米朗 MIRAN®

米朗集中润滑油泵系统

MIRAN CENTRALIZED LUBRICANT PUMP SYSTEM

质量第一
Quality First

用户至上
Customer First

诚信为本
Credit First

深圳市米朗科技有限公司
Shenzhen Miran Technology Co.,Ltd

目录CONTENTS

稀油泵型 吐出量(200-300CC)Thin oil pump discharge (200-300CC)

油脂稀油一体泵型 吐出量(200-300CC)Oil and grease pump discharge (200-300CC)

目录CONTENTS

油脂稀油一体泵型 吐出量(300-500CC)Oil and grease pump discharge (300-500CC)

目录CONTENTS

油脂泵Grease pump 000 #~ 0

干油泵型(黄油泵)Dry type oil pump 000 #~ 3

目录CONTENTS

摆线泵浦Cycloidal pump

喷雾器型The spray shape

手动泵型 （手摇/手压/手拉/手动黄油泵 手压泵手动黄油泵）
Manual pump type (hand shake/hand pressure/hand pull/manual butter pump)

目录CONTENTS

公司简介company introduction

　　米朗公司自2003年也成立了润滑油泵事业部门，该部门主要生产研发各种自动化机械以及工程车辆用的全自动以及半自动集中润滑油泵系统及其油路配件系统等一系列产品，设计理念引进国内外最新标准，给您的机械设备保驾护航，提供基础润滑服务，保证长期润滑可靠。公司已经成为一家专业的集中润滑系统制造商。

　　润滑油泵事业部门成立以来，公司引进众多国内外顶尖的行业技术人才，在机械润滑油泵系统行业发力，开发了各类集中润滑油泵系统产品。机械运转离不开传感器，也离不开润滑油，米朗公司的润滑油泵系列产品经过几代更新，现在完全可以满足国内外，各类自动化机械各种润滑方案的需求，产品技术先进，种类丰富，已经处于行业领先地位，已发展为全国知名的机械集中润滑系统专业生产厂家。在大陆创立于2003年初，集中润滑系统产品种类齐全，质量稳定，包含有抵抗式、加压式、容积式、循环式、喷雾式、递进式等干、稀油润滑产品。产品广泛应用于各种切削五金、数控机床、加工中心、冲压、锻造、锻压、纺织、塑料、木工、橡胶、矿山、治金、电梯、生产线、工程机械、建筑、印刷、食品等各行业的机械设备的润滑系统及汽车底盘集中润滑系统，公司润滑系统产品已经销往世界各地。

　　Miran has also established a lubricating oil pump business department in 2003. This department mainly produces and develops a series of products such as fully automatic and semi-automatic centralized lubricating oil pump systems and oil circuit accessories systems for various automated machinery and engineering vehicles. The design concept is introduced the latest standards at home and abroad will protect your mechanical equipment and provide basic lubrication services to ensure long-term lubrication reliability. The company has become a professional manufacturer of centralized lubrication systems.

　　Since the establishment of the lubricating oil pump division, the company has introduced many top industry technical talents at home and abroad, worked hard in the mechanical lubricating oil pump system industry, and developed various types of centralized lubrication products. Oil pump system products. Mechanical operation is inseparable from sensors and lubricating oil. After several generations of updates, Miran's lubricating oil pump series products can now fully meet the national requirements. Internally and externally, various types of automated machinery meet the needs of various lubrication solutions. The product technology is advanced and the variety is rich. It is already in the leading position in the industry and has developed into a nationally renowned centralized machinery lubrication company. Professional manufacturer of sliding systems. Founded in mainland China in early 2003, the centralized lubrication system has a complete range of products with stable quality, including resistance type, pressurized type, volumetric type, circulation type, spray type, progressive type and other dry and thin oil lubrication products. Products are widely used in various cutting hardware, CNC machine tools, machining centers, stamping, forging, forging, textiles, plastics, woodworking, rubber lubrication systems for machinery and equipment in mining, metallurgy, elevators, production lines, engineering machinery, construction, printing, food and other industries, as well as centralized lubrication systems for automobile chassis. The company's lubrication system products have been sold all over the world.

稀油油泵系列 Thin oil pump series

稀油油脂一体泵系列 Grease and thin oil pump series

油脂泵 Grease pump

黄油泵（干油泵）Butter pumps (dry oil pumps)

