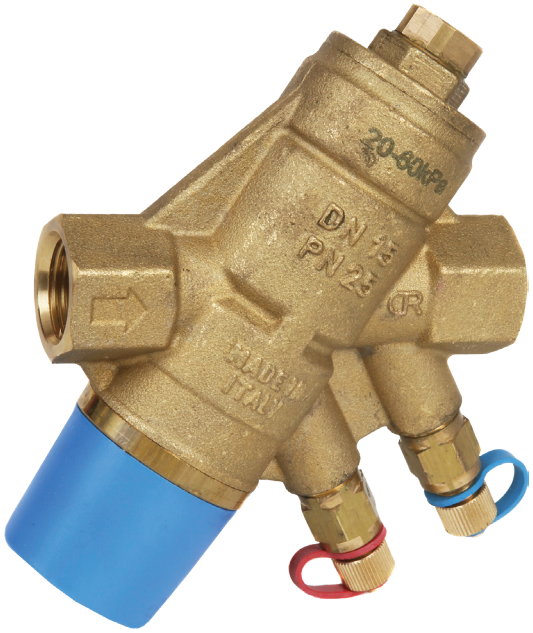
Technical Data

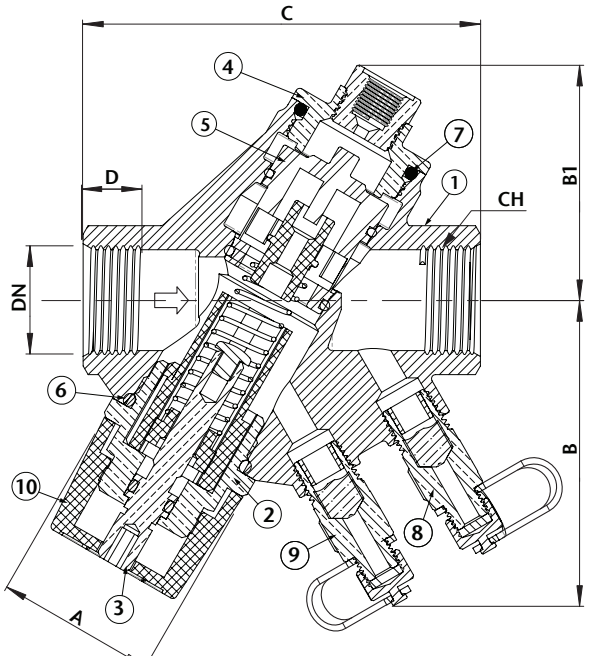
Max Pressure	16 Bar
Working Temperature	-10°C to +120°C
Differential Pressure Range	400 kPa

N.	Part Name	Materials
1	Body	Cast Iron
2	Diaphragm	EPDM
3	Overtorque Safety Spring	Spring Steel 2FD
4	Control Valve Disc	Brass
5	Electric Actuator	Plastic Casing

Dimensions in mm

ART 24





Technical Data

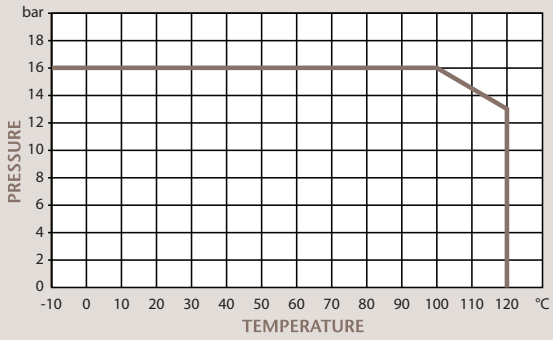
Max Pressure	16 Bar
Working Temperature	-10°C to +120°C

PN16 Differential Pressure Control Valve (DPCV)

Features

- DZR Brass body (CW602N-M)
- BSP Parallel (ISO 228/1)
- 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

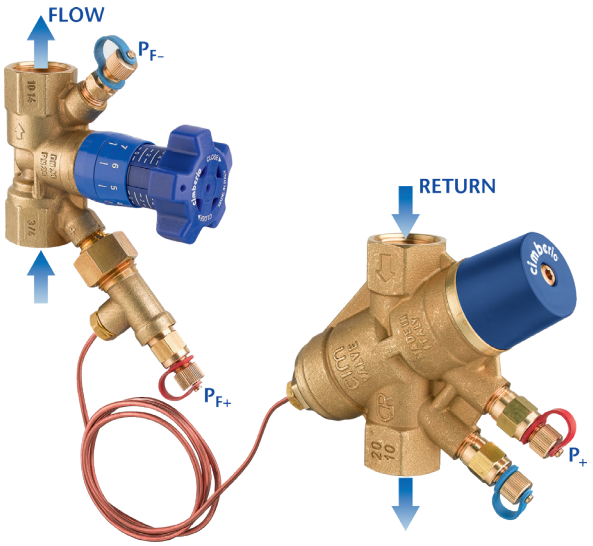


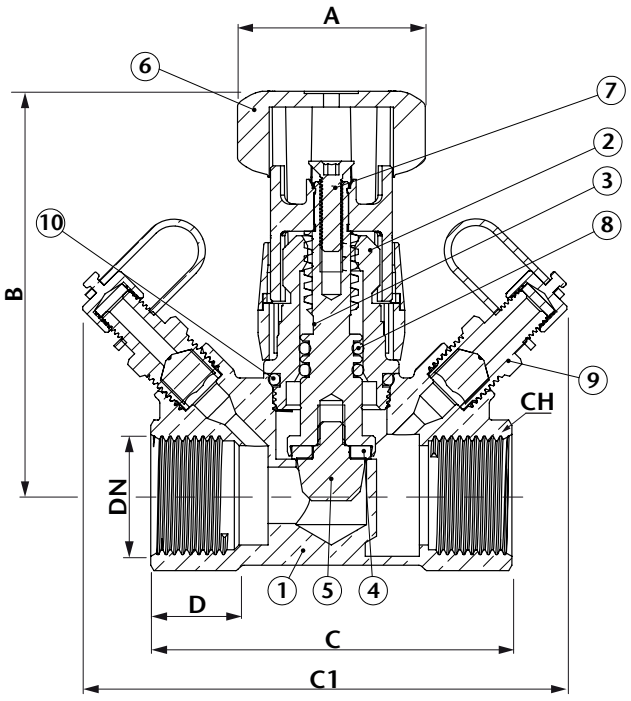
N.	Part Name	Materials
1	Body	DZR Brass
2	Bonnet	DZR Brass
3	Stem	DZR Brass
4	Screwed End	DZR Brass
5	Differential Pressure Cartridge	DZR Brass
6	O-Ring	EPDM
7	O-Ring	EPDM
8	Blue Binder Point	DZR Brass
9	Red Binder Point	DZR Brass
10	Cap	Plastic

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

ART 28DP





Technical Data

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

Dimensions in mm

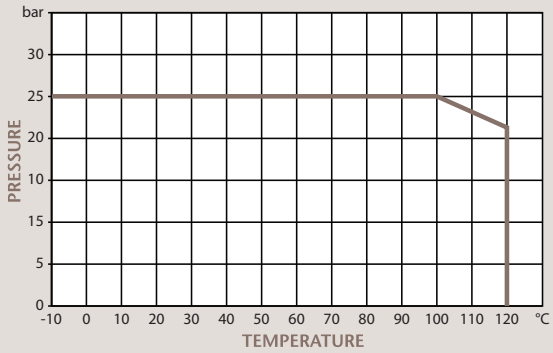
PN25 - DPCV Partner Valve

Features

- DZR Brass body (CW602N-M)
- BSP Parallel (ISO 7/1)
- 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.
- Conforms to BS 7350 / BS 5154

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

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

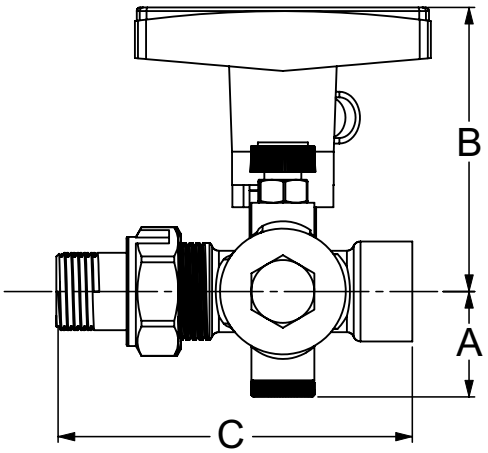
N.	Part Name	Materials
1	Body	DZR Brass - CW602N-M
2	Bonnet	DZR Brass - CW602N-M
3	Stem	DZR Brass - CW602N-M
4	Gasket	EPDM
5	Shutter	DZR Brass - CW602N-M
6	Handwheel	Nylon 6
7	Screw	DZR Brass - CW602N-M
8	O-Ring	EPDM
9	Binder Point	DZR Brass - CW602N-M
10	O-Ring	EPDM

