BIJUR DELIMON
INTERNATIONAL

OPERATOR MANUAL

IS Model Motorized Pump

MODEL：IS

VERSION：2

Contents

Nanjing Bijur reserves the right to
Update and improve the technical specifications for this product without prior notice.
If you have any require, welcome to call us.

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Precautions & Symbols

The safety warnings contained in these operating instructions which are specially marked with general danger symbols as shown below have to be observed and followed strictly.

Prior to start up, we recommend to read the manual carefully as improper operation may result in personal injuries and damage to the product.

Warning about dangerous electric voltage. It's obligatory to make sure power supply is shut down before inspecting or maintaining work, as such work is only to be carried out during shut-down.

ATTENTION

Make sure housing or shell of the product is adequately and securely grounded when wiring, otherwise, it may cause serious damage to the product.

Safety sign for grounding.

Manufacturer's Statement

All parts are manufactured according to existing national regulations on labor safety and accident preventive. Danger may take place during operation, which may result in injuries to the operator or a third party person, or property loss. Therefore, operation of this product must be performed according to the instructions in the operation manual.

+ Exemption of responsibilities

Nanjing Bijur shall not be responsible for any damage resulting from following reasons.

- Short of lubricant
- Use of solid lubricant or not suited lubricant
- Any use beyond the applications described in the manual
- Installation or connection mistake
- Incorrect operation for troubleshooting

+ Authorized technicians for installation

The erecting, operating, maintaining, inspecting and repairing personnel must have the appropriate qualification for such work. Authorized and qualified technicians refer to those, who have acquired necessary knowledge and technique by adequate training and thoroughly studying the operating instructions,
Designated or appointed personnel by the user. Furthermore, they should be familiar with related norms, regulations, accident preventive, troubleshooting and working status of the product.

+ Transit

No limitation for road, air and sea transit.

+Environmental protection

Lubricants are hazardous substances to the soil and water source. Therefore, storage, handling and transit of them are subject to special requirements set by environmental legislation.

General

The IS motorized pump is a motor-driven, electric lubricator, equipped with fixed output pumping elements to discharge grease or oil over a wide operating range. Up to four independent feed lines can be used with the IS pump. A selection of timers and controller/monitors are available to program IS pump

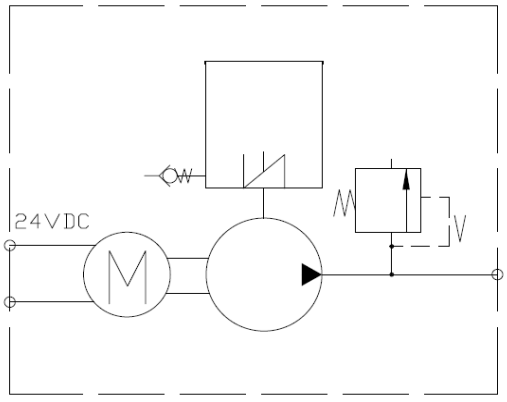
Is pump is especially suitable for engineering machinery, construction machinery, walking machinery working environment is bad, the vibration, dust serious condition of lubrication, and can also be used for transportation, machine tools, forging industry..

Technical Data

Capacity	2L/4L
Lubricant range	NLGI000-2#
Max pressure	16/25MPa(See How to Order)
Output	1.8 ml/min（Motor speed is 15r/Min,the Max work pressure is 16Mpa）
	4 ml/min（Motor speed is 40r/Min,the Max work pressure is 26Mpa）
Outlet number	1-4
Temperature range	-35~80 °C
Voltage	24VDC/220VAC
Liquid level SW	Without
Controller	With
Outlet threads	M14X1.5（Sleeve ⊄6）
IP grade	IP65