手动泵分配器以及润滑附件系列图 Manual pump distributor and diagram of lubrication accessories

容积式润滑系统装配图
Installation Diagram of Volumetric Lubrication System

MH0418　MB04　MA04

PT1/8牙teeth

MH0418　MB04　MA04

PT1/8牙teeth

MA04 MB04　MH0418

MH0418

4MM油管oil tube

MA04
MB04

6mm
油管
oil tube

MA06　MB06

MKD06　　MZ1106

MG0610

LD4

MZ1106

LD4

MA06 MB06

MB06 MA06

MB04
MA04
MA04
MB04
MD0408

MB04
MA04

MA04
MB04

MD0408

MH0418

MG0610

LD2

配套总类Fittings
Φ6mm油管 oil tube
Φ4mm油管 oil tube

抵抗式润滑系统装配图

Installation Diagram of Resisitant Lubrication System

MH0418　MB04　MA04

PT1/8牙teeth

MH0418　MB04　MA04

PT1/8牙teeth

MA04 MB04　MH0418

4MM油管oil tube

MA04
MB04

6mm
油管
oil tube

MA06　MB06

MKD06　MZ1106

LV046-04　MG0610

MZ1106

MA06　MB06　LB044　MB06　MA06

LV026-04

MG0610

MB04
MA04

MA04
MB04

MD0408

MB04
MA04

MA04
MB04

MD0408　MH0418

米朗 MIRAN®

加压式润滑系统装配图
Assembly Drawing of Pressure Lubrication System

MH0418 MB04 MA04 MA04 MB04 MH0418

PT1/8牙teeth

MH0418 MB04 MA04

PT1/8牙teeth

4MM油管 oil tube

MB04 MA04

6mm
油管
oil tube

MA06 MB06

MKD06 MZ1106 LH5-3 MG0610

MZ1106

MA06 MB06 LH4-3 MB06 MA06 LH2-3

MG0610

MB04

MA04

MA04 MB04

MD0408 MA04

MB04

MD0408 MH0418

配套总类Fittings
Φ6mm油管 oil tube
Φ4mm油管 oil tube
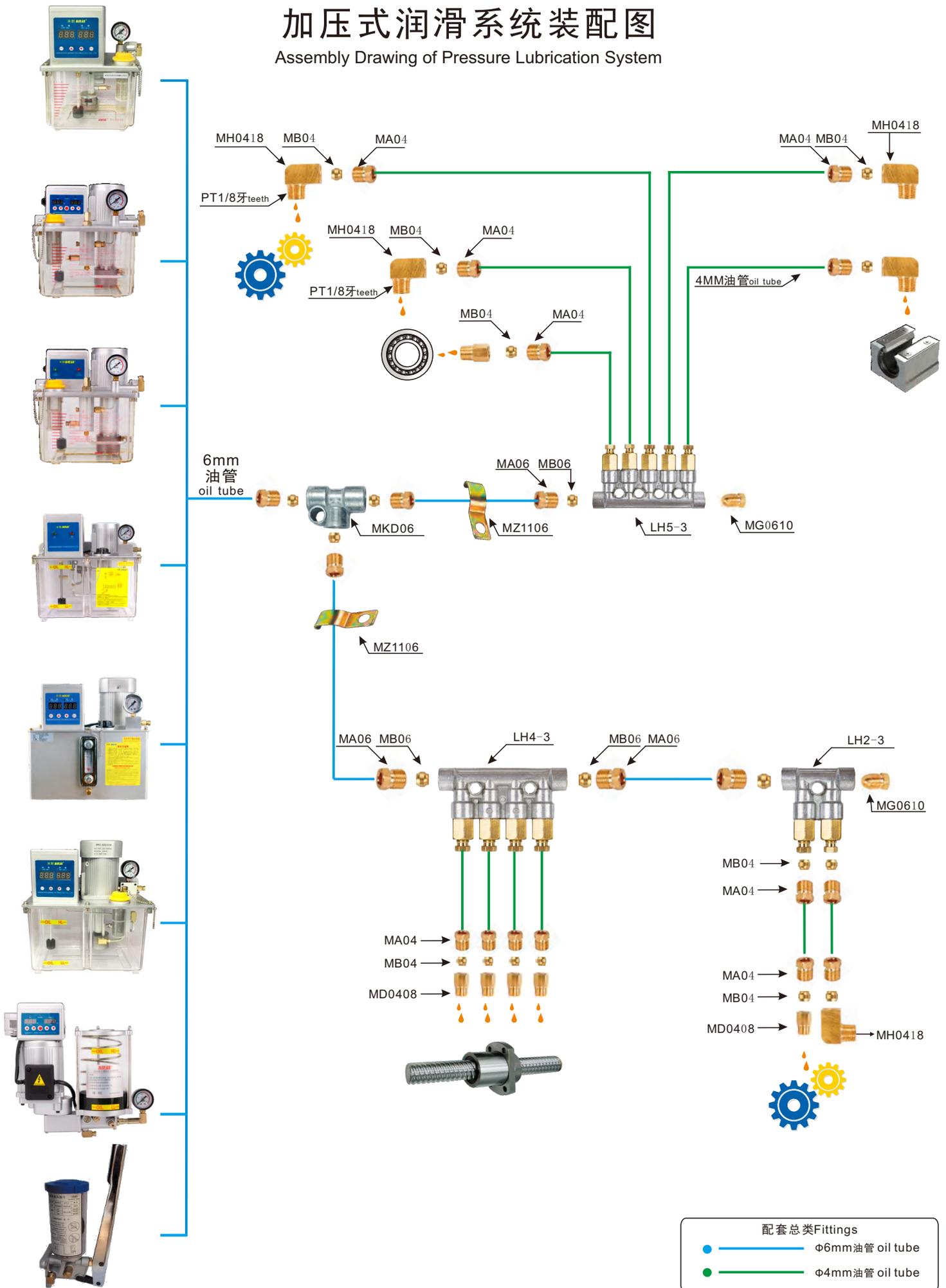
型号标志及其说明
Model number and explanations

可根据客户需要定做专属润滑方案
Lubrication Program can be customized

MR - □ □ □ □ □ - □ □ □ □ □ □ □ □ - □

空白	表示液位报警24V输出	Blank: Liquid level alarm 24V output
H	表示液位报警220V输出	H: Liquid level alarm 220V output
Z	表示震德式电路	Z: "CD" injection molding machine for special circuit
J	表示单灯液位压力独立输出报警	J: Single lamp level pressure independent output alarm
K	表示非标定制电路	K: Non-standard custom circuit

空白	表示液位开关为下通(默认)	Blank: level switch down is on(acquiesce in)
D	表示液位开关为上通	D: level switch up is on
00	表示无液位开关	00: without level switch

| 空白 | 不带蜂鸣器 | Blank: without buzzer |
| B | 带蜂鸣器 | B: with buzzer |

| 空白 | 表示异步电机 | Blank: induction motor |
| A | 表示罩极电机 | A: Motor |

| X | 表示内藏卸压机构，配合检知容积式分配器使用 |
| T | 表示无卸压机构，配合抵抗式分配器使用 |

X: Buiit-in pressure take-off mechanism
T: Without pressure take-off mechanism

压力开关动作压力值 Pressure switch action pressure

| 10 | 10kgf/cm² | 00 | 不带压力开关 |
| 05 | 5kgf/cm² | | |

10: 10kgf/cm²   00: without pressure switch
05: 5kgf/cm²

油箱容量 Oil tank volume

| 1 | 1L | 1.5 | 1.5L | 2 | 2L | 3 | 3L | 4 | 4L | 5 | 5L | 41/61/81等 | 4L/6L/8L等金属油箱 |

41/61/81: 4L/6L/8L Metal Tank

电机种类 Motor type

| 1 | 单相110V | 3 | 三相380V | 5 | 直流24V |
| 2 | 单相220V | 4 | 三相220V | | |

1: single phase 110V   4: three phase 220V
2: single phase 220V   5: DC 24V
3: three phase 380V

| 0 | 不带双定时电脑块 |
| 3 | 带NK-3型数码显示轻触式按键双定时电脑 |

0: without dual-timer module
3: with dual-timer with digital display and press buttons

电机极数2P Number of motor poles 2P

润滑泵每分钟吐出量 Lubrication pump per minute discharge capacity

1	0~100CC	4	300~400CC
2	100~200CC	5	400~500CC
3	200~300CC		

电动润滑油泵编号 Code of electric lubricating oil pump

MR	稀油泵	MR: oil lubrication pump
MRG	稀油油脂一体泵	MRG: oil and grease integrated pump
MRH	油脂泵	MRH: grease pump
MGH	黄油泵/干油泵	MGH: grease pumps/dry oil pumps

在后面资料中请注意：
1. 采用异步电机的油泵打油时间可以调成很长时间，比如油泵可一直打油5分钟不间歇，电机不会过热，不会因电机过热保护停止打油。
2. 5L塑胶油箱半自动稀油泵和5L塑胶油箱全自动稀油泵也为常规产品，后面资料并未列举。
3. 油箱材质可以按照客户要求定制，如铁或铝等。接线电路可以根据客户要求定制。
Please note in the following information:
1. The oil pump with asynchronous motor can be adjusted to a very long time, for example, the oil pump can keep pumping oil for 5 minutes without intermittent, the motor will not overheat, and will not stop pumping oil due to the motor overheating protection.
2. 5L plastic tank semi-automatic thin oil pump and 5L plastic tank automatic thin oil pump is also a conventional product, the latter information is not listed.
3. The material of fuel tank can be customized according to customer's requirement, such as iron or aluminum. The wiring circuit can be customized according to customers' requirements.

