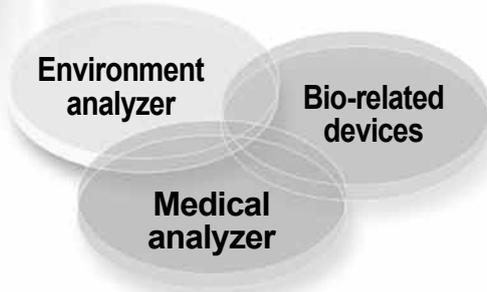
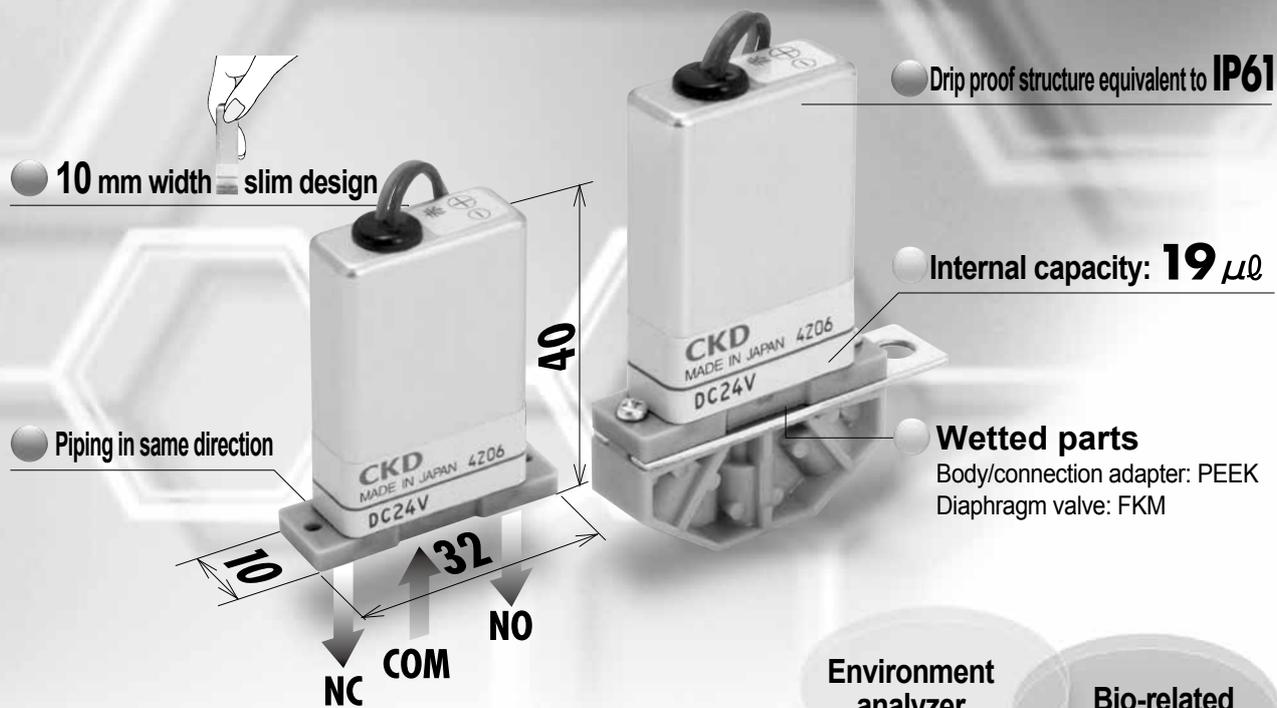


MR10 Series

Extra compact space saving with slim 10 mm profile

High analysis accuracy controls even minute amounts of chemical liquids.



Ideal for analyzer dispensing

Metal parts have been eliminated from this metal-free, compact MR10 Series 2, 3 port solenoid valve for chemical liquids. Resin and rubber are used for wetted parts.

The slim, space-saving, outstanding installation, safety, reliability, and long-life design ensure high overall performance.

● Long life up to **10 million times**

Results of tests under CKD test conditions.

● Internal capacity: **19 μl**

The inside of the solenoid valve is easy to wash. Reagent wastes are reduced.