Operating Principle

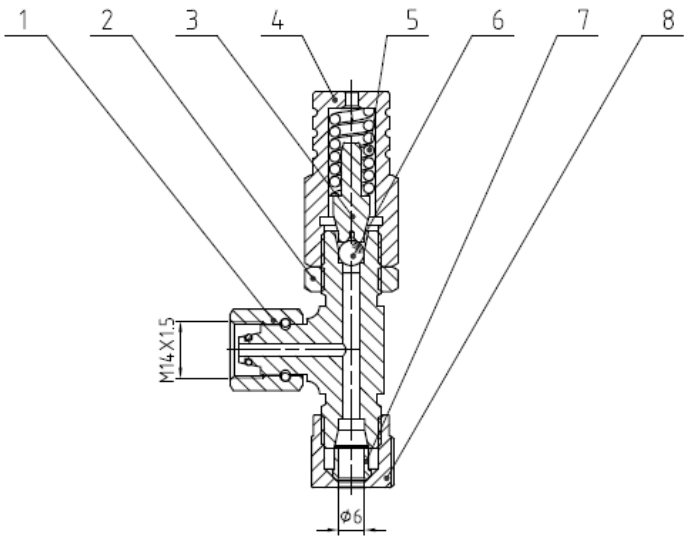
1. Pump operating principle



The motor drives eccentric wheel. Then eccentric wheel drives piston. Finished suck grease and pump grease work process. Equipment with pressure relive valve at outlet and the controller can control the pump work cycle.

2. Pressure relive valve

The pressure relive valve open pressure is 16MPa or 25Mpa（Has be settled）.



1. Adapter	2.Nut	3.Guide pole	4.Sleeve
5. Spring	6.Ball	7.Sleeve	8.Nut

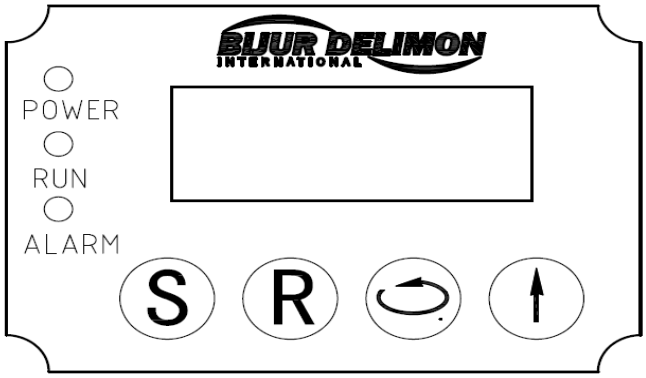
Note: Pressure relive valve assembly P.N. is 66310.

3. How to set controller

3.1 Panel

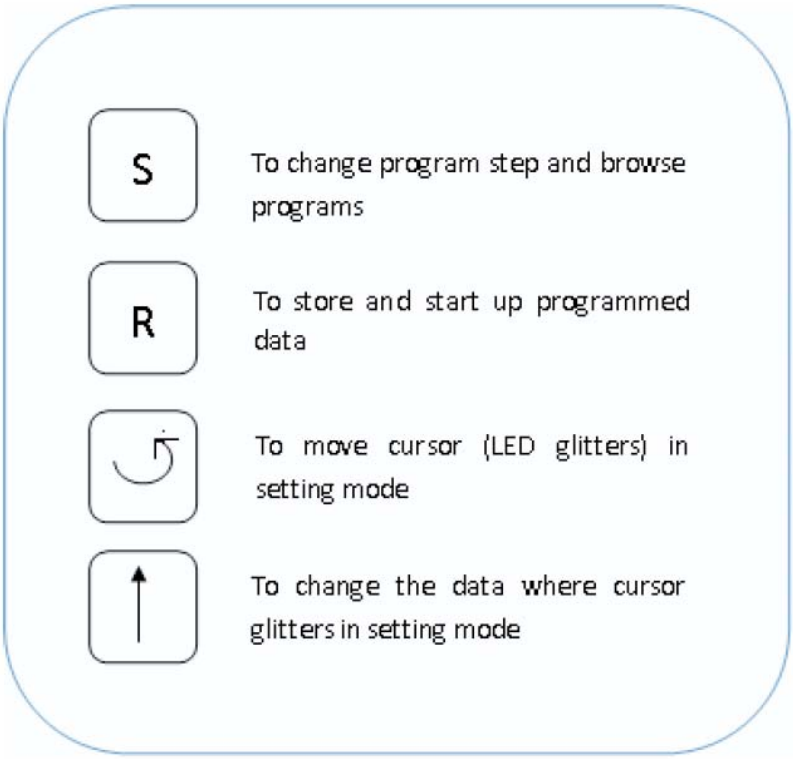
There's a four digits LED display in display window to show status of system running and programming. Meanings of the other three LED indicators are given bellow:

- Green LED for power supply
- Red LED for pump operation
- Yellow LED for low oil level alarm

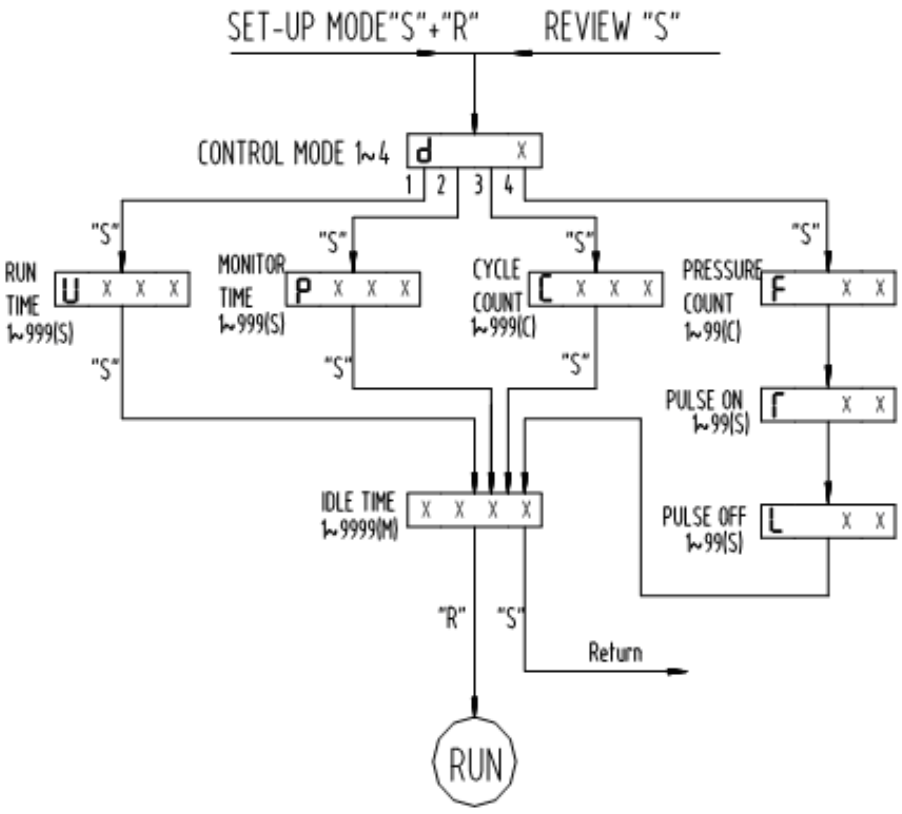


Panle

3.2 Function of pushbutton



3.3 Program



Operation chart（Note：X:0-9）

3.4 How to operation：

+Electricity

After electricity turn-on, Data works and displays before controller power-off continuously. If reset, do as follows:

+Parameter setting

1)Press "S" key and "R" key at the same time to go into Setting mode. In this mode, one cursor glitters.

2)Press button and button to change parameters according to function prompt of left unit of setting items in flow chart.

3)Press “S” button to enter the next setting when completion.

(Methods of parameter change are the same as above.)

+ Run and Pause

Press “R” button to save parameters and run pump when all the data has been se Whenever controller is under any working condition, press “R” button to reset according to saved parameters. For instance, when pre-filling grease, press “S” and ”R” button at the same time to stop the running pump.