常见电路原理图Common Circuit Schematic

液位报警24V输出Level alarm 24V output

电机 electrical machinery
电源指示灯 power indicator
24V报警灯 warning light
点动开关 ignition switch
M

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | P S | F S |

火线 firing line
Ignition of the fire
点动火线 zero line
零线
公共点 public spots
液位 liquid level
压力 pressure
地线 ground line
压力 pressure
液位 liquid level
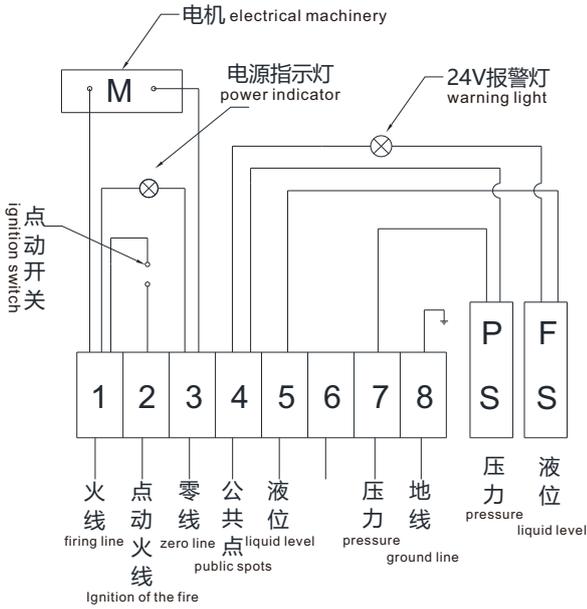
液位报警220V输出Level alarm 220V output

M
点动开关 ignition switch
电源指示灯 power indicator
220V液位报警灯 liquid level alarm light
DK
压力开关 pressure switch
液位开关 level switches

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

L L'
PLC AC220V
火线 firing line
零线 zero line

震德式电路Shaker circuit

电机 electrical machinery
24V报警灯 warning light
M
电源指示灯 power indicator
点动开关 ignition switch

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | P S | F S |

火线 firing line
Ignition of the fire
点动火线
零线 zero line
公共点 public spots
液位 liquid level
红灯 red light
压力 pressure
红灯 red light
压力 pressure
液位 liquid level

单灯液位压力独立输出报警
Single lamp level pressure independent output alarm

电机 electrical machinery
M
电源指示灯 power indicator
点动开关 ignition switch

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | P S | F S |

火线 firing line
Ignition of the fire
点动火线
零线 zero line
液位 liquid level
液位 liquid level
压力 pressure
压力 pressure
地线 ground line
压力 pressure
液位 liquid level
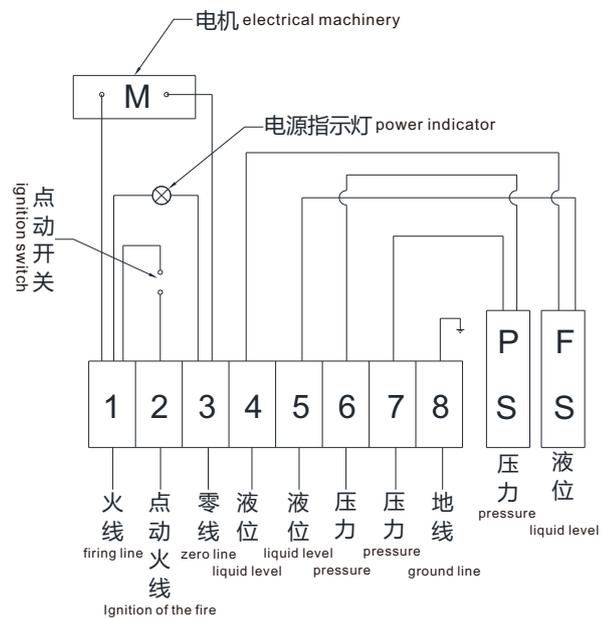
部分非标定制电路（可根据客户需求定制）
Partial non-standard customized circuits(can be customized according to customer needs)

单相 single phase

| 1 | 2 |

AC 220V
火线 firewire L
零线 zero line N

压力/液位 pressure/level

三相 three-phase

| 1 | 2 | 3 |

A B C
L1 L2 L3

压力/液位 pressure/level

MR-2202-2(2L)

205
168
140
246
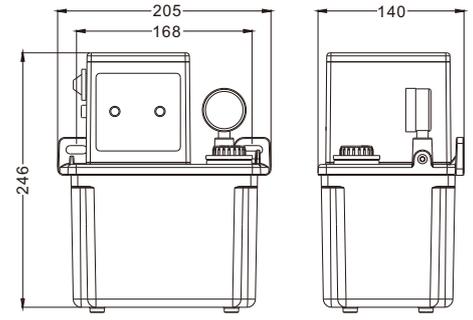
技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MR-2202-200TA	220V 50HZ									MR2201 代表电压110V represent voltage
MR-2202-200XA	220V 50HZ	2900±150rpm	18W	960±15%mA	18	25	2L	200-300	30-1000	
MR-2202-210XA	220V 50HZ									MR2202 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式,带"A"为罩极电机
*Model with "T" for resistance type, with "X" for volumetric type, with "A" for shaded-pole motor

性能与特点 Performance characteristics

1.供油和间歇时间同主机电脑控制设定。
2.油箱容量有2、3、4、5升等，吐出量200- 300ml/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3.油泵里面内设两个阀（一个调速阀，一个卸压阀），如右图。
4.可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The red light is on when the oil quantity is insufficient, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve, (refer right figure).
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

pressure relief valve卸压阀
pressure regulating valve调压阀

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1　2　3　4　5　6

火线 firewire
点动 jog
零线 zero line
液位 liquid level
液位 liquid level
地线 ground wire

AC 220V

带压力开关
with pressure switch

1　2　3　4　5　6　7　8

火线 firewire
点动 jog
零线 zero line
公共点 common point
液位 liquid level
压力开关 pressure switch
地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、Terminal 4 and terminal 5 are liquid level signal terminals, which are normally open when there is oil by default, when the oil pump is out of oil, it closes the path when it reaches the alarm setting value, realizing the lack of oil alarm, and it can be used as a simple switch and connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

米朗 MIRAN®

MR-2232-2(2L)

稀油电动润滑油泵微电脑型
Self-control electric oil lubrication pump

205
168
246
140

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MR-2232-200TAB	220V 50HZ									MR2231 代表电压110V represent voltage
MR-2232-200XAB	220V 50HZ	2900±150rpm	18W	960±15%mA	18	25	2L	200-300	30-1000	
MR-2232-210XAB	220V 50HZ									MR2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，带"A"为罩极电机
*Model with "T" for resistance type, with "X" for volumetric type, with "A" for shaded-pole motor

使用方法 Method

1．工作时间：长按SET键,见"润滑"显示屏数字在跳动时，松开SET键，按▲▼键设定个位数;按下SET键，按▲▼键设定十位数;
再按下SET键，按▲▼键设定百位数（1-999秒）。
2．间歇时间：长按SET键，见"间歇"显示屏数字在跳动时，松开SET键，按▲▼键设置个位数；按下SET键，按▲▼键
设定十位数；再按下SET键，按▲▼键设定百位数；同时按键▲▼约2秒，间歇时间可分/秒转换（1-999分或1-999秒）；
也可定制为：同时按▲▼键约2秒，间歇时间可分/小时转换（1-999分或1-999小时）。
3．RST键，按一下此键可重新润滑或清除异常报警信号。
4．电路电源接通后系统属于给油状态，并进入LUB、INT循环，供油时左边LUB绿灯亮，
间歇时右边INT红灯亮。
5．ERO闪烁时代表油量不足，ERP闪烁时代表压力异常。
6．数显中框内设有断电记忆功能，打开小开关▭进入断电记忆。关闭小开关▭，断电记忆停止。
7．数显框内设有按键锁功能▭，可根据自行需要，设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲▼ to set unit digit; and press the button of SET again,
to set ten digit with pressing ▲▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲▼ to set unit digit; and press the
button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green
light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch,
and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®
○润滑 LUB.(sec)   ○间歇 INT.(min)
8.8.8.   8.8.8.
SET ▲ ▼ RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，
间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，
油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、 Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、 Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump
is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display
ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump
pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil
pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1 2 3 4 5 6
火线 firewire | 零线 zero line | 公共点 common point | 常闭 normally closed | 常开 normally open | 地线 ground wire
AC220V

