3/4-way Shoe Valves

M3-M4

CE

APPLICATION AND USE

M3 - M4 valves are used in heating plants with KX400 climatic controllers.

TECHNICAL CHARACTERISTICS

Model	DN	Kvs	Max differential pressure [kPa] with MDB.4 actuator	Description
M3 PN6	1”	30	1	3-way PN6 cast iron body - gas female threaded connections angle-way use - max fluid temp.: 100 °C
	1 ¼	37	1	
	1 ½	38	1	
	2”	45	1	
	40	38	1	As above - PN6 flanged connections according to UNI ISO 2084 standard
	50	70	1	
	65	80	0,8	
	80	90	0,5	
	100	110	0,3	
	125	120	0,3	
M4 PN6	1”	30	1	4-way - PN6 cast iron body - gas female threaded connections - max fluid temperature: 110 °C
	1 ¼	37	1	
	1 ½	40	1	
	2”	45	1	
	50	70	1	As above - PN6 flanged connections according to UNI ISO 2084 standard
	65	80	0,8	
	80	90	0,5	
	100	110	0,3	

MANUFACTURING CHARACTERISTICS

3/4-way rotating shoe valve bodies with manual control lever and position indicator. All M3 - M4 valves can be motorized even if they are already mounted on field, with MDB.4 actuator by AM72.

ACTUATORS

MDB.4 - On-off, floating or proportional 0-10 V - rotation angle: max. 95° (adjustable by mechanical stops). For MDB54: Reversible with switch 0 / 1 at switch position 0 and 1 - Protection degree IP 54. Ambient temperature:
-30T50°C (operating)
-40T80°C (storage)

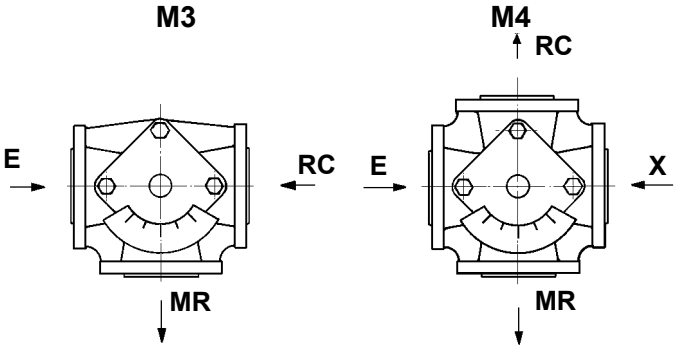
Model	Stroke time	Torque	Power supply
MDB24	150s	min. 10 Nm with nomina voltage	230Vac da -60%+15%, 50-60 Hz
MDB44			24 Vac ±20%, 50-60Hz, 24Vcc ±20%
MDB54			

INSTALLATION

Respect fluid direction as shown on the figure on the right. Before installing the valve, ensure that the pipes are clean, free from welding slags. Pipes must be subjected to vibrations.
Leave enough space over the actuator (10 cm. at least), to allow actuator disassembling from the valve body, for eventual commissioning.
The actuators must not be installed in explosive environment with temperature below -5°C and above 50 °C; they must not be exposed to steam jets or dripping.

ACCESSORIES

AM72 Linkage kit for assembling of MDB.4 actuators
DMDB Auxiliary microswitch 2xSPDT, 1 mA...3 (0.5) A, 250 Vac



E inlet from the boiler
RC (inlet) return from the user (M3); outlet to the boiler (M4)
MR outlet to the user
X return from the user (M4)

ELECTRICAL CONNECTIONS

Make the electrical connections according to the diagram shown on the controller data sheet (DBL079E) and in compliance with the rules in force. Use cables with 1 mm^2 minimum section.

START-UP

Make sure that the connections to the motorized valve have been carried out properly and that supply voltage corresponds to rating.

