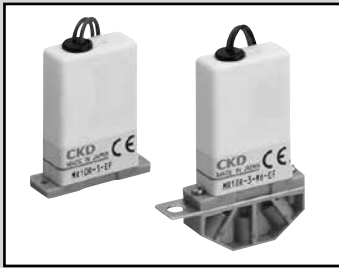


Metal-free 2, 3-port solenoid valve for chemical liquids



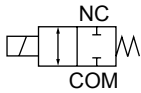
MR10R Series

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

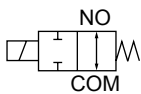


JIS symbol

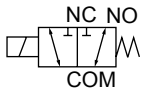
- 2-port: NC (open when energized)



- 2-port: NO (closed when energized)



- 3-port: Universal



Specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item	2-port		3-port
	MR10R-2NC	MR10R-2NO	MR10R-3
Actuation	NC (open when energized)	NO (closed when energized)	Universal
Working fluid	Water, pure water, chemical liquids (fluids that do not corrode wetted part materials)		
Proof pressure MPa	0.4 (≈58 psi, 4 bar) (water pressure)		
Working pressure MPa	-0.08 (≈-11 psi, 0 bar) to 0.2 (≈29 psi, 2 bar)		
Fluid temperature °C	5 (41°F) to 50 (122°F)		
Ambient temperature °C	5 (41°F) to 50 (122°F)		
Atmosphere	No explosive or corrosive atmospheres		
Valve seat leakage cm ³ /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)		
Electrical specifications			
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 the application before use. Do not attempt to 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.

EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/AD
APK/ADK
DryAir
EX-XPLNprf
XPLNprf
HVB/HVL
S/B/NAB
LAD/NAD
Water-Rela
NP/NAP/NVP
SNP
CHB/G
MXB/G
Other valves
SWD/MWD
DustColl
CVE/CVSE
CCH/CPE/D
LifeSci
Gas-Combus
Auto-Water
Outdoor
SpecFld
Custom
Ending

MR10R Series

- EXA
- FWD
- HNB/G
- USB/G
- FAB/G
- FGB/G
- FVB
- FWB/G
- FHB
- FLB
- AB
- AG
- AP/AD
- APK/ADK
- DryAir
- EX-XPLNprf
- XPLNprf
- HVB/HVL
- S \diamond B/NAB
- LAD/NAD
- Water-Rela
- NP/NAP/NVP
- SNP
- CHB/G
- MXB/G
- Other valves
- SWD/MWD
- DustColl
- CVE/CVSE
- CCH/CPE/D
- LifeSci
- Gas-Combus
- Auto-Water
- Outdoor
- SpecFld
- Custom
- Ending

How to order

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

Model No.

A No. of Ports/type

B Port size

C Material combination

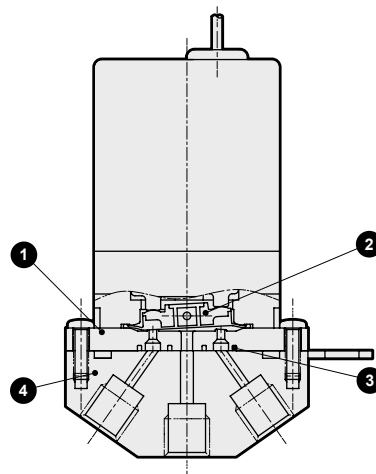
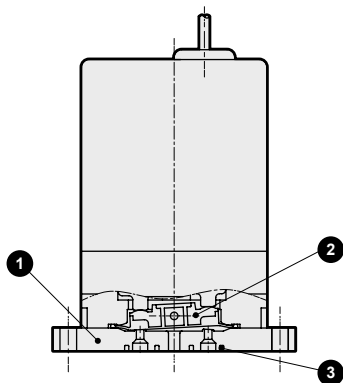
D Voltage