MR-2202-3（3L）

稀油电动润滑油泵PLC型
Oil Lubrication Pump Controlled by PLC Type

236
214
150
224

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MR-2202-300TA	220V 50HZ									MR2231 代表电压110V represent voltage
MR-2202-300XA	220V 50HZ	2900±150rpm	18W	960±15%mA	18	25	3L	200-300	30-1000	
MR-2202-310XA	220V 50HZ									MR2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，带"A"为罩极电机
*Model with "T" for resistance type, with "X" for volumetric type, with "A" for shaded-pole motor

性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定。
2．油箱容量有2、3、4、5升等，吐出量200-300ml／min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3．油泵里面内设两个阀（一个调速阀，一个卸压阀），如右图。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The red light is on when the oil quantity is insufficient, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve, (refer right figure).
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

pressure relief valve卸压阀
pressure regulating valve调压阀

面板图 The control panel

单灯
monolamp

双灯
bi-lamp

电源
POWER

工作指示灯
WORK

电源
POWER

报警
ALARM

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1 2 3 4 5 6

火线
firewire
点动
jog
零线
zero line
液位
liquid level
液位
liquid level
地线
ground wire

AC 220V

带压力开关
with pressure switch

1 2 3 4 5 6 7 8

火线
firewire
点动
jog
零线
zero line
公共点
common point
液位
liquid level
压力开关
pressure switch
地线
ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，实现缺油报警，
可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，
可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which
can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、Terminal 4 and terminal 5 are liquid level signal terminals, which are normally open when there is oil by default, when the oil pump is out of oil,
it closes the path when it reaches the alarm setting value, realizing the lack of oil alarm, and it can be used as a simple switch and connected in
series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when
the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple
switch, series connection in the customer's circuit.

MR-2232-3(3L)

236
214
224
150

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm^2	最大压力 Max pressure kgf/cm^2	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm^2	备注 Remarks
MR-2232-300TAB	220V 50HZ									MR2231 代表电压110V represent voltage
MR-2232-300XAB	220V 50HZ	2900±150rpm	18W	960±15%mA	18	25	3L	200-300	30-1000	
MR-2232-310XAB	220V 50HZ									MR2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式, 带"A"为罩极电机
*Model with "T" for resistance type, with "X" for volumetric type, with "A" for shaded-pole motor

使用方法 Method

1. 加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键，跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man）按键后，即刻生效。
2. 当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3. 当油泵显示ERO时,表示油量不足，加油后自动消除报警。
4. 按住（Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
(specific lubrication plan can be customized)

INT PWR RUN

8.8.8. M 8.8.8. S
(0.1-999) (1-200)

UP DOWN MAN. UP DOWN

UP DOWN MAN. UP DOWN

间歇加减 rest time control button
点动 manual button
工作加减 work time control button

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ERO，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1 2 3 4 5 6

火线 firewire
零线 zero line
公共点 common point
常闭 normally closed
常开 normally open
地线 ground wire

AC220V

MR-2202(4L)

稀油电动润滑油泵PLC型
Oil Lubrication Pump Controlled by PLC Type

256
212
254
168

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MR-2202-400TA	220V 50HZ									
MR-2202-400XA	220V 50HZ	2900±150rpm	18W	960±15%mA	18	25	4L	200-300CC	30-1000	MR2201 代表电压110V represent voltage MR2202 代表电压220V represent voltage
MR-2202-410XA	220V 50HZ									

*型号带"T"为抵抗式，带"X"为容积式，带"A"为罩极电机
*Model with "T" for resistance type, with "X" for volumetric type, with "A" for shaded-pole motor

性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定
2．油箱容量油2、3、4升等，吐出量200- 300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3．油泵里面内设两个阀（一个调速阀，一个卸压阀），如右图。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve, (refer right figure).
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

pressure relief valve卸压阀
pressure regulating valve调压阀

面板图 The control panel

米朗 MIRAN®

电源 POWER

报警 ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯 WORK

报警指示灯 ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1 2 3 4 5 6

火线 firewire | 点动 jog | 零线 zero line | 液位 liquid level | 液位 liquid level | 地线 ground wire

AC 220V

带压力开关
with pressure switch

1 2 3 4 5 6 7 8

火线 firewire | 点动 jog | 零线 zero line | 公共点 common point | 液位 liquid level | 压力开关 pressure switch | 地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MR-2232(4L)

稀油电动润滑油泵微电脑型
Self-control electric oil lubrication pump

256
212
254
168

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MR-2232-400TAB	220V 50HZ									MR2231B 代表电压110V represent voltage
MR-2232-400XAB	220V 50HZ	2900±150rpm	18W	960±15%mA	18	25	4L	200-300CC	30-1000 稀油 hin oilt	MR2232B 代表电压220V represent voltage
MR-2232-410XAB	220V 50HZ									

*型号带"T"为抵抗式，带"X"为容积式，带"A"为罩极电机
*Model with "T" for resistance type, with "X" for volumetric type, with "A" for shaded-pole motor

使用方法 Method

1．工作时间：请长按SET键，见数字在跳动时，松开SET键，按▲ ▼键设定个位数；按下SET键，按▲ ▼键设定十位数；再按下SET键，一下SET键设定百位数（1-999秒）。
2．间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲ ▼键设置个位数；按一下SET键，同时按键▲ ▼约2秒，间歇时间可分秒转换（1-999分或1-999秒）。
3．RST键：按住此键可重新润滑或清除异常报警。
4．电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5．ER0闪烁时代表油量不足，ERP闪烁时代表压力异常。
6．数显中框内设有断电记忆功能，打开小开关━进入断电记忆。关闭小开关━，断电记忆停止。
7．数显框内设有按键锁功能━，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®

润 滑 LUB.(sec)　　间 歇 INT.(min)
8.8.8.　8.8.8.
SET　▲　▼　RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、 Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、 Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
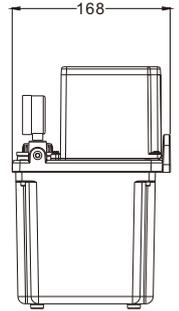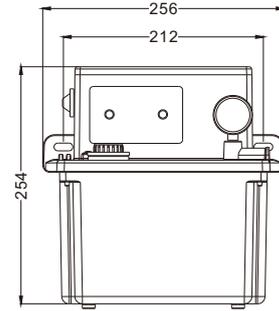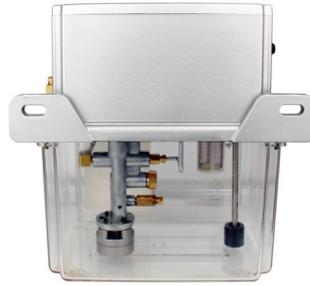3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC220V

