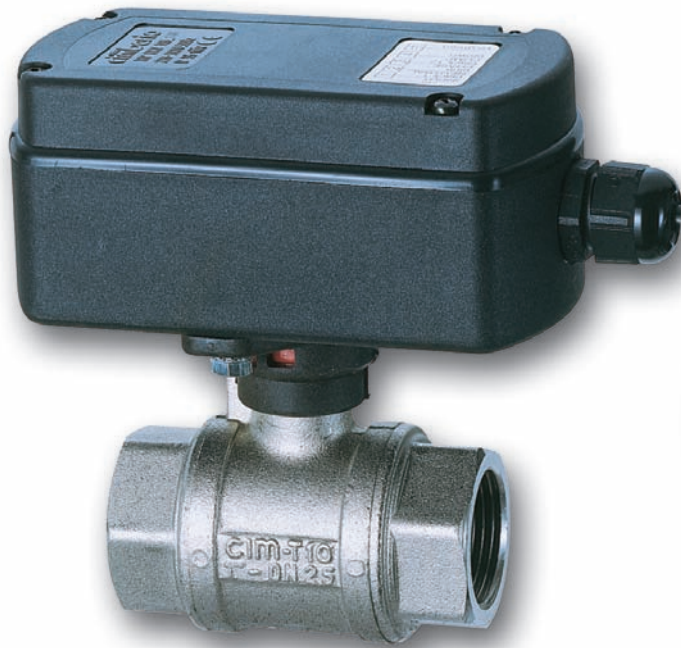


ELECTRIC MOTOR ACTUATED BALL VALVES AND MIXING VALVES



valve
cimberio[®]
technological solutions

Electro-motor actuated ball valves



SERVICE RECOMMENDATIONS:

The CIMBERIO electro-motor actuated ball valves, two or three ways (series CIM 700 - CIM 600RE) are manufactured in accordance with EN ISO 9001:2000 and offer numerous and varied applications in pipeline systems, such as: energy supply, sanitary, cooling and heating installations, chemical-processing industry, solar energy plants, swimming pool engineering, irrigation systems, ect.

MAIN COMPONENTS OF THE BALL VALVE

Body - Screwed ends - Hose unions - Nuts: hot pressed brass bar CW617N.

Ball: hot pressed from brass bar CW617N, machined to a microsmooth finish, chrome plated.

Stem-gland screw: turned from brass bar CW617N.

Ball gaskets: conical rings in P.T.F.E. pure.

Stem gaskets: O'Rings E.P.D.M. - FPM. - PTFE

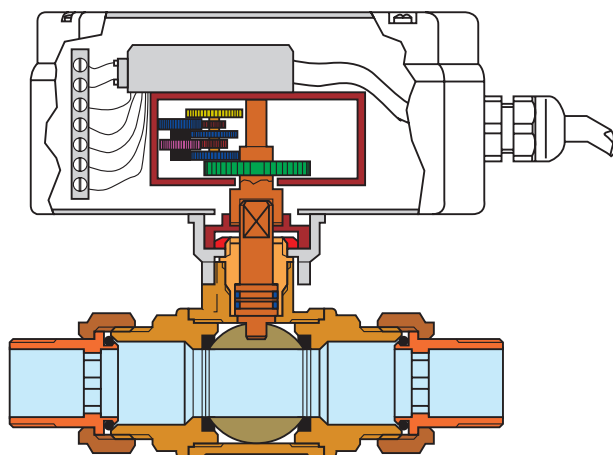
Hose union gaskets: E.P.D.M.

Test pressure: shell 40 bar (hydro);
seat 7 bar (air).

Working pressure: 25 bar.

Max differential pressure: 16 bar.

Blind angle: $\geq 15^\circ$ CIM 700 series
 $\geq 10^\circ$ CIM 600RE series



	Position indicator	Hostatorm
	Locking nut	Brass CW617N
	Cap	Brass CW617N
	Stem	Brass CW617N
	Ball gaskets	P.T.F.E.
	Body	Brass CW617N
	Screwed ends	Brass CW617N
	Hose union gaskets	E.P.D.M.
	Ball	Brass CW617N
	Rings	Brass CW617N
	Hose union	Brass CW617N

Electro-motor actuated ball valves

EXAMPLES OF COMMON USAGES:

- ① - Two way valve. ② - Three way valve.

ONE FAMILY HOUSES - Room heating, drinking, water heaters, water filtering and cooling facilities.

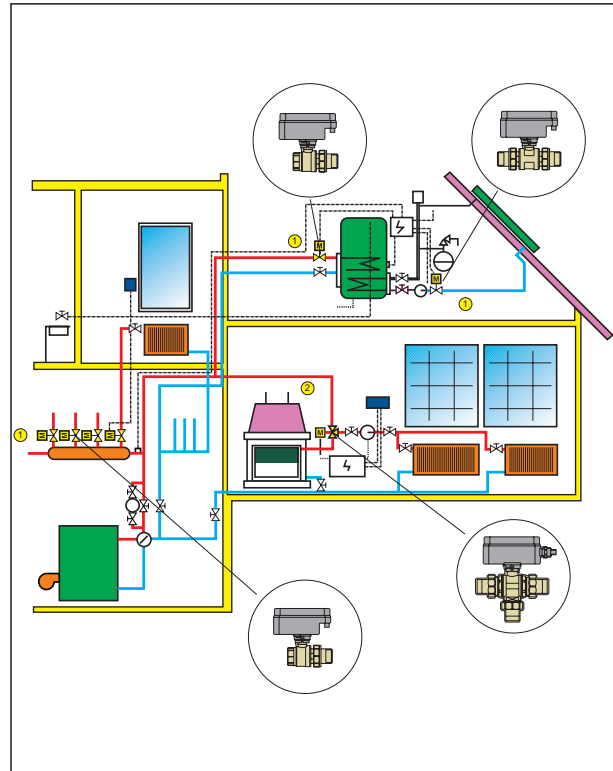
- Heating medium control of bi-valent heating operation.
- Thermostat switching-off the water boiler, heated from the central heating system, whilst the heating system is cooling down, thus keeping water in the boiler hot.
- Flow control in solar energy systems.
- Thermostat switching on/off fire place heating facility.
- Automatic impurity discharge from the filtering installation.

AGRICULTURE AND CATTLE BREEDING - Water supply.

- Irrigation systems to fields or green houses.
- Stall water supply.
- Stall and green-house heating systems.

INDUSTRY - Cooling systems, cooling of rolling facilities, water containers level control, compressed air filter drain discharge.

- Closed circuit cooling systems: flow control between cooling condenser and warming condenser (condenser heat recycling) air conditioning facilities.
- Roller cooling in paper mills, plastic forming machines, extruders, steel tempering and heating machines.
- Level control in large water storage tanks.
- On/off switching of compressed air pipe lines in industrial building.
- Periodical water washing of filters.
- Brewery facilities and other facilities in drink manufacturing industry (cooling systems, flow control).
- Periodical, partial discharge of cooling water in towers for desalination systems.
- On/off switching of the cooling water in chemical reactors.