+ Program Browse

Press “S” button to browse saved parameters without affecting current status whenever controller is under any condition. Pressthe button again for a while to stop and back automatically.

+ Alarm

Internal fault relay runs and output stops when controller is under any type of alarm status.

Control modes

User should select corresponding control mode according to configuration of lubricating system.No other control modes can be selected only if the operator is very familiar with the working processes of total lubrication system orthe operation is performed under instructions of professional technicians.

+ Time mode (d=1)

This mode is mainly used for SLR system and PRG system.Lubrication system runs in cycles according to grease supply time and intervals preset by the controller.

+ Pressure Mode (d=2)

This mode is mainly used for PDI system.The grease supply process of lubrication system is controlled by the pressure switch mounted on the lubricating pump or lubricating system. The process from lubricating pump starting up to system pressure reaching rated value must be finished within alarm time set by the

controller, such that when pressure switch is closed, controller glitters for four times delay at current data and then forces the pump to stop, the grease supply process is finished and system moves into interval counting. Otherwise, when system has problem for grease supply due to leakage, plugging or damage to the pump, the time required by system to build up pressure could be too long and reach alarm time preset by controller, system shall output alarm signal for grease supply failure, and LED displays as "EEPP". Changing the parameters under this status is only possible by pressing "R" key first to release current alarm and going to setting mode again. Alarm time should be set according to actual conditions (such as the length of piping, delivery rate of grease) , and it's normal set from 4 to 8 seconds longer than the time required by normal action of pressure switch.

+ Counting Mode (d=3)

This mode is mainly used for PDI system.

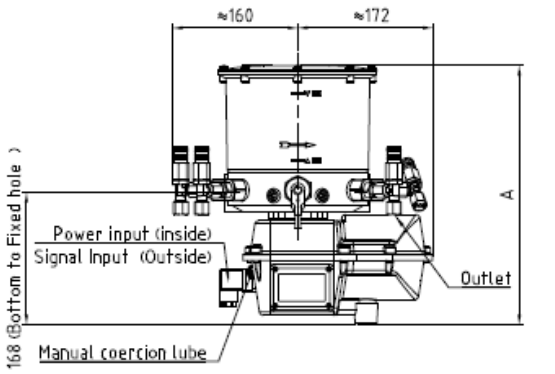
The grease supply process of lubrication system is controlled by the cycle switch mounted on the grease distributor. After starting up, if the system is under good condition, the outlets of distributors supply grease. When a grease supply cycle is completed, the cycle switch sends signals and controller counts. When the number of grease supply cycles satisfies the setting value of controllers, controller output stops and starts up interval time timing. when system has fault for grease supply due to leakage, plugging or damage to the pump, the action time required by cycle switch could be too long to reach alarm time preset by controller(5 min, unchanged), system shall output alarm signal for grease supply failure and LED shall glitter at current value.

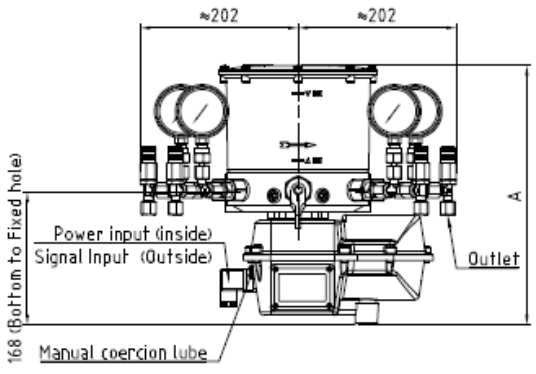
+Pulse Mode (d=4)

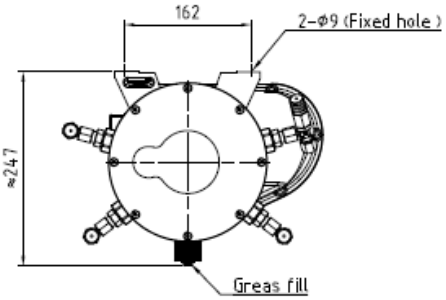
This mode is mainly used for PULES system.

