

Compact metal-free 2, 3-port solenoid valve

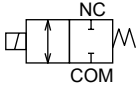
# MR10 Series

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

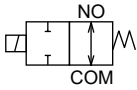


## JIS symbol

- 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 <sup>3</sup> /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)		
<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) (*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.

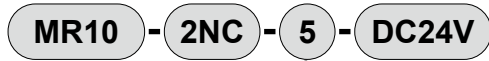
- EXA
- FWD
- HNB/G
- USB/G
- FAB/G
- FGB/G
- FVB
- FWB/G
- FHB
- FLB
- AB
- AG
- AP/AD
- APK/ADK
- DryAir
- EX-XPLNprf
- XPLNprf
- HVB/HVL
- SΔB/NAB
- LAD/NAD
- Water-Rela
- NP/NAP/NVP
- SNP
- CHB/G
- MXB/G
- Other valves
- SWD/MWD
- DustColl
- CVE/CVSE
- CCH/CPE/D
- LifeSci
- Gas-Combus
- Auto-Water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

# MR10 Series

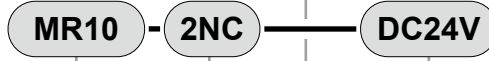
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- HNB/G
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- FHB
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- AB
- AG
- AP/  
AD
- APK/  
ADK
- DryAir
- EX-  
XPLNprf
- XPLNprf
- HVB/  
HVL
- S<sup>Δ</sup>B/  
NAB
- LAD/  
NAD
- Water-  
Rela
- NP/NAP/  
NVP
- SNP
- CHB/G
- MXB/G
- Other  
valves
- SWD/  
MWD
- DustColl
- CVE/  
CVSE
- CCH /  
CPE/D
- LifeSci**
- Gas-  
Combus
- Auto-  
Water
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- Ending

## How to order

### ● Direct piping



### ● Actuator



Model No.

**A** Number of ports/type

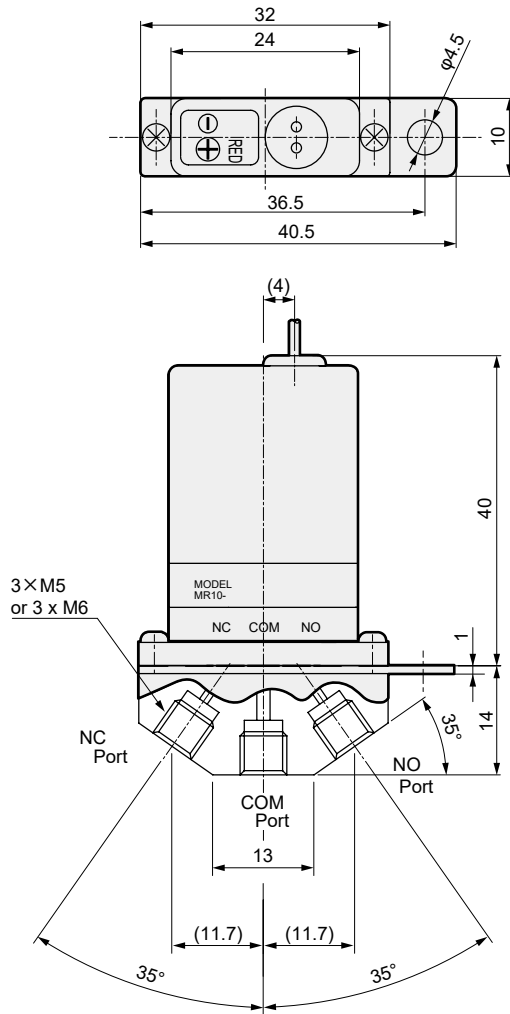
**B** Port size

**C** Rated voltage

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

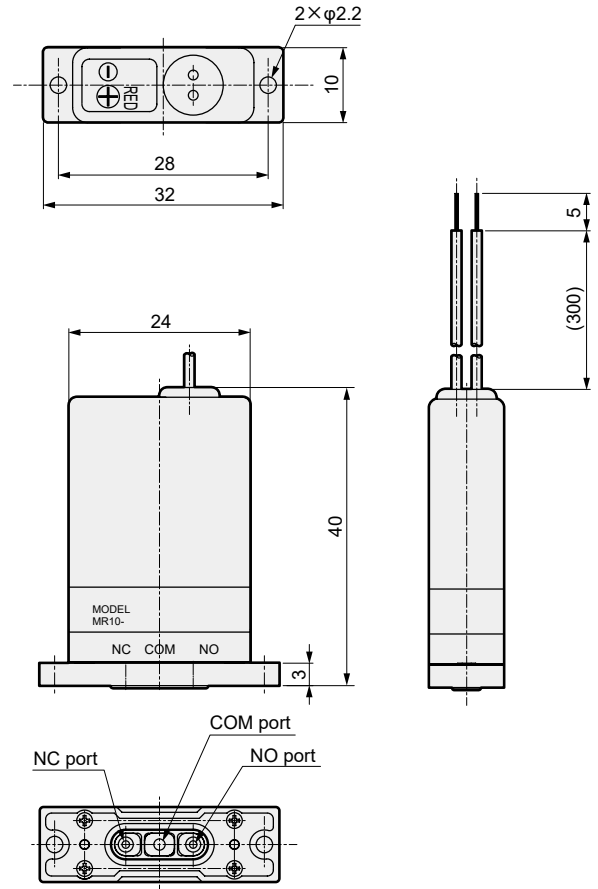
## Dimensions

### ● Direct piping



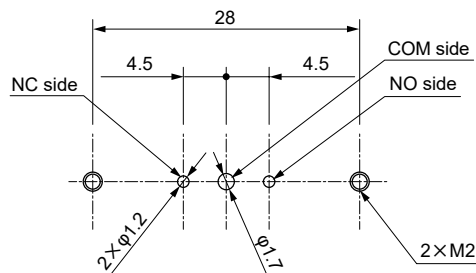
Note The MR10-2NC NO port is plugged.  
The MR10-2NO NC port is plugged.

### ● 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	
Diaphragm	FKM	Fluoro rubber
Wetted parts	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
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NP/NAP/ NVP
SNP
CHB/G
MXB/G
Other valves
SWD/ MWD
DustColl
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