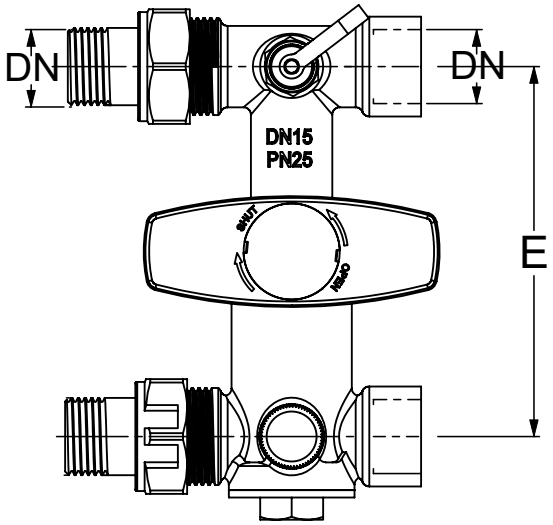
Monolink

H Block Screwed

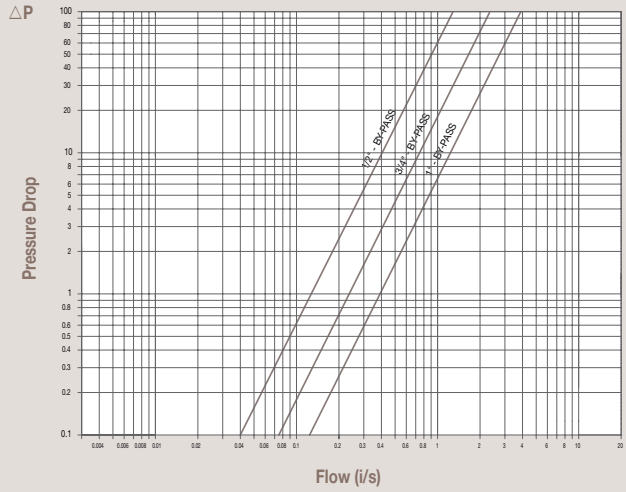
Features

- Screwed BSP F X Union Male
- Body DZR Brass EN12165 - CW602N-M
- 5 year guarantee
- Tested to EN12266-1:2003
- Complete with test point & Air vent

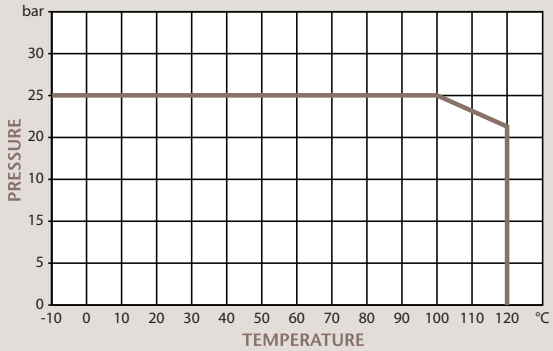




Flow and Pressure Drop



Pressure/Temperature



DN	½"	¾"	1"	1¼"	1½"
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

Technical Data

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

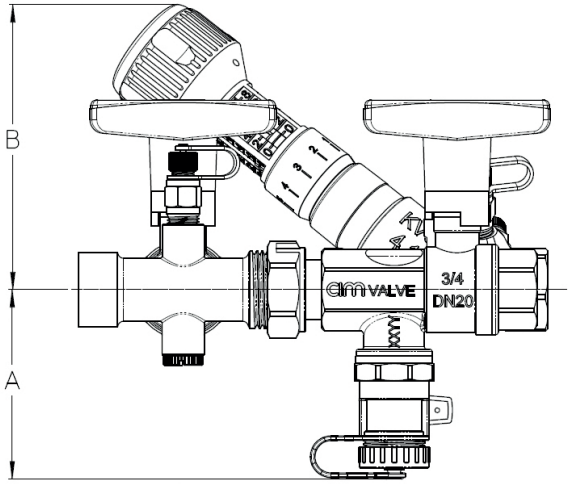
Dimensions in mm

Monolink 25

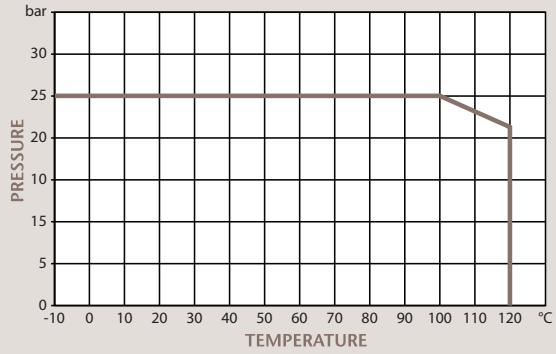
‘H’ Block Complete with Art 25

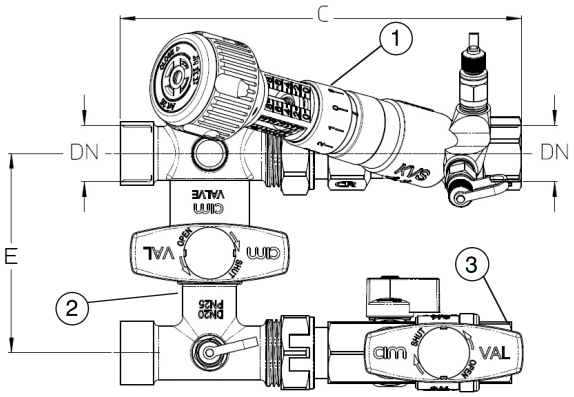
Features

- Available in BSP & M Press
- Material DZR Brass EN12165 - CW602N-M
- Tested in accordance with EN 12266-1:2003
- 5 year guarantee



Pressure/Temperature





DN	½”	¾”	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

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

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

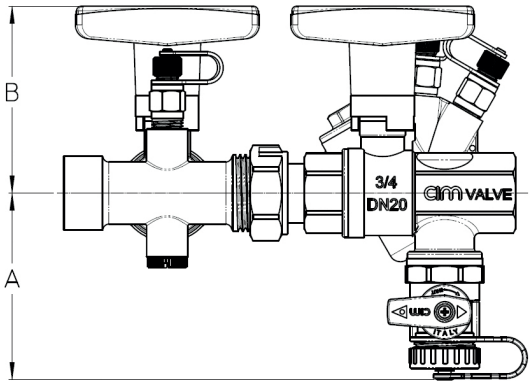
Dimensions in mm

Monolink 29

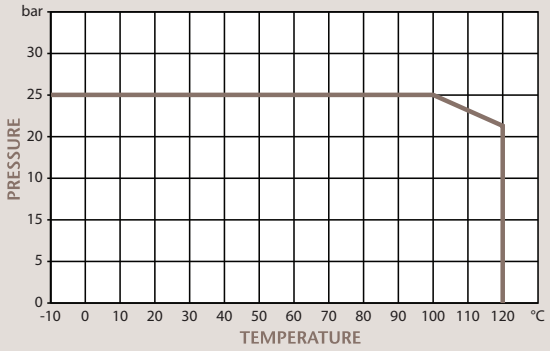
‘H’ Block complete with Art 29 Automatic flow Balancing Valve

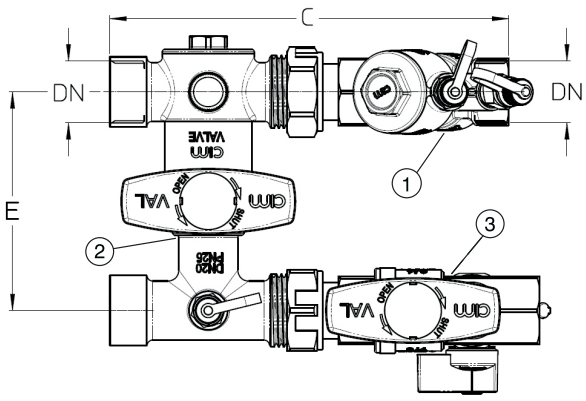
Features

- Available in BSP & M Press
- Material DZR Brass EN12165 - CW602N-M
- Tested in accordance with EN 12266-1:2003
- 5 year guarantee



Pressure/Temperature





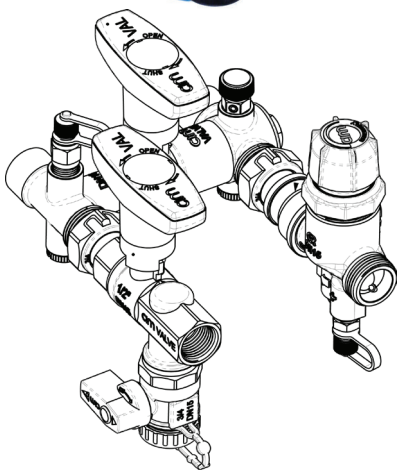
DN	½”	¾”	1”
Ø	15	20	25
A	77	81	91
B	77	82	86
C	165	200	245
E	100	100	150
Kgs	1.87	2.37	3.67

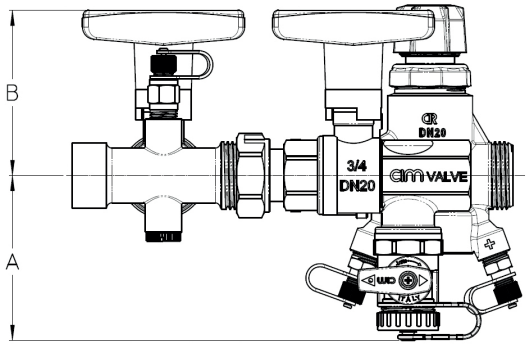
N.	Part Name	Material
1	Art 29	Automatic flow balancing valve
2	Art 731	‘H’ Block
3	Art 630	Ball Valve, Strainer & Drain Cock