This mode controls the grease lubricating pump operate as pulse mode (discontinuous) such as Pneumatic and Electromagnetic piston grease lubricating pumps, which control Pneumatic Electromagnetic valve or drive on off of Electromagnetic power(open and close time of pulse) to realize piston movements in pumps and complete grease supply process.

Dimensional Schematics

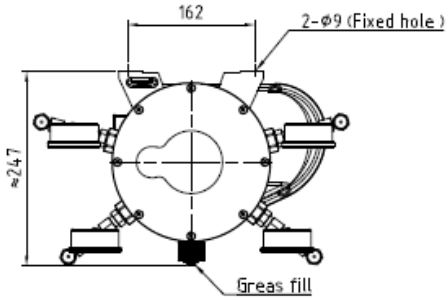






Shape size of electric grease pump
(without pressure gauge)

Tank Volume (L)	A(mm)	Remarks
2	330	
4	410	

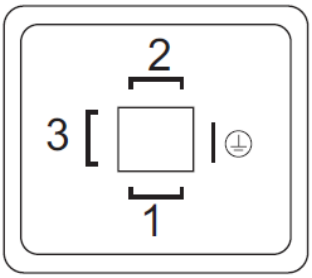


Shape size of electric grease pump
(with pressure gauge)

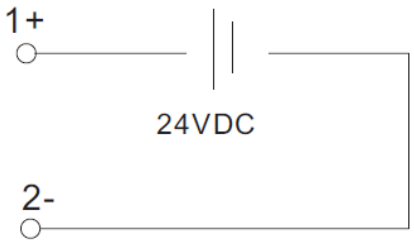
Tank Volume (L)	A(mm)	Remarks
2	330	
4	410	

Installation

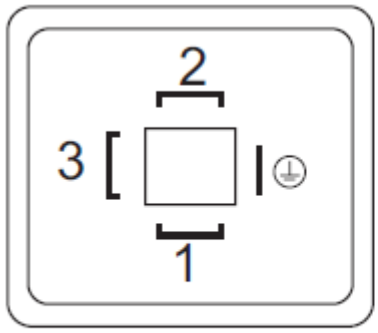
1、 The pump is suitable for mode d1 and mode d3.
2、 Filling clear grease into the pump.
3、 The first installation, according to the requirements of joint lubrication system and other components of the pipeline. At the same time the pump set pressure is 25Mpa. The running time of program controller factory set to 160 seconds, down time is 12 minutes.
4、 Per the requirements content the wiring, note the positive and negative pole.
5、 The pump should be installed in the place which can be easy installation and maintenance.
6、 Schematic diagram of the external wiring

