

valve  
**cimberio**<sup>®</sup>  
technological solutions



Balancing valves range



Cim 787  
Variable orifice balancing valve

Cim 787 balancing valves are suitable for both heating (LPHW) and cooling applications.

They are available in DZR brass (Cim 787) or in standard brass (Cim 787OT). The main features of Cim 787 balancing valves are as follows:

- A thread locking mechanism so that valve settings can be accurately locked enabling the valve to be closed and re-opened to its exact pre-set position;
- Allen key locking of valve positions;
- A valve position indicator scale which can be read from any angle;
- An EPDM lined valve plug providing tight shut-off for isolation purposes;
- Pressure Class: PN25. Temperature: -10°C÷120°C.

Available with press fitting ends (Cim 787PRS & Cim 787OTPRS).

cim787



cim787PRS

variable orifice  
balancing valve  
press fitting ends



cim747



cim747PRS

fixed orifice  
balancing valve  
press fitting ends



Cim 747  
Fixed orifice balancing valve

Cim 747 balancing valves perfectly combine a regulating valve and a flow measuring device in a one-piece body. This solution, ensures high accuracy flow balancing across all valve settings.

Cim 747 balancing valves are suitable for both heating (LPHW) and cooling applications.

They are available in DZR brass (Cim 747), DZR No Lead brass (Cim 747NL) or in standard brass (Cim 747OT).

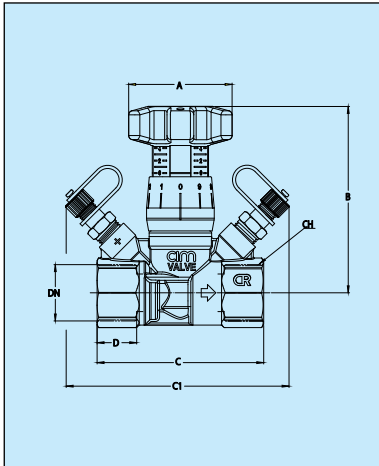
The main features of Cim 747 balancing valves are as follows:

- An orifice type flow measurement system permitting high accuracy flow measurement to within ±5% regardless of valve setting.
- A metal to metal thread locking mechanism so that valve settings can be accurately locked enabling the valve to be closed and re-opened to its exact pre-set position.
- Allen key locking of valve positions.
- A valve position indicator scale which can be read from any angle.
- An EPDM lined valve plug providing tight shut-off for isolation purposes.
- Pressure Class: PN25. Temperature: -10°C÷120°C

Available with press fitting ends (Cim 747PRS & Cim 747OTPRS).

cim 787

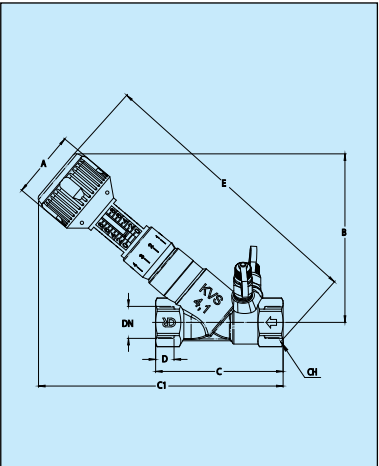
VARIABLE ORIFICE BALANCING VALVE



	Cim 787							
DN	Grms.	A	B	C	C1	D	CH	Kvs
1/2"	380	50	87.5	77	106	17	25	1.75
3/4"	440	50	89.5	80	107	18.5	31	2.87
1"	535	50	91.5	87	107	21	38	4.08
1 1/4"	960	50	99	108	123	22.5	48	6.71
1 1/2"	1120	50	99	115	129	23	55	10.40
2"	1350	50	100	124	132	26.5	66	15.06

cim 747

FIXED ORIFICE BALANCING VALVE



DN	Cim 747 - Cim 747H											
	Grms.	A	B	C	C1	D	E	CH	Kv 747	Kv 747H	Kvs 747	Kvs 747H
1/2"	700	51	111	85	163	16.5	184	28	1.75	3.19	1.80	4.10
3/4"	980	51	128	97	187	18	215	33	3.77	5.66	4.10	7.50
1"	1140	51	138	113	188	21	223	44	6.96	11.10	7.50	16.60
1 1/4"	1660	51	141.5	144	208.5	23	244	51	15.83	18.01	16.6	23.00
1 1/2"	2500	57	181	163	260	23	308	56	21.05	27.81	23	44.00
2"	3740	57	190.5	193	281.5	28	337	71	43.9	48.01	47.4	64.00





### Cim 727 Balancing valve

Cim 727 balancing valves are suitable for both heating (LPHW) and cooling applications.

Cim 727 can be locked after balancing, so that when closed and re-opened it cannot be opened beyond the set position.

They are available in DZR brass (Cim 727) or in standard brass (Cim 727OT).

The main features of Cim 727 balancing valves are as follows:

- Allen key locking of valve positions.
- A valve position indicator scale which can be read from any angle.
- An EPDM lined valve plug providing tight shut-off for isolation purposes.
- The valves with fixed orifice have the flow measurement function separated from the balancing function.
- Cim 727 can be coupled with Cim 721 to obtain a fix orifice balancing valve Cim 737 with high accuracy flow measurement to within  $\pm 5\%$  regardless valve setting.
- Pressure Class: PN20. Temperature:  $-10^{\circ}\text{C} \div 120^{\circ}\text{C}$

Available with press fitting ends (Cim 727PRS & 727OTPRS), low flow (Cim 727L).

cim 727



cim 727PRS

balancing valve  
press fitting



### Cim 737 Balancing valve

Cim 737 balancing valves are suitable for both heating (LPHW) and cooling applications.

Cim 737 can be locked after balancing, so that when closed and re-opened it cannot be opened beyond the set position.

They are available in DZR brass (Cim 737) or in standard brass (Cim 737OT).

The main features of Cim 737 balancing valves are as follows:

- Allen key locking of valve positions;
- A valve position indicator scale which can be read from any angle;
- An EPDM lined valve plug providing tight shut-off for isolation purposes;
- The valves with fixed orifice have the flow measurement function separated from the balancing function;
- High accuracy flow measurement to within  $\pm 5\%$  regardless valve setting;
- Pressure Class: PN20. Temperature:  $-10^{\circ}\text{C} \div 120^{\circ}\text{C}$ .

Available with press fitting ends (Cim 737OTPRS & 737OTPRS), low flow (1/2" UL - L - ML - MS).

cim 737

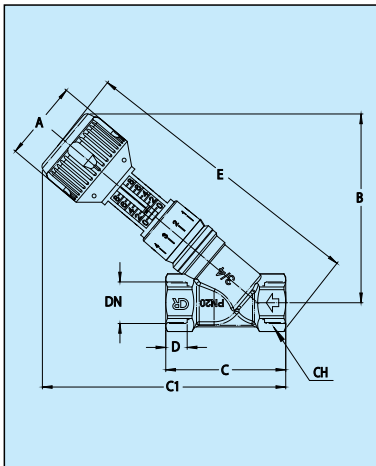


cim 737PRS

balancing valve  
press fitting

cim 727

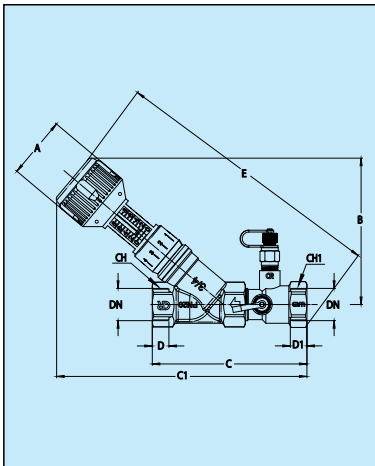
BALANCING VALVE



	Cim 727 - Cim 727L							Cim 727OT									
DN	Grms.	A	B	C	C1	D	E	Grms.	A	B	C	C1	D	E	CH	Kv 727	Kv 727L
1/2"	475	51	104.5	68	139	16,5	161	450	51	104.5	59	134	12	158	28	3.91	1.28
3/4"	645	51	121	77	156	18	187	625	51	121	68	152	13.5	184	33	7.28	-
1"	845	51	133	91	161	21	200	805	51	133	76	154	13.5	195	40	11.76	-
1 1/4"	1280	51	141	108	172	23	219	1145	51	141	92	164	15	214	51	21.60	-
1 1/2"	1835	57	181	116	213	23	276	1785	57	181	100	205	15	270	56	28.46	-
2"	2860	57	190.5	143	231,5	28	300	2580	57	190.5	125	222.5	19	297.5	71	50.52	-

cim 737

BALANCING VALVE



DN	Cim 737											Kv	Kvs
	Grms.	A	B	C	C1	D	D1	E	CH				
1/2"	710	51	104.5	125	195.5	16,5	17	205	28			1.91	1.80
3/4"	910	51	121	128	207.5	18	16	227	33			4.43	4.06
1"	1180	51	133	140	210	21	22	236	40			7.68	7.45
1 1/4"	1755	51	141	161	225	23	24	257	51			16.56	16.63
1 1/2"	2365	57	181	172	269	23	24	315	56			21.49	23.00
2"	3530	57	190.5	207.5	296	28	29	345.5	71			43.64	47.35

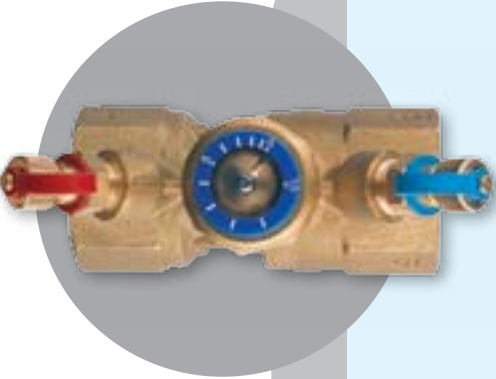


### Cim 788 Pre-setting balancing valve

Cim 788 balancing valves are suitable for both heating (LPHW) and cooling applications. Are available in DZR brass (Cim 788) or in standard brass (Cim 788OT).

The main features of Cim 788 pre-setting regulating valve are as follow:

- Screw driver adjustable pre-setting.
- 11 positions flow pre-setting.
- Plastic cap enabling the valve to be closed and opened to pre-setted Kv value.
- Designed to be upgraded with thermoelectric actuator (Cim 788NC, NO, PRO).
- An EPDM lined valve plug providing tight shut-off for isolation purposes.
- Pressure Class: PN25. Temperature: -10°C÷120°C.