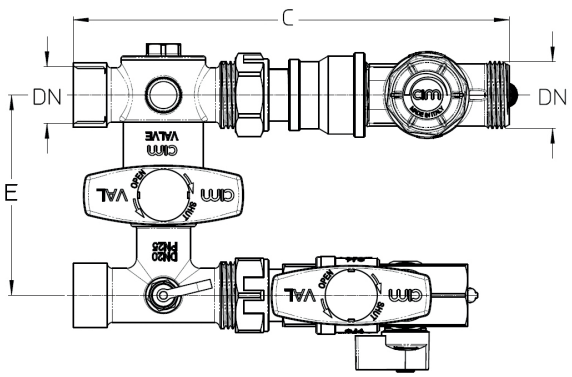
Technical Data	
Max Pressure	25 Bar
Working Temperature	-10°C to +120°C

Dimensions in mm

Monolink 20C/20







Technical Data

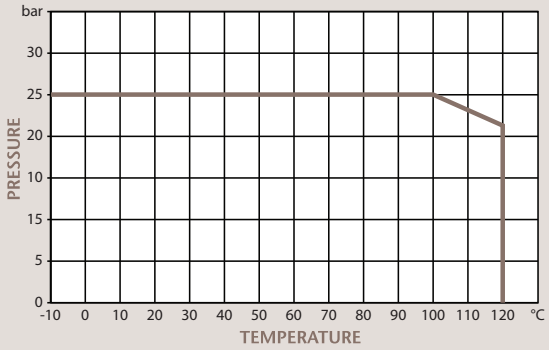
Max Pressure	25 Bar
Working Temperature	-10°C to +120°C

‘H’ Block complete with Art 20 or Art 20C Presure Independent Control Valve (PICV)

Features

- Available in BSP & M Press
- Material DZR Brass EN12165 - CW602N-M
- Tested in accordance with EN 12266-1:2003
- 5 year guarantee
- Monolink 20C available up to 1”
- Monolink 20 available up to 1¼”

Pressure/Temperature

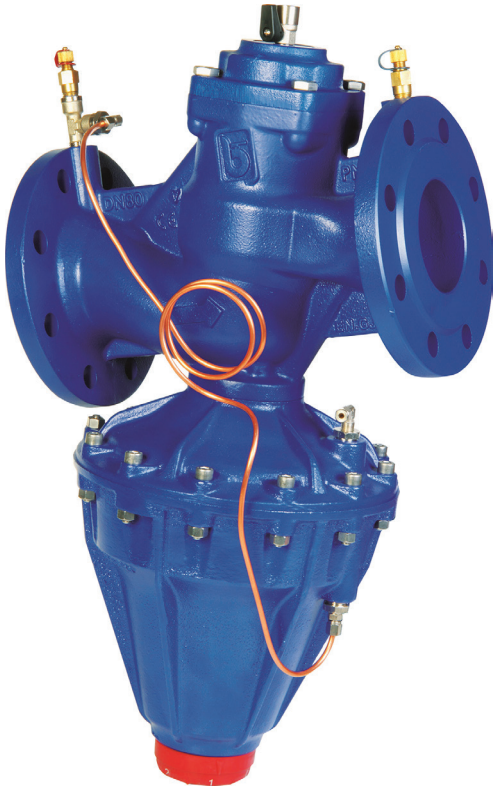


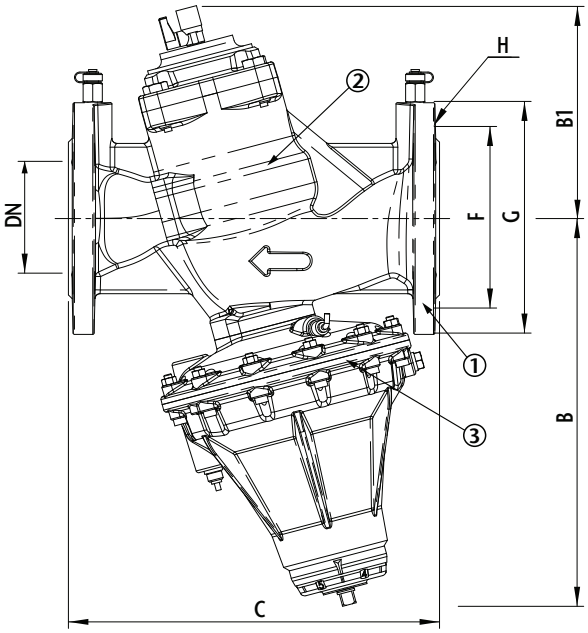
Monolink size PICV Size (717)	½” ½” DN10	¾” ¾” DN15	1” 1” DN20	1¼” 1¼” DN25	½” ¾” DN15	¾” 1” DN20	1” 1¼” DN25
A	77	81	91	118	77	81	91
B	77	81	85	85	77	81	85
C	164	197.5	242	358	169	217.5	253
E	100	100	150	175	100	100	150

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

Dimensions in mm

ART 240



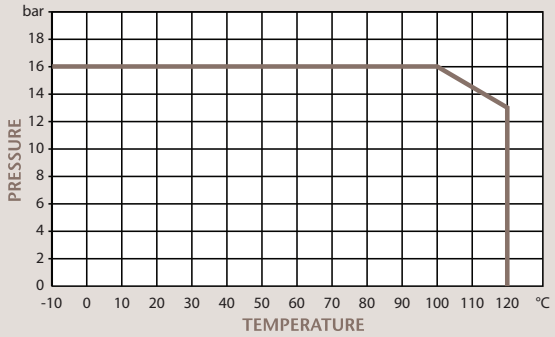


PN16 Differential Pressure Control Valve (DPCV)

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

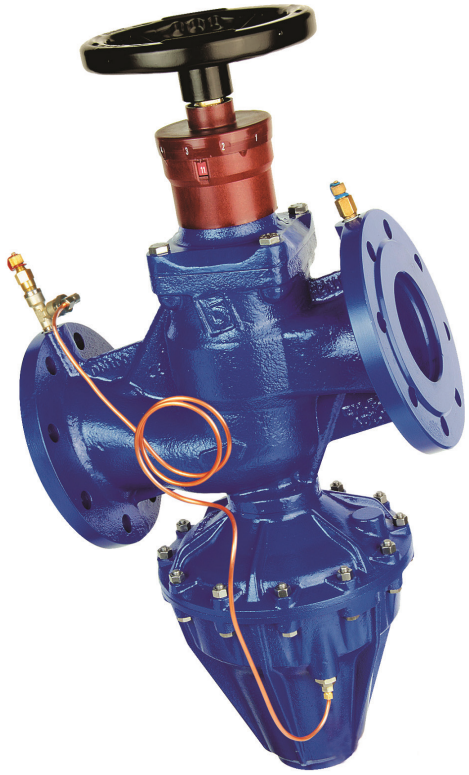
Technical Data

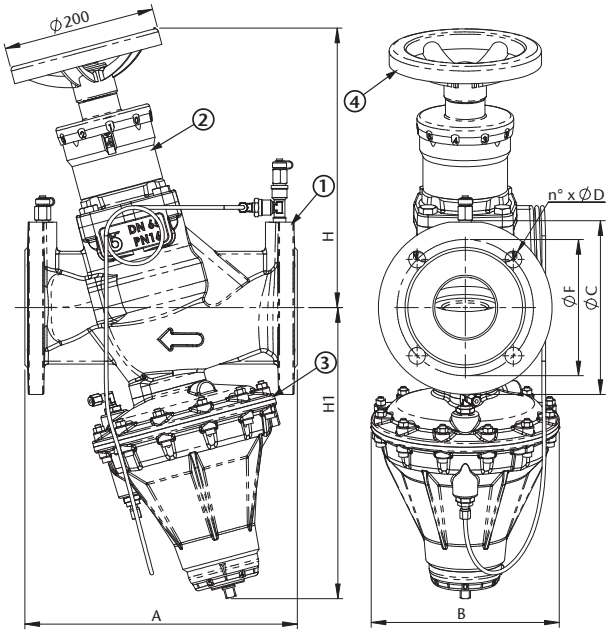
Max Pressure	16 Bar
Working Temperature	-10°C to +120°C
Differential Pressure Range	16 Bar (1600 kPa)

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

ART 241



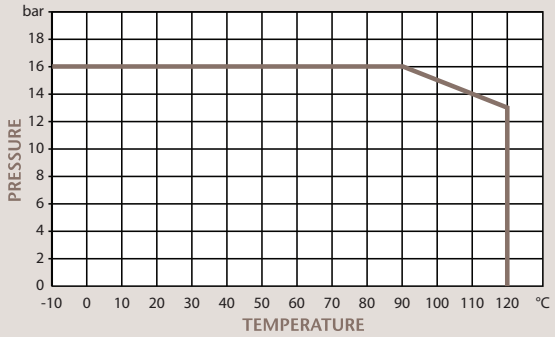


PN16 Differential Pressure Control Valve (DPCV)