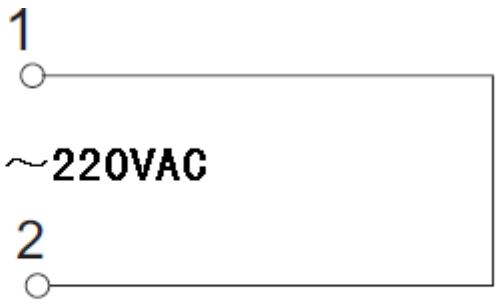


Power input connector



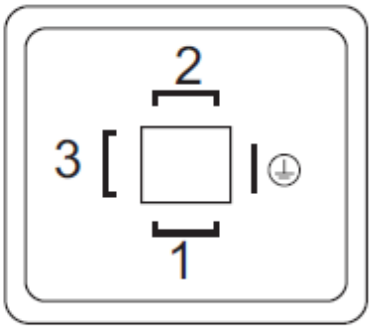
24VDC Pump Wiring Schematic

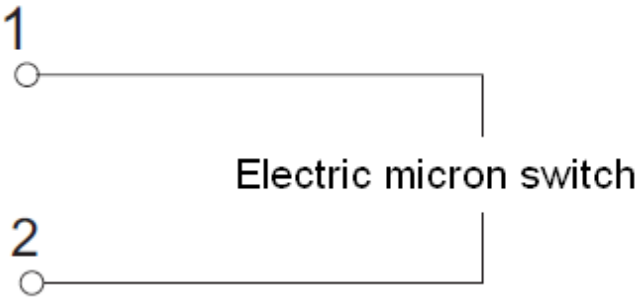




Power input connector

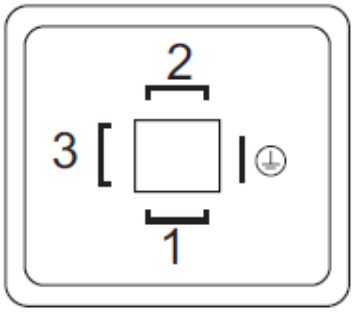
220VAC Pump Wiring Schematic

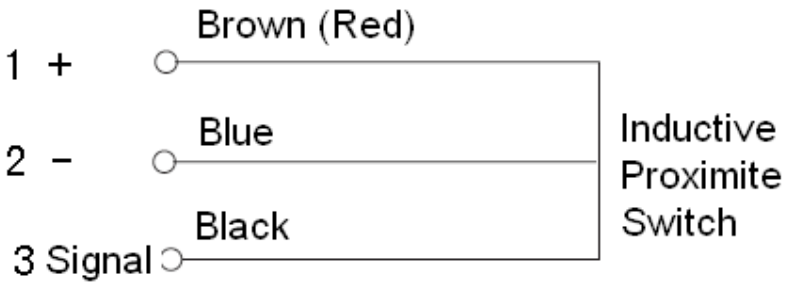




Signal input connector

Signal Input Wiring Schematic 1





Signal input connector

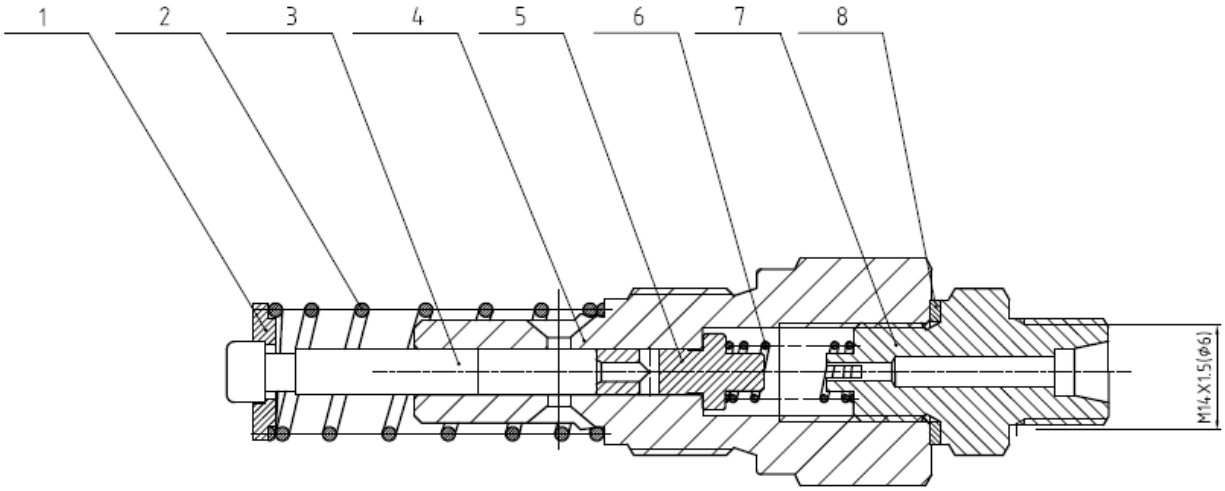
Signal Input Wiring Schematic 2

How to clean and assembly the piston fit

When the pump is not out of oil or pressure is zero, disassembly piston fit assembly and clean it. Please according to the below step to disassembly the piston fit:

- First, disassembly adapter item 7.
- Then remove parts item 6, item 5 in turn with tweezers.
- Remove item I and item 2.
- Clean item 3 and item 4 with kerosene.
- Assembly all part in turn after cleaning. Please pay attention, item 3 and item 4 are

corresponding to each other.