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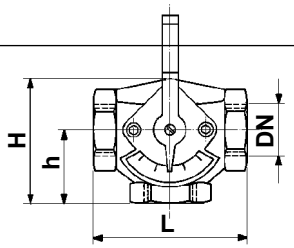
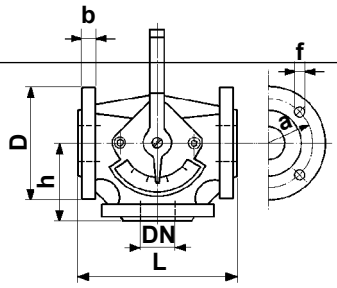
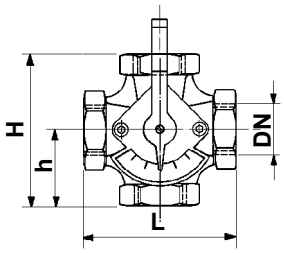
OVERALL DIMENSIONS

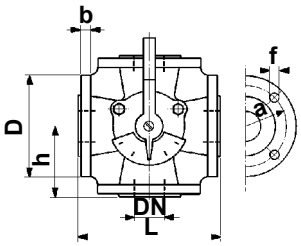




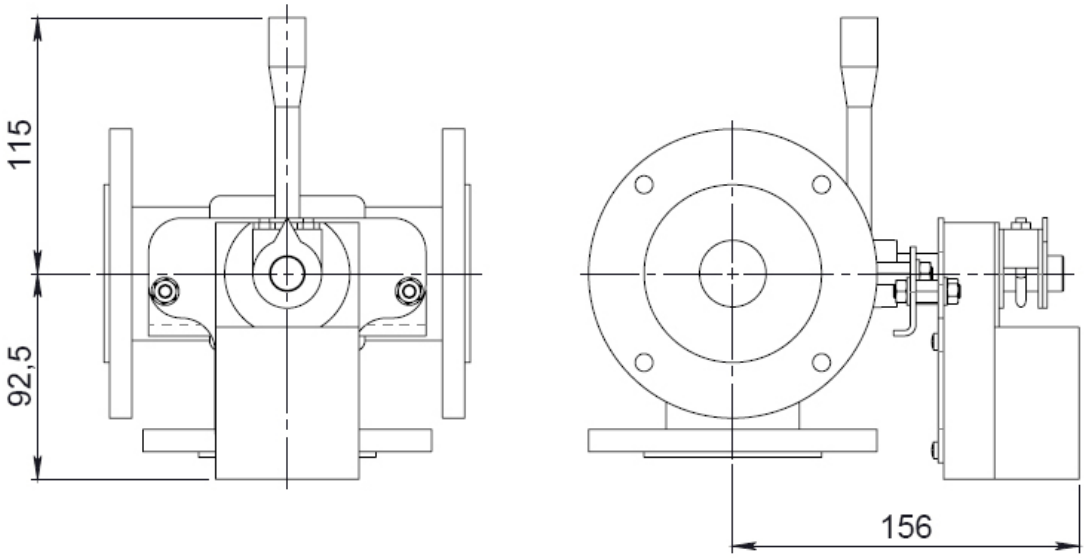
M3 threatened connections [mm]				
DN	**L**	**H**	**h**	**Weight [Kg]**
1”	130	117	65	2,8
1”1/4	140	122	70	3,5
1”1/2	156	130	78	4,5
2”	150	127	75	5,5
M4 threatened connections [mm]				
DN	**L**	**H**	**h**	**Weight [Kg]**
1”	130	130	65	3
1”1/4	140	140	70	3,2
1”1/2	156	156	78	7,5
2”	150	150	75	10

M3 flanged connections [mm]								
DN	**L**	**D**	**h**	**2a**	**f**	**b**	**holes N°**	**Weight [Kg]**
40	180	130	90	100	14	16	4	5
50	180	140	90	110	14	16	4	6
65	200	160	100	130	14	16	4	11
80	230	190	115	150	18	19	4	17
100	260	210	130	170	18	20	4	22,5
125	290	240	145	200	18	20	8	25
M4 flanged connections [mm]								
DN	**L**	**D**	**h**	**2a**	**f**	**b**	**holes N°**	**Weight [Kg]**
50	180	140	90	110	14	16	4	9
65	200	160	100	130	14	16	4	12
80	230	190	115	150	18	19	4	17,5
100	260	210	130	170	18	20	4	24





DIMENSIONS WITH AM72 (mm)



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