TECHNICAL FEATURES FOR CONNECTING THE BALL VALVE AND GEARED MOTOR

The geared motor is connected to the ball valve by an hexagonal locking nut ③. The hexagonal locking nut prevents the unscrewing of the gland screw, and the possibility of lubricating the O'RINGS, ensures maximum functionality and safety of the valve.

Maintenance is easy and should be carried out as follows:

- Unscrew the screw M 6x15 ①.
- Remove the actuator and the position indicator ②.
- Unscrew the hexagonal locking nut ch 21 ③.
- Remove the housing support ④.
- Unscrew the gland screw ⑤.
- Extract the stem ⑥.
- Maintenance of the O'RINGS ⑦ ⑧ ⑨ ⑩.

List: ⑦ 14x1,78 - EPDM (O'Ring)

⑧ 12x10x1 - PTFE (gasket)

⑨ 8,73x1,78 - EPDM (O'Ring)

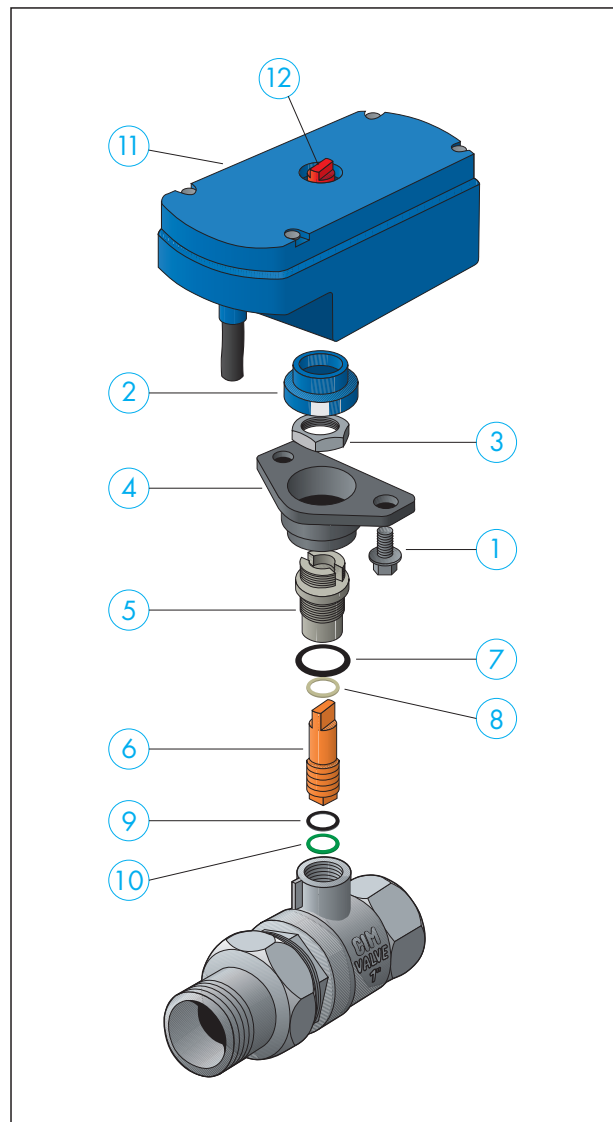
⑩ 8,73 x 1,78 - FPM (O'Ring)

The red indicator ⑪ placed on the cover of the actuator shows the valve position (open/closed). To assemble the valve, repeat the above instructions backwards.

When the valve is opened, the valve indicator is in white position.

Shape and construction of the PTFE ball gaskets allow smooth handling with a very low torque.

They also ensure a perfect rotation and tightness, with an unlimited warranty of the motor operation, due to the minimum stress to which it is submitted.



CIMFIRST

Two and three way electro-motor actuated ball valves

cim 700

ELECTRO-MOTOR ACTUATED BALL VALVE WITH UNION TYPE - T10

cim 700 RE



DN	3/4	1"
Box	1	1
Cart.	8	8



cim 702

ELECTRO-MOTOR ACTUATED BALL VALVE FEMALE/FEMALE TYPE - T10

cim 702 RE



DN	1/2	3/4	1"	1 1/4"	1 1/2"	2"
Box	1	1	1	2	1	1
Cart.	8	8	8	8	4	4



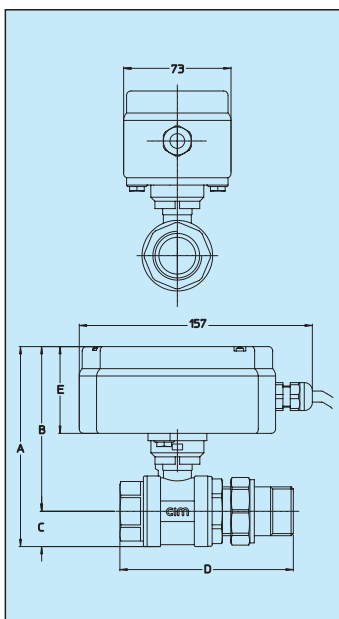
cim 703

ELECTRO-MOTOR ACTUATED BALL VALVE FEMALE/UNION TYPE - T10

cim 703 RE



DN	3/4	1"	1 1/4"
Box	1	1	1
Cart.	8	8	8



Cim 700 / Cim 700 RE								Cim 702							
DN	Grms.	A	B	C	D	E	ΔP bar	DN	Grms.	A	B	C	D	E	ΔP bar
1/2	-	-	-	-	-	-	-	1/2	840	120,5	103	17,5	64	59,5	16
3/4	1345	134	112	22	145	59,5	16	3/4	1060	134	112	22	74	59,5	16
1"	1690	141	115,5	25,5	165	59,5	16	1"	1300	141	115,5	25,5	88	59,5	16
1 1/4"	-	-	-	-	-	-	-	1 1/4"	2650	204	173	31	101	95	10
1 1/2"	-	-	-	-	-	-	-	1 1/2"	3000	215,5	179	36,5	105	95	10
2"	-	-	-	-	-	-	-	2"	4195	230	185,5	44,5	130	95	10

Cim 703 / Cim 703 RE								Cim 702 RE							
DN	Grms.	A	B	C	D	E	ΔP bar	DN	Grms.	A	B	C	D	E	ΔP bar
3/4	1130	134	112	22	110	59,5	16	1/2	840	120,5	103	17,5	64	59,5	16
1"	1495	141	115,5	25,5	126,5	59,5	16	3/4	1060	134	112	22	74	59,5	16
1 1/4"	1905	204	173	31	145	95	10	1"	1300	141	115,5	25,5	88	59,5	16



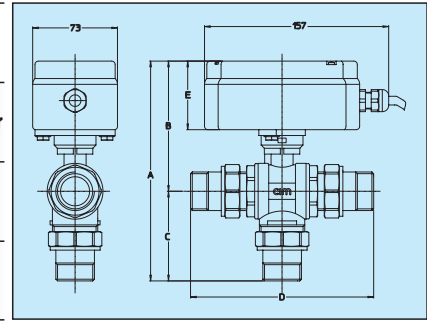
cim 708

THREE WAYS BALL VALVE "L" PORTS - T23

cim 708 RE



Cim 708		Cim 708 RE		Cim 708 - Cim 708 RE					
DN	DN	Ø mm.	Grms.	A	B	C	D	E	ΔP bar
3/4	3/4	20	1530	181	112	69	145	59,5	16
1"	1"	25	1910	196,5	115,5	81	165	59,5	16



