

V 1.0

Solenoid Valve Manual

南京润泽流体控制设备有限公司
NANJING RUNZE FLUID CONTROL EQUIPMENT CO.,LTD

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Chapter1 Getting Started

1.1 Company Profile

Nanjing Runze Fluid Control Equipment Co., Ltd. was established in 2014, We are a national high-tech enterprise focusing on R&D and production of fluid accessories for numerous analytical instruments. We engineer, manufacture and market differentiated standard products such as syringe valves, multiport valves, peristaltic valves, gastight syringes, plastic fittings, etc.. We persevere in providing our customers with best quality and service in the fields of environmental monitoring, biopharmaceuticals, medical equipment, industrial automation and laboratory instruments, etc.

RUNZE attracted experienced talents with strong capability on integrating software and hard-ware at electronic research, mechanical design, mold manufacturing. In past years, we have accumulated rich technical and practical experience that bring us honors of ISO9001, National High-tech Enterprise, Jiangsu Province Private Science and Technology Enterprise, 5A Bank Credit Assessment, 38 technical patents and multiple software copyright including 8 invention patents, 17 utility model patents, 13 design patents.

RUNZE Technology Center has a reliable EMC laboratory and a series of advanced processing equipment and testing instruments, such as imported white light interferometer, Keens plane rapid detector, five-axis machining center, high-precision nano-grinding machine, etc., Continuous and substantial investment in research and development, which enabled the company to obtain a huge advantage in the manufacture and sales of analytical instrument accessories.

1.2 Usage tips and precautions

Installation*Piping

1、 Before piping, please thoroughly rinse (spray compressed air) or clean to remove impurities inside the pipe.

2、 When using valves in parallel, the distance should be controlled according to different models. Please choose the installation spacing of valves according to different product models.

3、 Please do not twist the screws of the solenoid valve body, otherwise it may cause a decrease in performance.

4、 Do not use in places where the body is subjected to strong impact or vibration.

Impact resistance : 150m/s², Vibration resistance : 30m/s²

Fluid material

When using liquid to crystallize and condense, it can cause poor valve operation and leakage at the base. Please take appropriate cleaning measures as needed.

When using water, please install a filter, filter, etc. with a size of around 100 at the inlet of the piping.

When using air, please use clean air that does not contain degraded compressor oil, etc. Please install an air filter (with a filtration accuracy of less than 5um) near the valve to remove condensate and impurities. In addition, please regularly discharge the condensate from the air filter.

Chapter2 Main technologies and functions

2.1 Product features

(1) **Features:** Small and large flow valve

(2) **Application scenarios:** environmental detection instruments, experimental analysis instruments, medical analysis instruments, etc

Before using the solenoid valve, please carefully read the "User Manual" and follow the prescribed instructions.

2.2 Technical Parameters

Item		Model		
		RZVR16-1	RZVR16-2	RZVR20
Valve action mode		Solenoid valve (direct action type)		
Valve structure		Rubber diaphragm type direct acting lifting valve (rocker arm type)		
Number of air ports (valve function)		3		
Body material		PEEK		
Rubber material		FKM		
Base interface		1/4-28UNF		
Using fluids		Air, Water, Pure water, Liquid medicine ^{Note1}		
Compressive strength	Main valve section MPa	0.2	0.2	0.3
Orifice diameter		1.6		2.6

Note 1 : For the use of fluids, please conduct a drug resistance assessment test on the material in the receiving part in advance.

2 : Indicates the clearance volume inside the valve chamber after deducting the volume of the rubber diaphragm.

3 : Apply fluid through the COM port.

Remark 1 : This solenoid valve is not a waterproof specification. Water or reagents splashing onto the circuit may cause short circuits and damage to the solenoid valve. Please pay attention.

2 : When using, please consider water pressure impact (water hammer) to ensure that the setting does not exceed the operating pressure.

