

BXL: Three-way small (unit) valve

How energy efficiency is improved

Linear mixing for energy-efficient control.

Areas of application

On-Off valve for regulating heating zones, air secondary-treatment appliances and fan-coil units in combination with thermal unit valve drive AXT 211, continuous drive AXS 215S or motorised unit valve drive AXM 117(S).

Features

- Nominal pressure 16 bar
- Nominal diameter DN25 and DN40
- Linear characteristic
- Complementary mixing passage characteristic, reduced
- With the spindle depressed, the control passage is open and the mixing passage closed
- Can be used as mixing valve or diverting valve

Technical description

- Valve with male thread as per DIN EN ISO 228-1, Class A
- Gun metal valve body
- Version with box nut and flat seal
- Stainless steel spindle
- Cone with soft seal made of EPDM
- Stuffing box with double O-ring seal

Type ²⁾	Nominal diameter DN	k _{VS} -value m ³ /h	Δp _{max} ¹⁾ bar	Nickel-plated body	Weight kg
BXL 025 F200	25	6.5	0.5	no	1.2
BXL 040 F200	40	9.5	0.2	no	2.34
Nominal pressure	PN 16		Leakage rate		
Max. operating pressure	16 bar at 130 °C		control passage		approx. 0.05% of k _{vs}
Perm. operating temp.	2...130 °C		mixing passage		approx. 0.2% of k _{vs}
Characteristic curve			Dimension drawings		5M112
control passage	linear		Fitting instructions		MV 505261
mixing passage	complementary, reduced		fitted onto AXT 211		MV P100002547
Valve stroke	2.9 mm		with auxiliary contacts		
			fitted onto AXM 117/117S		MV 505456
			fitted onto AXM 117 F200		MV 505816

Accessories

- 0361824025*** 3 threaded sleeves R 1 flat sealing
- 0361824040*** 3 threaded sleeves R ⁵/₄ flat sealing
- 0361825028*** 3 solder sleeves Ø 28; flat sealing DN25
- 0361825035*** 3 solder sleeves Ø 35; flat sealing DN40
- 0361825042*** 3 solder sleeves Ø 42; flat sealing DN40

^{*)} Dimension drawing and wiring diagram are available under the same number

- 1) max. permissible pressure difference across the valve at which the actuator can still firmly open and close the valve. Figures stated are for a static pressure of 6 bar; at a static pressure of 16 bar, the values are reduced by 15%.
- 2) Do not use as through valve.

Operation

The control passage (A-AB) is opened and the mixing passage (B-AB) is closed by depressing the spindle, which is returned by spring pressure. The AXT 211 thermal drive can be used to move the valve to the OPEN or CLOSED position. Used in combination with the 'normally closed' drive version, the control passage opens in the event of power failure.

Used with the continuous AXS 215S actuator or the AXM 117S actuator, the valve can be moved to any position. With the AXM 117S (with positioner), the valve is moved continuously by a control voltage of 0...10 V. Variants: F302 opens (and F202 closes) the control passage as the control voltage rises.

Engineering and fitting notes

The final control element can be fitted in any position except facing downwards.

The ingress of condensate, dripping water etc. into the drive should be prevented.

In order to prevent cavitation noise from affecting rooms where quietness is essential, the pressure difference across the valve should not exceed the following values:-

BXL 025 F 200 = 0.3 bar

BXL 040 F 200 = 0.2 bar

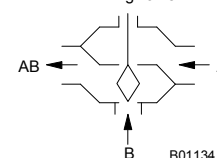


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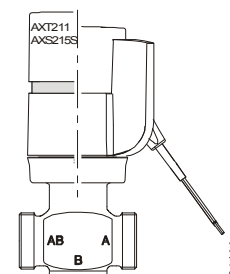


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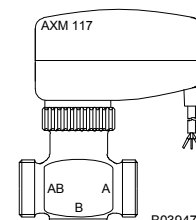
Mixing valve