1.Washer 2.Spring 3.Piston 4.Pump Body 5.Check Valve Piston 6.Spring 7. Adapter 8.Washer

Note：Piston fit P.N. is 66309-6.

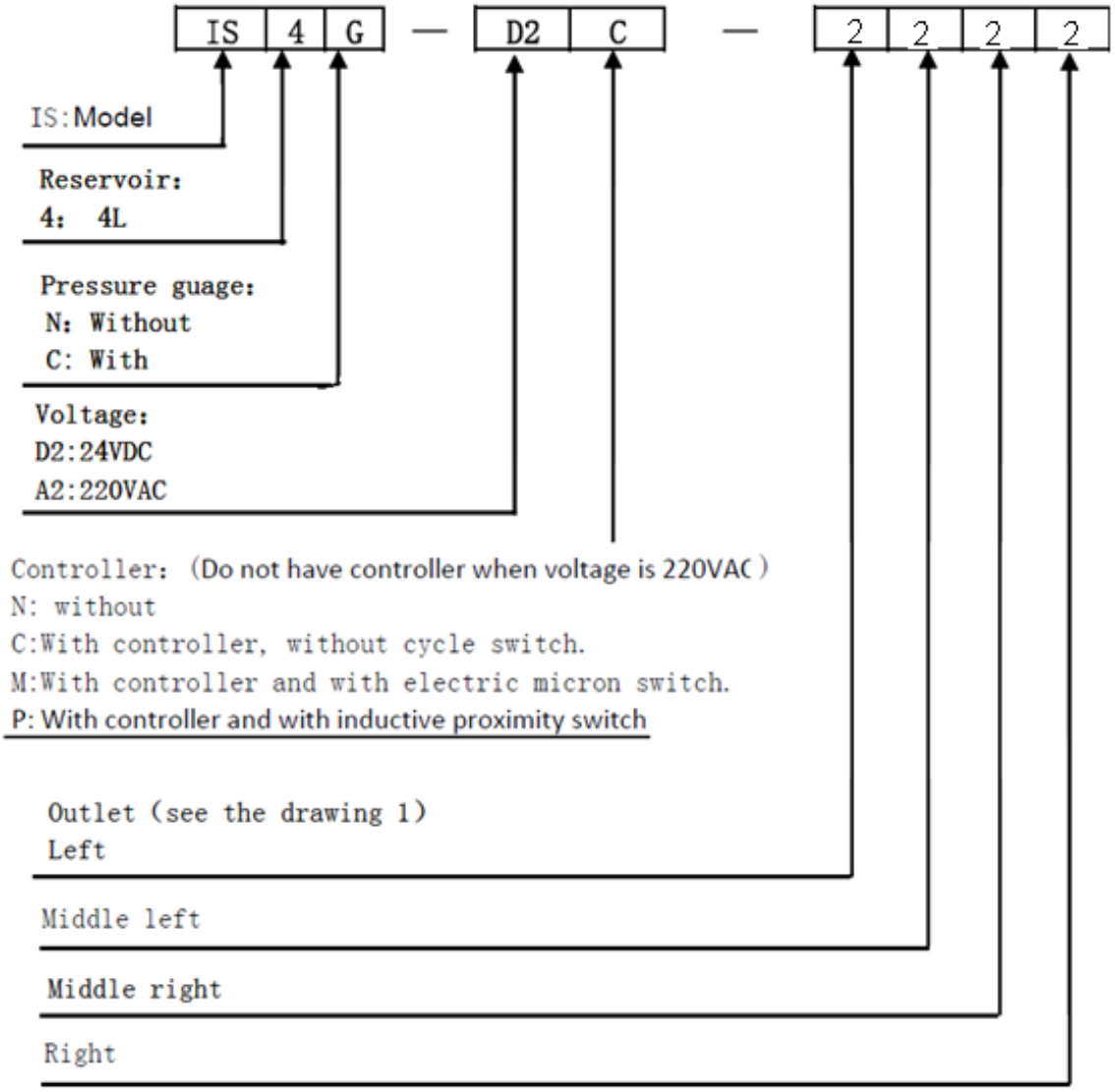
Spare Parts

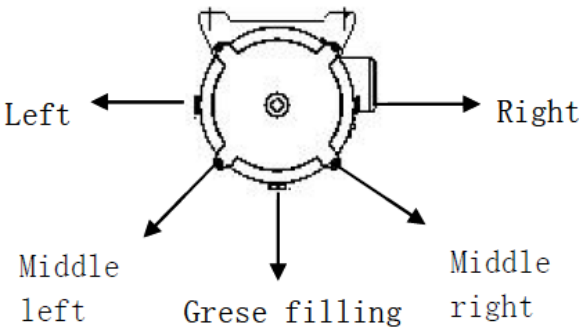
Item	P.N.	Description	Item	P.N.	Description
1	66309-6	Piston fit	6	66310	Safe valve assembly
2	22178-6	Seal	7	22450-12	Motor (24VDC)
3	25589-5	Copper washer	8	66372	Grease filling adapter
4	25589-7	Copper washer	9	50122-1	Connector
5	64007	O ring			

Troubleshooting

Symptom	Possible Cause	Remedy
No grease delivery at outlet	1Motor does not rotate.	Check motor and connector
	2. Motor rotate is wrong.	Connect wiring per the request.
	3. Air in the reservoir.	Do not mix air into grease when filling.
	4. Piton fit gets stuck.	Cleaning the piston fit.
Pressure fail to built	1. Leaking at adapter.	Tighten the adapter.
	2. Pump body damage.	Contact us.
	4. The grease is too dirty to get stuck.	Clean the piston fit and change clear grease.

How to Order





Drawing 1

Chart 1: Code of delivery

Code	Delivery (ml/min)
0	0
2	1.8
5	4

Note:

- The delivery 1.8ml/min and 4ml/min can not be implemented in the same pump. The MAX work pressure is 16MPa when the delivery is 1.8ml/min. The MAX work pressure is 25MPa when the delivery is 4ml/min.