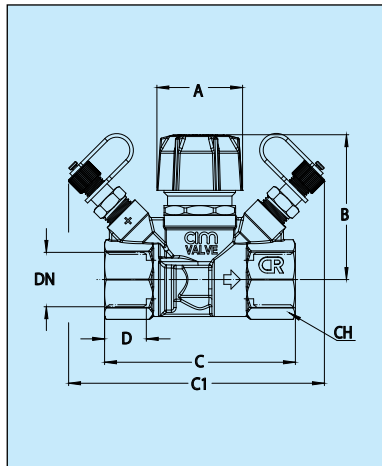


cim788



cim 788

#### PRE-SETTING BALANCING VALVE



DN	Cim 788								
	Grms.	A	B	C	C1	D	CH	Kv-Kvs Δp 2,2	Kv-Kvs Δp 4
1/2"	350	35	58	77	106	15	25	1.70	1.64
3/4"	410	35	60	80	107	19	31	2.90	2.70
1"	505	35	62	87	107	21	38	3.50	3.20
1 1/4"	-	-	-	-	-	-	-	-	-
1 1/2"	-	-	-	-	-	-	-	-	-
2"	-	-	-	-	-	-	-	-	-



cim788NC  
cim788NO  
cim788NC24  
cim788NO24  
cim788PRO

### Cim 788NC - 788NO - 788NC24 - 788NO24

Thermoelectric actuator for opening and closing valves on heating/cooling circuits.

Cim 788NC	normally closed	230V-50/60Hz
Cim 788NO	normally open	230V-50/60Hz
Cim 788NC24	normally closed	24V-50/60Hz
Cim 788NO24	normally open	24V-50/60Hz

- Compact size, small dimensions
- All around functional indicator
- Snap-on installation
- Low power consumption
- Adaptation check on valve
- 100% protection against leaky valves
- High functional safety and long expected service life
- 360° installation position
- Guaranteed over voltage protection

Operating power:	1,8W
Degree/class of protection:	IP54/II (in all installation position)
Actuator travel:	4,5 mm
Actuating force:	100 N±5%
Connecting cable:	2x0,75 mm² PVC, grey
Cable length:	1000 mm
Housing colour:	white
Dimension (mm) H/W/L:	54 + 4/44/47
Differential pressure max:	2,2 bar *
Opening/closing time:	about 3 min.

### Cim 788PRO - Alpha-Actuator 0-10V Proportional

Thermoelectric actuator-normally closed (NC) with internal electronic unit for proportional control of valves used in building management systems.

- Adjustment control
- Function indicator
- 100% protection against leaky valves
- Self-calibrating
- First-Open function
- Snap-on installation
- Proportional actuating travel
- Closing point detection

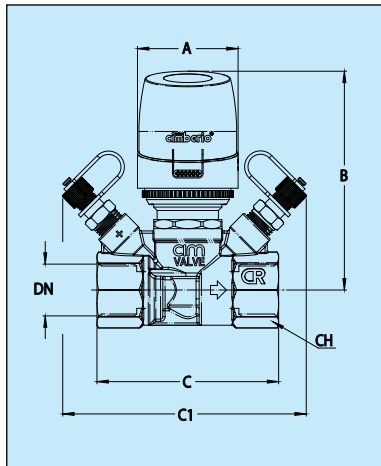


Operating voltage:	24V, -10% until +20% 50/60 Hz
Control voltage:	0-10 V DC
Input resistance:	100 kOhm
Operating power:	1,8 W
Degree of protection:	IP 54
Stroke:	4 mm
Actuating force:	100 N ± 5%
Activation current:	<250 mA for max. 2 min.
Average actuating speed:	30 s/mm
Cable (plug-in connector):	3x0,22 mm²
Cable lenght:	1000 mm
Housing colour:	White RAL 9003
Dimensions (mm) H/W/L:	60,5 + 4/44/64
Differential pressure max:	2,2 bar *

\* Δp 4 bar available in case of order please add to our code Cim 788/4xx (for example: Cim 788/4 NC)

cim 788NC, NO, PRO

#### THERMOELECTRIC ACTUATED BALANCING VALVE



DN	Cim 788NC, NC24, NO, NO24, PRO								
	Grms.	A	B	C	C1	D	CH	Kv-Kvs Δp 2,2	Kv-Kvs Δp 4
1/2"	445	35	98	77	106	15	25	1.70	1.64
3/4"	510	35	100	80	107	19	31	2.90	2.70
1"	595	35	102	87	107	21	38	3.50	3.20
1 1/4"	-	-	-	-	-	-	-	-	-
1 1/2"	-	-	-	-	-	-	-	-	-
2"	-	-	-	-	-	-	-	-	-



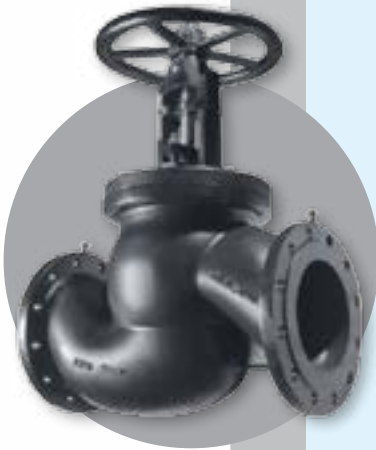


cim3739B

Cim 3739B  
Variable orifice flanged balancing valve

Cim 3739B flanged balancing valves are used where an accurate flow measurement in big heating or cooling systems is needed. The EN-JL 1040 cast iron valves have flanges PN 16.  
Cim 3739B can be locked after balancing so that when closed and re-opened cannot be opened beyond the set position. They are supplied with binder points Cim 723.

- Pressure Class: PN16. Temperature: -10°C÷120°C;
- Flanging: ISO 7005-2.



DN 200÷300



DN 40÷150

cim3739G

Cim 3739G  
Variable orifice balancing valve - Grooved ends

Cim 3739G balancing valves are used where an accurate flow measurement in big heating or cooling systems is needed. The EN-JL 1040 cast iron valves have grooved ends.  
Cim 3739G can be locked after balancing so that when closed and re-opened cannot be opened beyond the set position. They are supplied with binder points Cim 723.

- Pressure Class: PN16. Temperature: -10°C÷120°C.



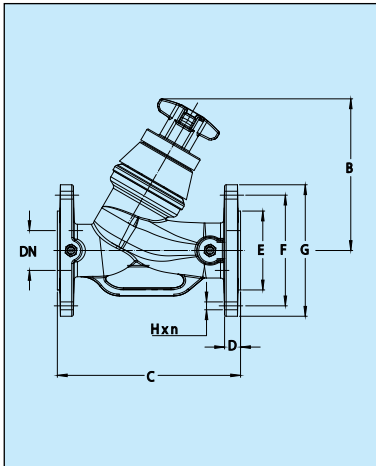
DN 200÷300



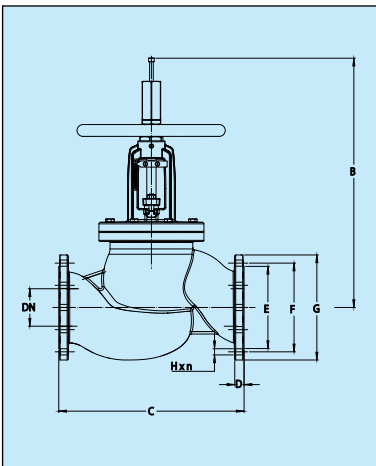
DN 40÷150

cim 3739B

VARIABLE ORIFICE FLANGED BALANCING VALVE

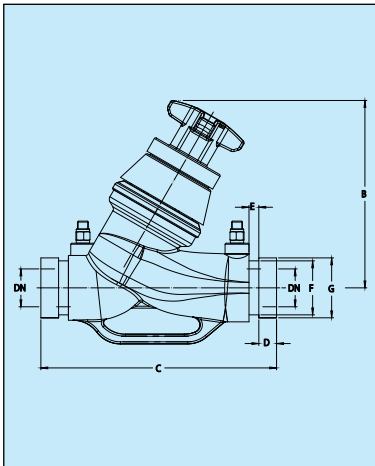


Cim 3739B										
DN	Kg.	B	C	D	E	F	G	H	n	Kv-Kvs
40	8.2	178	200	20	84	110	150	19	4	26.15
50	11.6	190	230	20	100	125	165	19	4	47.50
65	15.6	214	290	20	118	145	185	19	4	79.70
80	19.8	225	310	22	132	160	200	19	8	116.80
100	34.8	334	350	24	156	180	220	19	8	196.80
125	52.4	388	400	26	178	210	250	19	8	360.00
150	78.6	403	480	26	211	240	285	23	8	387.80
200	173	655	600	30	266	295	340	23	12	724.80
250	254	698	730	32	319	355	405	28	12	866.00
300	350	716	850	32	370	410	460	28	12	1474.60

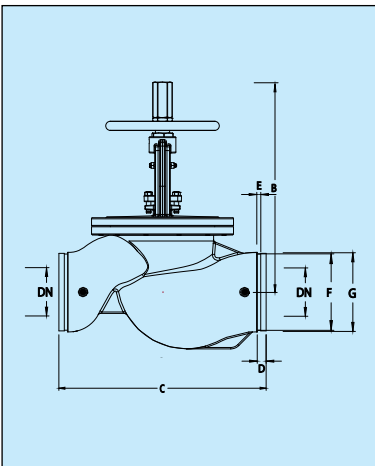


cim 3739G

VARIABLE ORIFICE BALANCING VALVE - GROOVED ENDS



Cim 3739G										
DN	Kg.	B	C	D	E	F	G			Kv - Kvs
40	7	178	200	16	7	45	48			26.15
50	10	190	230	16	9	57	60			47.50
65	15	214	290	16	9	72	76			79.70
65A	15	214	290	16	9	69	73			79.70
80	20	225	310	16	9	85	89			116.80
100	31	334	350	16	9	110	114			196.80
125	40	388	400	16	9	135	140			360.00
125A	40	388	400	16	9	137	141			360.00
150	64	403	480	16	9	164	168			387.80
150A	64	403	480	16	9	161	165			387.80
200	134	825	600	19	12	214	219			724.80
250	202	900	730	19	12	268	273			866.80
300	267	946	850	19	12	318	324			1474.60





**cim 3690**

## Cim 3690 Flanged balancing ball valve

**Cim 3690** flanged balancing valves are used in the pipework of hot water central systems and cooling systems in order to achieve the required flow rate in all the branches.

**Cim 3690** can be locked after balancing, so that when close and re-opened it cannot be opened beyond the set position. They are supplied with binder points.

They are available in steel (**Cim 3690**) or in stainless steel (**Cim 3690SS**).

- Pressure class: PN 40 (DN 15 ÷ 50);  
PN 16 (DN 65 ÷ 250);
- Temperature: -30°C ÷ 200°C
- Flanging: EN 1092-1.