2.3 Electrical specifications

Item		Rated voltage	DC24V
Using voltage range	V	21.6~26.4	24±%

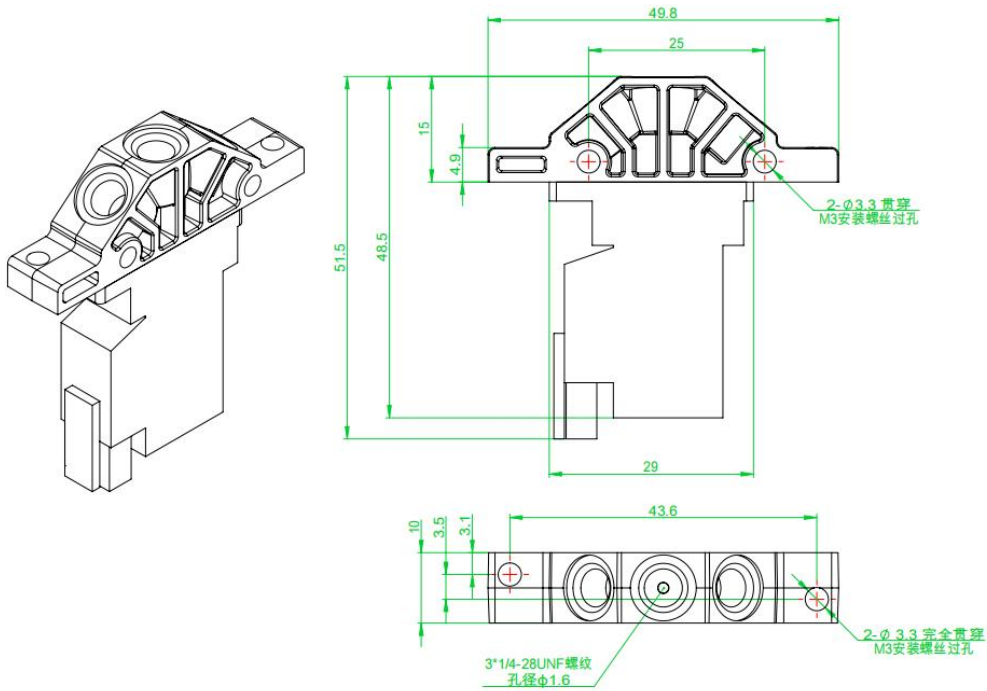
Chapter3 Hardware Setting

3.1 Valve Installation

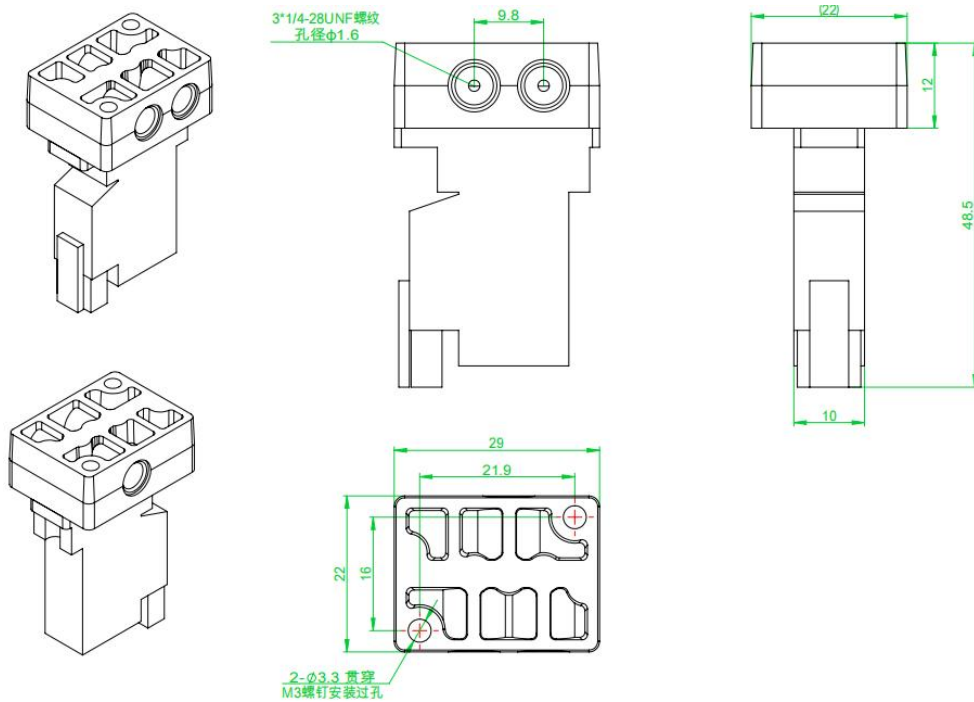
3.1.1 Structure Dimensions (unit: mm)