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

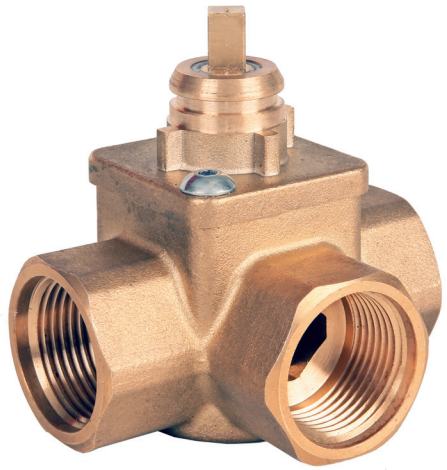
Technical Data

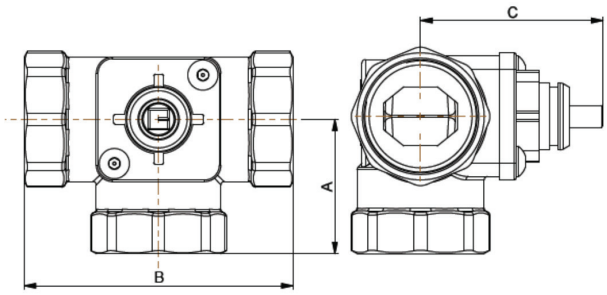
Max Pressure	16 Bar
Working Temperature	-10°C to +120°C
Differential Pressure Range	16 Bar (1600 kPa)

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

CRM





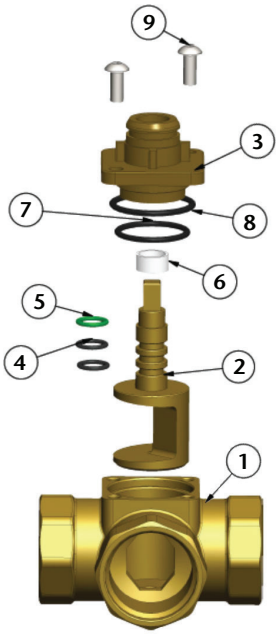
3 Port Rotary Control Brass Valve

Features

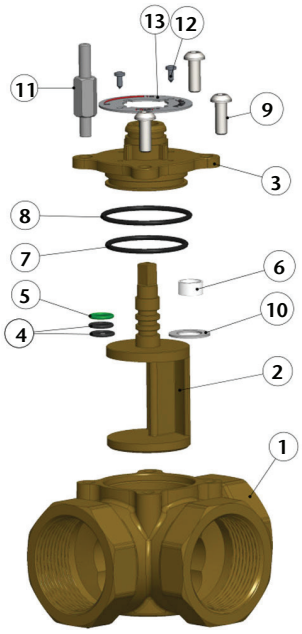
- BSP Parallel (ISO 7/1)
- 3-way valve suitable for mixing or diverting
- Designed to suit CLIP System actuators CRV(E)
- Max working pressure 10 bar
- Suitable for Heating or Cooling applications
- Spindle groove identifies rotor position
- Max spindle operating torque <2Nm

DN	15	20	25	32	40	50
Type	½" CRM15 FFF	¾" CRM15 FFF	1" CRM15 FFF	1¼" CRM32 FFF	1½" 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 ½"	Rp ¾"	Rp 1"	Rp 1¼"	Rp 1½"	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



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

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)

Dimensions in mm

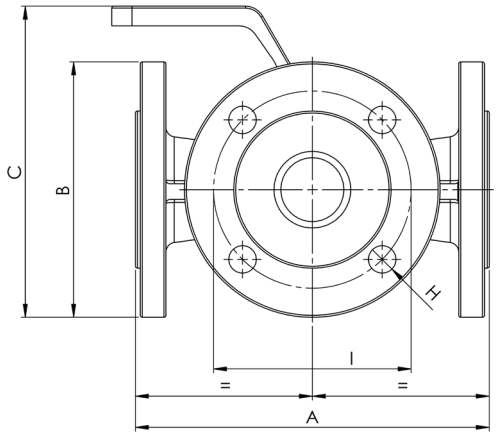
CLRM

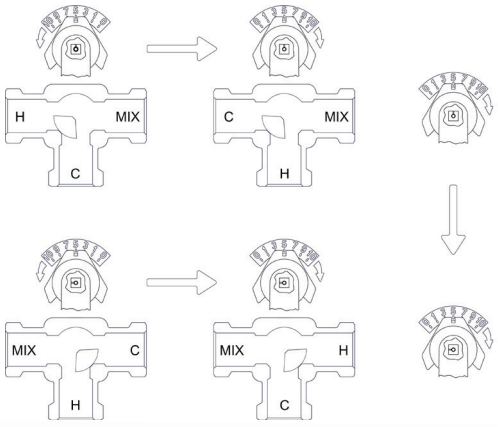
3 Port Flanged Rotary Mixing Valve

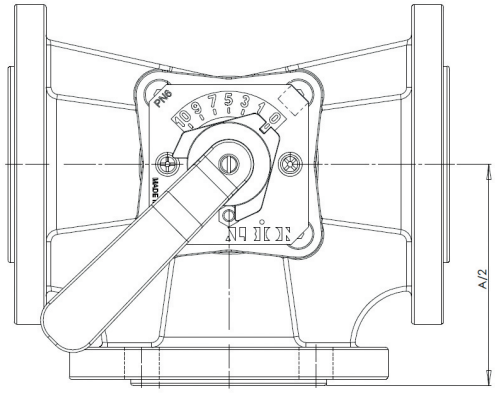
Features

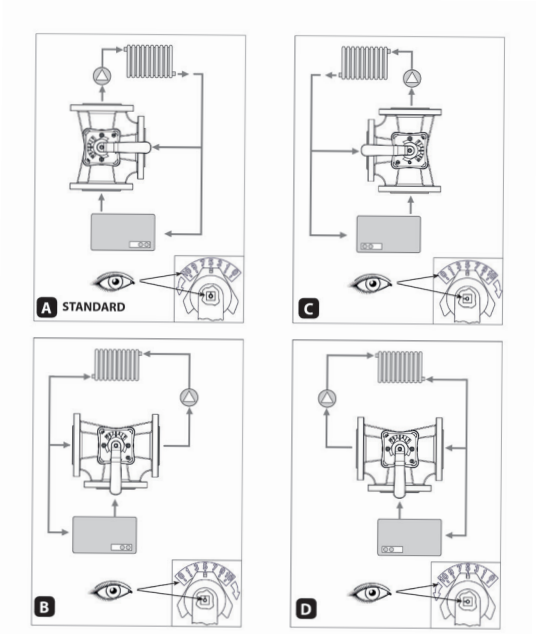
- Cast Iron body and plug (EN-GJL-250)
- Hydraulic tightness: EPDM
- Handle: ABS
- Manual or Actuated Operation
- Suitable fluids: Water, glycol water (max 30%)
- Connections: Flanged connections ISO 7005

DN	65	80	100	125	150
Kv	100	185	310	510	820
A	200	234	260	296	350
A/2	100	117	130	148	175
B	160	190	210	240	265
C	190	210	240	270	300
H	14	18	18	18	18
I	130	150	170	200	225
Hole N°	4	4	4	8	8
Kgs	11	15	22	34	50









Technical Data

Max Pressure	6 Bar (PN6)
Working Temperature	-10°C to +110°C
Rotor's rotation angle:	90°
Leakage:	DN50 - DN100 0.1% del Kvs
	DN125 - DN150 0.5% del Kvs

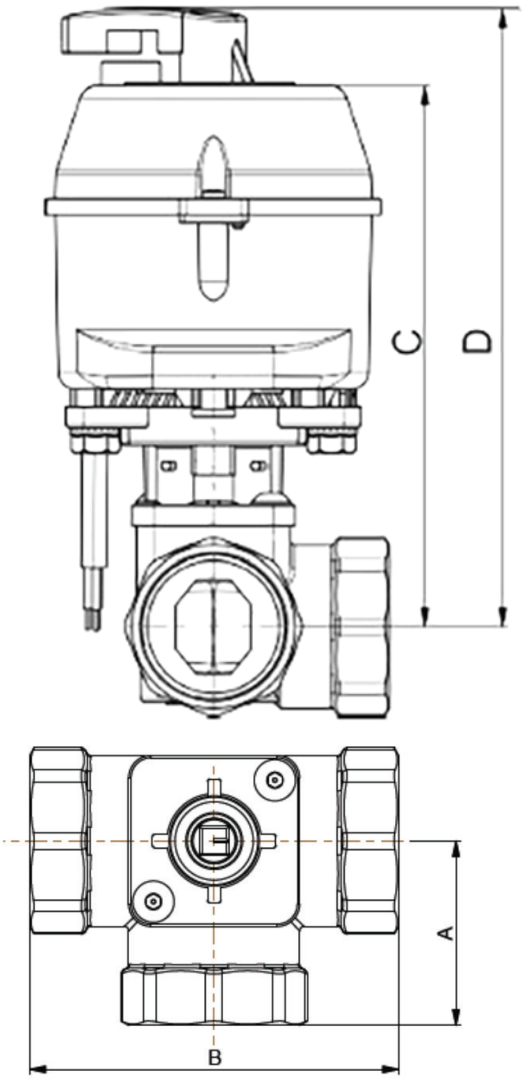
Dimensions in mm

CRV/CRE

Actuator to Fit Rotary CRM & CLRM Valves

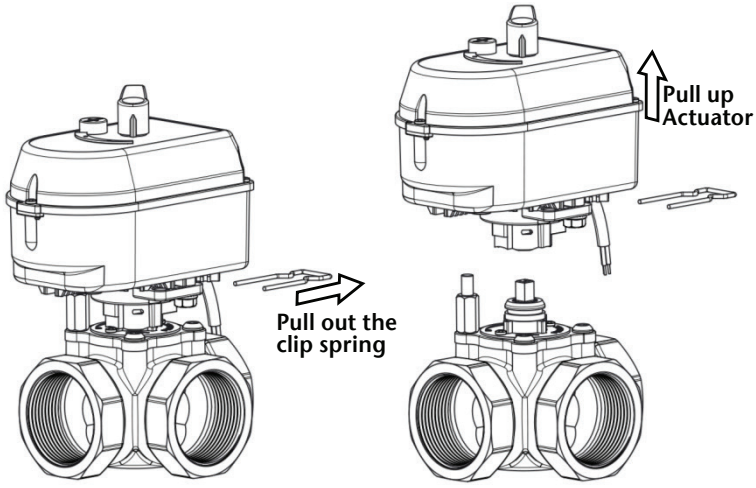
Features

- 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 ½"	Rp ¾"	Rp 1"	Rp 1¼"	Rp 1½"	Rp 2"
Kvs	3	7	11	15	25	40
Kgs	1.22	1.28	1.32	1.65	2.35	2.93

