Electric actuator
Pneumatic cylinders
Pneumatic valves
Pneumatic components
FRL/Auxiliary components / Electronic components
Vacuum components
Main line components
Fluid control valves
Main line components
Antibacterial/Bacteria-removing filter
Vacuum components
Fluid control valves
FP1
FP2

Oil-free motor driven 2-port ball valve

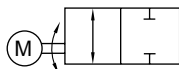# MXB1-FP2/MXB1D-FP2 Series

● Port size: Rc3/8 to Rc2

General Purpose Valves
Catalog No. CB-03-1SA

Materials compliant with the Food Sanitation Act

RoHS CAD

JIS symbol

Common specifications

Descriptions	MXB1 (standard)/MXB1D (with relay)
Working fluid	Water/air/oil (500 mm²/s or less)
Working pressure MPa	0 to 1.0 (refer to working pressure in individual specifications.)
Proof pressure (water pressure) MPa	2.0
Fluid temperature °C	0 to 80 (no freezing)
Ambient temperature °C	−10 to 50
Ambient humidity %	95 or less
Mounting orientation	From vertical direction with the actuator on the top to horizontal direction. (Refer to General Purpose Valves (catalog No. CB-03-1SA).)
Pressurization direction	Arbitrary
Degree of protection	IPX3 "Rainproof"

Electrical specifications

Descriptions			MXB1-10	MXB1-15	MXB1-20	MXB1-25	MXB1-32	MXB1-40	MXB1-50
Rated voltage *1			100 VAC (50/60 Hz), 200 VAC (50/60 Hz), 12 VDC, 24 VDC						
Apparent power VA	Operating	100 VAC	4.9/5.9 (50/60 Hz)				13/15 (50/60 Hz)		
		200 VAC	5.4/6.2 (50/60 Hz)				13/15 (50/60 Hz)		
	When starting	100 VAC	4.9/5.9 (50/60 Hz)				13/15 (50/60 Hz)		
		200 VAC	5.4/6.2 (50/60 Hz)				13/15 (50/60 Hz)		
Average current value A		12 VDC	1.1				1.5		
*2		24 VDC	0.7				1.0		
Starting current A		12 VDC	1.8 or less				3 or less		
*2		24 VDC	1.2 or less				2 or less		
Power consumption W		AC	7				15		
		12 VDC	13				18		
		24 VDC	17				24		

Descriptions			MXB1D-10	MXB1D-15	MXB1D-20	MXB1D-25	MXB1D-32	MXB1D-40	MXB1D-50
Rated voltage *1			100 VAC (50/60 Hz), 200 VAC (50/60 Hz)						
Apparent power VA	Operating	100 VAC	6.0/6.8 (50/60 Hz)				14/16 (50/60 Hz)		
		200 VAC	6.6/7.2 (50/60 Hz)				14/16 (50/60 Hz)		
	When starting	100 VAC	6.0/6.8 (50/60 Hz)				14/16 (50/60 Hz)		
		200 VAC	6.6/7.2 (50/60 Hz)				14/16 (50/60 Hz)		
Power consumption W			8				16		

Individual specifications

Descriptions		MXB1-10 / MXB1D-10	MXB1-15 / MXB1D-15	MXB1-20 / MXB1D-20	MXB1-25 / MXB1D-25	MXB1-32 / MXB1D-32	MXB1-40 / MXB1D-40	MXB1-50 / MXB1D-50
Port size		Rc3/8	Rc1/2	Rc3/4	Rc1	Rc1¼	Rc1½	Rc2
Orifice size mm		10	10	15	20	25	32	40
Cv		10	6	16	29	50	98	125
Working pressure MPa		0 to 1.0						0 to 0.5
Response time sec	AC	10/8 (50/60 Hz)				13/11 (50/60 Hz)		
	DC	8				10.5		
Frequency *3	AC	2 time/min. or less				1 time/min. or less		
	DC	1 time/min. or less				1 time/2 min. or less		
Weight kg	MXB1	1.2	1.2	1.4	1.5	2.6	3.1	3.8
	MXB1D	1.2	1.3	1.4	1.6	2.7	3.1	3.9

*1: Use the product within ±10% of the rated voltage.
*2: Current values at the rated voltage
*3: Be sure to observe the specified frequency of use.
*4: Contact CKD about specifications other than above.

