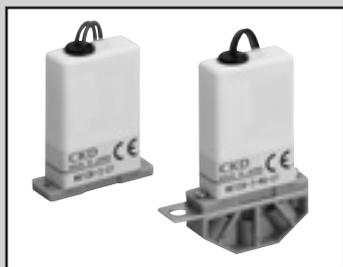


Metal-free 2, 3-port solenoid valve for chemical liquids



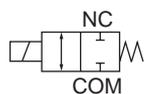
# MR10R Series

- NC(open when energized), NO(Closed when energized), universal
- Working fluid: Water, pure water, chemical liquids
- Port size: M5, M6, 1/4-28UNF

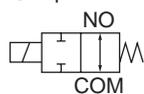


## JIS symbol

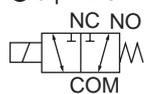
- 2-port: NC



- 2-port: NO



- 3-port: Universal



## Specifications

Item	2-port		3-port
	MR10R-2NC	MR10R-2NO	MR10R-3
Actuation	NC (open when energized)	NO	Universal
Working fluid	Water, Pure water, Chemical liquids (fluids that do not corrode wetted part materials)		
Proof pressure MPa	0.4 (water pressure)		
Working pressure MPa	-0.08 to 0.2		
Fluid temperature °C	5 to 50		
Ambient temperature °C	5 to 50		
Atmosphere	explosive / No corrosive atmospheres		
Valve seat leakage cm <sup>3</sup> /min	0 (water pressure)		
Port size	M5, M6, 1/4-28UNF		
Orifice size mm	1		
Cv	0.03		
Volumetric capacity μl	19 (*1)		
Valve structure	Diaphragm direct acting (rocker)		
Mounting orientation	Unrestricted (*2)		
Weight g	18 (Actuator), 22 (direct piping)		
<b>Electrical specifications</b>			
Rated voltage	24 VDC/12 VDC		
Voltage fluctuation range	±5%		
Power consumption W	When starting	3.6 (24 VDC)/4.2 (12 VDC) (*3)	
	When holding	1	
Leakage current mA	1.0 or less (24 VDC)/2.0 or less (12 VDC) (*4)		
Thermal class	Class 130 (B)		

\*1: Volume of wetted parts formed by the body and diaphragm. Note that piping volume is excluded.

\*2: Install vertically so that the coil where little fluid accumulates is at the top.

\*3: Time from energizing to 50 ms.

\*4: The leakage current from the control circuit must be equal to or less than the values shown in the table.

\*5: For 0.1% or less effective chlorine concentration of sodium hypochlorite (soda), perform functional testing according to your application before use. Do not use effective chlorine concentration exceeding 0.1%.

\*6: As this product has an integrated electronic circuit board, do not use it in very humid atmospheres.

\*7: Solenoid valve has polarity. Connect the red lead wire to the plus (+) side.

\*8: After the solenoid valve is completely switched OFF, set an interval of 1 seconds or more before switching it ON the next time.

\*9: Make sure to read the safety precautions on pages 3 to 8 before use.

## How to order

**MR10R** - **2NC** - **M6** - **EF** - **DC24V**

Model No.

**A** No. of Ports/type

**B** Port size

**C** Material combination

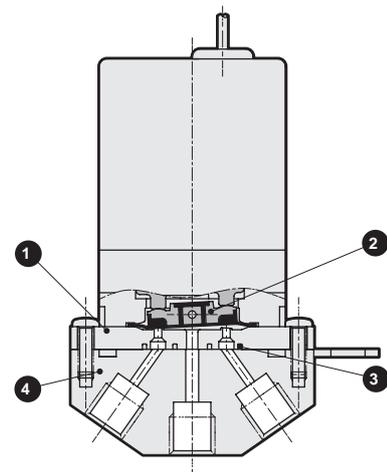
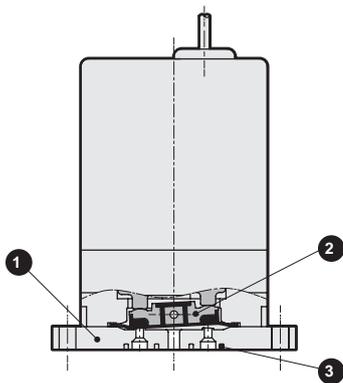
**D** Voltage

Code	Description	
<b>A No. of Ports/type</b>		
<b>2NC</b>	2-port/NC(Open when energized)Model	
<b>2NO</b>	2-port/NO(Closed when energized)Model	
<b>3</b>	3-port/universal	
<b>B Port size</b>		
<b>Blank</b>	Actuator	
<b>M5</b>	M5(Direct piping)	
<b>M6</b>	M6(Direct piping)	
<b>4U</b>	1/4-28UNF(Direct piping)	
<b>C Material combination</b>		
	Body material	Sealant
<b>EF</b>	PEEK	FKM
<b>D Voltage</b>		
<b>DC24V</b>	24 VDC	
<b>DC12V</b>	12 VDC	