米朗 **MIRAN**®

MRG-2202（2L）

稀油油脂一体润滑油泵PLC型
Automatic Grease and Thin Oil Lubrication Pump with PLC Type
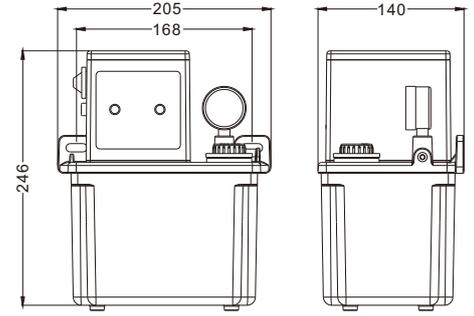
205
168
246
140

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-2202-200T	220V 50/60HZ	1350rpm	15W	0.22A	20	35	2L	150-200CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	MRG2201 代表电压110V represent voltage
MRG-2202-200X	220V 50/60HZ									
MRG-2202-210X	220V 50/60HZ									MRG2202 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定
2．油箱容量油2、3、4升等，吐出量200- 300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3．油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 **MIRAN**®

电源 POWER
报警 ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯 WORK
报警指示灯 ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6
火线 firewire	点动 jog	零线 zero line	液位 liquid level	液位 liquid level	地线 ground wire

AC 220V

带压力开关
with pressure switch

1	2	3	4	5	6	7	8
火线 firewire	点动 jog	零线 zero line	公共点 common point	液位 liquid level		压力开关 pressure switch	地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-2232（2L）

米朗 MIRAN®

尺寸标注：205 / 168 / 140 / 246

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-2232-200TB	220V 50/60HZ									MRG2231 代表电压110V represent voltage
MRG-2232-200XB	220V 50/60HZ	1350rpm	15W	0.22A	20	35	2L	150-200CC	30#稀油 ～00#油脂 30# thin oil ～ 00# grease	
MRG-2232-210XB	220V 50/60HZ									MRG2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1．工作时间：请长按SET键，见数字在跳动时，松开SET键，按▲ ▼键设定个位数;按下SET键，按▲ ▼键设定十位数；再按下SET键，一下SET键设定百位数(1~999秒)。
2．间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲ ▼键设置个位数；按一下SET键，同时按键▲ ▼约2秒，间歇时间可分秒转换（1~999分或1~999秒）。
3．RST键：按住此键可重新润滑或清除异常报警。
4．电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5．ER0闪烁时代表油量不足，ERP闪烁时代表压力异常。
6．数显中框内设有断电记忆功能，打开小开关□进入断电记忆。关闭小开关□，断电记忆停止。
7．数显框内设有按键锁功能□，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、 Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、 Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、 3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC220V

MRG-3202（3L）

稀油油脂一体润滑油泵PLC型
Automatic Grease and Thin Oil Lubrication Pump with PLC Type

241
220
216
150
260

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3202-300T	220V 50/60HZ									MRG2231 代表电压110V represent voltage
MRG-3202-300X	220V 50/60HZ	1350rpm	25W	0.22A	20	35	3L	200-300CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3202-310X	220V 50/60HZ									MRG2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定
2．油箱容量油2、3、4升等，吐出量200- 300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3．油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1 2 3 4 5 6

火线 firewire | 点动 jog | 零线 zero line | 液位 liquid level | 液位 liquid level | 地线 ground wire

AC 220V

带压力开关
with pressure switch

1 2 3 4 5 6 7 8

火线 firewire | 点动 jog | 零线 zero line | 公共点 common point | 液位 liquid level | | 压力开关 pressure switch | 地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which
can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
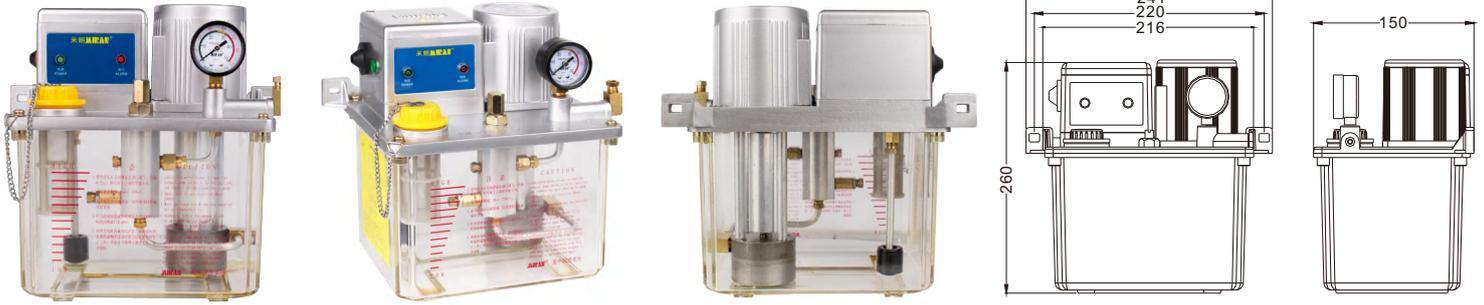4、 If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-3205（3L）

241
220
216
260
150

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3205-300T	DC 24V									
MRG-3205-300X	DC 24V	1800rpm	55W	3.8A	20	35	3L	200-300CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3205-310X	DC 24V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定
2. 油箱容量油2、3、4升等，吐出量200-300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
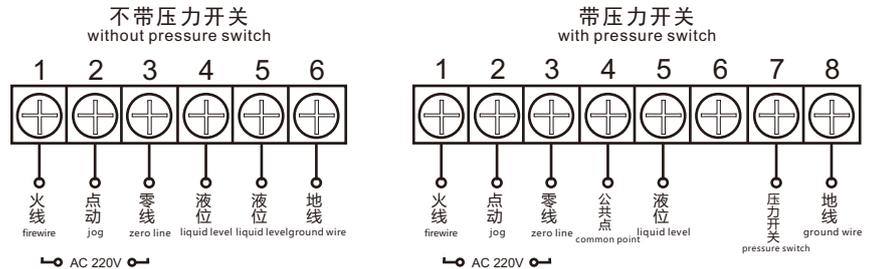3. 油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1. Oil supply and intermittent time are adjustable by PC controller.
2. With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3. There are two valves in the oil pump, pressure regulating valve and unloading valve.
4. Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源 POWER
报警 ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯 WORK
报警指示灯 ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6
DC 24V 正极 anodal	点动 jog	0V 负极 cathode	液位 liquid level	液位 liquid level	地线 ground wire

带压力开关
with pressure switch

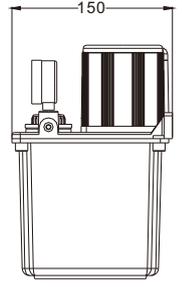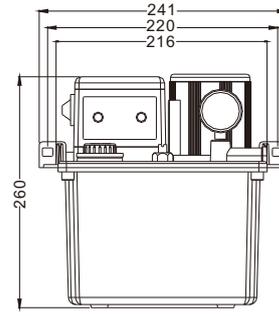| 1	2	3	4	5	6	7	8
DC 24V 正极 anodal	点动 jog	0V 负极 cathode	公共点 common point	液位 liquid level		压力开关 pressure switch	地线 ground wire