Disconnection / Reconnection

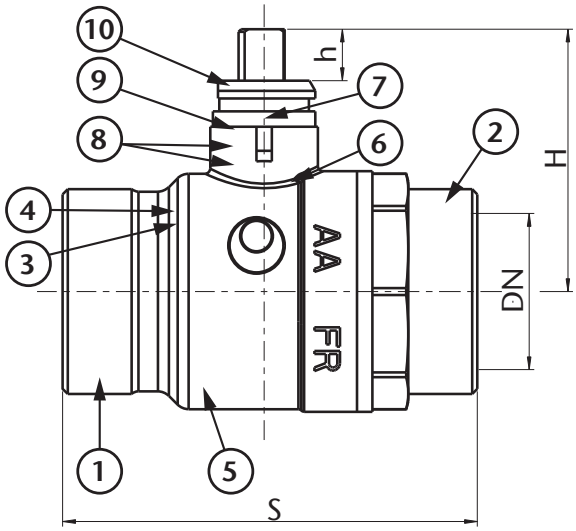


For reconnection, insert clip spring into clip adapter on actuator and push actuator onto valve to hear 'click'.

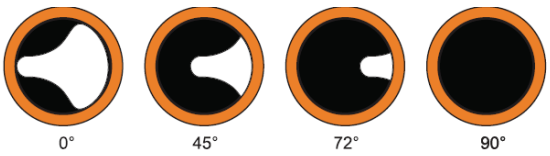
Technical Data	
Max Torque	15 Nm
Ingress Protection	IP44
Running Time	73 Sec / 90°

Dimensions in mm

CRZ2



Equal Percentage Control valve opening angle



Kvs=100% Kvs=0%

Technical Data

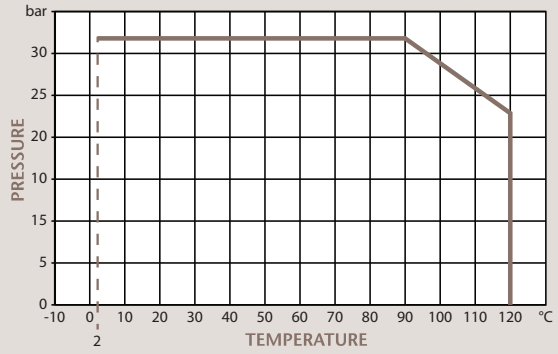
Max Pressure PN Class	32 Bar
Working Temperature	2°C to +120°C
Max ΔP Valve	6 Bar

2 Port Brass Zone/ Control Valve

Features

- BSP Parallel (ISO 7/1)
- 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

Pressure/Temperature



DN	½"	¾"	1"	1¼"	1½"	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 (m^3/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

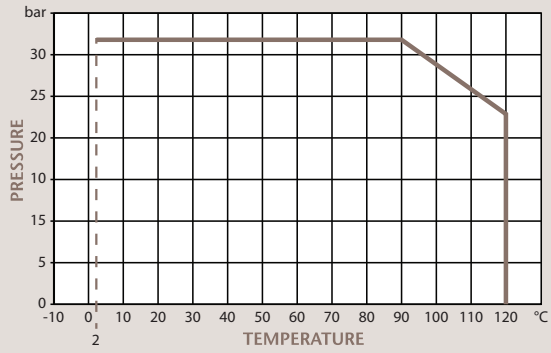
CRZ3

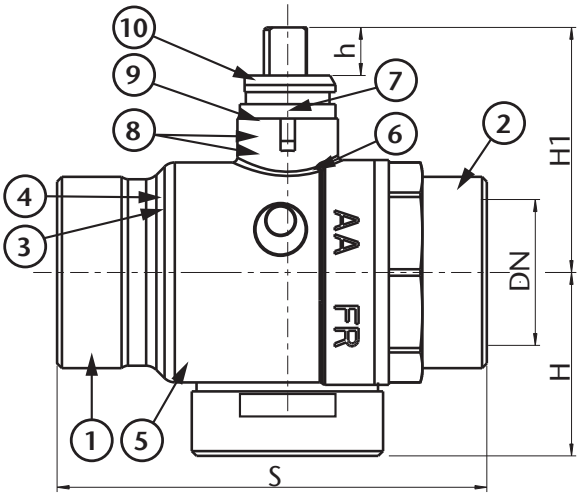
3 Port Brass Zone/ Control Valve

Features

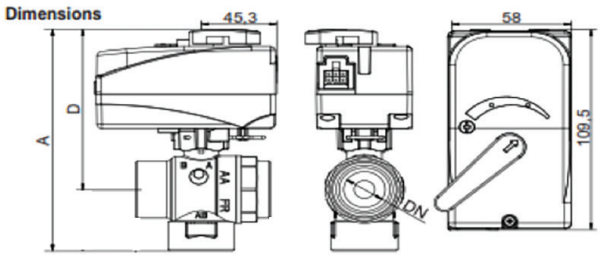
- BSP Parallel (ISO 7/1)
- Offers ON-Off Zone, Isolation and control
- Priority Control of Hot Water (diverting function)
- Priority Control of renewable energy and boiler installations

Pressure/Temperature





DN	¾”	1”	1¼”
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



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

Technical Data

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

Dimensions in mm

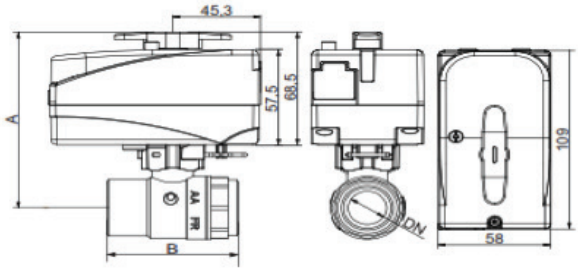
CRI2/CRI2L/CRI3

Actuator to Fit CRZ2 / CRZ3 Valves

Features

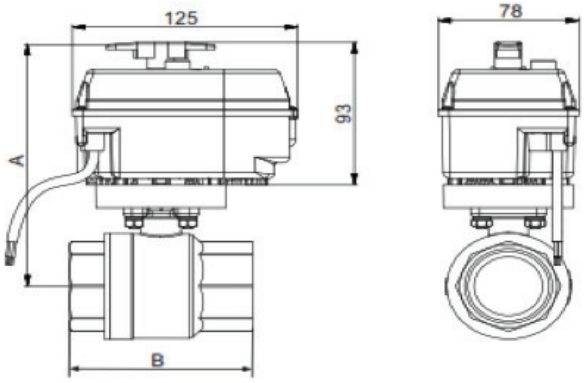
- Quick connection/release CLIP system utilised
- ON-OFF Control via Most Room Thermostats
- Controlled via SPST or SPDT switch
- Auxiliary switch for start/stop of pump etc
- Manual Control/override
- 24V/230V options

CRI2



DN	½"	¾"	1"	1¼"
Ø	15	20	25	32
A	104	107	112	117
B	62	68	81	86

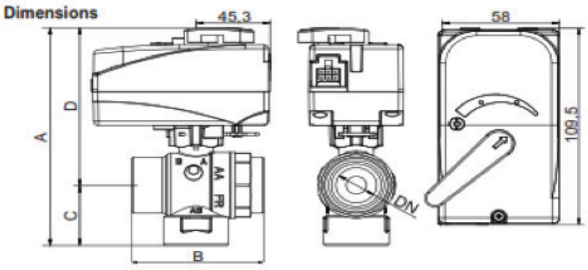
CRI2L



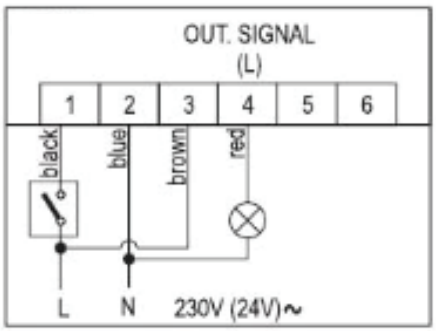
DN	1½"	2"
Ø	40	50
A	158	178
B	102	122

Technical Data	
Max Torque	8/15 Nm
Ingress Protection	IP44
Running Time	30 Sec / 90°