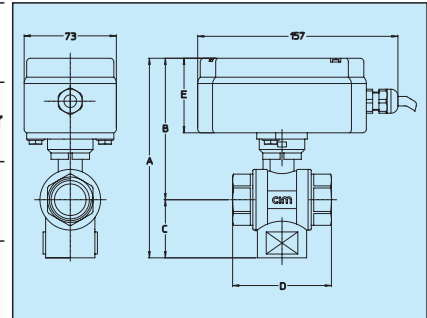
cim 710

THREE WAYS BALL VALVE "L" PORTS - T23

cim 710 RE



Cim 710		Cim 710 RE		Cim 710 - Cim 710 RE					
DN	DN	Ø mm.	Grms.	A	B	C	D	E	ΔP bar
3/4	3/4	20	1090	173	112	39	74	59,5	16
1"	1"	25	1400	161,5	115,5	46	88	59,5	16

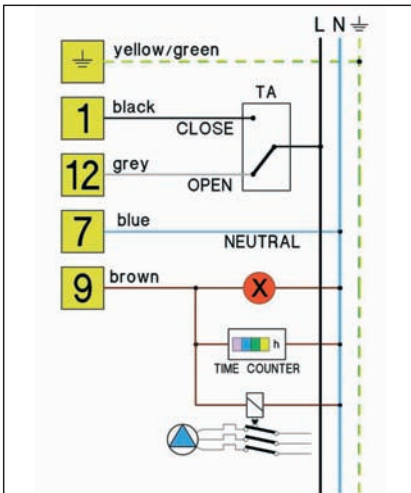


ΔP bar: maximum operating differential pressure - N.B. Cim 702 in 1 1/4", 1 1/2" and 2" can be manually operated.

CIM 700 - 702 - 703 - 708 - 710 SERIES WITHOUT RELAY

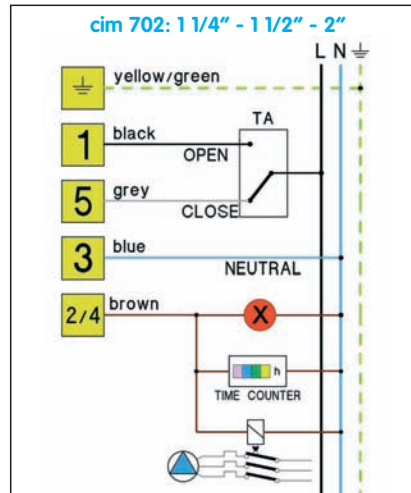
ELECTRIC DIAGRAM EMV 110/130

two way valve: OPEN - CLOSE



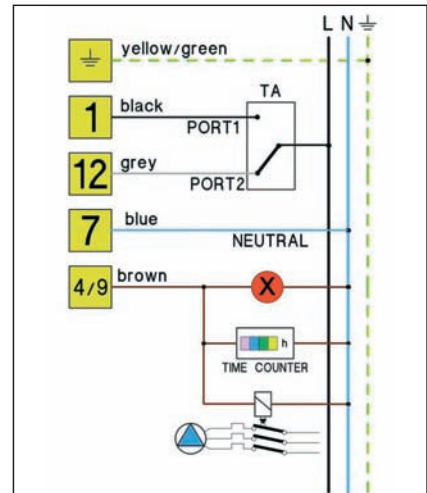
ELECTRIC DIAGRAM EMV 110/820

two way valve: OPEN - CLOSE



ELECTRIC DIAGRAM EMV 110/150

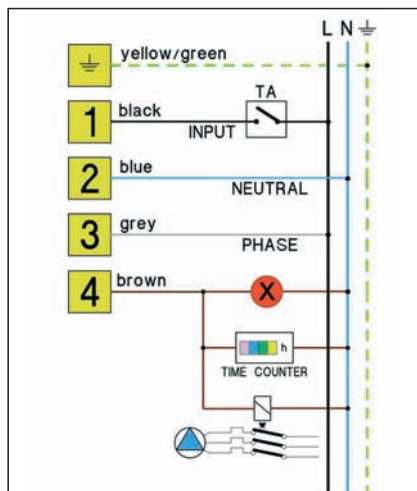
three way valve: PORT 1 - PORT 2



CIM 700/RE - 702 RE - 703 RE - 708 RE - 710 RE SERIES WITH RELAY

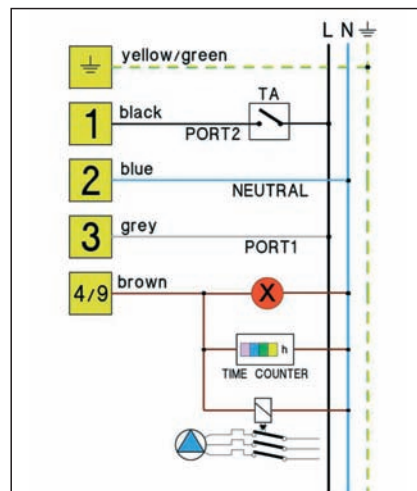
ELECTRIC DIAGRAM EMV 110/630

two way valve: OPEN - CLOSE



ELECTRIC DIAGRAM EMV 110/650

three way valve: PORT 1 - PORT 2



CIMSTAR

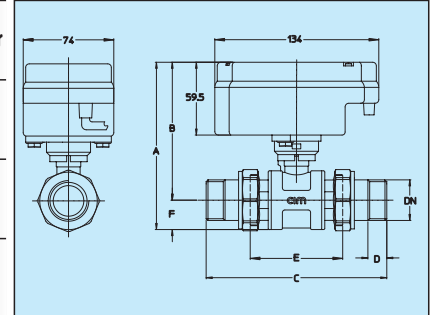
Two way electro-motor actuated ball valves

cim 600 RE

ELECTRO-MOTOR ACTUATED BALL VALVE WITH UNION TYPE - T14



DN	Box	Cart.	Grms.	A	B	C	D	E	F	ΔP bar
3/4"	1	10	985	128,5	107,5	123,5	13	64	21	16
1"	1	10	1295	136,5	111,5	138,5	14	69	25	16
1 1/4"	1	10	1710	148	119,5	158	14	81,5	28,5	16

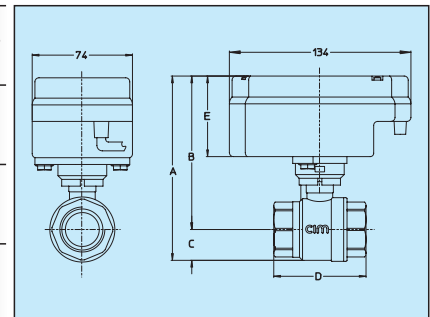


cim 602 RE

ELECTRO-MOTOR ACTUATED BALL VALVE FEMALE/FEMALE TYPE - T14



DN	Box	Cart.	Grms.	A	B	C	D	F	ΔP bar
3/4"	1	10	760	127	107,5	57	12,5	19,5	16
1"	1	10	910	135	111,5	68	14	23,5	16
1 1/4"	1	10	1170	148	119,5	61	17	23,5	16