**cim 3690SS**  
flanged balancing  
ball valve  
stainless steel

**cim 3690W**

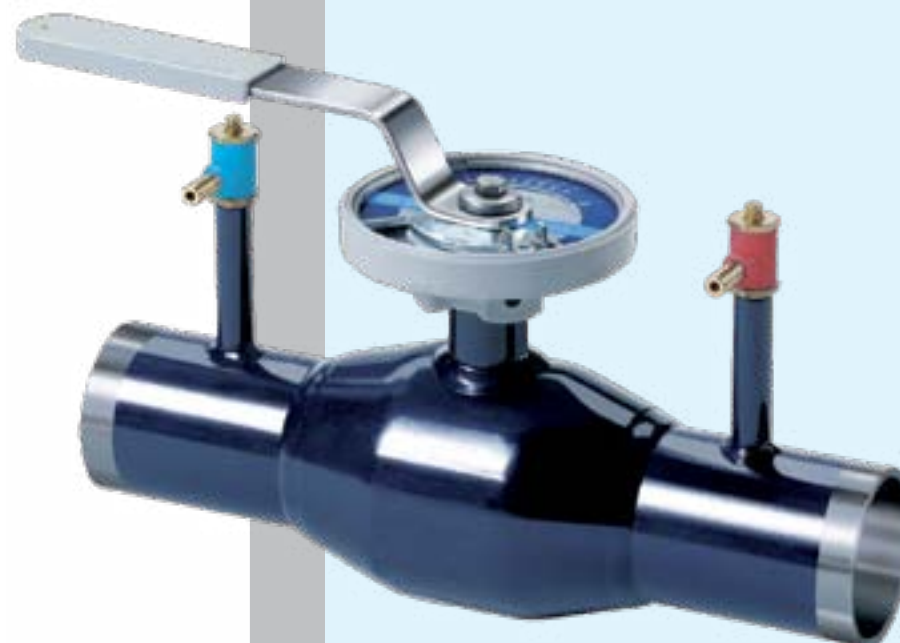
## Cim 3690W Welded balancing ball valve

**Cim 3690W** welded balancing valves are used in the pipework of hot water central systems and cooling systems in order to achieve the required flow rate in all the branches.

**Cim 3690W** can be locked after balancing, so that when close and re-opened it cannot be opened beyond the set position. They are supplied with binder points.

They are available in steel (**Cim 3690W**) or in stainless steel (**Cim 3690WSS**).

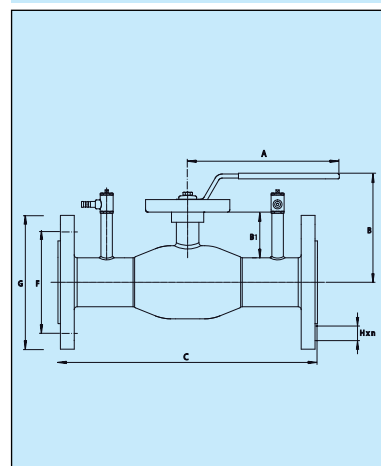
- Pressure class: PN 40 (DN 15 ÷ 50);  
PN 25 (DN 65 ÷ 250);
- Temperature: -30°C ÷ 200°C.



**cim 3690WSS**  
welded balancing  
ball valve  
stainless steel

**cim 3690**

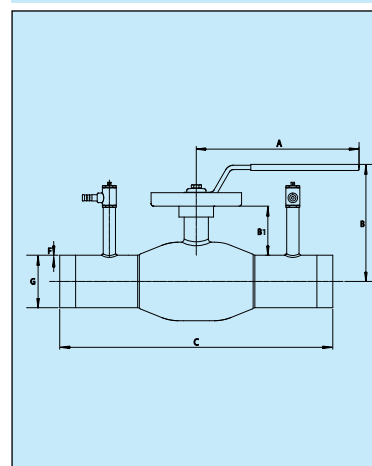
### FLANGED BALANCING BALL VALVE



Cim 3690										
DN	Kg.	A	B	B1	C	F	G	H	n	Kv - Kvs
15	2.2	140	100	18	250	65	95	14	4	5.83
20	2.5	140	100	18	250	75	105	14	4	5.83
25	3.2	150	105	37	250	85	115	14	4	12.65
32	4.9	150	105	36	280	100	140	18	4	13.14
40	6.2	190	125	56	280	110	150	18	4	22.57
50	8	190	130	56	320	125	165	18	4	34.20
65	10.2	280	180	72	320	145	185	18	4	61.20
80	12	280	190	78	320	160	200	18	8	108.00
100	16.8	280	220	95	350	180	220	18	8	216.00
125	24	420	245	98	350	210	250	18	8	293.80
150	32.8	600	265	104	370	240	285	22	8	460.80
200	60	-	-	74	425	295	340	22	12	660.00
250	114	-	-	90	550	355	405	26	12	1170.00
300	168	-	-	115	580	410	460	26	12	1840.00

**cim 3690W**

### WELDED BALANCING BALL VALVE



Cim 3690W										
DN	Kg.	A	B	B1	C	F	G	H	n	Kv - Kvs
15	0.9	140	100	18	230	2	21.3			5.83
20	0.9	140	100	18	230	2.3	26.9			5.83
25	1.2	150	105	37	230	2.6	33.7			12.65
32	1.5	150	105	36	260	2.6	42.4			13.14
40	2.4	190	125	56	260	2.6	48.3			22.57
50	3.1	190	130	56	300	2.9	60.3			34.20
65	4.7	280	180	72	300	2.9	76.1			61.20
80	5.9	280	190	78	300	3.2	88.9			108.00
100	9	280	220	95	325	3.6	114.3			216.00
125	13.5	420	245	98	325	4	139.7			293.80
150	18.8	600	265	104	350	4.5	168.3			460.80
200	45	-	-	74	400	4.5	219.1			660.00
250	89	-	-	90	530	5	273.0			1170.00
300	140	-	-	115	530	5.6	323.9			1840.00





Cim 790  
Automatic flow balancing valve

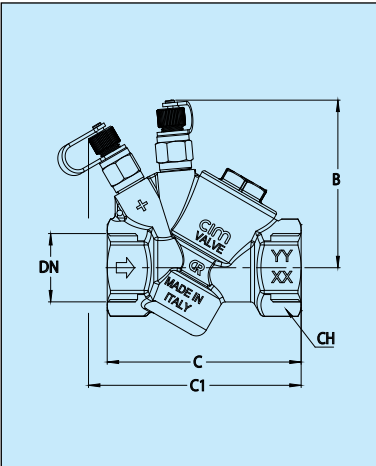
Balancing valves Cim 790 are designed for automatic balancing of heating (LPHW) and cooling installations. Automatic balancing is achieved by means of cartridges that provide constant flow. The wide selection of cartridges allows to match every flow requirement from a minimum of 0,007 l/s (7 KPa min. Δp) up to a maximum of 3,154 l/s (44 KPa min. Δp). Cim 790 can be used either in constant flow or variable flow system, assuring that specified flow would not be exceeded. Automatic balancing function is performed with innovative and patented cartridges with incorporated fixed orifice. The automatic function of Cim 790 eliminates the manual balancing of the system, allowing possible inspection by contractor. The cartridge can be easily removed from its seat even with installed valve, allowing easy flushing of the installation and possible flow modification required after first installation. The use of automatic balancing valve on terminal units of the system avoids the need of other balancing valves on the main circuit or on system branches. Balancing valves Cim 790 are available in DZR brass.



- The main features of Cim 790 automatic flow balancing valve are as follows:
- The cartridge is removable from the valve body and can be changed, inspected and cleaned without breaking the main piping. No special tool is requested for removal of cartridge;
  - System balancing is assured automatically, even under fluctuating pressure conditions;
  - More compact installation with automatic balancing valves not requiring straight pipe to obtain linear flow at valve inlet and outlet;
  - Decrease of installation costs, due to energy saving and cut off cost related to system balancing.
  - Cartridge performance is not affected by debris. The self-cleaning cartridge design makes very difficult for any particles to accumulate and compromise the accuracy of the valve;
  - Energy saving due to elimination of excessive flow;
  - Increased comfort thanks to more accurate flow distribution with better performance of system regulating valves.
  - Pressure class: PN25. Temperature: -20°C÷120°C

cim 790

AUTOMATIC FLOW BALANCING VALVE



Cim 790							
DN	Grms.	B	C	C1	D	CH	Flow rate range (l/h)
15	505	74	78	89	11.5	25	25 ÷ 2448
20	520	74	78	89	12.5	31	25 ÷ 2448
25	600	74	85	93	14.5	38	25 ÷ 2448
25L	600	93	123	125	14.5	38	674 ÷ 11355
32	1500	93	123	125	16.8	46	674 ÷ 11355
40	1565	93	123	125	16.8	52	674 ÷ 11355
50	1670	93	132	130	21.1	64	674 ÷ 11355

Cim 3790  
Automatic flow balancing valve

Wafer style automatic flow balancing valves Cim 3790 are particularly designed for heating (LPHW) and cooling installations. The special cartridge assures system balancing even under fluctuating pressure conditions. The available cartridge range can meet flow rate requirements ranging from a minimum of 1,061 l/s up to 12,500 l/s. Since inside the body valve quantity of cartridges may change according to the project flow rate, Cim 3790 valves are able to meet flow rate requirements ranging from a minimum of 3.820 l/h up to a maximum of 3.825.000 l/h. If a full flow capacity is not required, but rather only a portion of it, blind caps can be fitted instead of cartridges. Automatic balancing function is performed with innovative and patented cartridges with incorporated fixed orifice. Cim 3790 valves are made of ductile iron GGG40 with flanges according to EN/ANSI standards. Wafer style automatic flow balancing valves Cim 3790 are supplied with 100mm length binder points. From DN 100 the valves are supplied with a threaded hook to be screwed on the body. These valves work properly within a range of differential pressures included between a minimum value (specified in the table hereafter reported) and a maximum value of 600KPa. Minimum differential pressure can be measured out with the binder points on the valve body.

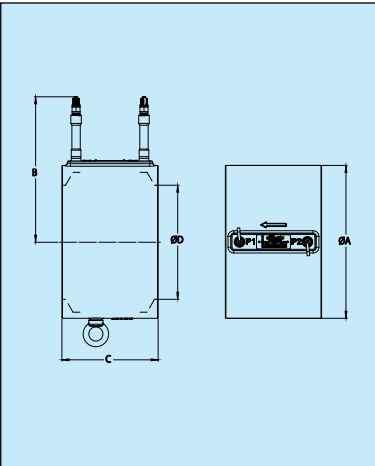
cim 3790



- The main features of Cim 3790 automatic flow balancing valve are the followings:
- System balancing assured automatically even under fluctuating pressure conditions;
  - More compact installation with automatic balancing valves not requiring straight pipe to obtain linear flow at valve inlet and outlet;
  - Cartridge performance not affected by debris. The self-cleaning cartridge design makes very difficult for any particles to accumulate and compromise the accuracy of the valve;
  - Energy saving due to elimination of excessive flow;
  - Increased comfort thanks to more accurate flow distribution with better performance of system regulating valves.
  - Pressure class: PN16. Temperature: -20°C÷120°C

cim 3790

WAFER AUTOMATIC FLOW BALANCING VALVE



Cim 3790 DN	Kg.	Ø A	B	C	Ø D	Max No. of cartridges	Flow rate range (l/h)
50	3,41	100	218	170	80	1	3820÷45000
65	4,91	119	237	170	80	1	3820÷45000
80	4,79	131	249	170	80	1	3820÷45000
100	6,90	163	281	170	100	2	3820÷90000
125	9,00	193	311	170	125	3	3820÷135000
150	11,73	216	334	170	150	4	3820÷180000
200	18,75	271	389	170	200	7	3820÷315000
250	23,44	326	440	170	260	12	3820÷540000
300	33,41	383	501	170	315	15	3820÷675000
350	44,21	443	561	170	355	19	3820÷855000
400	51,63	496	614	170	405	26	3820÷1170000
450	57,47	545	663	170	455	33	3820÷1485000
500	67,75	601	719	170	508	40	3820÷1800000
600	88,90	715	833	170	610	56	3820÷2520000
800	127,30	880	998	170	760	85	3820÷3825000

cim795

Cim 795  
Automatic flow balancing valve

Cim 795 balancing valves are suitable for both heating (LPHW) and cooling applications. Balancing valves Cim 795 are available in DZR brass.