1、端子1接PLC控制电源DC24V正极，端子3接0V负极，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的DC24V正极，端子3接0V负极，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the positive pole of DC24V of PLC control power supply, and terminal 3 is connected to the negative pole of 0V, which can realize the work of PLC control oil pump.
2、Terminal 2 is connected to the positive pole of DC24V which is always energized (by PLC or not), and terminal 3 is connected to the negative pole of 0V, which can be realized to control the oil supply of the oil pump through the oil pump's own point switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-3232（3L）

稀油油脂一体润滑油泵微电脑型
Self-control Grease and Thin Oil Lubrication Pump

241 / 216 / 200 / 222 / 150

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3232-300TB	220V 50/60HZ									MRG2231 代表电压110V represent voltage
MRG-3232-300XB	220V 50/60HZ	1350rpm	25W	0.22A	20	35	3L	200-300CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3232-310XB	220V 50/60HZ									MRG2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键，跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man）按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3.当油泵显示ERO时,表示油量不足，加油后自动消除报警。
4.按住（Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
(specific lubrication plan can be customized)

间歇加减
rest time
control button

点动
manual button

工作加减
work time
control button

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ERO，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC220V

MRG-2202（4L）
异步电机
Asynchronous motor

油脂稀油一体润滑油泵PLC型
Automatic Grease and Thin Oil Lubrication Pump with PLC Type
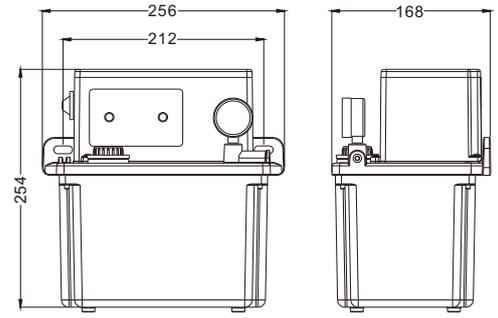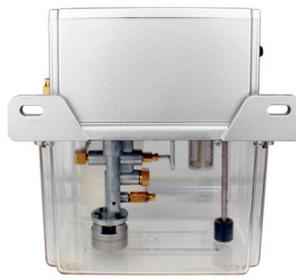
256
212
254
168

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-2202-400T	220V 50/60HZ									MRG2201 代表电压110V represent voltage
MRG-2202-400X	220V 50/60HZ	1350rpm	25W	0.22A	20	40（外调压）（external pressure regulation）	4L	200~300 CC/min	30#稀油~00#油脂 30# thin oil ~ 00# grease	
MRG-2202-410X	220V 50/60HZ									MRG2202 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定
2．油箱容量油2、3、4升等，吐出量200- 300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3．油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源 POWER

报警 ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯 WORK

报警指示灯 ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1 2 3 4 5 6

火线 firewire | 点动 jog | 零线 zero line | 液位 liquid level | 液位 liquid level | 地线 ground wire

AC 220V

带压力开关
with pressure switch

1 2 3 4 5 6 7 8

火线 firewire | 点动 jog | 零线 zero line | 公共点 common point | 液位 liquid level | | 压力开关 pressure switch | 地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-2232（4L）
异步电机
Asynchronous motor

256
212
254
168

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-2232-400TB	220V 50/60HZ									MRG2231 代表电压110V represent voltage
MRG-2232-400XB	220V 50/60HZ	1350rpm	25W	0.22A	20	40（外调压）（external pressure regulation）	4L	200-300CC/min	30#稀油 ～00#油脂 30# thin oil ～ 00# grease	
MRG-2232-410XB	220V 50/60HZ									MRG2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1．工作时间：请长按SET键，见数字在跳动时，松开SET键，按▲▼键设定个位数；按下SET键，按▲▼键设定十位数；再按下SET键，一下SET键设定百位数（1~999秒）。
2．间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲▼键设置个位数；按一下SET键，同时按键▲▼约2秒，间歇时间可分秒转换（1-999分或1-999秒）。
3．RST键：按住此键可重新润滑或清除异常报警。
4．电路电源接通后系统属于给油状态，并进入LUB、INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5．ERO闪烁时代表油量不足，ERP闪烁时代表压力异常。
6．数显中框内设有断电记忆功能，打开小开关▬进入断电记忆。关闭小开关▬，断电记忆停止。
7．数显框内设有按键锁功能▬，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®
润滑 LUB.(sec)　　间歇 INT.(min)
8.8.8.　　8.8.8.
SET　▲　▼　RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ERO，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC220V

MRG-3202（4L）
异步电机
Asynchronous motor

256
212
254
168

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3202-400T	220V 50/60HZ									MRG2201 代表电压110V represent voltage
MRG-3202-400X	220V 50/60HZ	1350rpm	25W	0.22A	20	40（外调压） (external pressure regulation)	4L	200~300 CC/min	30#稀油～00#油脂 30# thin oil ~ 00# grease	MRG2202 代表电压220V represent voltage
MRG-3202-410X	220V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1.供油和间歇时间同主机电脑控制设定
2.油箱容量油2、3、4升等，吐出量200- 300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3.油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4.可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1 2 3 4 5 6

火线
firewire | 点动
jog | 零线
zero line | 液位
liquid level | 液位
liquid level | 地线
ground wire

AC 220V

带压力开关
with pressure switch

1 2 3 4 5 6 7 8

火线
firewire | 点动
jog | 零线
zero line | 公共点
common point | 液位
liquid level | 压力开关
pressure switch | 地线
ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位
报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，
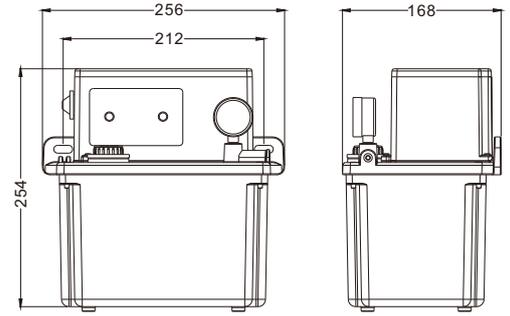可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which
can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when
there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil
alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump
pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection
in the customer's circuit.

MRG-3205（4L）
异步电机
Asynchronous motor

256
212
279
168

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3205-400T	DC 24V									
MRG-3205-400X	DC 24V	1800rpm	55W	3.8A	20	40（外调压） (external pressure regulation)	4L	200-300 CC/min	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3205-410X	DC 24V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定
2. 油箱容量油2、3、4升等，吐出量200-300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
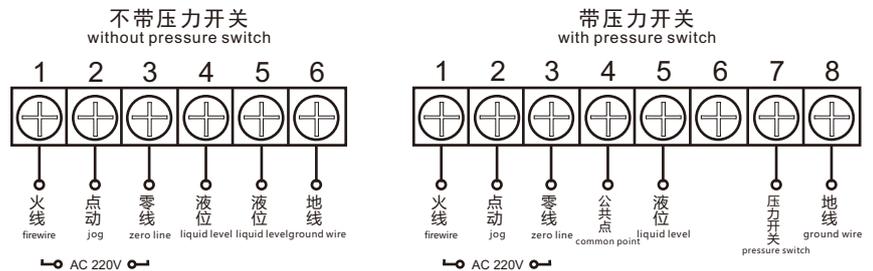3. 油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6

