

V2BMLN, V3BMLN Series

Two- and three-way globe control valves

Technical Data Sheet



Description

V2BMLN and V3BMLN Series control valves are 2- and 3-way globe valves made of bronze with FF connections that can be servo controlled by means of the EMUK-24/230-500 Series servomotors.



V2BMLN

Two-way globe control valve. Bronze body. Stainless steel stem. Equal percentage flow characteristics. PN 16 threaded connections. Suitable for water, temperature range 2÷110°C.

Compatible with EMUK-24/230-500 Series servomotors with M30x1.5 threaded coupling

Type	Part No.	Dn	Kvs	ΔP max. Kpa	Weight (kg)
V2BMLN	V02BM15LN	1/2" F	4,5	1,5	0,95
V2BMLN	V02BM20LN	3/4" F	6,0	1,5	0,95
V2BMMLN	V02BM25MLN63	1" M	6,3	1,4	1,40
V2BMMLN	V02BM25MLN	1" M	9,6	1,4	1,40
V2BMLN	V02BM25LN	1" F	9,6	1,4	1,50
V2BMLN	V02BM32LN	1.1/4" F	12,4	1,0	1,85
V2BMLN	V02BM40LN	1.1/2" F	16,8	0,9	2,35
V2BMLN	V02BM50LN	2" F	22,0	0,8	3,85



V3BMLN

Three-way globe control valve Bronze body. Stainless steel stem. Equal percentage flow characteristics. PN 16 threaded connections. Suitable for water, temperature range 2–110°C.

Compatible with EMUK-24/230-500 Series servomotors with M30x1.5 threaded coupling.

Type	Part No.	Dn	Kvs	Kvs by-pass	ΔP max. Kpa	Weight (kg)
V3BMLN	V3BM15LN32	1/2" F	45	3,2	1,5	1,10
V3BMLN	V3BM15LN	1/2" F	4,5	3,6	1,5	1,10
V3BMLN	V3BM20LN	3/4" F	6,0	4,9	1,5	1,10
V3BMMLN	V3BM25MLN63	1" M	6,3	5,3	1,4	1,40
V3BMMLN	V3BM25MLN	1" M	9,6	8,6	1,4	1,40
V3BMLN	V3BM25LN	1" F	9,6	8,6	1,4	1,50
V3BMLN	V3BM25LN38	1" F	9,6	3,8	1,4	1,50
V3BMLN	V3BM32LN	1.1/4" F	12,4	10,5	1,0	1,90
V3BMLN	V3BM32LN47	1.1/4" F	12,4	4,7	1,0	1,90
V3BMLN	V3BM40LN	1.1/2" F	16,8	15,4	0,9	2,40
V3BMLN	V3BM40LN57	1.1/2" F	16,8	5,7	0,9	2,40
V3BMLN	V3BM50LN	2" F	22,0	19,6	0,8	4,00