- P.N.: IS4G-D2C-2002 means the pump with 4L reservoir, with pressure gauge, with controller and has 3 outlets. The left outlet delivery is 4ml/min. The middle left outlet is plugged. The middle right delivery is 4ml/min and the right outlet delivery is 4ml/min.

Product Quality Feedback Sheet

Customer				
Order No.				
Contact			Tel	
Address				
Part No.				
Model No.			Quantity	
Date Code			Installation date	
Satisfaction Level	1.Satisfied	2.Common	3.Dissatisfied	
Quality Problems				
Aspect Affected	1.Installation	2.Debugging	3.Precision	4.Performance 5.Use
	6.Reliability	7.Life	8.Maintenance	9.Environment 10.Others
Requirement	1.Fax	2.Repairing	3.Assistant to debug	4.Send to repair
	5.Return to repair	6.Reject	7. Compensation	8.Others
Suggestion or Other Requirements				

Signature Date

Instruction (1) The sheet is written by customer as a basis to improve product quality or deal with a product quality problem.

(2) Please select from column of 'Aspect Affected' and 'Requirement'

(3) Please send the sheet to NANJING BIJUR MACHINERY PRODUCTS, LTD QUALITY DEPARTMENT

9 Heng Tong Road Nanjing Economic & Technical Development Zone Nanjing China 210038

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