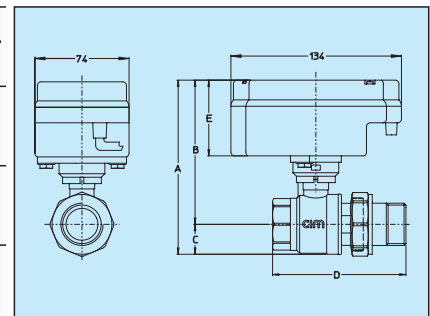


cim 603 RE

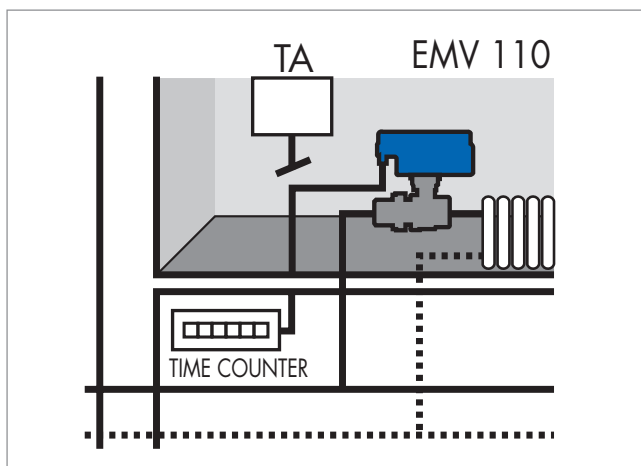
ELECTRO-MOTOR ACTUATED BALL VALVE FEMALE/UNION TYPE - T14



DN	Box	Cart.	Grms.	A	B	C	D	D1	E	F	ΔP bar
3/4"	1	10	865	128,5	107,5	90	13	12,5	60,5	21	16
1"	1	10	1105	136,5	111,5	103	14	14	68	25	16
1 1/4"	1	10	1435	148	119,5	121	14	17	81	28,5	16

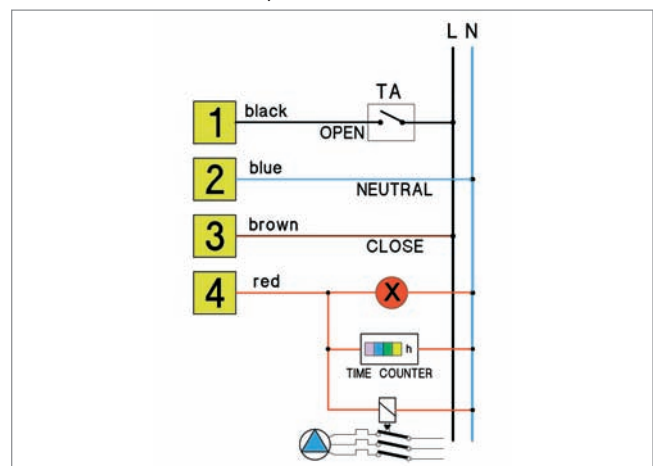


STANDARD INSTALLATION



ELECTRIC DIAGRAM EMV 110/3830

two way valve: OPEN/CLOSE



CIMSTAR

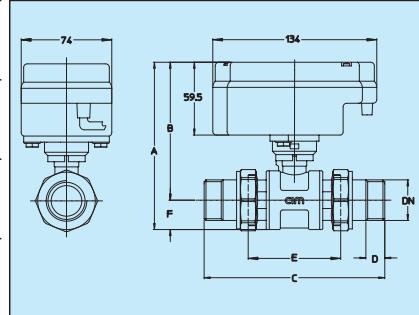
Two way electro-motor actuated ball valves

cim 600 RE24

ELECTRO-MOTOR ACTUATED BALL VALVE WITH UNION TYPE - T14 - 24V



DN	Box	Cart.	Grms.	A	B	C	D	E	F	ΔP bar
3/4"	1	10	985	128,5	107,5	123,5	13	64	21	16
1"	1	10	1295	136,5	111,5	138,5	14	69	25	16
1 1/4"	1	10	1710	148	119,5	158	14	81,5	28,5	16

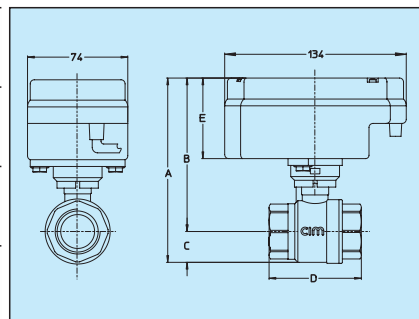


cim 602 RE24

ELECTRO-MOTOR ACTUATED BALL VALVE FEMALE/FEMALE TYPE - T14 - 24V



DN	Box	Cart.	Grms.	A	B	C	D	F	ΔP bar
3/4"	1	10	760	127	107,5	57	12,5	19,5	16
1"	1	10	910	135	111,5	68	14	23,5	16
1 1/4"	1	10	1170	148	119,5	61	17	23,5	16

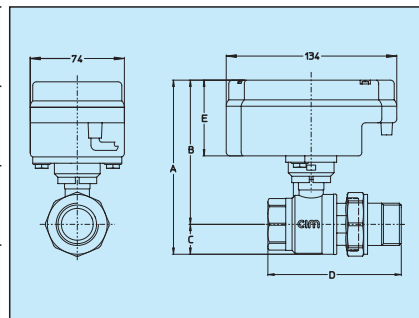


cim 603 RE24

ELECTRO-MOTOR ACTUATED BALL VALVE FEMALE/UNION TYPE - T14 - 24V



DN	Box	Cart.	Grms.	A	B	C	D	D1	E	F	ΔP bar
3/4"	1	10	865	128,5	107,5	90	13	12,5	60,5	21	16
1"	1	10	1105	136,5	111,5	103	14	14	68	25	16
1 1/4"	1	10	1435	148	119,5	121	14	17	81	28,5	16



EN 2002/96/EEC

The electric actuator Cimberio are T.U.V. certified according to the European Norms LUD 73/23EEC and EMC 89/336 EEC and are manufactured according to the European Directive 2002/96/EC (Electrical and electronic equipment) to preserve, protect and improve

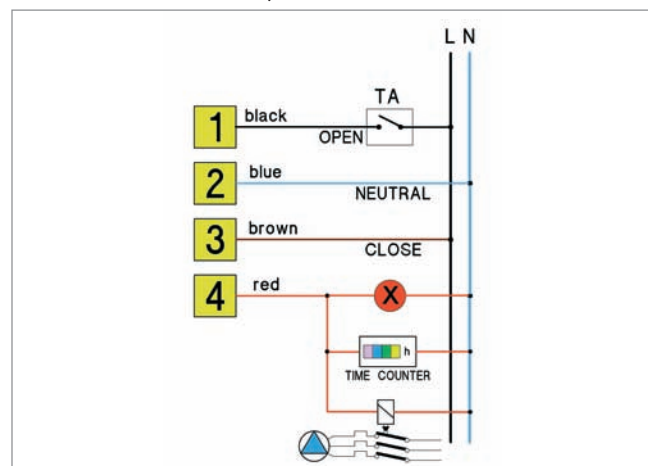
the quality of the environment, protect human health and utilise natural resources prudently and rationally.

