



New Products

New product

Metal Free 2 Port Solenoid Valve
for Chemical Liquids
MKB3 Series



METAL FREE 2 PORT SOLENOID VALVE FOR CHEMICAL LIQUIDS MKB3 SERIES

Perfect answer for your
downsizing needs



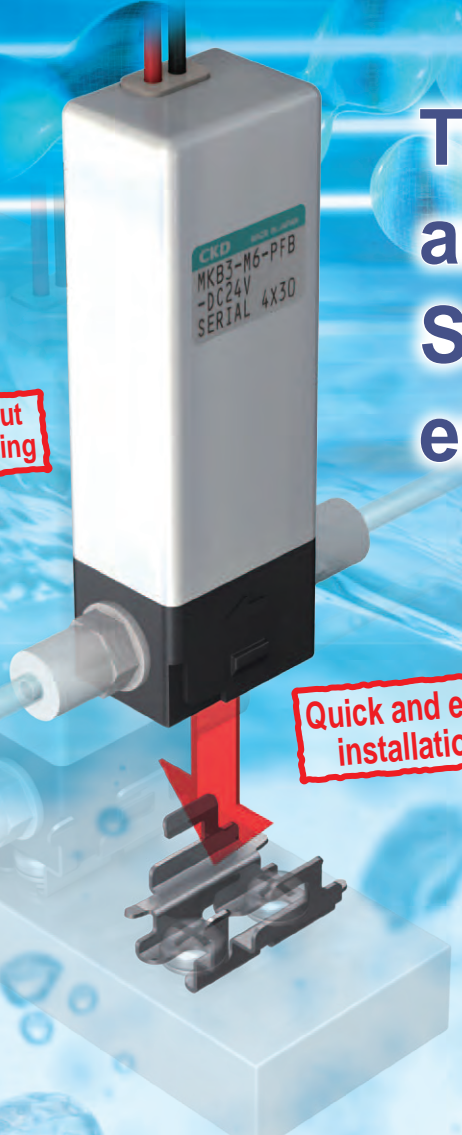
*Medical
Products*

CKD Corporation

CC-1200A

Thin, space saving, and easy to maintain. Suitable for medical equipment.

Installation without
disconnecting piping



Quick and easy
installation

Easy to maintain

Quick and easy installation

Installation/removal is simple and easy.

Valve can be installed after connecting piping.

Patent pending

Wide pressure range

Usable even under negative pressure

It is capable of handling negative pressure created in syringes and in transporting waste water.

Working pressure (MPa)	-0.08 to 0.25
Back pressure (MPa)	0 to 0.25

Energy-saving substrate (with lamp) available as option

The energy-saving substrate prevents the coil heat from affecting the fluid. Power consumption during electrification has been reduced.

The lamp indicates the electrification status of the solenoid valve.

Metal-free diaphragm structure

Wetted parts are completely isolated from the actuator.

Highly-anticorrosive resin and rubber are used for wetted parts. CKD's unique diaphragm structure realizes high-durability.

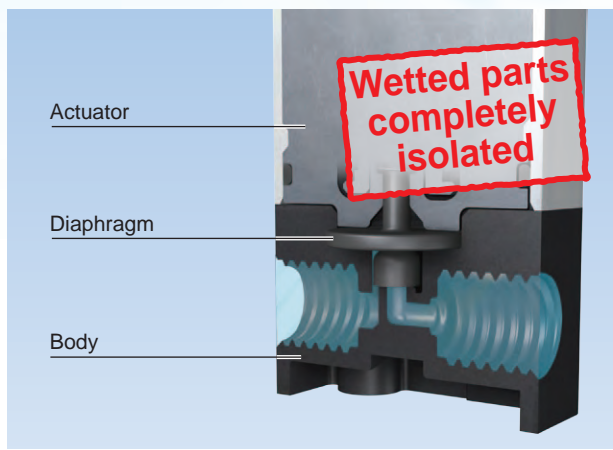
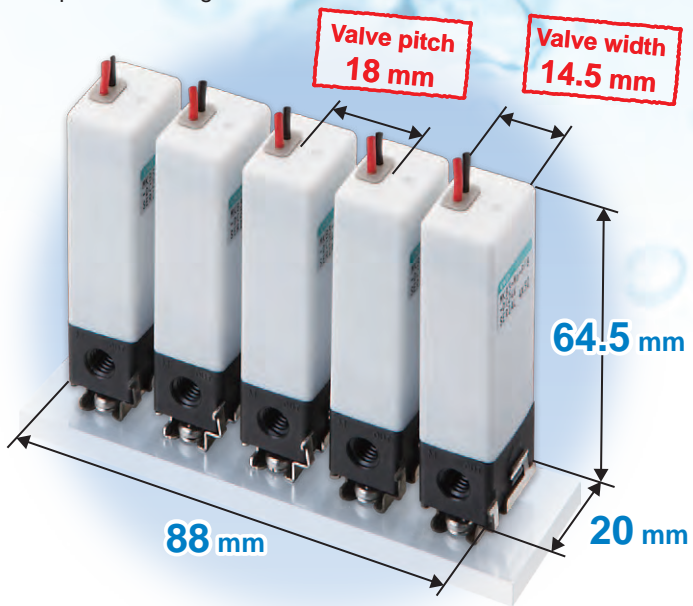
Body	PPS
Diaphragm	FKM, EPDM

Metal free 2 port solenoid valve for chemical liquid

MKB3 Series

Thin, compact design allows integrated installation

It features body thickness of only 14.5 mm. CKD's unique installation method enables narrower-pitch parallel arrangement of units.