- The main features of Cim795 automatic flow balancing valve are as follow:
- The cartridge is removable from the valve body and can be changed, inspected and cleaned without breaking the main piping. No special tool is requested for removal of cartridge;
  - System balancing is assured automatically, even under fluctuating pressure conditions;
  - More compact installation with automatic balancing valves not requiring straight pipe to obtain linear flow at valve inlet and outlet;
  - Decrease of installation costs, due to energy saving and cut off cost related to system balancing.
  - Cartridge performance is not affected by debris. The self-cleaning cartridge design makes very difficult for any particles to accumulate and compromise the accuracy of the valve;
  - Energy saving due to elimination of excessive flow;
  - Increased comfort thanks to more accurate flow distribution with better performance of system regulating valves.
  - Pressure class: PN25. Temperature: -20°C÷120°C



cim795NC  
cim795NO  
cim795NC24  
cim795NO24



Cim 795NC - 795NO - 795NC24 - 795NO24

Thermoelectric actuator for opening and closing valves on heating/cooling circuits.

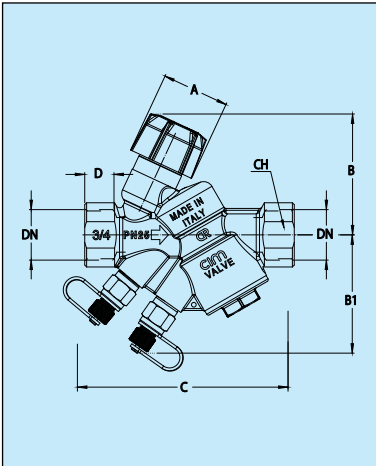
Cim 795NC	normally closed	220V-50/60Hz
Cim 795NO	normally open	220V-50/60Hz
Cim 795NC24	normally closed	24V-50/60Hz
Cim 795NO24	normally open	24V-50/60Hz

- Compact size, small dimensions
- 100% protection against leaky valves
- All around functional indicator
- High functional safety and long expected service life
- Snap-on installation
- Low power consumption
- 360° installation position
- Adaptation check on valve
- Guaranteed over voltage protection

Operating power:	1,8W
Degree/class of protection:	IP54/II (in all installation position)
Actuator travel:	4,5 mm
Actuating force:	100 N±5%
Connecting cable:	2x0,75 mm² PVC, grey
Cable length:	1000 mm
Housing colour:	white
Dimension (mm) H/W/L:	54 + 4/44/47
Differential pressure max:	4 bar
Opening/closing time:	about 3 min.

cim795

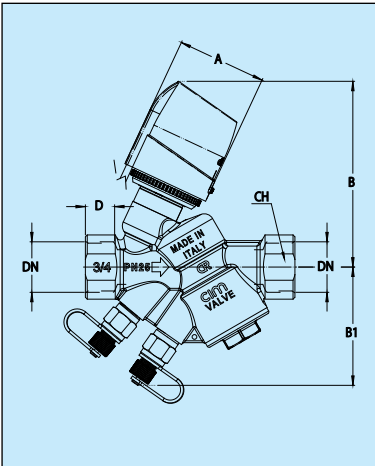
AUTOMATIC FLOW BALANCING VALVE



DN	Cim 795							
	Grms.	A	B	B1	C	D	CH	Flow rate range (l/h)
15	660	35	64	63	105	11.5	25	25 ÷ 2448
20	680	35	64	63	111	12.5	31	25 ÷ 2448
25	715	35	64	63	117	14.5	38	25 ÷ 2448
25L	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-

cim795 NC, NO

THERMOELECTRIC ACTUATED AUTOMATIC FLOW BALANCING VALVE



DN	Cim 795NC, NC24, NO, NO24							
	Grms.	A	B	B1	C	D	CH	Flow rate range (l/h)
15	760	47	98	63	105	11.5	25	25 ÷ 2448
20	795	47	98	63	111	12.5	31	25 ÷ 2448
25	815	47	98	63	117	14.5	38	25 ÷ 2448
25L	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-



cim717



Cim 717  
Pressure independent control balancing valve

Cim 717LF	Cim 717LFNC	Cim 717LFNO	Cim 717LF2303P	Cim 717LFPRO
Cim 717HF	Cim 717HFNC	Cim 717HFNO	Cim 717HF2303P	Cim 717HFPRO
Cim 717LFTH	Cim 717LFNC24	Cim 717LFNO24	Cim 717LF243P	
Cim 717HFTH	Cim 717HFNC24	Cim 717HFNO24	Cim 717HF243P	

Cim 717 balancing valves are designed for automatic balancing of heating (LPHW) and cooling systems, regardless of fluctuating pressure conditions of the system.  
Cim 717 is available in DZR No lead brass.  
Thanks to its unique design, Cim 776 and Cim 777 balancing valves are able to perform three functions, in detail:

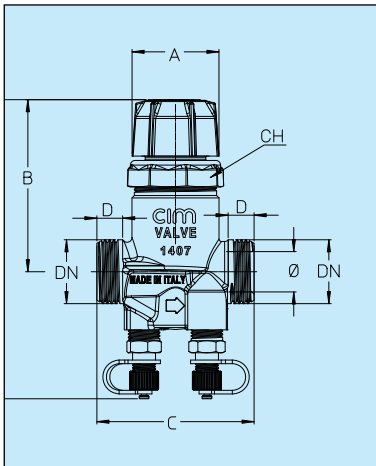
- REGULATION  
Selection of required flow rate;
- CONTROL  
Constant flow rate regardless of pressure fluctuations;
- MODULATION  
"full authority" flow rate modulation (Cim 717PRO, Cim 7173P & Cim 717TH).

The main features of Cim 717 PIC balancing valves are as follow:

- Easy selection of required flow-rate using pre-setting dial;
- Automatic balancing in the event of fluctuating pressure conditions in system branches;
- Flow rate modulation along the whole electric actuator stroke;
- Flexibility if the system is modified after the first installation;
- Reduction of balancing costs, improved energy saving and high environmental comfort;
- Reduced installation dimensions thanks to very compact valve construction, which does not require inlet and outlet straight pipelines to stabilize the flow;
- Modulation by control of the return temperature (717TH)
- Pressure class: PN25. Temperature: -10°C÷120°C

cim 717

PRESSURE INDEPENDENT  
CONTROL BALANCING VALVE



Cim 717									
DN	Grms.	A	A1	B	B1	C	D	CH	Kvs LF
1/2"	1105	35	83	138	72	95.5	14	27	1.57
3/4"	-	35	83	140	72	97	15	32	2.63
1"	-	35	83	140	72	102.5	16	39	4.30
1 1/4"	-	35	83	147	83	128	17	49	-
1 1/2"	-	35	129	222	91	144.5	17	54	-
2"	-	35	129	229	94	155	20	68	-

Technical data

Cim 717 series works properly within a differential pressure operating range between minimum value as specified in the below tables and a maximum value of 400 KPa.

LOW FLOW				
Cim 717LF				
Size	Flow (l/h)	Flow (l/s)	Flow (gpm*)	Min ΔP (KPa)
1/2" DN 10	XX	XX	XX	16
3/4" DN 15	XX	XX	XX	16
1" DN 20	XX	XX	XX	16

HIGH FLOW				
Cim 717HF				
Size	Flow (l/h)	Flow (l/s)	Flow (gpm*)	Min ΔP (KPa)
1/2" DN 10	XX	XX	XX	16
3/4" DN 15	XX	XX	XX	16
1" DN 20	XX	XX	XX	16

\*The "gpm" values are corresponding to US gallon per minute.



cim 717-NC  
cim 717-NO  
p.i.c.v. with  
thermoelectric  
actuator



cim 717-3P  
cim 717-PRO  
p.i.c.v. with  
rotary actuator



cim 717TH  
p.i.c.v. with  
thermostatic  
sensor

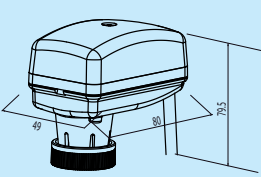
Thermoelectric actuators

- Cim EMV311/NC24: 24VAC - normally closed;
- Cim EMV311/NC230: 230VAC - normally closed;
- Cim EMV311/NO24: 24VAC - normally opened;
- Cim EMV311/NO230: 230VAC - normally opened;
- Maximum stroke: 4 mm;

Voltage:	230VAC; 24VAC
Frequency:	50/60 Hz
Power:	2.5 W
Cable length:	1 m
Protection Class:	IP 54
Weight:	XXXX grms
Actuating force:	170 N
Input impedance:	> 100 k Ohm (DC 0-10V)

Rotary actuators

- Cim EMV211/145: 24VAC - proportional;
- Cim EMV211/146: 24VAC - 3 positions;
- Cim EMV211/147: 230VAC - 3 positions.
- Maximum stroke: 6.3 mm;
- Double colour led for status and diagnostic information;



Voltage:	230VAC; 24VAC
Frequency:	50 Hz
Power:	2.5 VA - 1.5 W
Manual operation:	adjusting handle
Cable length:	1.5 m
Protection Class:	IP 43
Weight:	450 grms
Actuating force:	400N

cim776

## Cim 776 - Cim 777 Pressure independent control balancing valve

Cim 776LF    Cim 777 LF PRO24    Cim 777 LF24 3P    Cim 777 LF230 3P  
Cim 776HF    Cim 777 HF PRO24    Cim 777 HF24 3P    Cim 777 HF230 3P

Cim 776 and Cim 777 balancing valves are designed for automatic balancing of heating (LPHW) and cooling systems, regardless of fluctuating pressure conditions of the system. Cim 776 and Cim 777 are available in DZR brass. Thanks to its unique design, Cim 776 and Cim 777 balancing valves are able to perform three functions, in detail:

### REGULATION

Selection of required flow rate;

### CONTROL

Constant flow rate regardless of pressure fluctuations;

### MODULATION

"full authority" flow rate modulation (Cim 777 series)

The main features of Cim 776 and Cim 777 PIC balancing valves are as follow:

- Easy selection of required flow-rate using pre-setting dial;
- Automatic balancing in the event of fluctuating pressure conditions in system branches;
- Flow rate modulation along the whole electric actuator stroke;
- Flexibility if the system is modified after the first installation;
- Reduction of balancing costs, improved energy saving and high environmental comfort;
- Easy flushing thanks to quick and simple removal of differential pressure control cartridge placed inside valve body;
- Reduced installation dimensions thanks to compact valve construction, which does not require inlet and outlet straight pipe-lines to stabilize the flow.
- Pressure class: PN25. Temperature: -10°C÷120°C

cim777

## Technical data

Cim 776 and Cim 777 series work properly within a differential pressure operating range between minimum value as specified in the below tables and a maximum value of 400 KPa.