## Internal structure and main part material

● Actuator

● Direct piping



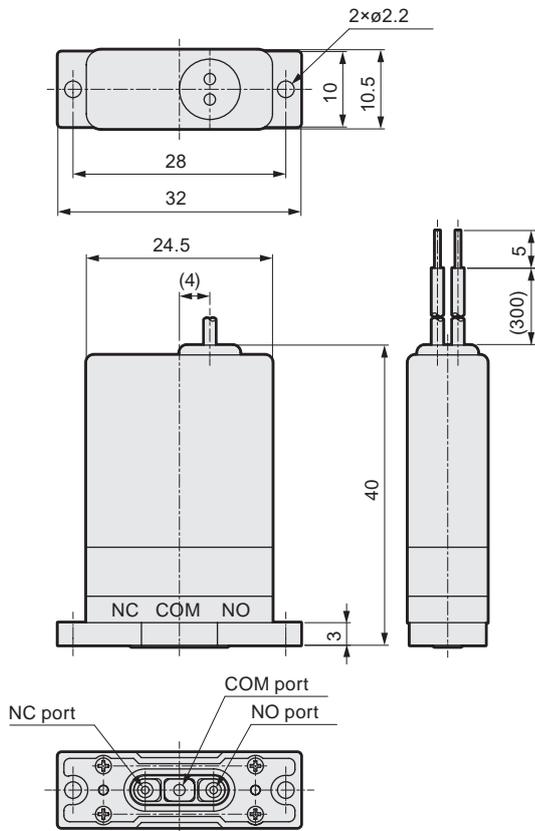
**Cannot be disassembled**

Part No.	Part name	Material	
1	Body	PEEK	Polyether ether ketone
2	Diaphragm	FKM	Fluoro rubber
3	Packing	FKM	Fluoro rubber
4	Connection adaptor	PEEK	Polyether ether ketone

# MR10R Series

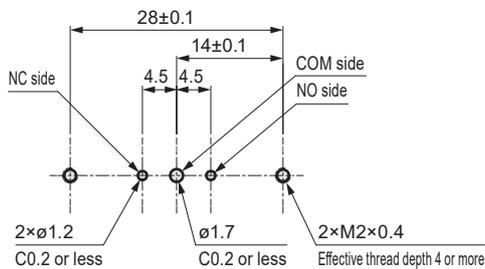
## Dimensions

### ● Actuator



Note: When MR10R-2NC, no hole machined for NO port.  
When MR10R-2NO, no hole machined for NC port.

### ● Actuator installation dimensions

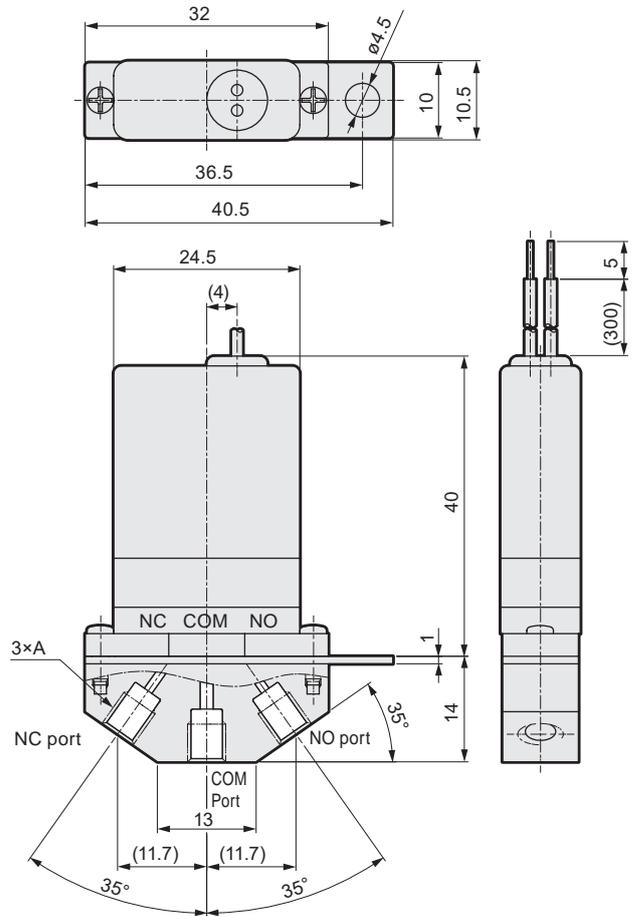


\* Surface roughness Rz6.3 or less

\* Recommended thread size: M2 length 6 mm

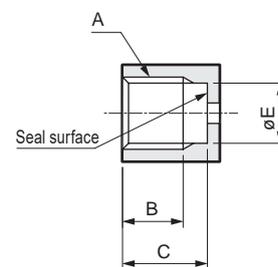
\* Various connection adapters and manifolds are available as required.  
Contact CKD for details.

### ● Direct piping



Note: The NO port is plugged when MR10R-2NC and the NC port is plugged when MR10R-2NO

### ● Port size dimensions



Model No.	A	B	C	E
MR10R-*-M5	M5	5	7	4.1
MR10R-*-M6	M6	5	7	4.9
MR10R-*-4U	1/4-28UNF	5	7	5.36