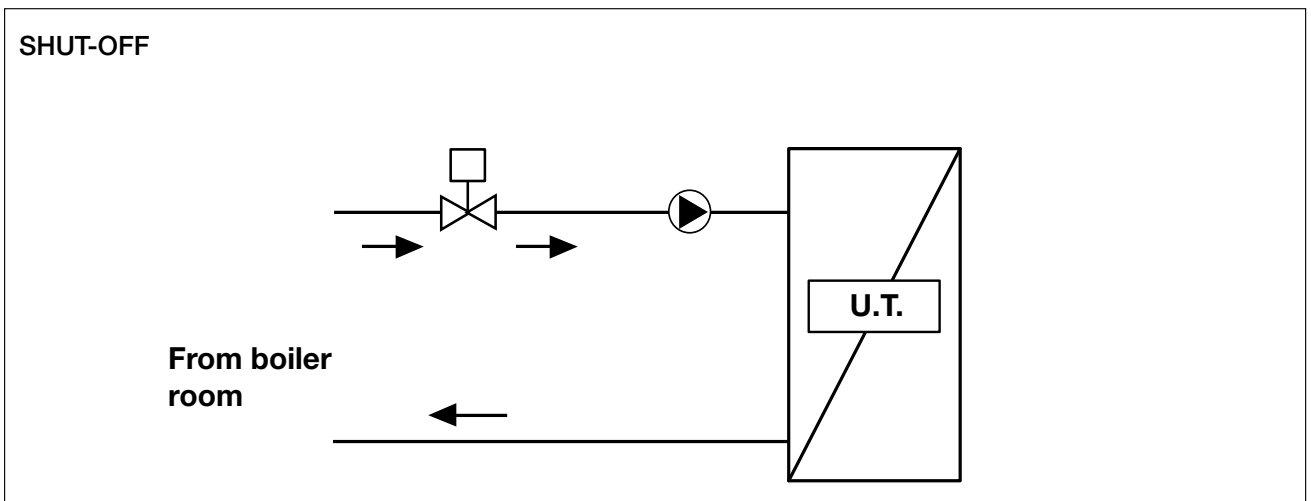


Design	
Stem bonnet and body	Bronze Stainless steel
Disc	CW617N brass / EPDM
Stuffing box	EPDM
Technical features	
Nominal pressure	16 bar
Fluid temperature range	2–110 °C
Connections	Female threaded
Control characteristics	Equal percentage flow
Stroke	5.5 mm
Usable fluids	Water, including with glycol ≤ 50%

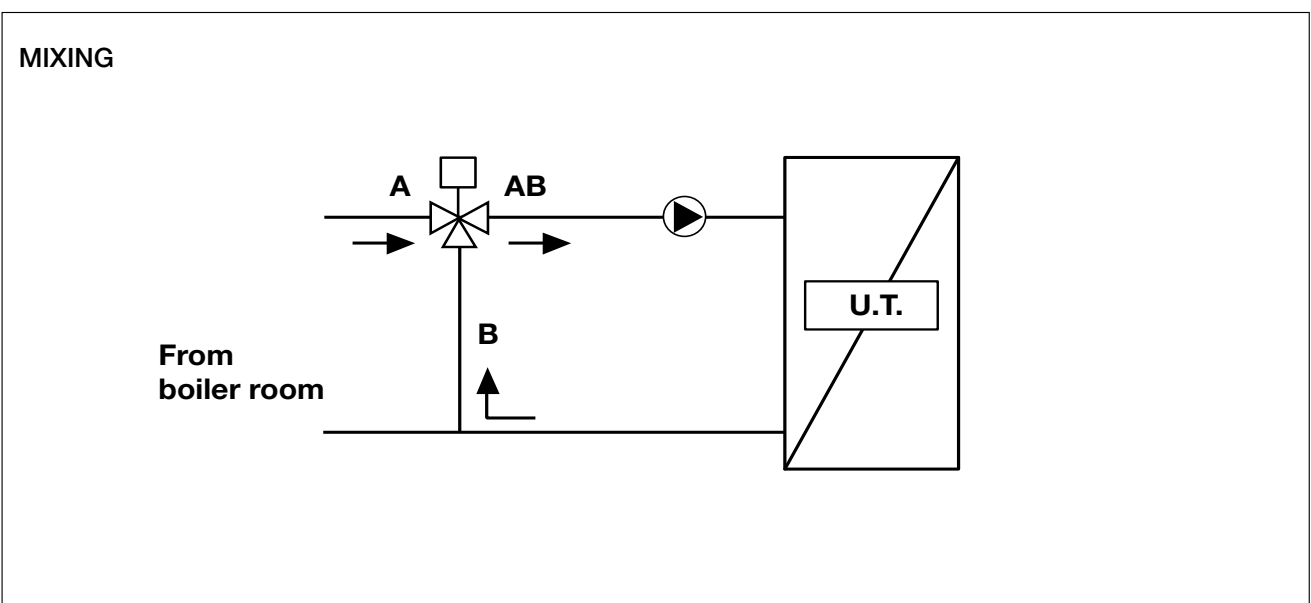
Application

V2BMLN and V3BMLN Series control valves are 2- and 3-way globe valves made of bronze with FF connections that can be servo controlled by means of the EMUK-230-500, EMUK-230-500B and EMUK-24-500 Series servomotors.