DC 24V
正极
anodal

点动
jog

0V
负极
cathode

液位
liquid level

液位
liquid level

地线
ground wire

带压力开关
with pressure switch

1	2	3	4	5	6	7	8

DC 24V
正极
anodal

点动
jog

0V
负极
cathode

公共点
common point

液位
liquid level

压力开关
pressure switch

地线
ground wire

1、端子1接PLC控制电源DC24V正极，端子3接0V负极，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的DC24V正极，端子3接0V负极，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 is connected to the positive pole of DC24V of PLC control power supply, and terminal 3 is connected to the negative pole of 0V, which can realize the work of PLC control oil pump.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 connects to 0V negative pole, which can realize the oil pump oil supply through the oil pump's own point switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.
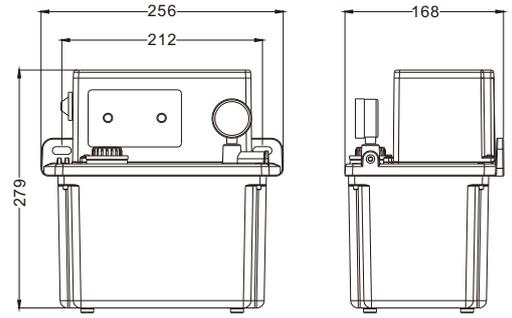
MRG-3232（4L）
异步电机
Asynchronous motor

256
212
254
168

技术参数 Technical Parameters

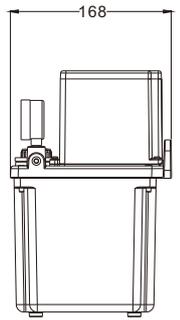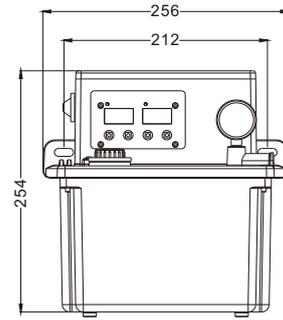| 型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3232-400TB	220V 50/60HZ									MRG2231 代表电压110V represent voltage
MRG-3232-400XB	220V 50/60HZ	1350rpm	25W	0.22A	20	40（外调压） (external pressure regulation)	4L	200-300CC/min	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3232-410XB	220V 50/60HZ									MRG2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1. 工作时间：请长按SET键，见数字在跳动时，松开SET键，按▲ ▼键设定个位数;按下SET键，按▲ ▼键设定十位数；再按下SET键，一下SET键设定百位数（1~999秒）。
2. 间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲ ▼键设置个位数；按一下SET键，同时按键▲ ▼约2秒，间歇时间可分秒转换（1-999分或1-999秒）。
3. RST键：按住此键可重新润滑或清除异常报警。
4. 电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5. ER0闪烁时代表油量不足，ERP闪烁时代表压力异常。
6. 数显中框内设有断电记忆功能，打开小开关▭进入断电记忆。关闭小开关▭，断电记忆停止。
7. 数显框内设有按键锁功能▭，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®
润 滑 LUB.(sec)   间 歇 INT.(min)
8.8.8.   8.8.8.
SET   ▲   ▼   RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC220V

米朗 **MIRAN**®

MRG-3235(4L)
异步电机
Asynchronous motor

油脂稀油一体润滑油泵微电脑型
Self-control Grease and Thin Oil Lubrication Pump
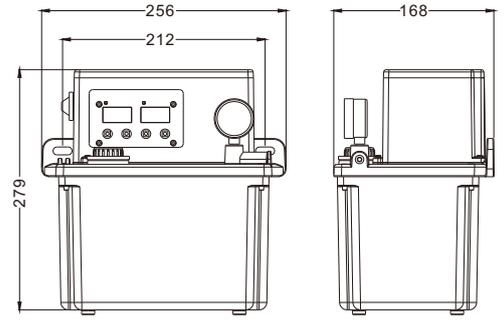
256
212
279
168

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3235-400TB	DC 24V	1800rpm	55W	3.8A	20	40（外调压） (external pressure regulation)	4L	200-300CC/min	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3235-400XB	DC 24V									
MRG-3235-410XB	DC 24V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1. 工作时间：请长按SET键, 见数字在跳动时，松开SET键，按▲▼键设定个位数;按下SET键，按▲▼键设定十位数；再按下SET键，一下SET键设定百位数(1~999秒)。
2. 间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲▼键设置个位数；按一下SET键，同时按键▲▼约2秒，间歇时间可分秒转换（1~999分或1~999秒）。
3. RST键：按住此键可重新润滑或清除异常报警。
4. 电路电源接通后系统属于给油状态，并进入LUB、INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5. ERO闪烁时代表油量不足，ERP闪烁时代表压力异常。
6. 数显中框内设有断电记忆功能，打开小开关▭进入断电记忆。关闭小开关▭，断电记忆停止。
7. 数显框内设有按键锁功能▭，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

米朗 **MIRAN**®
○ 润 滑
LUB.(sec)
○ 间 歇
INT.(min)
8.8.8.   8.8.8.
SET   ▲   ▼   RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

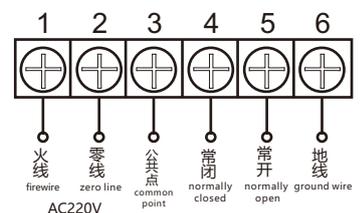1、端子1接DC24V正极，端子2接0V负极，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ERO，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the positive pole of DC24V, terminal 2 is connected to the negative pole of 0V, the oil pump can start to work.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

| 1	2	3	4	5	6
⊕	⊕	⊕	⊕	⊕	⊕
+24V 正极 anodal	0V 负极 cathode	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

MRG-3201(5L)

288.5
239
175
265.2

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3201-500T	110V 50/60HZ									
MRG-3201-500X	110V 50/60HZ	1350rpm	25W	0.52A	20	35	5L	200~300 CC/min	30#稀油~00#油脂 30# thin oil ~ 00# grease	MRG3201 代表电压110V represent voltage MRG3202 代表电压220V represent voltage
MRG-3201-510X	110V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定
2. 油箱容量油2、3、4升等，吐出量200- 300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3. 油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）

1. Oil supply and intermittent time are adjustable by PC controller.
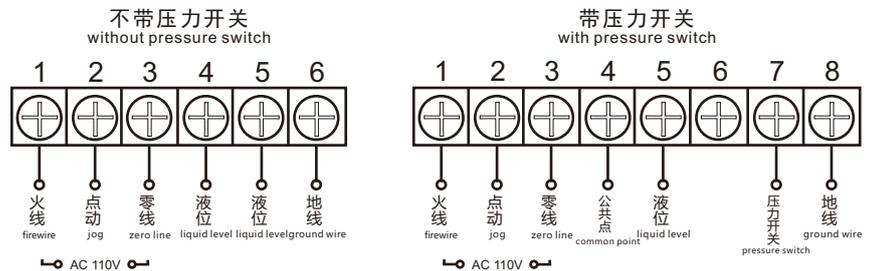2. With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3. There are two valves in the oil pump, pressure regulating valve and unloading valve.
4. Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6
火线 firewire	点动 jog	零线 zero line	液位 liquid level	液位 liquid level	地线 ground wire