CRI3



DN	¾"	1"	1¼"
Ø	20	25	32
A	144	150	165.5
B	68	81	86
C	40	43	52
D	104	107	113.5



Dimensions in mm

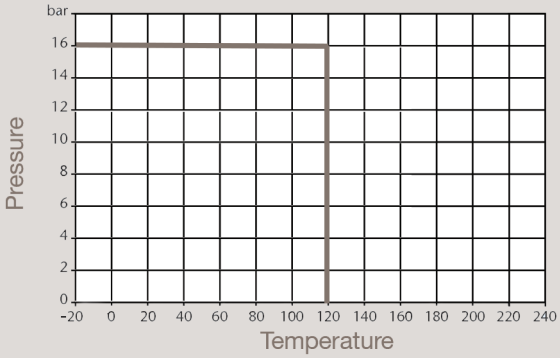
ART 195 PN16

PN16 Cast Iron Suction Diffuser

Features

- Designed for suction side of pump installations
- Prevents debris and foreign materials entering the pump
- Low pressure drop
- Available with reduced and equal inlet / outlets
- Flange conforms to EN1092-2

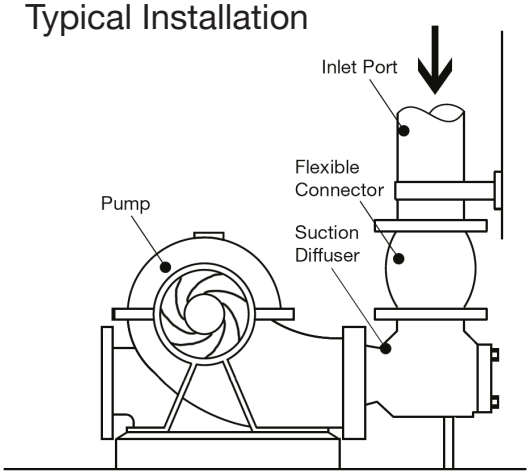
Pressure/Temperature

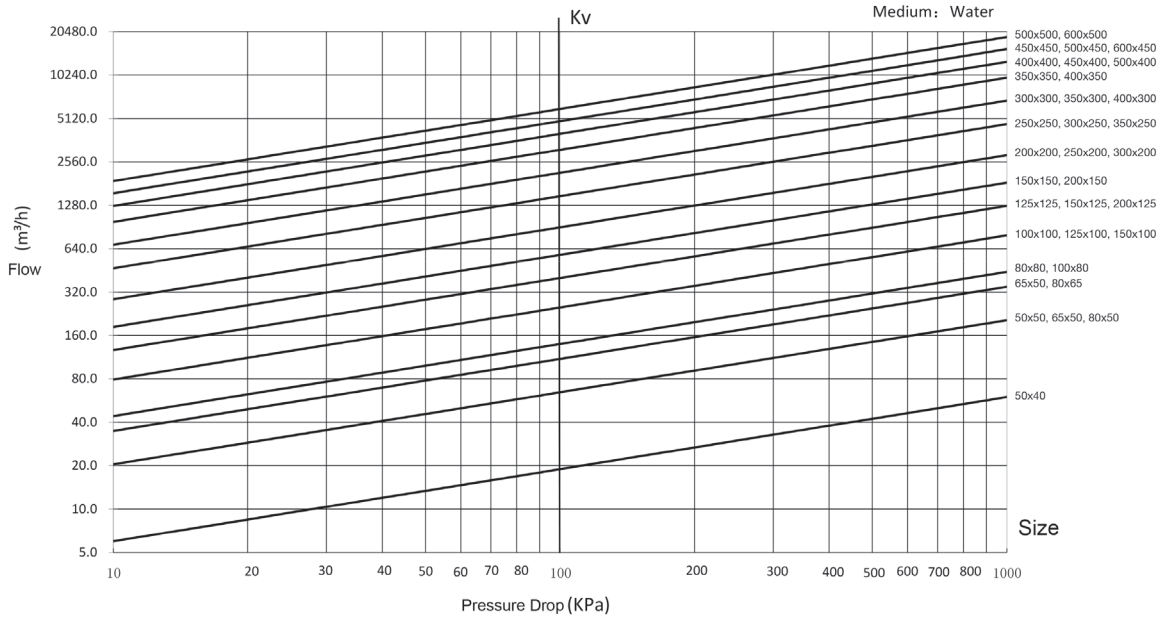


Technical Data

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

Typical Installation

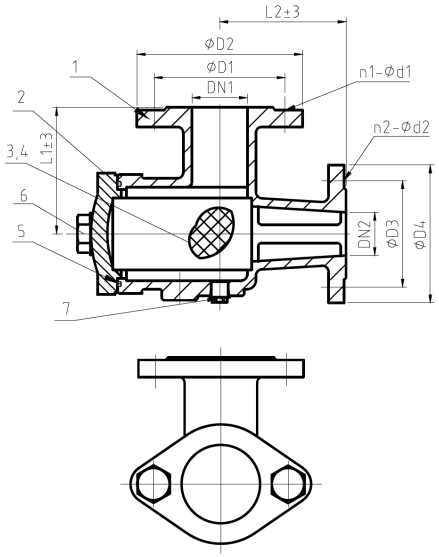




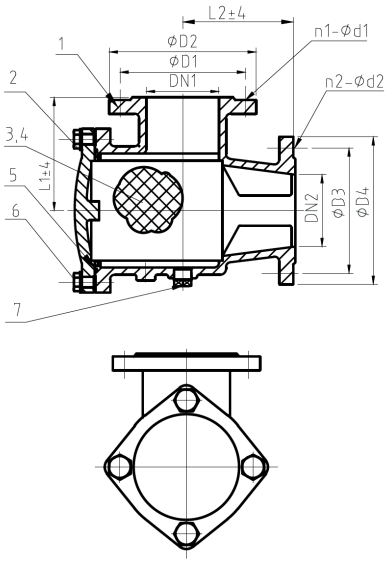
Dimensions in mm

ART 195 PN16

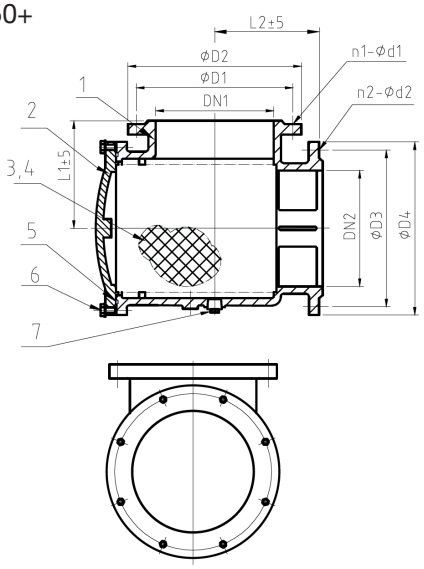
DN50 x DN40 - DN100 x DN100



DN125 x DN100, DN125 x DN125, DN150 x DN100 & DN200 x DN125



DN150 x DN125, DN150 x DN150 & DN200 x DN150+



DN1xDN2	ØD1	ØD2	N1-ØD1	ØD3	ØD4	N2-ØD2	L1	L2	Kgs
50x40	125	165	4-19	110	150	4-19	114.4	114.4	12
50x50	125	165	4-19	125	165	4-19	114.4	114.4	14.5
65x50	145	185	4-19	125	165	4-19	126.5	126.5	18
65x65	145	185	4-19	145	185	4-19	126.5	126.5	20
80x50	160	200	8-19	125	165	4-19	139.7	114	17
80x65	160	200	8-19	145	185	4-19	140.1	140.1	25
80x80	160	200	8-19	160	200	8-19	140.1	140.1	26
100x80	180	220	8-19	160	200	8-19	165	165	36
100x100	180	220	8-19	180	220	8-19	165	165	40
125x100	210	250	8-19	180	220	8-19	191.5	191.5	51
125x125	210	250	8-19	210	250	8-19	191.5	191.5	53
150x100	240	285	8-23	180	220	8-19	203	165	58
150x125	240	285	8-23	210	250	8-19	203	203	65
150x150	240	285	8-23	240	285	8-23	203	203	68
200x125	295	340	12-23	210	250	8-19	192	229	60
200x150	295	340	12-23	240	285	88-23	228.6	203	88
200x200	295	340	12-23	295	340	12-23	229	229	120
250x200	355	405	12-28	2995	340	12-23	279.4	229	130
250x250	355	405	12-28	355	405	12-28	279	279	145
300x200	410	460	12-28	295	340	12-23	280	280	175
300x250	410	460	12-28	355	405	12-28	304.8	279	220
300x300	410	460	12-28	410	460	12-28	304.8	304.8	250
350x250	470	520	16-28	355	405	12-28	318	328	270
350x300	470	520	16-28	410	460	12-28	318	328	280
350x350	470	520	16-28	470	520	16-28	318	328	292
400x300	525	580	16-31	410	460	12-28	334	364	315
400x350	525	580	16-31	470	520	16-28	334	364	335
400x400	525	580	16-31	525	580	16-31	334	364	360
450x350	585	64	20-31	470	520	16-28	370	389	375
450x400	585	640	20-31	525	580	16-31	370	389	397
450x450	585	640	20-31	585	640	20-31	370	389	410
500x400	650	715	20-34	525	580	16-31	406	428	497
500x450	650	715	20-34	585	640	20-31	406	428	512
500x500	650	715	20-34	650	715	20-34	406	428	530
600x450	770	840	20-37	585	640	20-31	470	480	745
600x500	770	840	20-37	650	715	20-34	470	480	760
600x600	770	840	20-37	770	840	20-37	470	480	775