V2BMLN Series 2-way globe control valves are designed to shut-off the heat carrier fluid.



Thanks to the special configuration of the disc that controls the by-pass flow, **V3BMLN Series** 3-way globe control valves can be used as mixing valves.



Operation

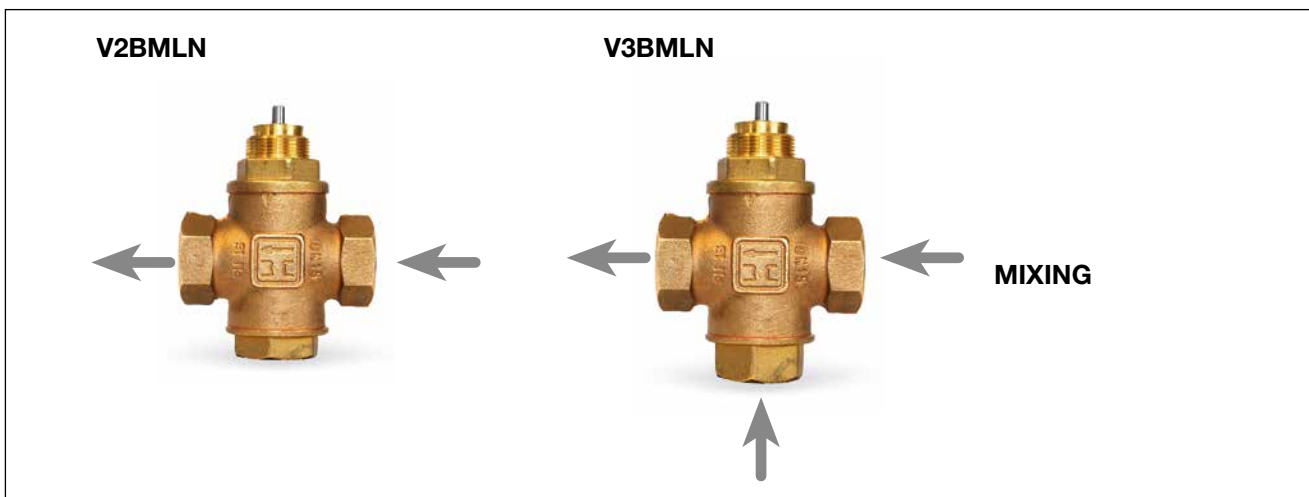
V2BMLN and V3BMLN Series control valves are 2- and 3-way globe valves made of bronze with FF connections that can be servo controlled by means of EMUK 24-500 and EMUK-230-500, EMUK-230-500B and EMUK-24-500 Series servomotors.

Design characteristics	EMUK 230-500	EMUK 230-500B	EMUK 24-500
Operation	3 points	2 and 3 points	2 and 3 points/0-10V
Power Supply	230V - 50/60 Hz	230V - 50/60 Hz	24Vac - 50/60 Hz
Consumption	5,3 VA	5,3 VA	4,0 VA
Time/stroke	22s /mm	22S /mm	22s /mm
IP rating	IP 54	IP 54	IP 54
Extra functions	Manual positioning	Manual positioning	Manual positioning

The reliability of **V2BMLN and V3BMLN Series** globe valves is guaranteed by the fact that every single product is tested to ensure the outward pressure tightness of the valve body and its components, and the pressure tightness of the disc when it shuts off the flow.