LOW FLOW		Cim 776 - Cim 777			
Size		Flow (l/h)	Flow (l/s)	Flow (gpm*)	Min ΔP (KPa)
1/2" DN 15		78 ÷ 625	0.022 ÷ 0.174	0.34 ÷ 2.75	16
3/4" DN 20		131 ÷ 1050	0.036 ÷ 0.292	0.58 ÷ 4.62	16
1" DN 25		231 ÷ 1722	0.064 ÷ 0.478	1.06 ÷ 7.58	16

HIGH FLOW		Cim 776 - Cim 777			
Size		Flow (l/h)	Flow (l/s)	Flow (gpm*)	Min ΔP (KPa)
1/2" DN 15		244 ÷ 1724	0.068 ÷ 0.479	1.08 ÷ 7.59	18
3/4" DN 20		292 ÷ 2039	0.081 ÷ 0.566	1.28 ÷ 8.98	22
1" DN 25		292 ÷ 2039	0.081 ÷ 0.566	1.28 ÷ 8.98	22
1 1/4" DN 32		465 ÷ 3056	0.129 ÷ 0.849	2.05 ÷ 13.45	18
1 1/2" DN 40		2022 ÷ 7105	0.562 ÷ 1.974	8.90 ÷ 31.28	26
2" DN 50		2204 ÷ 8586	0.612 ÷ 2.385	9.70 ÷ 37.8	32

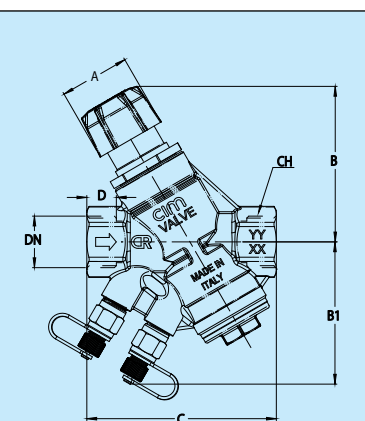
\* The "gpm" values are corresponding to US gallon per minute.

The main features of Cim EMV210/... electric actuator are the following:

- 3 positions or 0..10Vdc control signal;
- Swivel nut easy assembling;
- Short circuit resistance;
- Protection against polarity reversal.

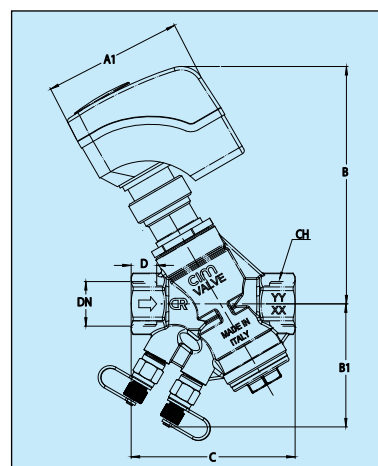
cim 776

## PRESSURE INDEPENDENT CONTROL BALANCING VALVE



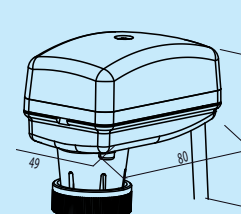
		Cim 777 - Cim 776									
DN		Grms. Cim 776	A	A1	B	B1	C	D	CH	Kvs LF	Kvs HF
1/2"		1105	35	83	138	72	95.5	14	27	1.57	4.06
3/4"		1125	35	83	140	72	97	15	32	2.63	4.34
1"		1255	35	83	140	72	102.5	16	39	4.30	4.34
1 1/4"		1550	35	83	147	83	128	17	49	-	7.20
1 1/2"		2550	35	129	222	91	144.5	17	54	-	13.94
2"		3200	35	129	229	94	155	20	68	-	15.18

cim 777



## Electric actuators DN15 ÷ DN32

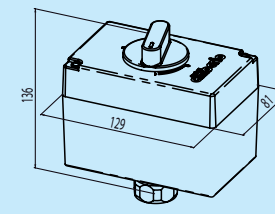
- Cim EMV210/145: 24VAC - proportional;
- Cim EMV210/146: 24VAC - 3 positions;
- Cim EMV210/147: 230VAC - 3 positions.
- Maximum stroke: 5,5 mm;
- Manual operation by 3 mm hexagonal key;



Voltage: 230VAC; 24VAC  
Frequency: 50/60 Hz  
Manual operation: 3mm hexagonal key  
Cable length: 1,5 m  
Protection Class: IP 40  
Weight: 350 grms  
Actuating force: 250N  
Input impedance: > 100 k Ohm (DC 0-10V)

## Electric actuators DN40 ÷ DN50

- Cim EMV210/148: 24VAC - proportional;
- Cim EMV210/149: 24VAC - 3 positions;
- Cim EMV210/150: 230VAC - 3 positions.
- Maximum stroke: 6,5 mm;
- Manual operation by adjusting handle;



Voltage: 230VAC; 24VAC  
Frequency: 50 Hz  
Manual operation: adjusting handle  
Cable length: no cable  
Protection Class: IP 54  
Weight: 450 grms  
Actuating force: 400N  
Input impedance: > 100 k Ohm (DC 0-10V-)



**cim3777**



## Cim 3777 Flanged pressure independent control balancing valve

Cim 3777 balancing valves are designed for automatic balancing of heating (LPHW) and cooling systems, regardless of fluctuating pressure conditions of the system.

Cim 3777 are available in ductile iron.

Thanks to its unique design, Cim 3777 balancing valves are able to perform three functions, in detail:

### REGULATION

Selection of required flow rate;

### CONTROL

Constant flow rate regardless of pressure fluctuations;

### MODULATION

"full authority" flow rate modulation;

The main features of Cim 3777 PIC balancing valves are as follows:

- Easy selection of required flow-rate using command panel;
- Automatic balancing in the event of fluctuating pressure conditions in system branches;
- Flow rate modulation along the whole electric actuator stroke;
- Flexibility if the system is modified after the first installation;
- Reduction of balancing costs, improved energy saving and high environmental comfort;
- Reduced installation dimensions which does not require inlet and outlet straight pipelines to stabilize the flow.
- Pressure class: PN16. Temperature: 5°C÷120°C

## Technical data

Cim 3777 series work properly within a differential pressure operating range between minimum value as specified in the below table and a maximum value of 400 KPa.

Cim 3777				
Size	Flow (l/h)	Flow (l/s)	Flow (gpm*)	Min ΔP (KPa)
DN 50	3000 ÷ 20000	0.833 ÷ 5.555	13.21 ÷ 88.06	30
DN 65	5000 ÷ 30000	1.389 ÷ 8.333	22.01 ÷ 132.09	30
DN 80	10000 ÷ 40000	2.778 ÷ 11.111	44.03 ÷ 176.11	30
DN 100	15000 ÷ 55000	4.167 ÷ 15.278	66.04 ÷ 242.16	30
DN 125	15000 ÷ 80000	4.167 ÷ 22.222	66.04 ÷ 352.23	30
DN 150	15000 ÷ 150000	4.167 ÷ 41.667	66.04 ÷ 660.43	50

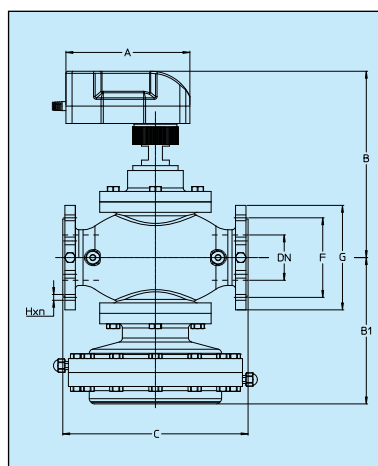
\* The "gpm" values are corresponding to US gallon per minute.

The main features of Cim EMV210/151 electric actuator are the following:

- 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: 4-20 mA or 2-10 V;
- Position detection with encoder.

**cim 3777**

## FLANGED PRESSURE INDEPENDENT CONTROL BALANCING VALVE



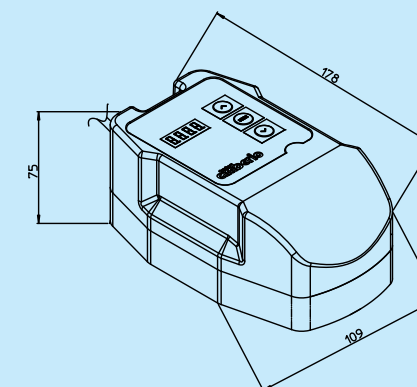
Cim 3777										
DN	kg.	A	B	B1	C	F	G	H	n	Kvs
50	38	178	301	219	254	125	155	18	4	36.5
65	48	178	296	234	276	135	175	18	4	54.8
80	60	178	324	239	298	145	185	18	8	73.0
100	102	178	334	285	352	160	210	18	8	100.4
125	126	178	361	310	400	180	250	18	8	146.1
150	162	178	396	350	451	210	280	18	8	273.9

## Electric actuators DN50÷ DN150

■ Cim EMV210/151: 24 V AC/DC

- Proportional;
- 3 Positions;
- ON/OFF;
- PWM;

- 1 - Display
- 2 - Up Button
- 3 - Mode Button
- 4 - Down Button
- 5 - Clutch Button



Voltage: 24 V AC/DC  
Frequency: 50 Hz  
Cable length: 0,3 m  
Protection Class: IP 54  
Weight: 900 grms  
Actuating torque: 4 Nm  
Input impedance: 500 Ohm



cim 767

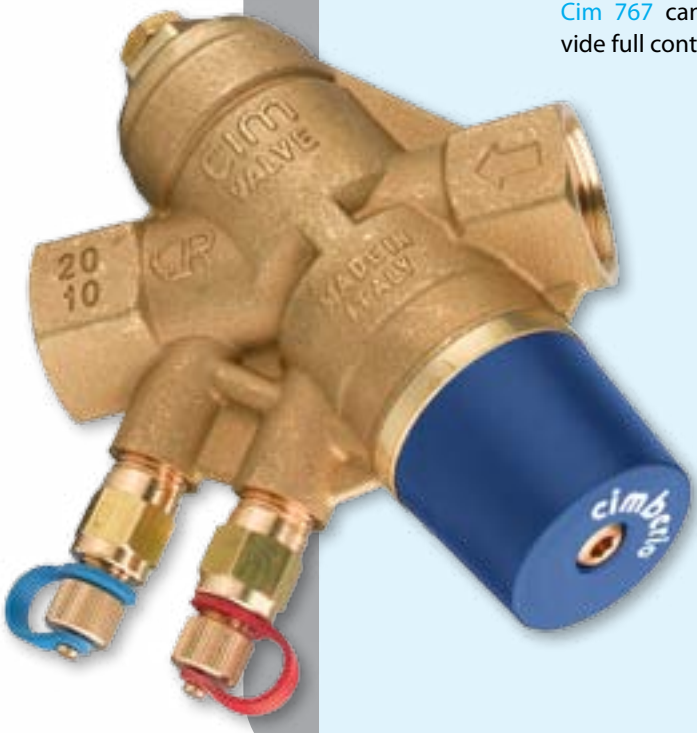
### Cim 767 Differential pressure control valve (DPCV)

Cim 767 valves are designed for automatic balancing of heating (LPHW) and cooling installations. Cim 767 allows to select and maintain the differential pressure  $\Delta p$  across a branch of a circuit where terminal units such as fan coils or radiators are installed.