N.	Part Name	Materials
1	Body	Cast Iron
2	Cover	Cast Iron
3	Screen	Stainless Steel 304
4	Woven Mesh	Stainless Steel 304
5	O-Ring	EPDM
6	Bolt	Carbon Steel
7	Plug	Carbon Steel

Dimensions in mm

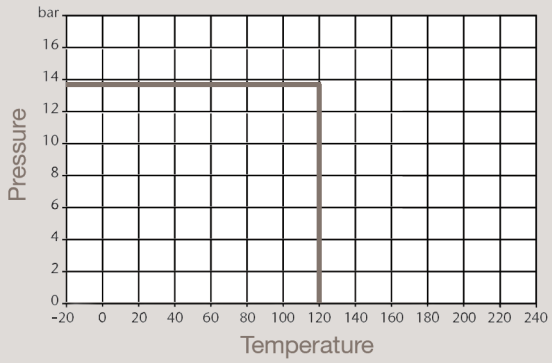
ART 195 ANSI

ANSI 125 Cast Iron Suction Diffuser

Features

- Designed for suction side of pump installations
- Prevents debris and foreign materials entering the pump
- Low pressure drop
- Available with reduced and equal inlet / outlets
- Flanged ANSI 125 (B16.1)

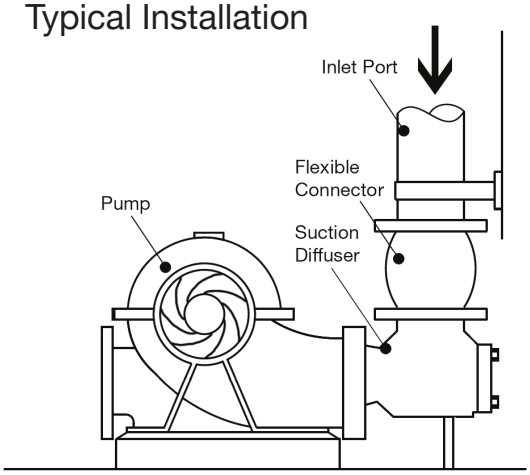
Pressure/Temperature

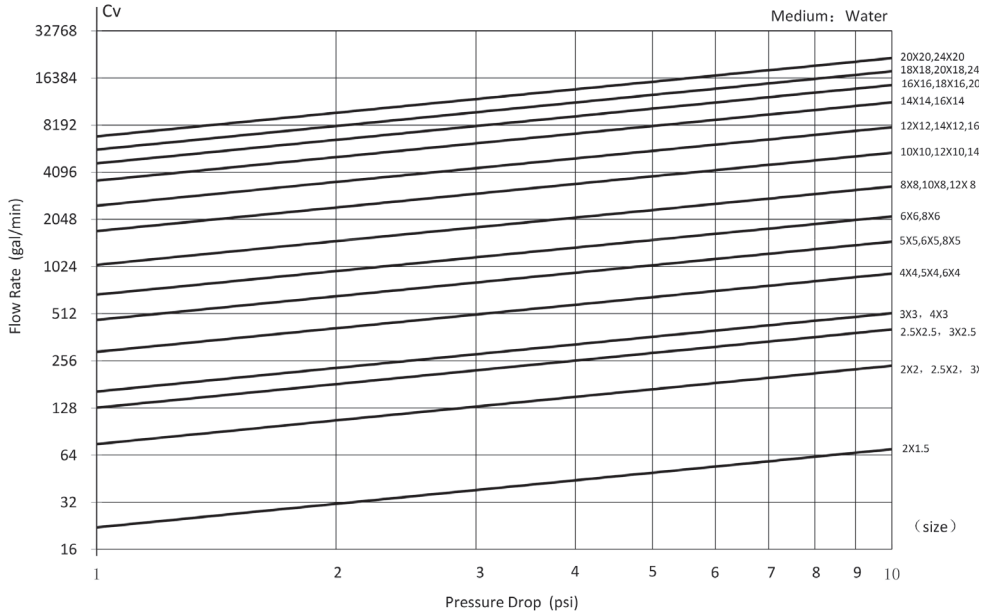


Technical Data

Max Pressure	13.8 Bar
Working Temperature	-20°C to +120°C

Typical Installation

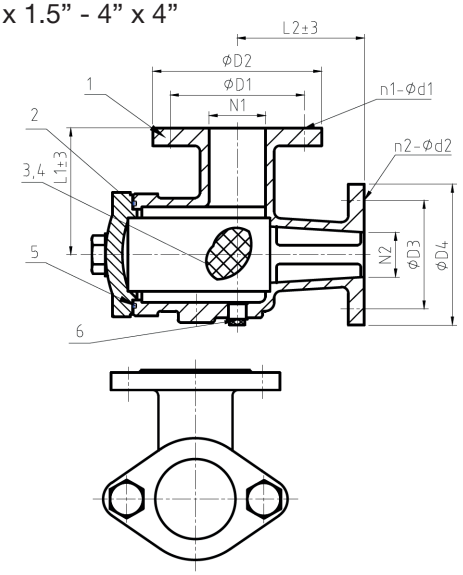




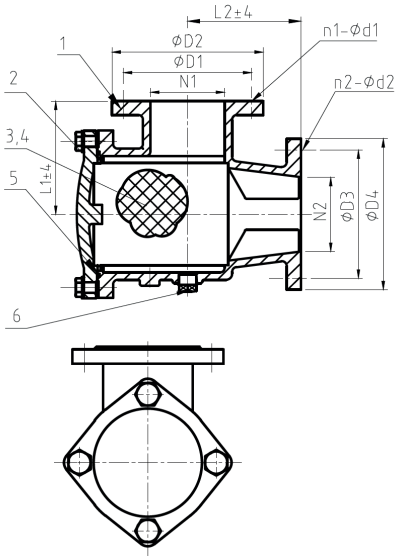
Dimensions in mm

ART 195 ANSI

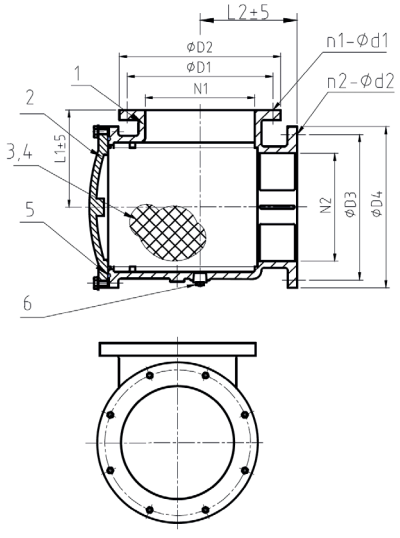
2” x 1.5” - 4” x 4”



5” x 4”, 5” x 5”, 6” x 4” & 8” x 5”



6” x 5”, 6” x 6” & 8” x 6”+



N1xN2	ØD1	ØD2	N1-ØD1	ØD3	ØD4	N2-ØD2	L1	L2	Kgs
2x1.5	120.5	152	4-19	98	127	4-16	114.4	114.4	12
2x2	120.5	152	4-19	120.5	152	4-19	114.4	114.4	14.5
2.5x2	140	178	4-19	120.5	152	4-19	126.5	126.5	18
2.5x2.5	140	178	4-19	140	178	4-19	126.5	126.5	20
3x2	152.5	191	4-19	120.5	152	4-19	139.7	114	17
3x2.5	152.5	191	4-19	140	178	4-19	140.1	140.1	25
3x3	152.5	191	4-19	152.5	191	4-19	140.1	140.1	26
4x3	190.5	229	8-19	152.5	191	4-19	165	165	36
4x4	190.5	229	8-19	190.5	229	8-19	165	165	40
5x4	216	254	8-22	191	229	8-19	191.5	191.5	51
5x5	216	254	8-22	216	254	8-22	191.5	191.5	53
6x4	241.5	279	8-22	190.5	229	8-19	203	165	58
6x5	241.5	279	8-22	216	254	8-22	203	203	65
6x6	241.5	279	8-22	241.5	279	8-22	203	203	68
8x5	298.5	343	8-22	216	254	8-22	192	229	60
8x6	298.5	343	8-22	241.5	279	8-22	228.6	203	88
8x8	298.5	343	8-22	298.5	343	8-22	229	229	120
10x8	362	406	12-25.4	298.5	343	8-22	279.4	229	130
10x10	362	406	12-25.4	362	406	12-25.4	279	279	145
12x8	432	483	12-25.4	298.5	343	8-22	280	280	175
12x10	432	483	12-25.4	362	406	12-25.4	304.8	279	220
12x12	432	483	12-25.4	432	483	12-25.4	304.8	304.8	250
14x10	476	533	12-29	362	406	12-25.4	318	328	270
14x12	476	533	12-29	432	483	12-25.4	318	328	280
14x14	476	533	12-29	476	533	12-29	318	328	292
16x12	539.5	597	16-29	432	483	12-25.4	334	364	315
16x14	539.5	597	16-29	476	533	12-29	334	364	335
16x16	539.5	597	16-29	539.5	597	16-29	334	364	360
18x14	578	635	16-32	476	533	12-29		389	375
18x16	578	635	16-32	539.5	597	16-29	370	389	397
18x18	578	635	16-32	578	635	16-32	370	389	410
20x16	635	699	20-32	539.5	597	16-29	406	428	497
20x18	635	699	20-32	578	635	16-32	406	428	512
20x20	635	699	20-32	635	699	20-32	406	428	530
24x18	749	813	20-35	578	635	16-32	470	480	745
24x20	749	813	20-35	635	699	20-32	470	480	760
24x24	749	813	20-35	749	813	20-35	470	480	775