Consequently, the electric actuator Cimberio are manufactured according to the following provisions:

- a) 70% minimum recycling rate in average weight for each device.
- b) 50% minimum rate of re-employment and recycling of all components, materials and substances in average weight for each device

ELECTRIC DIAGRAM EMV 110/3833

two way valve: OPEN/CLOSE



Mixing valves with electric actuator

cim 680

AUTOMIX MV120

cim 681



GENERAL INFORMATION:

Cim **AUTOMIX** MV 120 is an electric motor actuated mixing ball valve 3 ways (**cim 680**) or 4 ways (**cim 681**). It is designed for floor heating installations, with radiators or remote heating systems. The valve can be manually controlled and has an indicator of the actuator position on its cover.

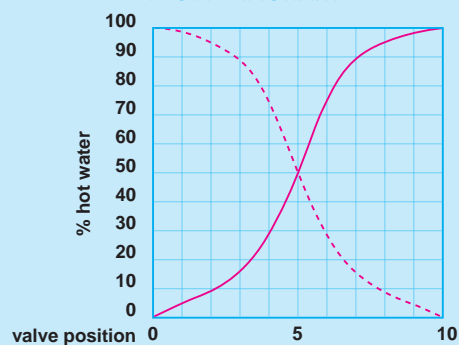
DN	1/2	3/4	1"	1 1/4"
Ø mm	15	20	25	32

TECHNICAL FEATURES:

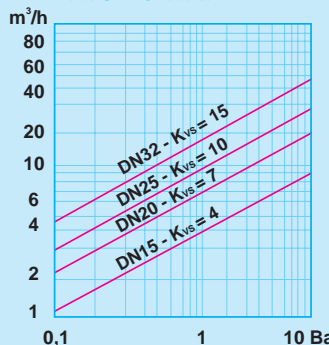
Voltage: 230V, 50Hz
 Electric input consumption: 3,5VA
 Rotation angle: 90°
 Opening/closing time at 90°: 210s
 Maximum starting torque: 8Nm

Protection degree of the actuator: IP44
 Electric protection: II class
 Operating temperature: 10 - 60°C
 Output contacts: 5(1)A, 250 VAC
 Connection cable: 4x 0.5 mm², L=2000 mm

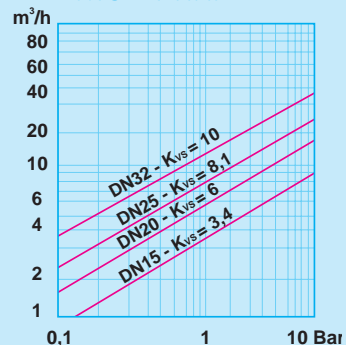
FLOW DIAGRAM



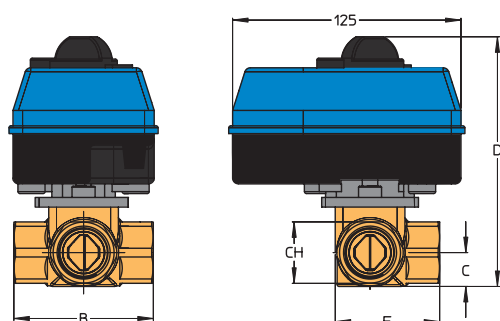
KVS - 3 WAY



KVS - 4 WAY

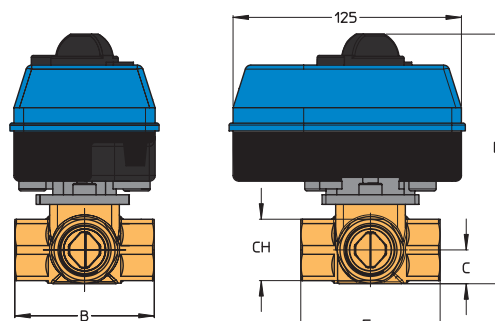


cim 680 - 3 WAY



DN	Grms.	B	C	D	E	CH	KVS
1/2	810	72	17,5	139	54	25	4
3/4	860	72	17,5	139	54	32	7
1"	967	90	21	146	69	39	10
1 1/4"	1105	90	25,5	146	70,5	48	15

cim 681 - 4 WAY



DN	Grms.	B	C	D	E	CH	KVS
1/2	835	72	17,5	139	72	25	3,4
3/4	910	72	17,5	139	72	32	6
1"	1055	90	21	146	90	39	8,1
1 1/4"	1225	90	25,5	146	90	48	10

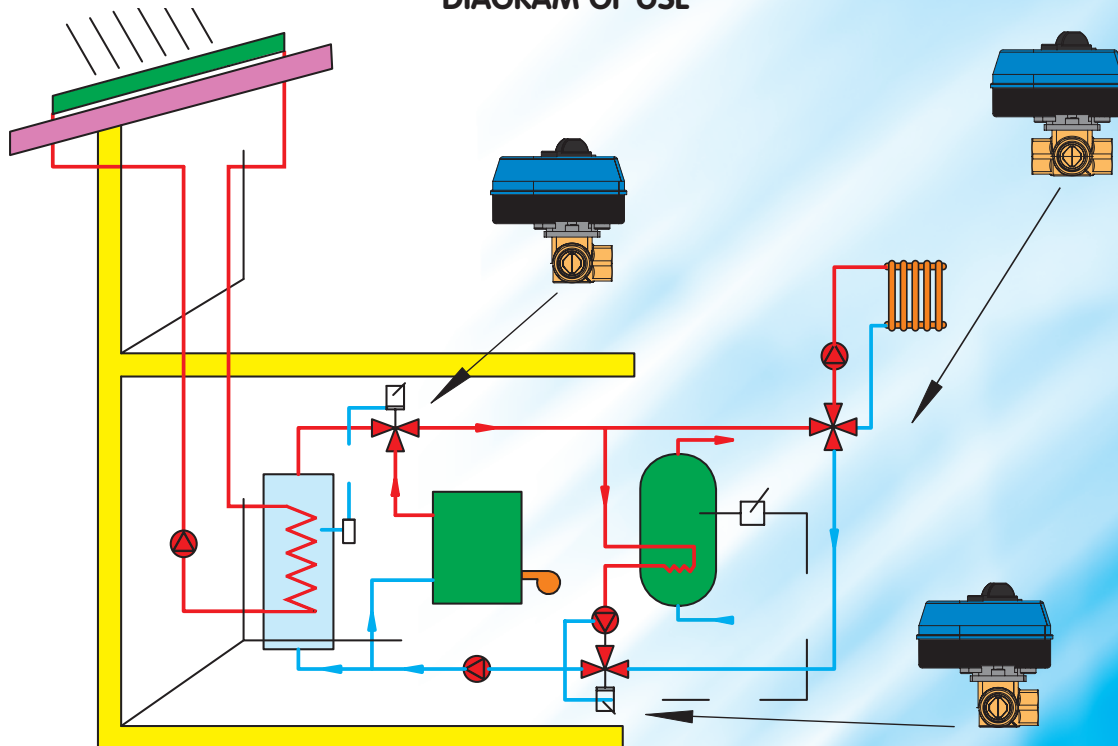
Mixing valves with electric actuator

cim 680

AUTOMIX MV120

cim 681

DIAGRAM OF USE



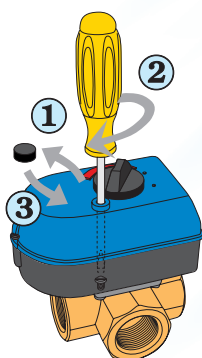
The mixing valves are used in the heating installations to guarantee a hot return to the boiler and allow a high thermal working so that to avoid condensation in the pipes.
The mixing valves guarantee a high accurate regulation and a more efficient working.