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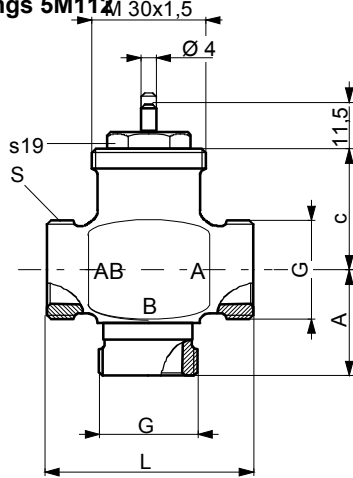


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Additional information

Valve body of nickel-plated gunmetal (CuSn3Zn8Pb-C as per EN 1982); cone of brass (CuZn39Pb3 as per EN 12164) with EPDM sealing ring and spindle of stainless steel (X46Cr13 as per DIN 17440); protective cap (or manual-adjustment knob) of plastic.

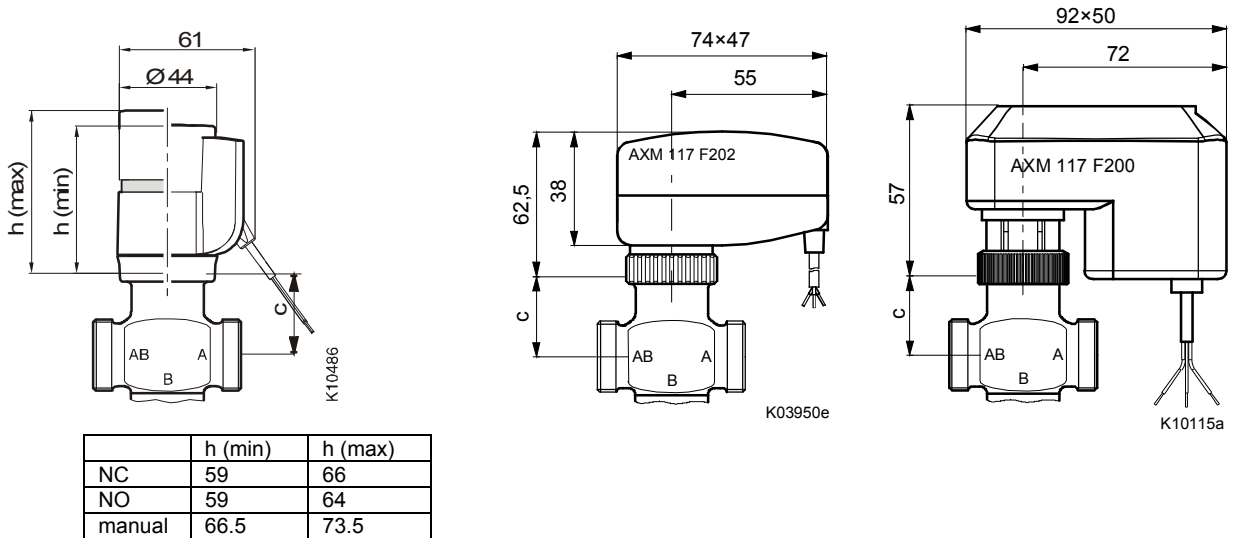
Dimension drawings 5M112



Type	A	c	G	L	S
BXL 025 F200	50	41	G1 1/4A	90	46
BXL 040 F200	64	42	G2A	115	66

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Combinations with AXT thermal drive and AXM motorised drive.

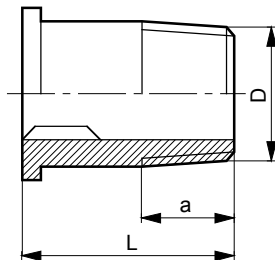


	h (min)	h (max)
NC	59	66
NO	59	64
manual	66.5	73.5

Accessories

Threaded sleeve

361824

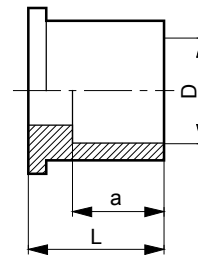


DN	D	a	L
25	R 1	16,8	40
40	R 1 1/4	19,1	46

M05738a

Solder sleeve

361825



DN	D	a	L
25	28	20	27
40	35	25	32
40	42	29	37

M05739a