The installation dimensions of the product are shown in the dimension diagram below:

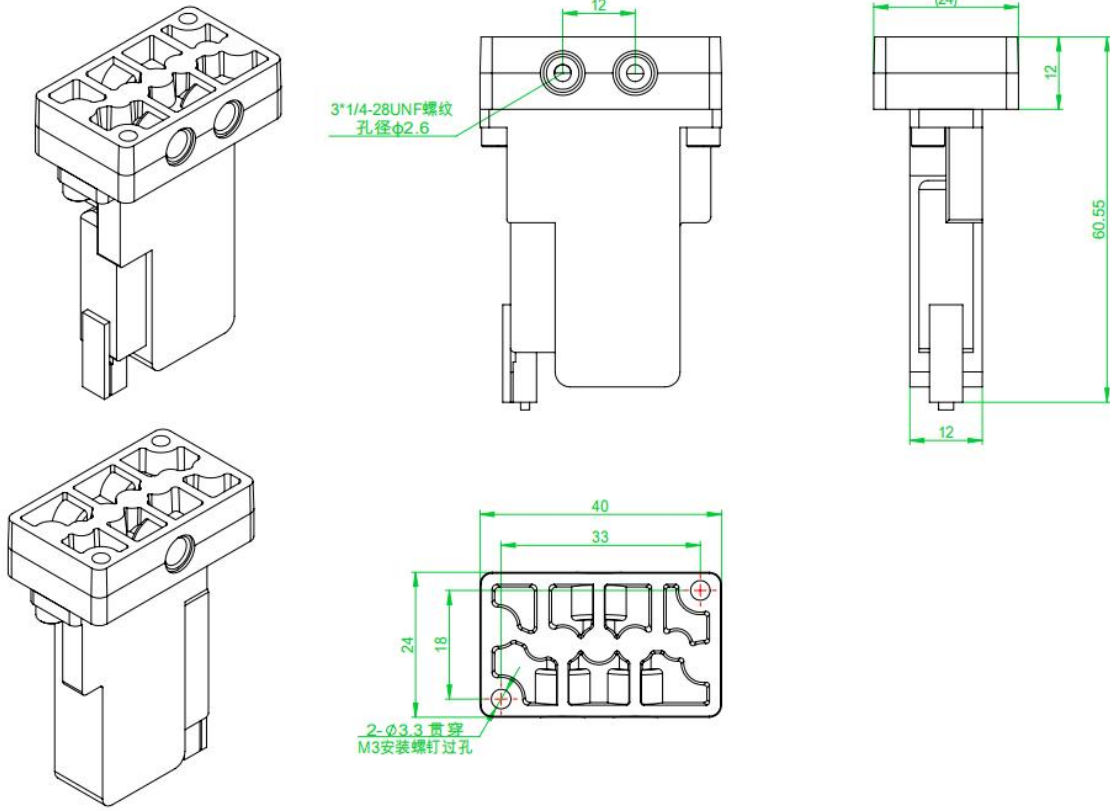
RZVR16-1



RZVR16-2



RZVR20



Chapter 4 Version Description

Version	Description	Release Date
V1.0	Initial version	2023.8.3

Chapter 5 Technical Services

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