OPTION FOR ACTUATOR SCREWING ON VALVE:

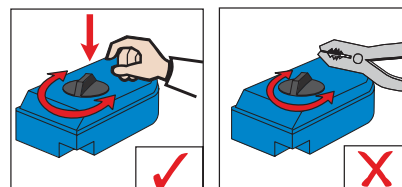
To fix the actuator on the valve YOU DO NOT NEED TO OPEN IT!

The screw for the actuator screwing on the valve is inserted in the drive bottom.

- 1 - Remove protective tap.
- 2 - Use the flat screwdriver to screw the drive on the valve.
- 3 - Replace the protective tap on the opening.

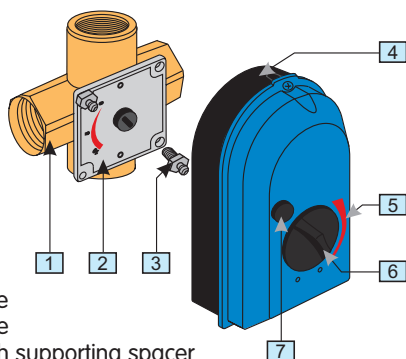


MANUAL CONTROL

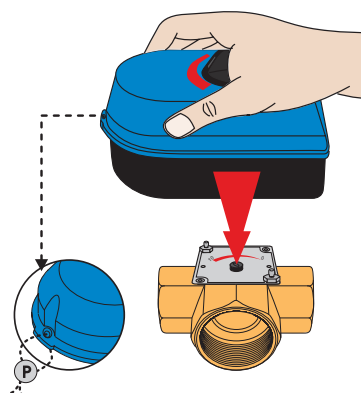


The actuator is equipped with a knob for manual control (in case of power failure). Press the knob towards the valve and turn it to the left or to the right (whether you wish to open or close the valve).

ASSEMBLING OF ACTUATOR ON MIXING VALVE



- 1 Body valve
- 2 Base-plate
- 3 Screw with supporting spacer
- 4 Electric actuator
- 5 Valve position pointer
- 6 Knob for manual control
- 7 Protective tap



Push the actuator on the mixing valve base-plate engaging the valve stem on the actuator housing to complete the assembling. Should you wish to remove the drive for any reason, just pull it off the valve. It is possible to seal the housing of the actuator.



Diverter valve with electro actuator

cim 685 AUTODIVERT F3L



GENERAL INFORMATION:

The three-ways diverter valve with electro actuator cim **685 AUTODIVERT F3L** operates as a diverting or separating element for combined heating systems.

The actuator can be assembled and disassembled quickly on/from the valve by a press device and no screwing is required. It is equipped with a built-in relay enabling SPST or SPDT connections.

The special stem construction enables a quick replacement of the O-rings without disassembling the valve from installation.

DN	1/2	3/4	1"	1 1/4"

TECHNICAL FEATURES:

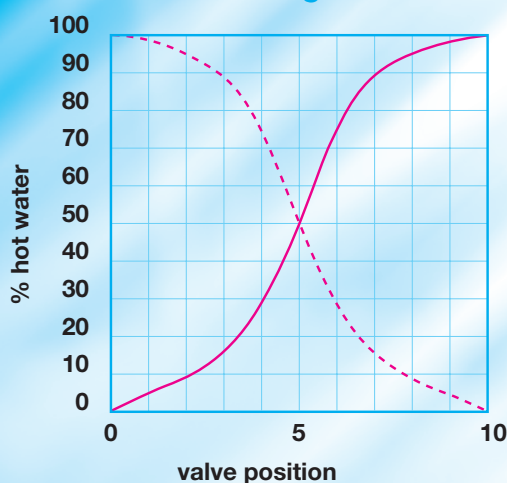
ELECTRIC ACTUATOR

Voltage: 230V, 50Hz
 Output contacts: 5(1)A, 250V, 50Hz
 Electric input consumption: 7,5VA during operation;
 3VA on stand-by position
 Electric protection: II Class to EN60355-1 norm
 Protection degree of the actuator: IP44 according to IEC 529
 Opening/closing time: 18s/90°
 Maximum starting torque: 8Nm
 Operating temperature: from 0°C up to 50°C
 Connection cable: 4 x 0,5 mm², 2m length

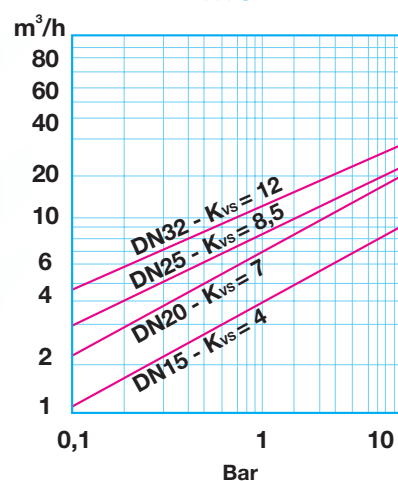
VALVE BODY

Hot pressed from brass bar EN 12165 CW617 N
 Maximum operating temperature: 110°C
 Maximum operating pressure: 6 bar
 Operating torque: 0.5Nm

Flow diagram

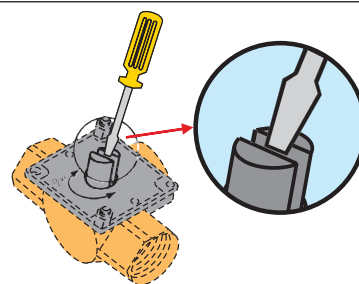


KVS



MANUAL SETTING OF FLAP POSITION:

Flap position is set manually with a screwdriver, a coin, or similar. Check carefully the flap position before assembling the electric actuator.

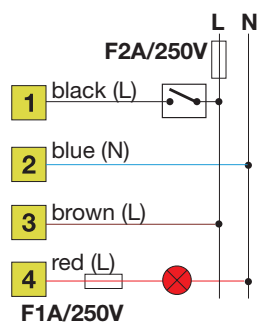


Diverter valve with electro actuator

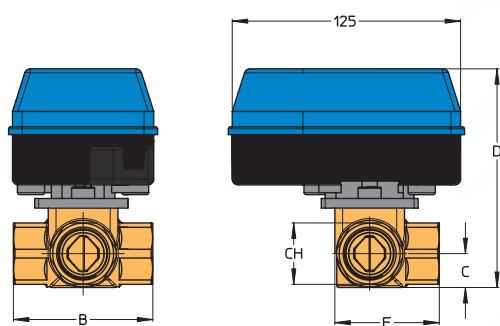
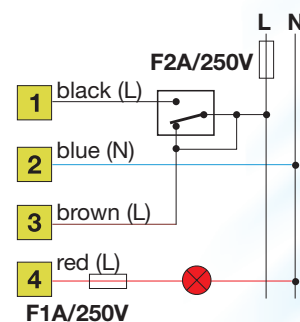
cim 685 AUTODIVERT F3L