Direction of flow

The water flow direction must be in accordance with arrow on the valve body, as shown in the diagram:

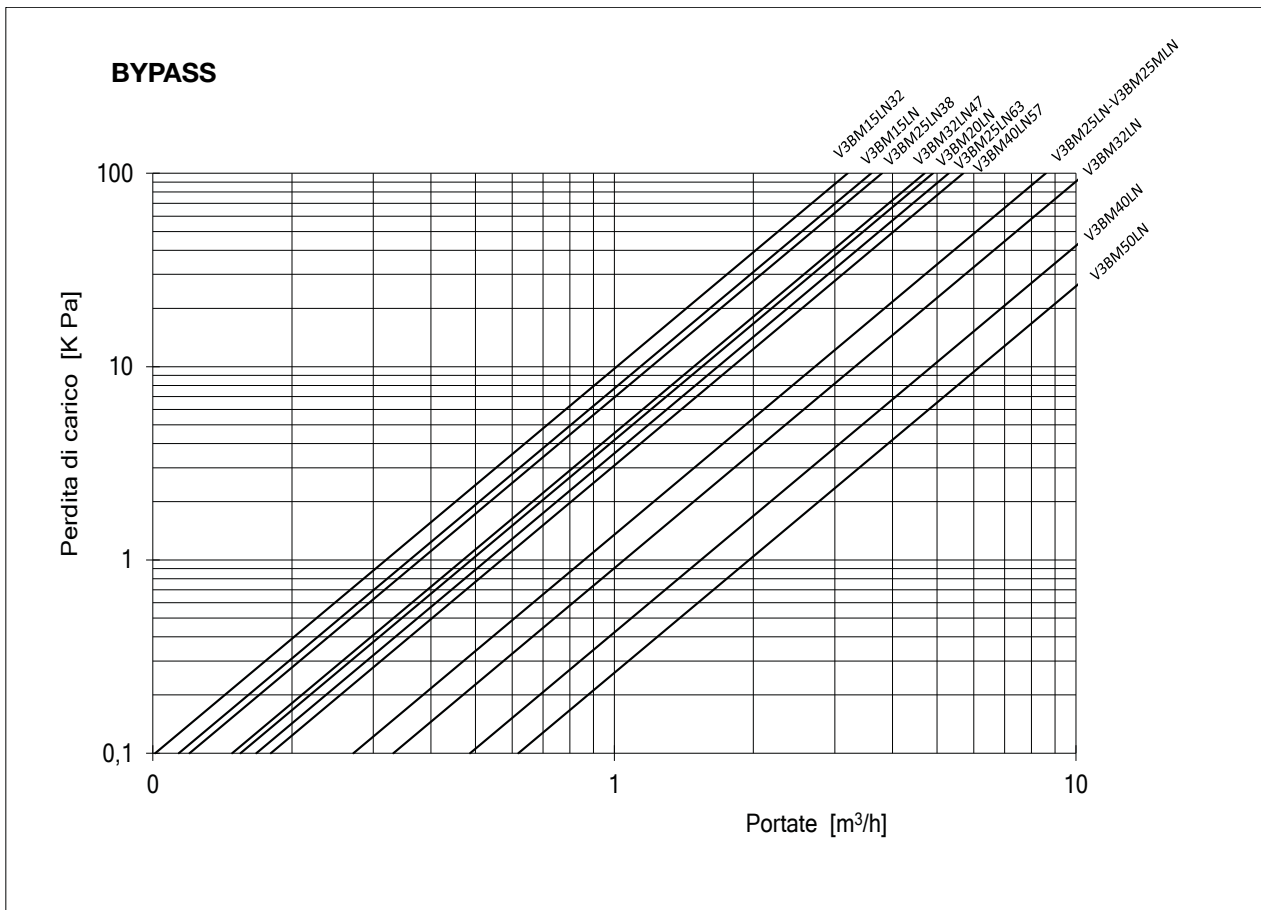
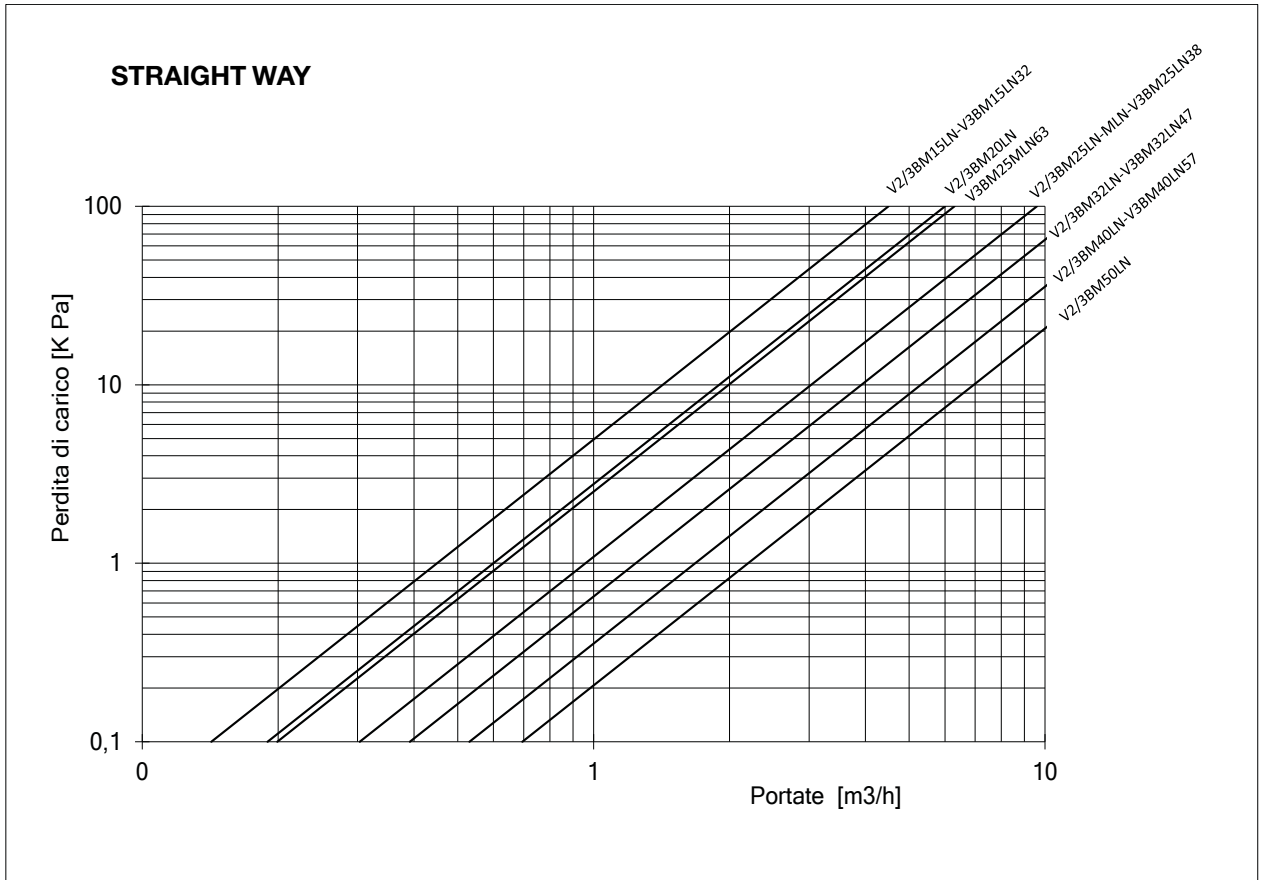