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

Internal structure and main part material

● Actuator

● Direct piping

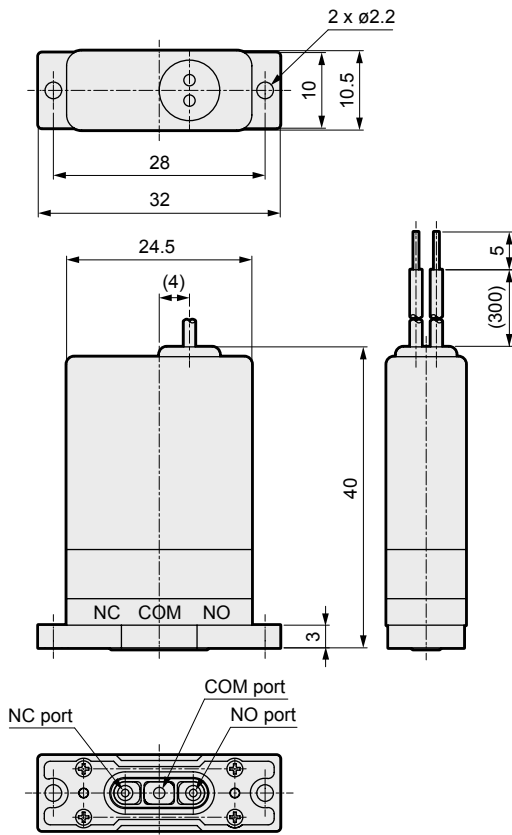


Cannot be disassembled

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

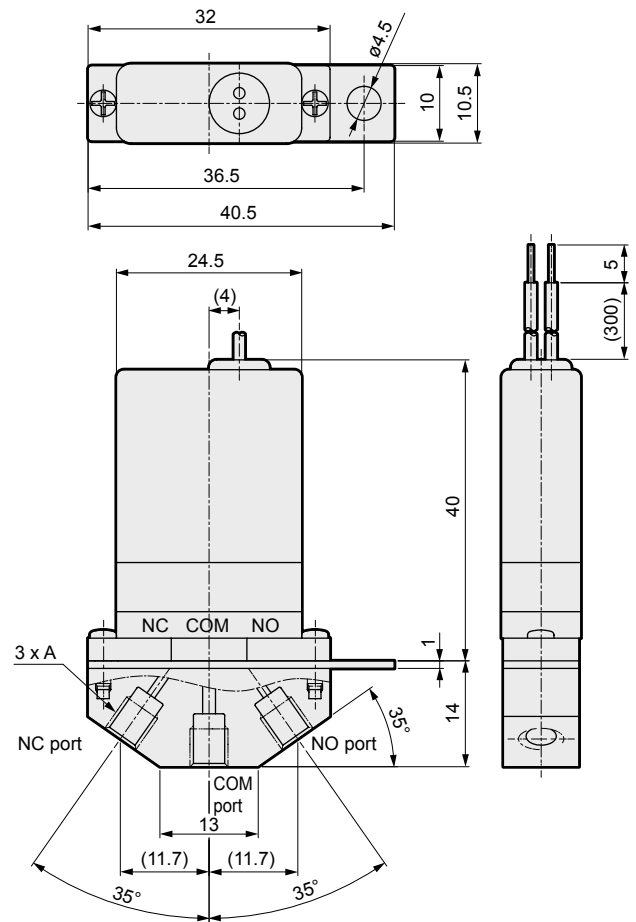
Dimensions

● Actuator



Note: MR10R-2NC has no hole machined for the NO port.
MR10R-2NO has no hole machined for the NC port.

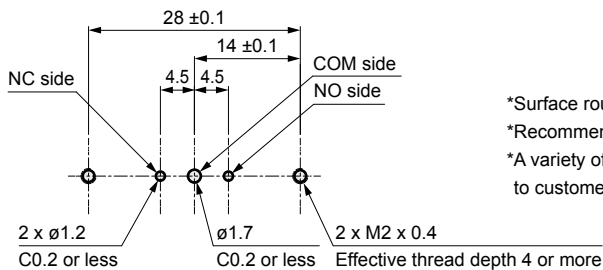
● Direct piping



Note: MR10R-2NC has a blocked NO port.
MR10R-2NO has a blocked NC port

Model No.	A
MR10R-*-M5	M5
MR10R-*-M6	M6
MR10R-*-4U	1/4-28UNF

● Actuator installation dimensions



*Surface roughness: Rz6.3 or less

*Recommended thread size: M2 depth 6 mm

*A variety of connection adaptors and manifolds are available in response to customer demand. Contact CKD for details.

EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/AD
APK/ADK
DryAir
EX-XPLNprf
XPLNprf
HVB/HVL
S B/NAB
LAD/NAD
Water-Rela
NP/NAP/NVP
SNP
CHB/G
MXB/G
Other valves
SWD/MWD
DustColl
CVE/CVSE
CCH/CPE/D
LifeSci
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