ELECTRIC DIAGRAM

Connection with 2 cables SPST



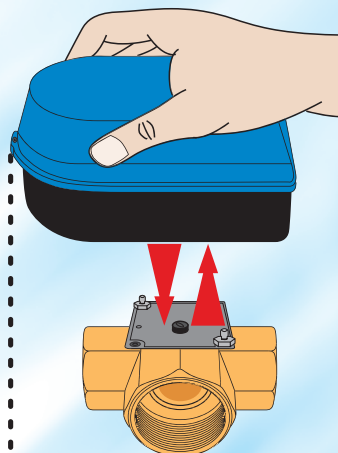
Connection with 3 cables SPDT



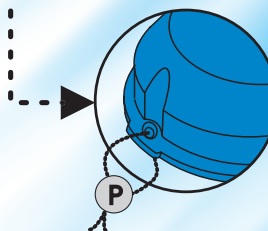
DN	Grms.	B	C	D	E	CH	KVS
1/2	805	72	17,5	116	54	25	4
3/4	865	72	17,5	116	54	32	7
1"	970	90	21	122	66	39	8,5
1 1/4"	1110	90	25,5	122	70,5	48	12

QUICK INSTALLATION OF THE ACTUATOR:

Push the actuator perpendicularly on the valve in order to place it on the base-plate. The assembling is done. If you need to disassemble the actuator, just pull it out, by a light haul.



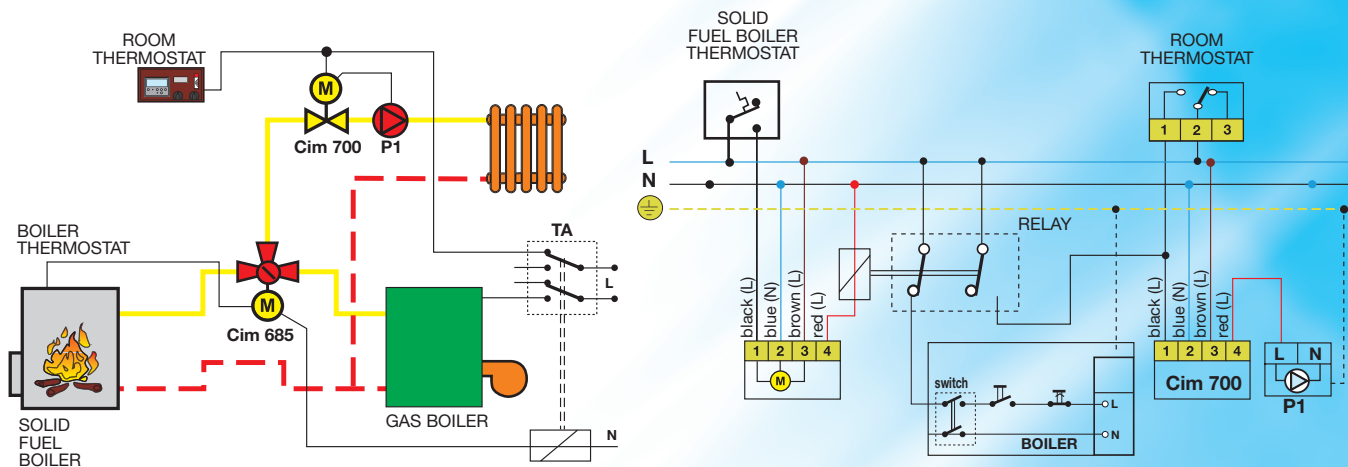
The M4 screw is inserted on the actuator bottom and prevents removal of the actuator from the valve by unauthorized person. It is possible to seal the actuator with lead to avoid any tampering by unauthorized person.



ATTENTION!

Before any operation inside the actuator, remember to disconnect the electricity supply.

DIAGRAM OF USE:



The diverter valve switches between two heating sources. This combination ensures the use of the cheapest energy source. When one of the two sources is exhausted, the reversible valve switches to the second energy source and with limit switches, which are in the actuator, activates the second energy source. The flow through the pump is never closed completely by the reversible valve, in order to avoid any water hammer.



Manual mixing valves

cim 683

TURBOMIX

cim 684

cim 683



cim 684

GENERAL INFORMATION:

The manual mixing valves are particularly suitable to long-lasting applications thanks to the special tightening seats of the stem.

The small starting torque of the valve allows the motor actuator use and at the same time reduces the valve clamping.

The compact construction allows a quick and easy installation and a simple assembling of the actuator.

The valves are suitable to the TOURMIX actuators installation. It is possible to replace the first tightening O-ring of the stem without discharging the installation.

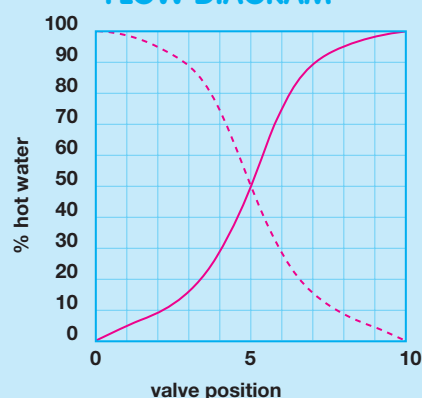
DN	1/2	3/4	1"	1 1/4"
Ø mm	15	20	25	32

TECHNICAL FEATURES:

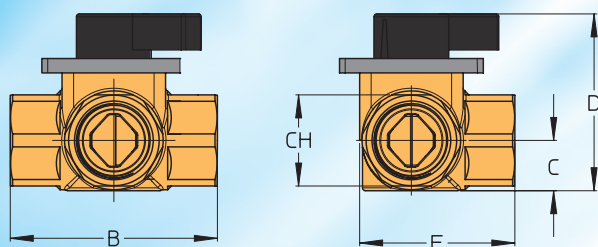
Maximum working temperature:	110°C
Maximum working pressure:	6 bar
Rotation angle:	90°
Torque:	0.5 Nm
Body valve:	hot pressed brass
Inner valve:	brass
Seats:	4 x O-ring, EPDM

TURBOMIX are brass mixing valves 3 or 4 ways, suitable to heating installations and to be used with actuators (TOURMIX MV120).