Selection criteria

The choice of **V2BMLN and V3BMLN Series** globe valves must be based on the system type and on the size of the connecting pipework, in addition to the following factors:

- 1) Control characteristics (equal percentage): equal increments of valve stroke produce the same percentage change in flow.
- 2) Kvs flow coefficient: the pressure drop with the valve fully open must be sufficiently high to obtain sufficient authority in relation to the controlled circuit: the ratio between the valve Δp and total circuit Δp must be approximately 0.5.

Flow curves



Installation

Before installing valves, make sure the pipes do not contain any materials that could result in a valve blockage; observe the flow direction marked on the body.

Make sure pipeline and valve are perfectly tight.

Make sure the servomotor is installed in a vertical position on the valve body, leaving sufficient clearance to allow routine maintenance work to be carried out on the servomotor.

Do not install the valve with the actuator facing downward.

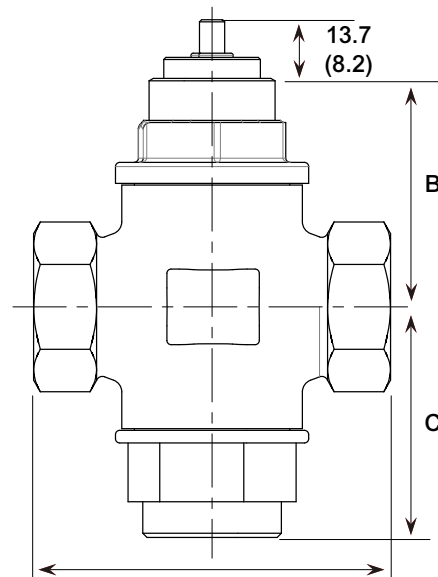
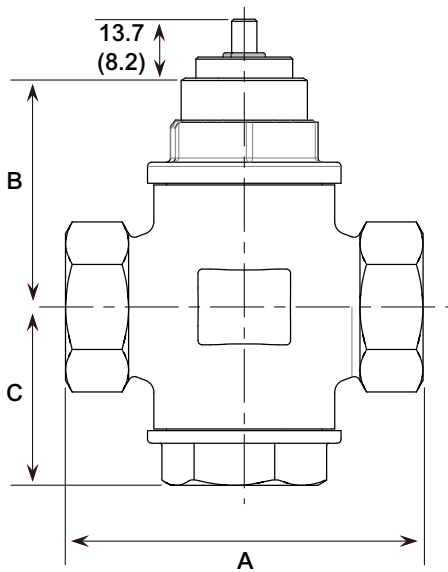
Make the electrical connections as per the reference standards, following the connection diagram shown on the selected servomotor.

Disconnect the servomotor power supply when servicing the valve; switch off the water supply unit (pump) to avoid having to work with pressurized fluid.

Maintenance

V2BMLN and V3BMLN Series valves do not require special maintenance; it may be necessary to replace the stuffing box in the case of internal leakage due to wear of the seals.

Overall dimensions (mm)



V2BMLN

DN	A	B	C
15	85	54,5	42,5
20	85	54,5	42,5
25	105	56,5	49
32	120	59,5	52
40	145	68	63
50	165	93	73

V3BMLN

DN	A	B	C
15	85	54,5	55
20	85	54,5	55
25	105	56,5	55
32	120	59,5	63
40	145	68	78,5
50	165	93	89,0

V2BMMLN

DN	A	B	C
25	112	56	40

V23MMLN

DN	A	B	C
25	112	56	62

Specification text

V2BMLN SERIES

Two-way globe control valve **V2BMLN Series** – WATTS brand. Bronze body. Stainless steel stem. Equal percentage flow characteristics. GAS threaded connections. Maximum pressure: PN 16. Suitable for water; fluid temperature 2÷110°C. Compatible with servomotors EMUK-24/230-500 Series – WATTS brand.

V3BMLN SERIES

Three-way globe control valve **V3BMLN Series** – WATTS brand. Bronze body. Stainless steel stem. Equal percentage flow characteristics. GAS threaded connections. Maximum pressure: PN 16. Suitable for water; fluid temperature 2÷110°C. Compatible with servomotors EMUK-24/230-500 Series – WATTS brand.



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