Cim 767 is available in DZR brass.

The flow rate through a branch can fluctuate according to temperature requirements. Since flow rate depends on  $\Delta p$ , the main feature of Cim 767 is to maintain constant the nominal flow rate through open terminal units, regardless that some of them could be partially or fully closed.

Cim 767 can be installed in conjunction with Cim 787 balancing valve to provide full control of  $\Delta p$ , despite of system pressure fluctuation.



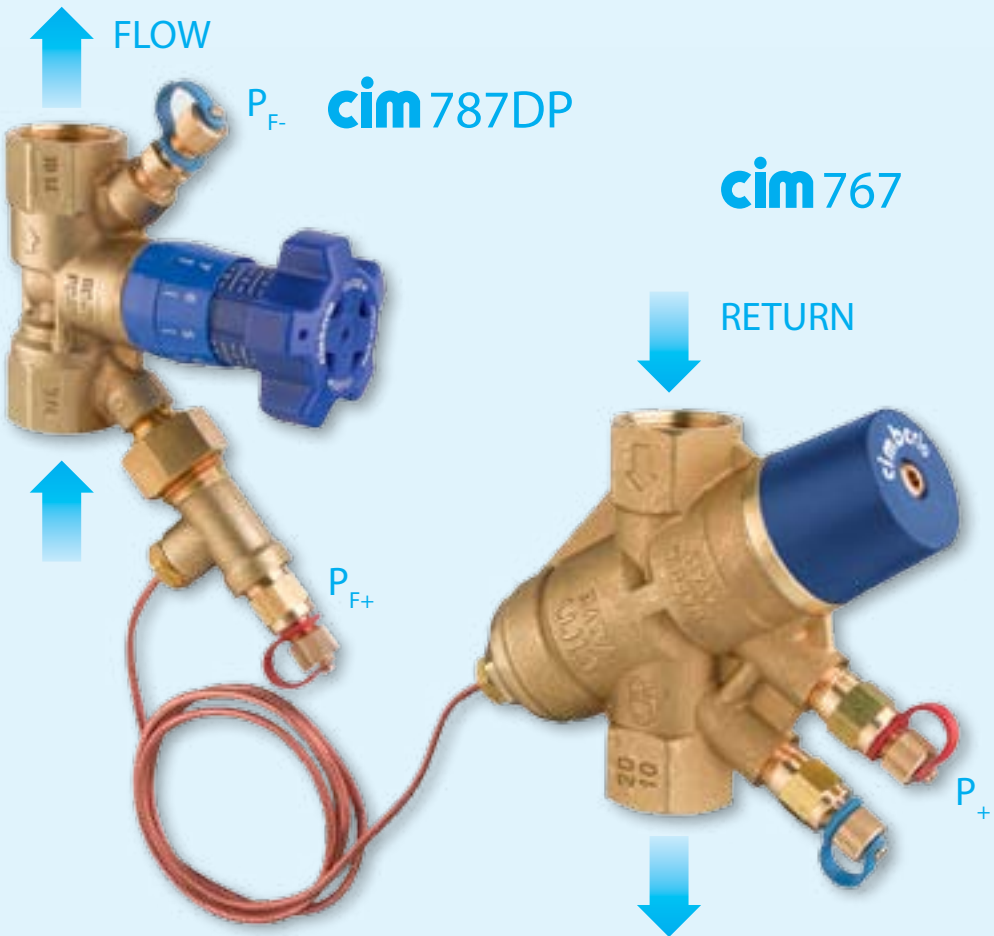
The main features of Cim 767 DPCV are as follow:

- Differential pressure can be set and adjusted on site;
- Tamper-proof presetting device;
- Removable differential pressure cartridge allows forward flushing as well as back-flushing;
- Pressure Class: PN16. Temperature:  $-10^{\circ}\text{C} \div 120^{\circ}\text{C}$

### Technical data

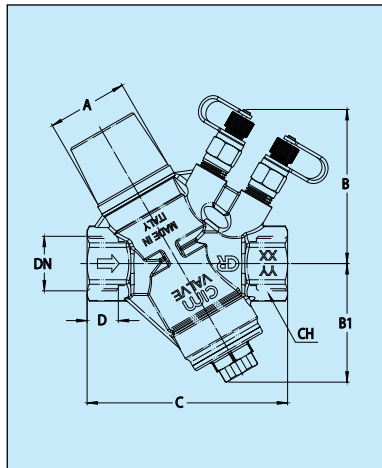
System  $\Delta p$  is measured from  $P_{F-}$  to  $P_{+}$ . System flow is adjusted with Cim 787 DP balancing valve by measuring  $\Delta p$  from  $P_{F+}$  to  $P_{F-}$  and referring to Cim 787 pressure drop graphs.

Cim 767 works properly up to 400 Kpa maximum differential pressure.



cim 767

### DIFFERENTIAL PRESSURE CONTROL VALVE (DPCV)



Cim 767							
DN	Grms.	A	B	B1	C	D	CH
1/2"	825	40	70	57	95.5	11	27
3/4"	880	40	72	57	96.5	13	32
1"	1535	50	91	74	132	14.5	39
1 1/4"	1625	50	91	74	132	17	47
1 1/2"	2475	65	98	85	144.5	17	54
2"	2970	65	105	90	155	20	68

Cim 767LP					
Size	$\Delta p$ range (kPa)	Flow (l/h)	Flow (l/s)	Flow (gpm*)	Kvs
1/2" DN 15	5 ÷ 30	50 ÷ 600	0.014 ÷ 0.167	0.22 ÷ 2.65	3.6
3/4" DN 20	5 ÷ 30	100 ÷ 1000	0.028 ÷ 0.278	0.44 ÷ 4.41	4.0
1" DN 25	5 ÷ 30	600 ÷ 2500	0.167 ÷ 0.694	2.65 ÷ 11.02	9.5

Cim 767HP					
Size	$\Delta p$ range (kPa)	Flow (l/h)	Flow (l/s)	Flow (gpm*)	Kvs
1/2" DN 15	20 ÷ 60	100 ÷ 1200	0.028 ÷ 0.333	0.44 ÷ 5.29	3.6
3/4" DN 20	20 ÷ 60	150 ÷ 2000	0.042 ÷ 0.556	0.66 ÷ 8.82	4.0
1" DN 25	20 ÷ 60	700 ÷ 4200	0.194 ÷ 1.167	3.09 ÷ 18.52	9.5
1 1/4" DN 32	20 ÷ 80	1000 ÷ 5000	0.278 ÷ 1.389	4.41 ÷ 22.05	11.4
1 1/2" DN 40	20 ÷ 80	3000 ÷ 8000	0.833 ÷ 2.222	13.23 ÷ 35.27	16.4
2" DN 50	20 ÷ 80	5000 ÷ 15000	1.389 ÷ 4.167	22.05 ÷ 66.14	17.9

\* The "gpm" values are corresponding to US gallon per minute.





**cim3767B**



**Cim 3767B**  
**Flanged differential pressure control valve (DPCV)**

Cim 3767B valves are designed for automatic balancing of heating (LPHW) and cooling installations. Cim 3767B allows to select and maintain the differential pressure  $\Delta p$  across a branch of a circuit where terminal are installed. Cim 3767B is available in cast iron.

The flow rate through a branch can fluctuate according to temperature requirements. Since flow rate depends on  $\Delta p$ , the main feature of Cim 3767B is to maintain constant the nominal flow rate through open terminal units, regardless that some of them could be partially or fully closed. Cim 3767B can be installed in conjunction with Cim 3739B balancing valve to provide full control of  $\Delta p$ , despite of system pressure fluctuation.

The main features of Cim 3767B DPCV are as follow:

- Differential pressure can be set and adjusted on site;
- Easy selection of required differential pressure using pre-setting dial;
- Reduction of balancing costs, improved energy saving;
- Pressure Class: PN16. Temperature:  $-10^{\circ}\text{C} \div 120^{\circ}\text{C}$ ;
- Flanging: EN 1092-1.

**Technical data**

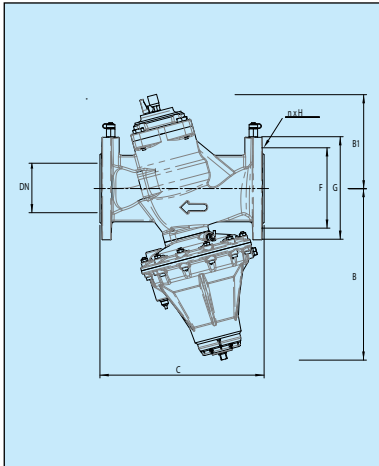
System  $\Delta p$  is measured from  $P_{F-}$  to  $P_{F+}$ . System flow is adjusted with Cim 3739BDP balancing valve by measuring  $\Delta p$  from  $P_{F+}$  to  $P_{F-}$  and referring to Cim 3739B pressure drop graphs.

Cim 3767B works properly up to 1600 Kpa maximum differential pressure.