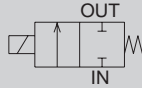




Metal Free 2 Port Solenoid Valve for Chemical Liquids

MKB3 Series

JIS symbol



- NC (normally closed)
- Working fluid: Water, pure water, chemical liquids
- Port size: M6·1/4-28UNF



Specifications

Model	MKB3		
Operating method	NC (normally closed)		
Working fluid	Water, pure water, and chemical liquids (that does not corrode the material of wetted parts)		
Working pressure	MPa	-0.08 to 0.25	
Back pressure	MPa	0 to 0.25	
Proof pressure	MPa	0.5	
Fluid temperature	°C	5 to 50	
Ambient temperature	°C	5 to 50	
Atmosphere	Not explosive or corrosive		
Valve seat leakage	cm ³ /min	0 (water pressure)	
Port size	M6, 1/4-28UNF		
Orifice size	mm	1.5	
Cv value	0.04		
Valve structure	Diaphragm direct acting valve		
Mounting orientation	Free		
Weight	g	50	
Electric specifications			
Rated voltage	24 VDC/12 VDC		
Voltage fluctuation range	±5%		
Power consumption	Standard	2.5	
	With energy-saving circuit	Operation	2.5 (*3)
	Stand-by	1	
Leakage current	mA	1.0 or less (24 VDC) / 2.0 or less (12 VDC) (*5)	
Thermal class	Class 130 (B)		

*1: Check compatibility between the material of each component and working fluid.

Working fluid must not adhere to main body.

*2: Do not use this product with hydrochloric acid, hydrofluoric acid, or nitric acid.

Use FKM as the diaphragm material when using sodium hypochlorite (soda).

(EPDM deteriorates after a long period of use with any liquid with an equivalent density of residual chlorine of tap water.)

Consult CKD when using this product with sodium hypochlorite (soda) of effective chlorine density over 0.1%.

When using this product with sodium hypochlorite (soda) of effective chlorine density of 0.1% or lower, conduct prior functional tests in accordance with the use condition.

*3: Within 200 ms after electrification

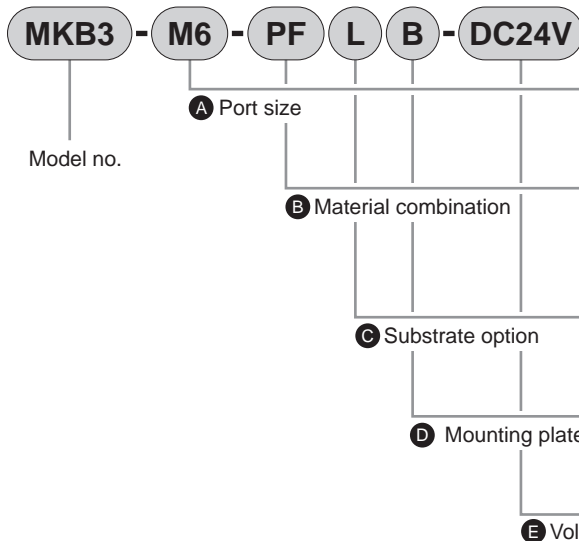
*4: With an optional lamp or a power saving substrate, the solenoid valve has polarity.

Connect the red lead to the plus (+) side.

*5: Keep leakage current from the control circuit within the specifications.

*6: After the solenoid valve becomes completely off, take 1 second or longer before turning ON on next time (when the substrate option is L).

How to order



Symbol	Descriptions	
A Port size		
M6	M6	
4U	1/4-28UNF	
B Material combination		
	Body	Diaphragm
PF	PPS	FKM
PE	PPS	EPDM
C Substrate option		
Blank	No options	
L	With lamp and energy-saving substrate	
D Mounting plate option		
B	With mounting plate (standard) *1	
N	Without mounting plate *2	
E Voltage		
DC24V	24 VDC	
DC12V	12 VDC	