● Heat-suppressing design

The effect of heat radiated from the coils onto the analysis accuracy is minimized, and power is conserved.

● **Two piping methods**

Select piping suited to your application.



● Actuator



● Direct piping

● Same shape adopted for **2 port valve and 3 port valve**

- 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
- SAB/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
- SpecFld
- Custom
- Ending

Discontinue

Compact metal-free 2, 3-port solenoid valve



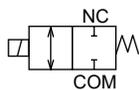
MR10 Series

- NC, NO, universal
- Working fluid: Water/pure water/chemical liquids
- Port size: M5, M6

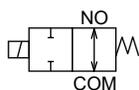


JIS symbol

- 2-port: NC



- 2-port: NO



- 3-port: Universal



Specifications

Descriptions	2-port		3-port
	MR10-2NC	MR10-2NO	MR10-3
Actuation	NC	NO	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	-0.05 (≈-7.3 psi, -0.5 bar) to 0.1 (≈15 psi, 1 bar) (*1)		
Sealing pressure MPa	-0.05 (≈-7.3 psi, -0.5 bar) to 0.2 (≈29 psi, 2 bar) (*2)		
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		
Orifice size mm	1		
Cv	0.03		
Volumetric capacity μℓ	19 (*3)		
Degree of protection	IP61 equivalent		
Valve structure	Diaphragm direct acting (rocker)		
Mounting orientation	Unrestricted (*4)		
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) (*5)	
	When holding	1	
Leakage current mA	1.0 or less (24 VDC)/2.0 or less (12 VDC) (*6)		
Thermal class	Class 130 (B)		

- *1 : Pressure range in which the solenoid valve can be switched ON or OFF.
- *2 : Valve seat sealable pressure range.
- *3 : Volume of wetted parts formed by the body and diaphragm. Note that piping volume is excluded.
- *4 : Install vertically so that the coil where little fluid accumulates is at the top.
- *5 : Time from energizing to 50 ms.
- *6 : The leakage current from the control circuit must be equal to or less than the values shown in the table.
- *7 : For 0.1% or less effective concentration of sodium hypochlorite (soda), perform functional testing according to your application before use.
Contact CKD for more than 0.1% effective concentration.
- *8 : As this product has an integrated electronic circuit board, do not use it in very humid atmospheres.
- *9 : Solenoid valve has polarity. Connect the red lead wire to the plus (+) side.
- *10: After the solenoid valve is completely switched OFF, set an interval of one second 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
- SΔB/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
- SpecFld
- Custom
- Ending

MR10 Series

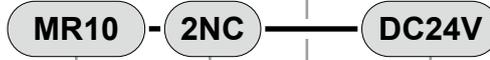
- EXA
- FWD
- HNB/G
- USB/G
- FAB/G
- FGB/G
- FVB
- FWB/G
- FHB
- FLB
- AB
- AG
- AP/
AD
- APK/
ADK
- DryAir
- EX-
XPLNprf
- XPLNprf
- HVB/
HVL
- S^ΔB/
NAB
- LAD/
NAD
- Water-
Rela
- NP/NAP/
NVP
- SNP
- CHB/G
- MXB/G
- Other
valves
- SWD/
MWD
- DustColl
- CVE/
CVSE
- CCH /
CPE/D
- LifeSci**
- Gas-
Combus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

How to order

● Direct piping



● Actuator



Model No.