**cim 3767B**

**FLANGED DIFFERENTIAL PRESSURE CONTROL VALVE (DPCV)**



Cim 3767B								
DN	Kg.	B	B1	C	F	G	n	H
65	21.7	310	170	290	145	185	4	18
80	28.1	400	176	310	160	200	8	18
100	33.6	414	191	350	180	220	8	18
125	44.5	435	243	400	210	250	8	18
150	57.3	459	265	480	240	295	8	22
-	-	-	-	-	-	-	-	-

Cim 3767BLP					
LOW $\Delta p$	Size	$\Delta p$ range (kPa)	Flow (l/h)	Flow (l/s)	Flow (gpm*)
	DN 65	20 ÷ 80	1000 ÷ 75000	0.278 ÷ 20.833	4.40 ÷ 330.22
	DN 80	20 ÷ 80	1200 ÷ 85000	0.334 ÷ 23.611	5.28 ÷ 374.24
	DN 100	20 ÷ 80	1500 ÷ 120000	0.417 ÷ 33.333	6.60 ÷ 528.34
	DN 125	20 ÷ 80	3000 ÷ 170000	0.834 ÷ 47.222	13.20 ÷ 748.5
	DN 150	20 ÷ 80	5000 ÷ 230000	1.389 ÷ 63.889	22.01 ÷ 1012.67
Cim 3767BHP					
HIGH $\Delta p$	Size	$\Delta p$ range (kPa)	Flow (l/h)	Flow (l/s)	Flow (gpm*)
	DN 65	80 ÷ 160	2000 ÷ 75000	0.556 ÷ 20.833	8.80 ÷ 330.22
	DN 80	80 ÷ 160	3000 ÷ 100000	0.834 ÷ 27.778	13.20 ÷ 440.29
	DN 100	80 ÷ 160	3000 ÷ 150000	0.834 ÷ 41.667	13.20 ÷ 660.43

\* The "gpm" values are corresponding to US gallon per minute.



cim 690



### Cim 690

#### Modulating ball valve

Cim 690 valves are designed for the control of heating (LPHW) and cooling installations. Cim 690 ball valve has a modulating ball with characterized venturi bore enabling to reach linear or logarithm flow.

Cim 690 is available in standard brass.

Th Cim 690 ball valves from 1/2" up to 2" are designed to be assembled with UNIMOD actuator by ISO 5211 flange. The actuator is controlled by standard modulating signal DC 0..10v (factory default). The actuator position depends on the control signal. By means of dip switches built in the actuator it is possible to choose control signal between voltage (V) and current (A), rotation direction, range, signal resolution and opening curve.

The main features of Cim 690 are as follow:

- Ball with characterized venturi bore;
- PI controller;
- Control Signal: 0-10VDC, 0-20 mA, 4-20 mA;
- Manual override;
- Rotation time: 73s/90°, optional on request 147s/90°;
- Pressure Class: PN16. Temperature: 0°C÷110°C.

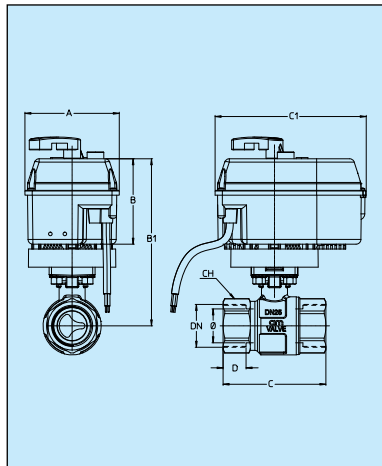
### Technical data

#### Modulating ball valve CIM 690

Medium temperature:	0..110°C
Max working pressure:	16 bar
Medium:	water, non-aggressive medium, air
Electric actuator UNIMOD	
Nominal voltage:	24VAC. 50hz....
Electrical data	
Control signal:	voltage (V) / current (A)
Power consumption - in operation:	6VA
Connection cable:	length 2 m
Type of control:	modulating
Functional data	
Nominal torque (at nominal voltage):	max 12Nm
Rotation time:	73s/90°, 147s/90°....
Manual override:	gearing latch disengaged with button
Position indication:	mechanical, handle position on the cover
Installation position:	all position except actuator upside down
Safety	
Protection class:	II
Degree of protection:	IP44....
EMC low-voltage directive:	CE in accordance with 2004/108/EC - 2006/95/EC
Ambient temperature:	da 0/+55°C (at 50% working cycle)
Warehousing temperature:	-20°....+80°C
Maintenance:	maintenance-free
Actuator weight:	480 g (without valve)

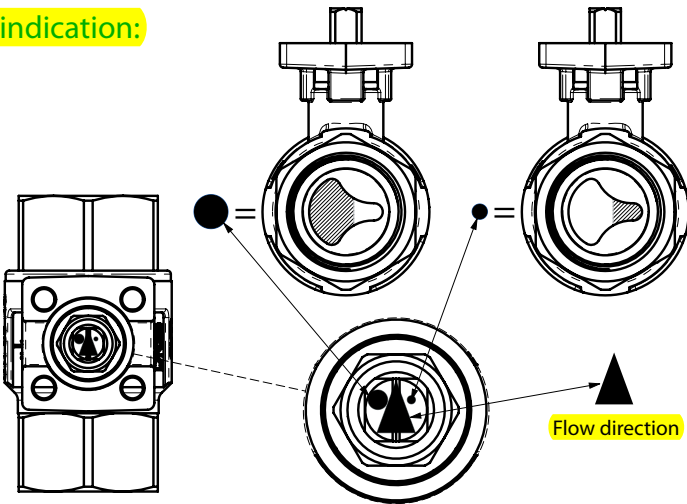
cim 690

#### FLANGED DIFFERENTIAL PRESSURE CONTROL VALVE (DPCV)



Cim 690								
DN	Grms.	A	B	B1	C	C1	D	CH
1/2"	975	78	71	130	63	125	15	25
3/4"	1095	78	71	134	70	125	16	31
1"	1350	78	71	138	85	125	19	40
1 1/4"	1640	78	71	146	95	125	21	49
1 1/2"	2060	78	71	157	108	125	21	55
2"	2800	78	71	164	127	125	26	69

#### Flow indication:





Cim 771  
Electronic differential pressure control valve

The Cim 771 valves are designed to automatically balance heating and air-conditioning systems regardless of pressure changes. The particular structure of the Cim 771 valves allows them to perform two different functions:

Regulation

Selecting of the differential pressure required for the project, within the operating range.

Control

Maintaining of the project's differential pressure, regardless of pressure fluctuations caused by load variations in the system.

The main characteristics of the Cim 771 valves are:

- Ease of selecting the project's differential pressure by means of a switch, with on-board display of the set value.
- Direct reading of the current differential pressure value on the valve's on-board display.
- Maintaining of the project's differential pressure regardless of pressure fluctuations in the system's branches.
- Flexibility of use with regard to system modifications which may be required after the initial installation.
- Reduction in the costs of the balancing operations, energy savings and improved environmental comfort.
- The possibility of obtaining the temperature reading of the water flowing through the valve.
- Allows existing systems without advanced control systems to be optimized, without significantly impacting costs.
- When the product is integrated with the building's management systems, data can be acquired in order to optimize the use of energy.

Technical data

The Cim 771 valves are available in sizes from 1/2" DN 15 to 2" DN 50. One valve can manage two differential pressure sensors through the microswitches located beneath the cover of the actuator. The differential pressure sensors work within the following operating ranges:

- 0-600 mbar
- 0-1000 mbar
- Operating pressure: PN 16
- Operating temperatures: 0-100°C (maximum peaks -25°C to 120°C)

Cim 771 is composed of:

- characterized ball valve that allows the flow rate to be controlled through equal percentage variation by changing the ball's opening angle with the Venturi noise reduction profile;
- differential pressure sensor with integrated temperature sensor;
- electric actuator with electronic adjustment and control system;
- the actuator allows the ΔP set point to be set to the project value. The actuator can be set to cover various differential pressures by slightly increasing the product's operating ranges. The signal from the sensor is constantly compared with the set point so that the difference between the two is eliminated. This difference is also monitored and kept constant in the case of system pressure fluctuations.

Technical data for the electric actuator

The actuator for the Cim 771 is fitted with a potentiometer that is used to set the required differential pressure (set point). This pressure appears on the display (in mbar). A few seconds after selecting the set point, the display will automatically convert to showing the differential pressure that exists between the two points on the circuit where the pressure data is recorded. The actuator is fitted with microswitches that allow the direction of rotation of the ball to be managed, pressure switches with different full scale values to be connected and the control logic to be selected.

Properties

- Power supply voltage: 24V
- Frequency: 50 Hz
- Power consumption: 5W
- Angle of rotation: 90°
- Protection class: IP44
- Operating temperature range: 0-55°C
- Start-up torque: 12Nm
- Cable length: 1000 mm
- Maximum differential pressure: 16 bar
- Position indicator
- Can also be manoeuvred manually

Technical data for the sensor

This component includes a differential pressure sensor and a temperature sensor.

Properties

- Differential pressure range: 0-0.6 bar or 0-1.0 bar
- Pressure signal response time: < 0.5 s
- Operating temperature: 0-100°C
- Temperature measurement range: 0-100°C
- Temperature signal response time: < 1.0 s
- Maximum peak temperatures of the fluid: -25° to 120°C
- Application pressure: max 16 bar @ 70°C; max 12 bar @ 100°C
- Differential pressure: max |10| bar
- Burst pressure: (P+): max 30 bar
- Burst pressure: (P-): max 10 bar
- Power supply: 5V DC (Grounding of the sensor is required)
- Pressure signal: 0.5 - 4.5 V
- Temperature signal: 0.5 - 4.5 V
- Power consumption: < 50mW
- Protection class: IP44

NOTE: differential pressures exceeding 16 bar in one direction and 10 bar in the opposite direction shall be avoided in order to prevent the breaking of the sensor.

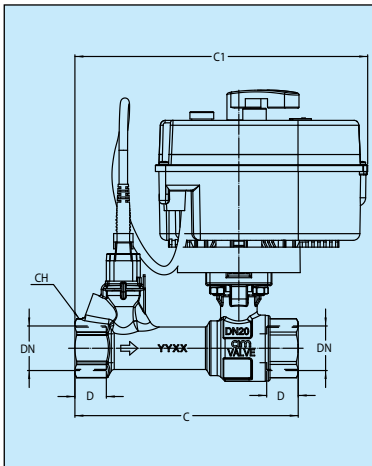


cim771

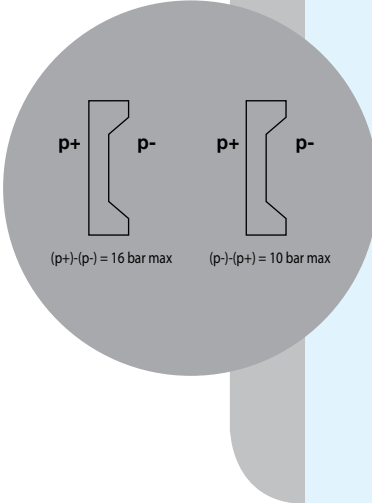
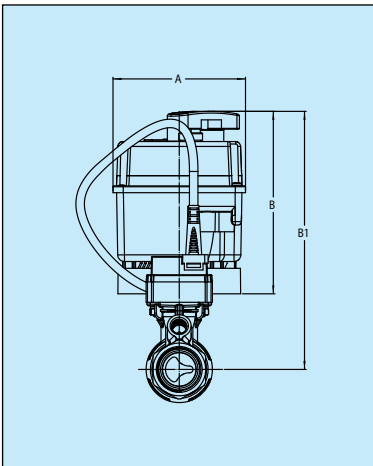


cim 771

ELECTRONIC DIFFERENTIAL PRESSURE CONTROL VALVE



Cim 771							
DN	A	B	B1	C	C1	D	Kv
1/2	78	107.5	145	128	172	15	3.90
3/4	78	107.5	149	132	172	16	7.70
1"	78	107.5	153	139	172	19	12.70
1 1/4"	78	107.5	161	150	178	21	22.70
1 1/2"	78	107.5	172	162	184	21	38.60
2"	78	107.5	179	183	195	26,5	60.00







### Cim 721, Cim 3723B Flow measurement device

Cim 721, Cim 3723B are an orifice type flow measurement device permitting high accuracy flow measurement to within  $\pm 5\%$  regardless of valve setting. A perfect installation of the balancing valves and of flow measurement joint Cim 721, Cim 3723B must be made in accordance with the distances stated in the drawing, in order to linearize the flow and allowing accurate flow measurement.