How to order

MXB1 - 32 - N T M - FP2 - 1
MXB1D

Model No.

Ⓐ Port size
Ⓑ Body/seat material
Ⓒ Other options
Ⓓ Manual override *1
Ⓔ Voltage

Code	Content	Model No.	
		MXB1	MXB1D
Ⓐ Port size			
10	Rc3/8	●	●
15	Rc1/2	●	●
20	Rc3/4	●	●
25	Rc1	●	●
32	Rc1$\frac{1}{4}$	●	●
40	Rc1$\frac{1}{2}$	●	●
50	Rc2	●	●

Ⓑ Body/seat material

Code	Content	MXB1	MXB1D
N	Stainless steel body/PTFE seating/oil-prohibited specifications	●	●

Ⓒ Other options

Code	Content	Applications	Remarks	MXB1	MXB1D
Blank	5-conductor cable 0.5 mm^2 (with output lead wire)	—	—	●	●
T	3-conductor cable 0.75 mm^2 (without signal output)	When output lead wire is not required	3-conductor cabtyre cable used	●	●

Ⓓ Manual override

Code	Content	MXB1	MXB1D
Blank	None	●	●
M	Manual override	●	●

Ⓔ Voltage

Code	Content	MXB1	MXB1D
1	100 VAC (50/60 Hz)	●	●
2	200 VAC (50/60 Hz)	●	●
3	24 VDC	●	
4	12 VDC	●	

*1: When the manual override (Ⓓ Item M) is selected, available port sizes are 32, 40 and 50. Manual override is provided as standard with other port size.

[Example of model No.]

MXB1-32-NTM-FP2-1

Model No.: MXB1 (standard)

Ⓐ Port size   : Rc1$\frac{1}{4}$
Ⓑ Body material   : Stainless steel body/PTFE seating/oil-prohibited specifications
Ⓒ Other options   : 3-conductor cable (without output lead wire)
Ⓓ Manual override : Selected
Ⓔ Voltage   : 100 VAC (50/60 Hz)

Oil-free motorized 3-port ball valve

MXG1-FP2/MXG1D-FP2 Series

● Port size: Rc1/2 to Rc2

General Purpose Valves
Catalog No. CB-03-1SA

RoHS CAD

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FP1
FP2

JIS symbol
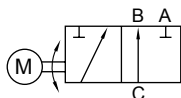
Common specifications

Descriptions	MXG1 (standard)/MXG1D (with relay)
Working fluid	Water/air/oil (500 mm²/s or less)
Working pressure MPa	0 to 1.0 (refer to working pressure in individual specifications.)
Proof pressure (water pressure) MPa	2.0
Fluid temperature °C	0 to 80 (no freezing)
Ambient temperature °C	−10 to 50
Ambient humidity %	95 or less
Mounting orientation	From vertical direction with the actuator on the top to horizontal direction.
Pressurization direction	Port C pressurization only
Degree of protection	IPX3 "Rainproof"

Electrical specifications

Descriptions			MXG1-15	MXG1-20	MXG1-25	MXG1-32	MXG1-40	MXG1-50
Rated voltage		*1	100 VAC (50/60 Hz), 200 VAC (50/60 Hz), 12 VDC, 24 VDC					
Apparent power VA	Operating	100 VAC	4.9/5.9 (50/60 Hz)			13/15 (50/60 Hz)		
		200 VAC	5.4/6.2 (50/60 Hz)			13/15 (50/60 Hz)		
	When starting	100 VAC	4.9/5.9 (50/60 Hz)			13/15 (50/60 Hz)		
		200 VAC	5.4/6.2 (50/60 Hz)			13/15 (50/60 Hz)		
Average current value A		12 VDC	1.1			1.5		
	*2	24 VDC	0.7			1.0		
Starting current A		12 VDC	1.8 or less			3 or less		
	*2	24 VDC	1.2 or less			2 or less		
Power consumption W		AC	7			15		
		12 VDC	13			18		
		24 VDC	17			24		