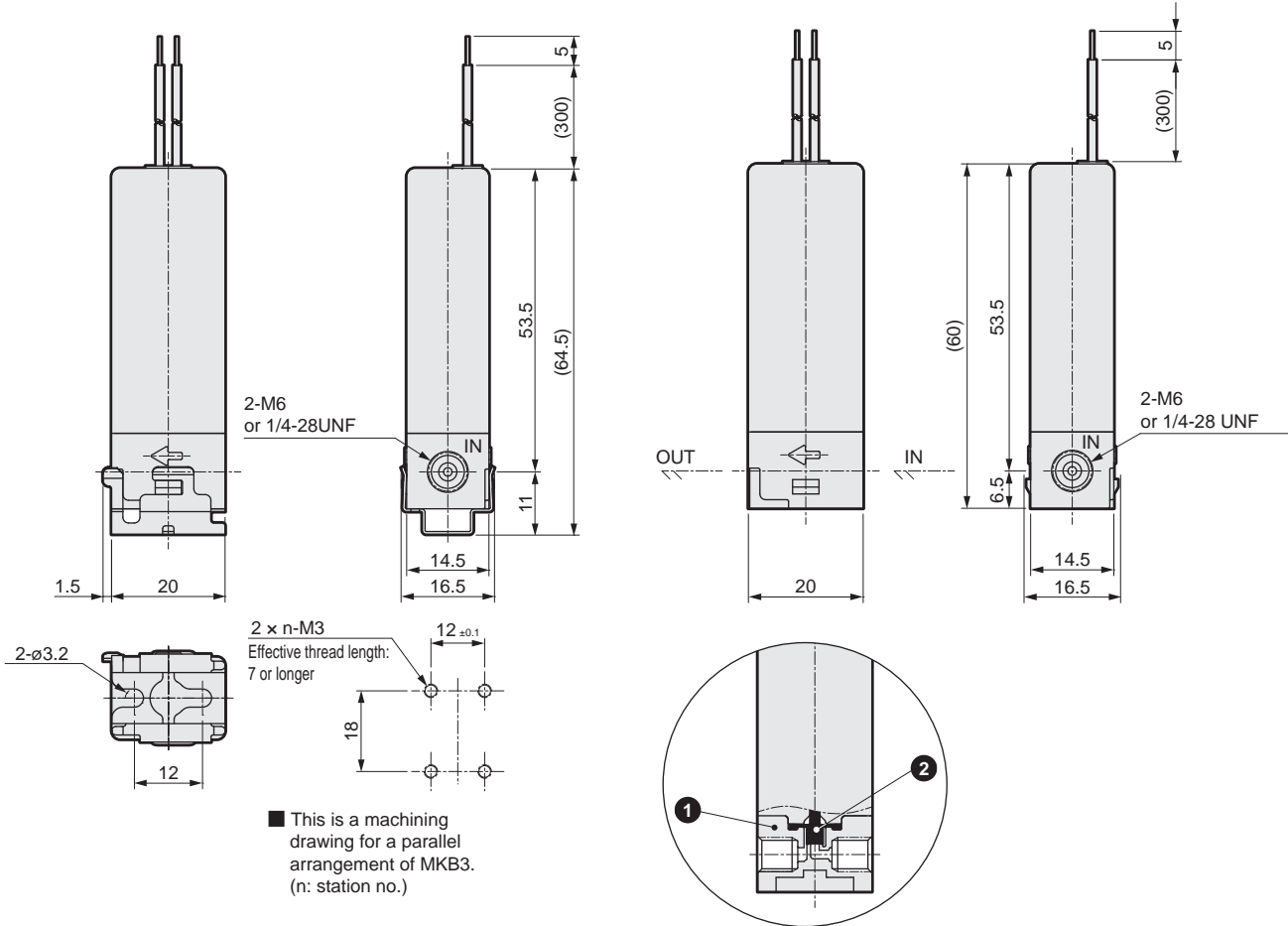
*1: A mounting plate is attached.

*2: A solenoid valve cannot be attached without a mounting plate.

Dimensions

● With mounting plate (standard)

● Without mounting plate



Safety precautions

Be sure to read the instruction manual and precautions listed in the latest version of General Purpose Valves (Catalog No. CB-03-1SA.) before using this product.

⚠ Caution

- *1: To remove the product from the mounting plate, pull the lever and slide the product along the direction of the pipe.
- *2: Do not use metal fittings. They could damage the port. Use a PP or fluorine resin joint.
Refer to the recommended torque below.
Recommended tightening torque: 0.10 to 0.15 N•m
- *3: Do not disassemble the product.
- *4: Foreign matter etc. inside pipe may cause malfunction and valve seat leakage. Always flush the piping before installing.
- *5: When standing secondary piping, do not make it higher than 2 m. Use tubing or pipes with the same size bore or larger than the orifice diameter, and fix in place.
- *6: Do not hold the lead wire during installation.

If the goods and their replicas, or the technology and software in this catalog are to be exported, laws require the exporter. To make sure they will never be used for the development or the manufacture of weapons for mass destruction.

Main part materials

Product No.	Parts name	Material	
①	Body	PPS	Polyphenylene sulfide
②	Diaphragm	FKM (EPDM)	Fluoro rubber (Ethylene-propylene rubber)

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