A Number of ports/type

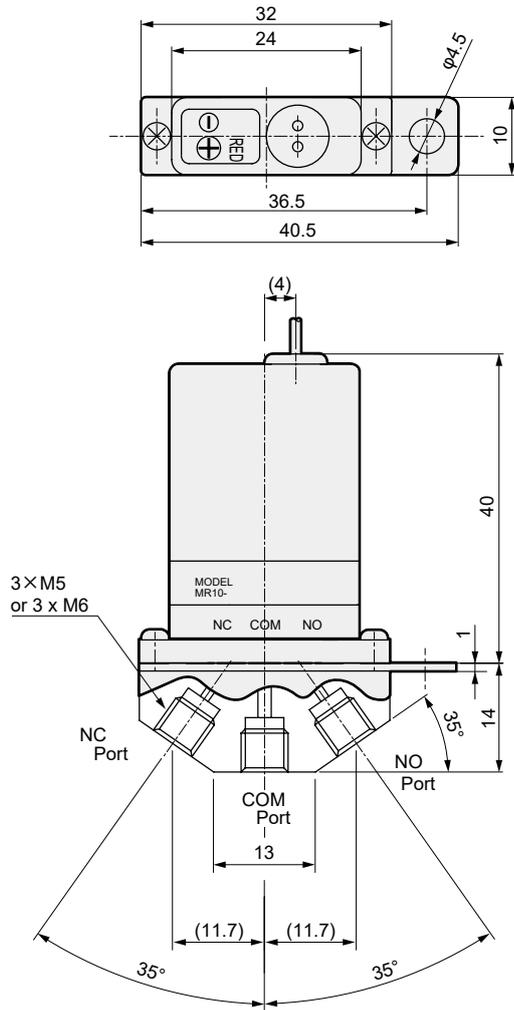
B Port size

C Rated voltage

Code	Content
A Number of ports/type	
2NC	2-port/NC
2NO	2-port/NO
3	3-port/universal
B Port size	
Blank	Actuator
5	M5
6	M6
C Rated voltage	
DC24V	24 VDC
DC12V	12 VDC

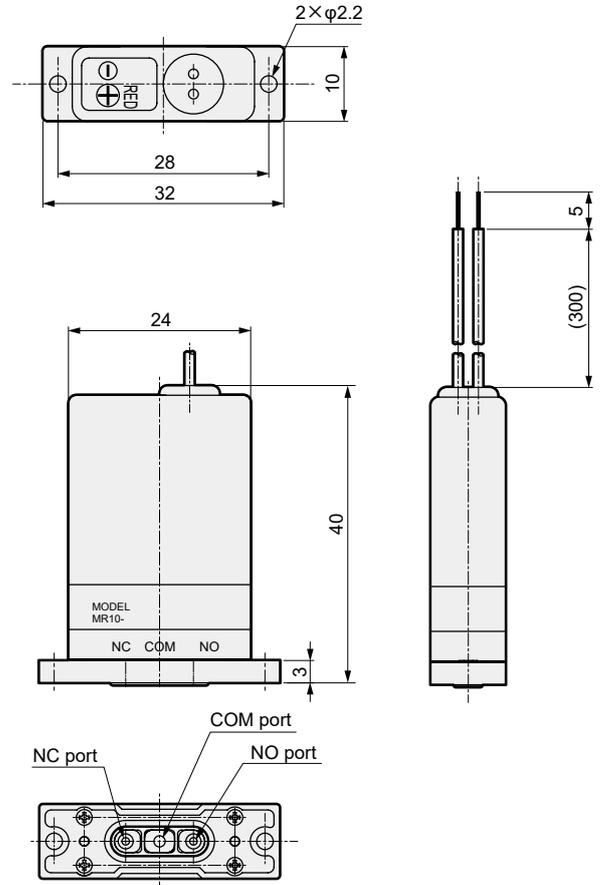
Dimensions

● Direct piping



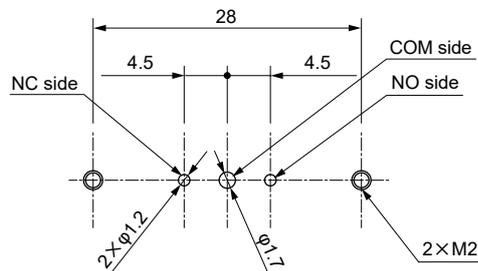
Note The MR10-2NC NO port is plugged.
The MR10-2NO NC port is plugged.

● Actuator



Note: The MR10-2NC has no hole machined for the NO port.
The MR10-2NO has no hole machined for the NC port.

● Actuator installation dimensions



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

● Main part material

Part name	Material		
Wetted parts	Diaphragm	FKM	Fluoro rubber
	Body	PEEK	Polyether ether ketone
	Packing	FKM	Fluoro rubber
	Connection adaptor	PEEK	Polyether ether ketone

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
SpecFld
Custom
Ending