Cim 721 is available in DZR brass. Cim 3723B is available in stainless steel.

■ Pressure Class: PN20. Temperature:  $-10^{\circ}\text{C} \div 120^{\circ}\text{C}$ .

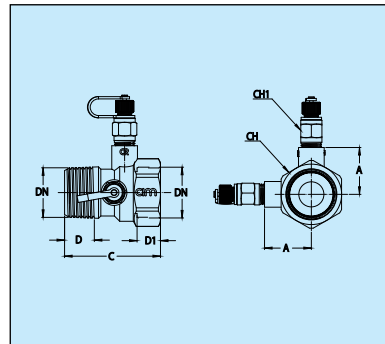
**cim 3723B**



**cim 721**

**cim 721**

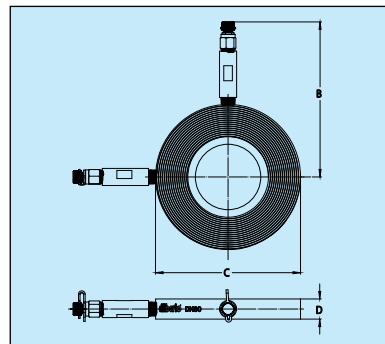
#### FLOW MEASUREMENT DEVICE



DN	1/2"UUL	1/2"ULL	1/2"UL	1/2"L	1/2"M	1/2"S	3/4"	1"	1 1/4"	1 1/2"	2"
Grms.	225	225	225	225	225	225	271	316	464	524	808
A	25	25	25	25	25	25	28	31	36	39	45
C	66.5	66.5	66.5	66.5	66.5	66.5	66.5	63.5	71	71	80
D	17	17	17	17	17	17	16	22	24	24	29
D1	16	16	16	16	16	16	16	19	22	21	26
CH	28	28	28	28	28	28	34	40	51	56	71
CH1	14	14	14	14	14	14	14	14	14	14	14
Kv - Kvs	0.10	0.17	0.23	0.47	0.98	1.80	4.06	7.45	16.63	23.00	47.35

**cim 3723B**

#### FLOW MEASUREMENT DEVICE

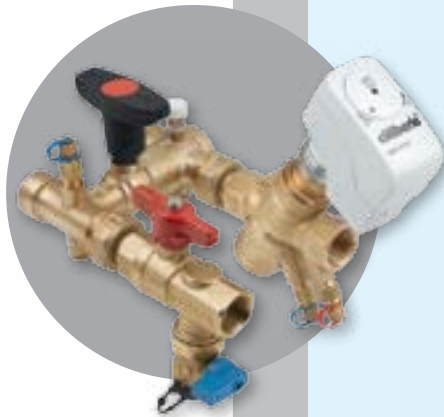


DN	50	65	80	100	125	150	200	250	300
Grms.	1300	1800	2100	2500	3000	3400	4500	6000	8000
B	136	145	154	164	179	192	219	248	304
C	108	125	144	164	194	220	275	333	385
D	20	20	20	20	20	20	20	20	20
Kv - Kvs	47.50	88.50	150.60	281.10	328.80	477.50	826.00	1218.00	1794.00

**cim 733/788NC**



**cim 733/777**



### Monolink Terminal units connection system

Cimberio Monolink is an innovative and ultra compact valve arrangement that minimize the time and space required to connect system terminal units to distribution pipe. All the components required for flushing and commissioning the system can be combined in a single assembly what will fit in the tightest corners. Cimberio Monolink assembly incorporates an isolation valve with integral strainer, a drain point, an inbuilt special bypass valve and balancing valve. Designed to provide flexible configuration of the system it can be used with either manual or automatic balancing valves. Thanks to the isolation valve fitted on the flow side, it is possible to clean and service the strainer without having to drain down the whole system. Only four connections are required and, because the connections are simple union joints, the whole assembly can be adjusted on site for maximum convenience and easy accessibility in the space available.

■ Pressure Class: PN25.  
Temperature:  $-10^{\circ}\text{C} \div 120^{\circ}\text{C}$ .

**cim 733/747**



**Traditional approach**  
Number of connections: 22

**Monolink approach**  
Number of connections: 4





**cim 726**  
AC6

## cimdronic<sup>®</sup> AC6

### Commissioning Unit

Electronic commissioning to a new level

Now with unique "DSP technology" for sensor protection

Cimdronic 726AC6 is a state of the art electronic commissioning meter for measurement of differential pressures and flow-rates of water in HVAC systems. A wide range of features coupled with a database of over 2500 valves, from 49 world manufacturers, make the Cimdronic 726AC6 the first choice meter for commissioning engineers.

#### Simplicity

Nine buttons designed for simple navigation allow quick and efficient use of the menu system. The Cimdronic 726AC6 is arranged with a choice of screen displays-whether it be the full parameter, showing all the data available or simply a screen showing in large text just the differential pressure, the user has the option to select the most appropriate screen for the work being carried out.

#### Convenience

Compactness and light weight enable the user to operate effectively without the inconvenience of bulky equipment. Backlit display, anti kink pipes, snap connectors and approximately 20 hours use from readily available standard alkaline PP3 batteries. The Cimdronic 726AC6 is supplied in a convenient carry case.

#### Accuracy

The Cimdronic 726AC6 uses a sensor calibrated to 20 points and protected by "DSP technology" allowing the use of sensors most appropriate for the measurement ranges experienced in HVAC and not compromised by the need for sensors selected for high over-pressure with their poor accuracy and resolution at low dp readings. Accuracy is better than 1% or 100 Pascals with system damping to further improve reading confidence on unstable systems.



**cim 726**  
DM10

## cimdronic<sup>®</sup> DM10

### Balancing measuring device

Cimdronic 726DM10 balancing device belongs to our basic line of the balancing measuring devices.

It's an electronic manometer designed to take differential pressure measurements on balancing valves in building hydronic systems.

Knowing the valve's measured kv value the Cimdronic 726DM10 can directly read the flow.

The differential pressure and the flow are displayed with 11 different units of measurement, including the US system, and the menu can be set in 10 different languages.

A specific function is available in order correct for the static pressure influence.

#### Simplicity

Three buttons designed for simple navigation allowing quick and efficient use of the menu.

The Cimdronic 726DM10 provides a choice of screen displays - whether it's the differential pressure, showing the value in different units or a screen showing the flow rate in large text, the user has the option of selecting the most appropriate screen for the work to be performed.

#### Convenience

Compact and light-weight, it enables the user to work effectively without the inconvenience of bulky equipment. Backlit display, anti kink pipes, snap connectors.

#### Practicality

Using the CIMsize & CIMapp software you can schedule the commissioning of the system, generating a report that provides all of the information in order to perform the correct balancing of each valve.





## Cim TAD

### Fan-coil room temperature controller

For flexible individual-room control in residential and business premises. For temperature control of air-conditioning systems (fan-coil) with multi-speed fan. Can be changed over from heating to cooling by means of a switch. Suitable for electric heating systems and thermal drives, or for ventilators or cooling equipment in air-conditioning systems.

The Cim TAD main characteristics are:

- Available in two versions: 230 VAC (Cim TAD230) or 24 VAC (Cim TAD24);
- Setpoint adjuster with scale and rear mechanical min./max and limitation of the setting range;
- Suitable for mounting onto walls or recessed junction boxes.

The Cim TAM & Cim TAZ main characteristics are:

- Digital configurable thermostat with automatic or manual fan speed selection;
- Settable veoltage supply: 230 VAC or 24 VAC;
- Manual, automatic or centralised heating/ cooling with an external input selection;
- Dead band function and changeover based on supply water;
- LCD shows all set functions;
- Suitable for On/ Off, PWM, Floating actuators, resistor and heat pump control (Cim TAM) and proportional actuators 0-10 VDC (Cim TAZ) .



cim TAD



cim TAM cim TAZ

## cim TAD

### FAN-COIL ROOM TEMPERATURE CONTROLLER

	Cim TAD - TAM - TAZ				
MODEL	Grms.	A	B	C	Voltage
TAD230	-	-	-	-	230 VAC
TAD24	-	-	-	-	24 VAC
TAM	-	-	-	-	230 or 24 VAC
TAZ	-	-	-	-	230 or 24 VAC
-	-	-	-	-	-
-	-	-	-	-	-

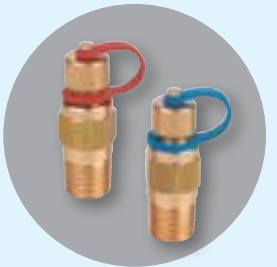
## cim 728/xx

insulating case  
for monolink



## cim 723

binder points



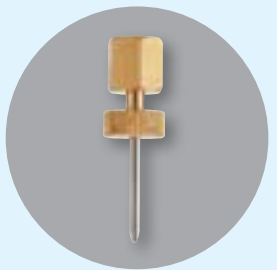
## cim 728

insulating case  
for balancing  
valves



## cim 729

measuring  
niddle



## cim 728C

insulating case  
for balancing  
valves



## cim 729A

measuring  
niddle



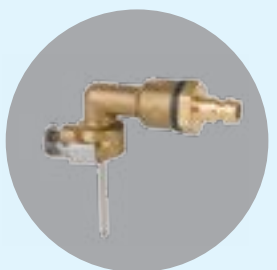
## cim 728/3739B

insulating case  
for balancing  
valves



## cim 729UA

measuring  
niddle







**Balancing Valves Handbook**

**Balancing Valves Handbook**  
Theory, Types and applications,  
Design consideration & guidelines  
for the selection.

**CIMsize** - Balancing valves  
An useful software for the sizing  
of Cimberio's manual balancing valves.



**CIMapp** - Balancing valves  
Application for I-Phone & Android for the commissioning  
of manual balancing valves in HVAC systems.

Apps for:



**cav. uff. GIACOMO CIMBERIO s.p.a.**

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