FLOW DIAGRAM

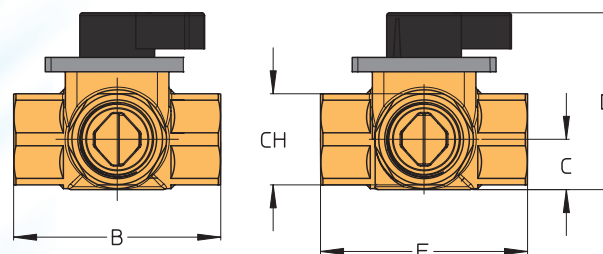


cim 683 - 3 WAY



DN	Grms.	B	C	D	E	CH	KVS
1/2	470	72	17,5	64	54	25	4
3/4	525	72	17,5	64	54	32	7
1"	635	90	21	69	66	39	10
1 1/4"	770	90	25,5	69	70,5	48	15

cim 684 - 4 WAY



DN	Grms.	B	C	D	E	CH	KVS
1/2	500	72	17,5	64	72	25	3,4
3/4	575	72	17,5	64	72	32	6
1"	720	90	21	69	90	39	8,1
1 1/4"	890	90	25,5	69	90	48	10

Cim
700 - 702 - 703

Cim
700RE - 702RE - 703RE

Cim
702 DN 1 1/4" - 1 1/2" - 2"

Cim
708 - 710

Cim
708RE - 710RE

TECHNICAL CHARACTERISTICS OF THE ELECTRIC ACTUATOR:



Geared motor	Cim EMV 110/130	Cim EMV 110/630	Cim EMV 110/820	Cim EMV 110/150	Cim EMV 110/650
Voltage	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz
Rotation angle	90°	90°	90°	180°	180°
Opening/closing time	30 sec	30 sec	120 sec	60 sec	60 sec
Protection degree of the motor	I	I	I	I	I
Protection degree of the actuator	IP 55	IP 55	IP 54	IP 55	IP 55
Operating temperature	0°C min +55°C max	0°C min +55°C max	0°C min +55°C max	0°C min +55°C max	0°C min +55°C max
Box motor colour	Grey/Black	Black	Grey/Black	Grey/Black	Grey/Black
Starting torque	8 Nm max	8 Nm max	30 Nm max	8 Nm max	8 Nm max
Operating torque	6 Nm max	6 Nm max	25 Nm max	6 Nm max	6 Nm max
Connecting cable (total length)	500 mm	500 mm	1500 mm	1500 mm	1500 mm
Max differential pressure	16 bar	16 bar	10 bar	16 bar	16 bar
Output contacts	5(I) A/230V - 50Hz	5(I) A/230V - 50Hz	5(I) A/230V - 50Hz	5(I) A/230V - 50Hz	5(I) A/230V - 50Hz
Position indicator	Yes, red: open	Yes, red: open	Yes, red: open	Yes, red: open	Yes, red: open
Manual operation	No	No	Si	No	No
Suitable for	Two ways valves in	Two ways valves in	Two ways valves in	Three ways valves in	Three ways valves in
Applications	Applications	Applications	Applications	Diverting applications	Diverting applications
ON/OFF	ON/OFF	ON/OFF	ON/OFF		
Relay	No	Yes	No	No	Yes

Cim
600RE - 602RE - 603RE

Cim
600RE 24 - 602RE 24 - 603RE 24

Cim
680 - 681

Cim
685

TECHNICAL CHARACTERISTICS OF THE ELECTRIC ACTUATOR:



Geared motor	Cim EMV 110/3830	Cim EMV 110/3833	Cim EMV 120/540	Cim EMV 110/4680
Voltage	230V - 50Hz	24V - 50Hz	230V - 50Hz	230V - 50Hz
Rotation angle	90°	90°	90°	90°
Opening/closing time	30 sec	30 sec	210 sec	18 sec
Protection degree of the motor	II	II	II	II
Protection degree of the actuator	IP 54	IP 54	IP 44	IP 44
Operating temperature	0°C min +55°C max	0°C min +55°C max	10°C min +60°C max	0°C min +50°C max
Box motor colour	Blue	Blue	Blue/Black	Blue/Black
Starting torque	8 Nm max	8 Nm max	8 Nm max	8 Nm max
Operating torque	3 Nm max	3 Nm max	3 Nm max	3 Nm max
Connecting cable (total length)	300 mm	300 mm	2000 mm	2000 mm
Max differential pressure	16 bar	16 bar	-	-
Output contacts	4(I) A/230V - 50Hz	4(I) A/24V - 50Hz	5(I) A/250V - 50 Hz	5(I) A/250V - 50Hz
Position indicator	Yes	Yes	Yes	Yes
Manual operation	No	No	Yes	No
Suitable for	Two way valve in	Two way valve in	3/4 way mixing	Three way valve in
Applications	Applications	Applications	valve	Diverting application
ON/OFF	ON/OFF	ON/OFF		
Relay	Yes	Yes	Yes	Yes

Electro-motor actuated ball valve extended type

cim 702 EXT



GENERAL INFORMATION:

The body valve and the motor of an electro-motor actuated ball valve are connected in a fixed way and consequently, they transmit each other any temperature changes. For instance, in a cooling system, when a cool fluid pass through the valve bore, also the box containing the motor is affected by the same lowering of temperature, due to the thermal propagation between the stem of the valve and the electro-motor actuator connected to.

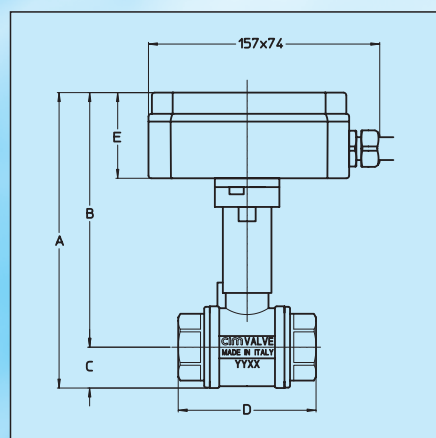
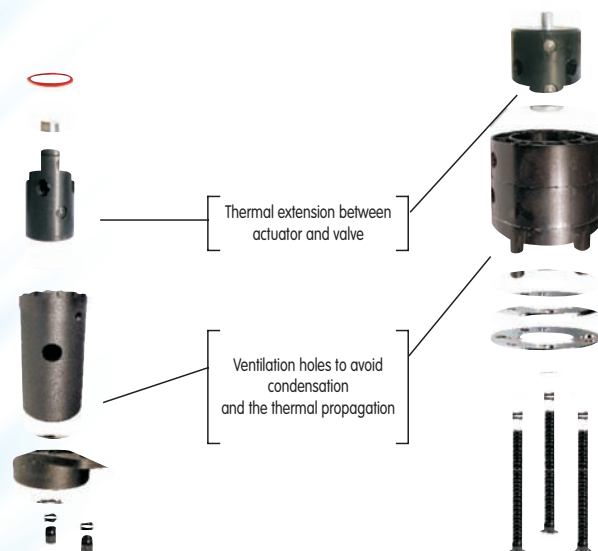
This situation, together with the outside temperature, may cause condensation inside the motor box, causing the damage of the electric components.

In order to avoid such inconvenient, an extension must be installed between the valve body and the electro-motor actuator, in order to stop the thermal link of the two parts, reducing at the same time the thermal propagation to minimum. The electro-motor actuated ball valve **CIM 702 EXT** thanks to the particular features of its extension, can be installed safely, particularly in difficult situations. For instance, with a fluid temperature of -15°C and a room temperature of 30°C, the installation of the **CIM 702 EXT** ball valve with extension enables to reduce by 80% condensate inside the motor box.

DN	1/2	3/4	1"	1 1/4"	1 1/2"	2"

DN 1/2 - 3/4 - 1"

DN 1 1/4" - 1 1/2" - 2"



DN	Grms.	A	B	C	D	E	ΔP
1/2	1090	182	164	17,5	64	59,5	16
3/4	1240	191	169	22	74	59,5	16
1"	1490	198	173	25,5	88	59,5	16
1 1/4"	2800	250	222	31	101	95	10
1 1/2"	3400	260	225	36,5	105	95	10
2"	4500	272	228	44,5	130	95	10