N.	Part Name	Materials
1	Body	Cast Iron
2	Cover	Cast Iron
3	Screen	Stainless Steel 304
4	Woven Mesh	Stainless Steel 304
5	O-Ring	EPDM
6	Plug	Carbon Steel

Dimensions in mm

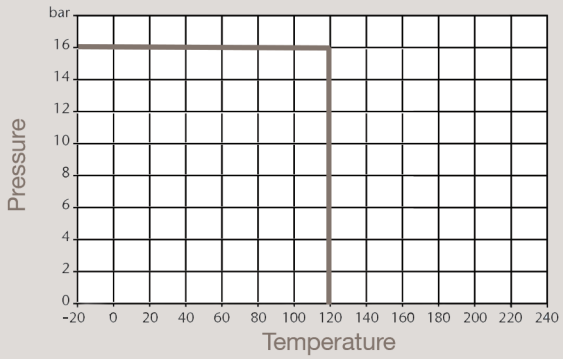
ART 197 PN16

PN16 Cast Iron Triple Duty Valve

Features

- Combines three functions in one valve
- Isolation, flow regulation and a spring check valve
- Position Indicator
- Designed for discharge side of pump installations
- Flange conforms to EN1092-2

Pressure/Temperature



	L	ØD	ØK	Ød	T	f	N-ØP	Kgs
50	213	165	125	99	20	3	4-19	12
65	250	185	145	118	20	3	4-19	16
80	254	200	160	132	22	3	8-19	19
100	368	220	1802	156	24	3	8-19	40
125	407	250	210	184	26	3	8-19	46
150	457	285	240	211	26	3	8-23	70
200	546	340	295	266	30	3	12-23	120
250	648	405	355	319	32	3	12-28	240
300	762	460	410	370	32	4	12-28	350

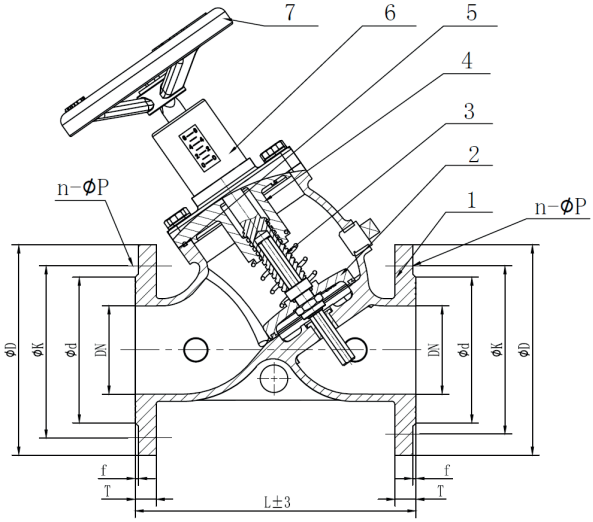
DN50 - DN150

N.	Part Name	Materials
1	Body	Cast Iron
2	Disc	Ductile Iron + EPDM
3	Shaft	Stainless Steel 410
4	Cover	Cast Iron
5	Sealing Ring	EPDM
6	Calibration Device	Plastic ABS
7	Handwheel	Carbon Steel

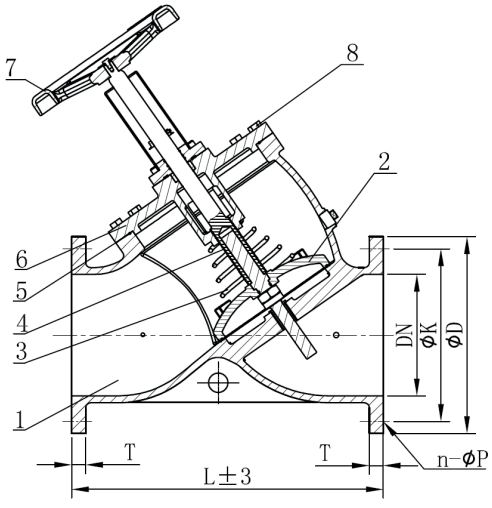
DN200 - DN300

N.	Part Name	Materials
1	Body	Cast Iron
2	Disc	Ductile Iron + EPDM
3	Spring	Stainless Steel 304
4	Shaft	Stainless Steel 410
5	O-Ring	EPDM
6	Cover	Cast Iron
7	Handwheel	Carbon Steel
8	Bolt	Carbon Steel

DN50 - DN150



DN200 - DN300



Technical Data

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

Dimensions in mm

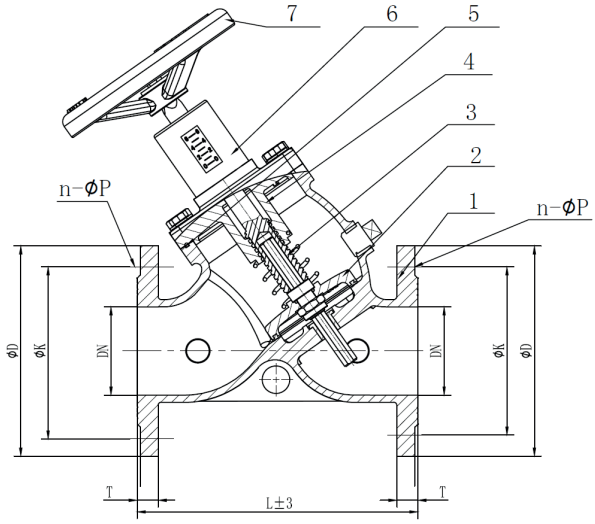
ART 197 ANSI

ANSI 125 Cast Iron Triple Duty Valve

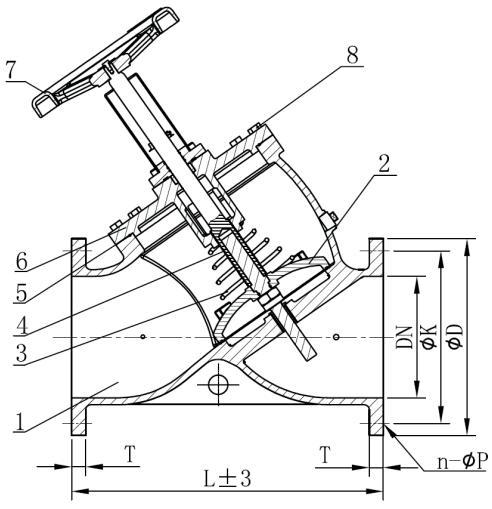
Features

- Combines three functions in one valve
- Isolation, flow regulation and a spring check valve
- Position Indicator
- Designed for discharge side of pump installations
- Flanged ANSI 125 (B16.1)

DN50 - DN150



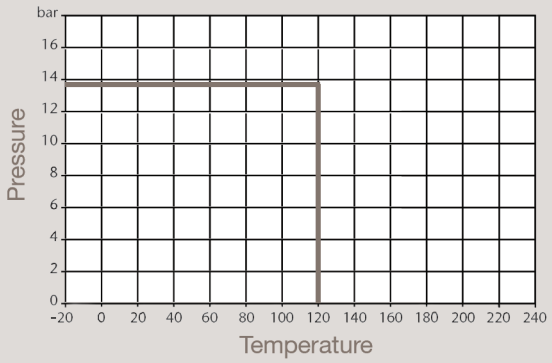
DN200 - DN300



Technical Data

Max Pressure	13.8 Bar
Working Temperature	-20°C to +120°C

Pressure/Temperature



	L	ØD	ØK	T	N-ØP	Kgs
2”	213	152.4	120.7	15.8	4-19	12
2½”	250	177.8	139.7	17.5	4-19	16
3”	254	190.5	152.4	19.1	4-19	19
4”	368	228.6	190.5	23.9	8-19	40
5”	407	254	215.9	23.9	8-22.4	46
6”	457	279.4	241.3	25.4	8-22.4	70
8”	546	342.9	298.5	28.5	8-22.4	120
10”	648	406.4	362	30.2	12-25.4	240
12”	762	482.6	431.8	31.8	12-25.4	350

DN50 - DN150

N.	Part Name	Materials
1	Body	Cast Iron
2	Disc	Ductile Iron + EPDM
3	Shaft	Stainless Steel 410
4	Cover	Cast Iron
5	Sealing Ring	EPDM
6	Calibration Device	Plastic ABS
7	Handwheel	Carbon Steel

DN200 - DN300

N.	Part Name	Materials
1	Body	Cast Iron
2	Disc	Ductile Iron + EPDM
3	Spring	Stainless Steel 304
4	Shaft	Stainless Steel 410
5	O-Ring	EPDM
6	Cover	Cast Iron
7	Handwheel	Carbon Steel
8	Bolt	Carbon Steel

Dimensions in mm

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