Descriptions			MXG1D-15	MXG1D-20	MXG1D-25	MXG1D-32	MXG1D-40	MXG1D-50
Rated voltage		*1	100 VAC (50/60 Hz), 200 VAC (50/60 Hz)					
Apparent power VA	Operating	100 VAC	6.0/6.8 (50/60 Hz)			14/16 (50/60 Hz)		
		200 VAC	6.6/7.2 (50/60 Hz)			14/16 (50/60 Hz)		
	When starting	100 VAC	6.0/6.8 (50/60 Hz)			14/16 (50/60 Hz)		
		200 VAC	6.6/7.2 (50/60 Hz)			14/16 (50/60 Hz)		
Power consumption W			8			16		

Individual specifications

Descriptions		MXG1-15 MXG1D-15	MXG1-20 MXG1D-20	MXG1-25 MXG1D-25	MXG1-32 MXG1D-32	MXG1-40 MXG1D-40	MXG1-50 MXG1D-50
Port size		Rc1/2	Rc3/4	Rc1	Rc1¼	Rc1½	Rc2
Orifice size	mm	10	14	19	23	30	38
Cv		3	6	11	16	28	47
Working pressure	MPa	0 to 1.0					0 to 0.5
Response time sec	AC	20/16 (50/60 Hz)			26/22 (50/60 Hz)		
	DC	16			21		
Frequency *3	AC	1 time/min. or less			1 time/2 min. or less		
	DC	1 time/2 min. or less			1 time/5 min. or less		
Weight kg	MXG1	1.3	1.4	1.7	2.7	3.2	4.1
	MXG1D	1.3	1.5	1.7	2.7	3.3	4.2

*1: Use the product within ±10% of the rated voltage.
*2: Current values at the rated voltage
*3: Be sure to observe the specified frequency of use.
*4: Contact CKD about specifications other than above.

MXG1-FP2/MXG1D-FP2 Series

How to order

MXG1 - 20 - N K - FP2 - 2

MXG1D

Model No.

Ⓐ Port size

Ⓑ Body/seat material

Ⓒ Other options

Ⓓ Voltage

Code	Content	Model No.	
		MXG1	MXG1D
Ⓐ Port size			
15	Rc1/2	●	●
20	Rc3/4	●	●
25	Rc1	●	●
32	Rc1$^{1}/_{4}$	●	●
40	Rc1$^{1}/_{2}$	●	●
50	Rc2	●	●
Ⓑ Body/seat material			
N	Stainless steel body/PTFE seating/oil-prohibited specifications	●	●

Ⓒ Other options					
	Content	**Applications**	**Remarks**		
Blank	5-conductor cable 0.5 mm^2 (with output lead wire)	—	—	●	●
T	3-conductor cable 0.75 mm^2 (without signal output)	When output lead wire is not required	3-conductor cabtyre cable used	●	●
K	Multi-fluid (90° rotation switching Response time 1/2)	To remove load to pump	Fluids may mix somewhat during switching	●	●
TK	3-conductor cable 0.75 mm^2 Multi-fluid	—	—	●	●

Ⓓ Voltage			
1	100 VAC (50/60 Hz)	●	●
2	200 VAC (50/60 Hz)	●	●
3	24 VDC	●	
4	12 VDC	●	

[Example of model No.]

MXG1-20-NK-FP2-2

Model: MXG1

Ⓐ Port size : Rc3/4
Ⓑ Body/seat material : Stainless steel body/PTFE seating/oil-prohibited specifications
Ⓒ Other options : Multi-fluid (90° rotation switching, response time 1/2)
Ⓓ Voltage : 200 VAC (50/60 Hz)