AC 110V

带压力开关
with pressure switch

1	2	3	4	5	6	7	8
火线 firewire	点动 jog	零线 zero line	公共点 common point	液位 liquid level		压力开关 pressure switch	地线 ground wire

AC 110V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which
can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-3202（5L）

288.5
239
265.2
175

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3202-500T	220V 50/60HZ									MRG3201 代表电压110V represent voltage
MRG-3202-500X	220V 50/60HZ	1350rpm	25W	0.22A	20	35	5L	200~300 CC/min	30#稀油～00#油脂 30# thin oil ~ 00# grease	
MRG-3202-510X	220V 50/60HZ									MRG3202 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定
2. 油箱容量油2、3、4升等，吐出量200-300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3. 油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源 POWER

报警 ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯 WORK

报警指示灯 ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6
火线 firewire	点动 jog	零线 zero line	液位 liquid level	液位 liquid level	地线 ground wire

AC 220V

带压力开关
with pressure switch

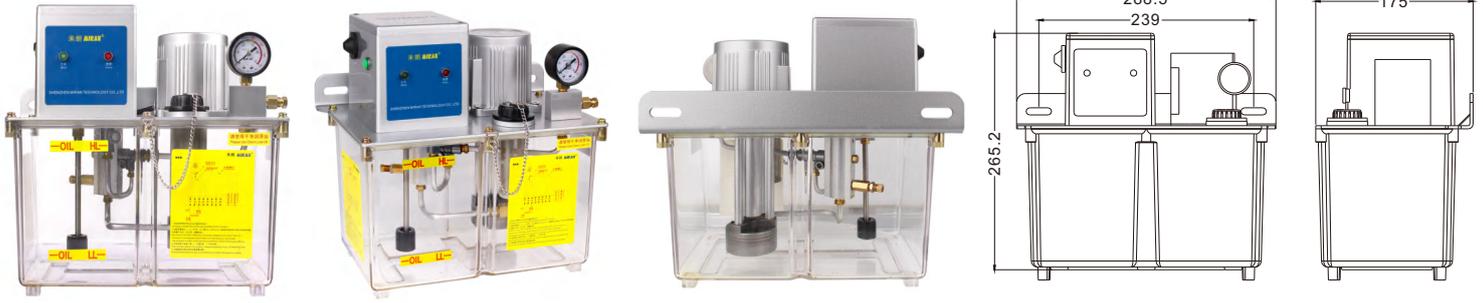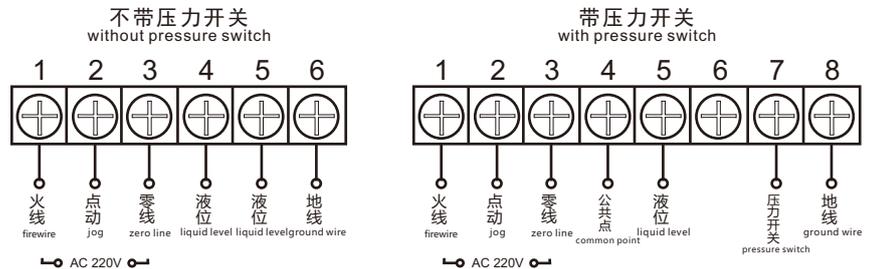| 1	2	3	4	5	6	7	8
火线 firewire	点动 jog	零线 zero line	公共点 common point	液位 liquid level		压力开关 pressure switch	地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which
can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-3205(5L)

稀油油脂一体电动润滑油泵微PLC型
Self-control Grease and Thin Oil Lubrication Pump with PLC Type

288.5
239
265.2
175

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3205-500T	DC 24V									
MRG-3205-500X	DC 24V	1800rpm	55W	3.8A	20	50（外调压）(external pressure regulation)	5L	500CC/min	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3205-510X	DC 24V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定
2. 油箱容量油2、3、4升等，吐出量200-300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3. 油泵里面内设两个阀（一个调压阀，一个卸压阀）。
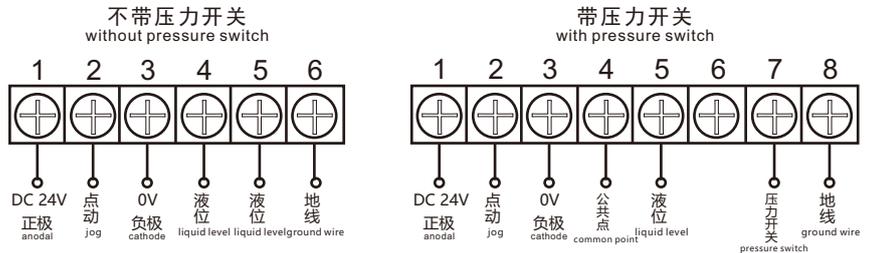4. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）

1. Oil supply and intermittent time are adjustable by PC controller.
2. With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3. There are two valves in the oil pump, pressure regulating valve and unloading valve.
4. Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 **MIRAN**®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6
DC 24V 正极 anodal	点动 jog	0V 负极 cathode	液位 liquid level	液位 liquid level	地线 ground wire

带压力开关
with pressure switch

| 1	2	3	4	5	6	7	8
DC 24V 正极 anodal	点动 jog	0V 负极 cathode	公共点 common point	液位 liquid level		压力开关 pressure switch	地线 ground wire

1、端子1接PLC控制电源DC24V正极，端子3接0V负极，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的DC24V正极，端子3接0V负极，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the positive pole of DC24V of PLC control power supply, and terminal 3 is connected to the negative pole of 0V, which can realize the work of PLC control oil pump.
2、Terminal 2 is connected to the positive pole of DC24V which is always energized (by PLC or not), and terminal 3 is connected to the negative pole of 0V, which can be realized to control the oil supply of the oil pump through the oil pump's own point switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-3231(5L)

稀油油脂一体润滑油泵微电脑型
Self-control Grease and Thin Oil Lubrication Pump
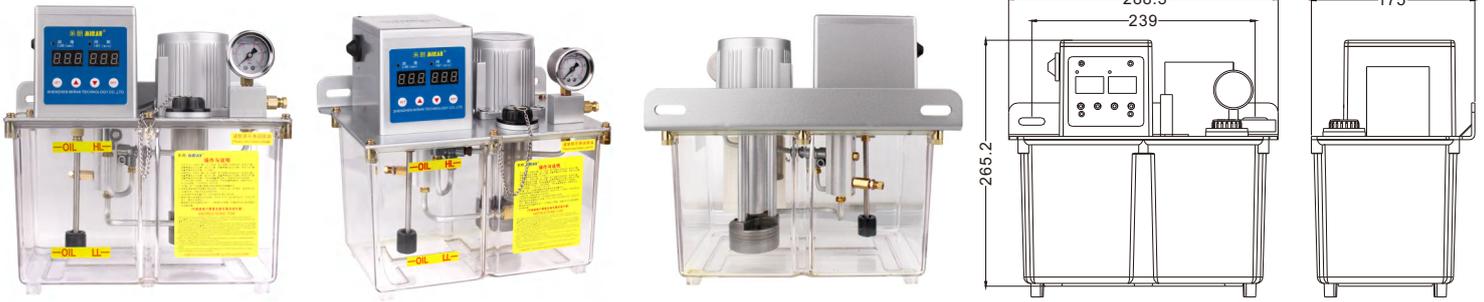
288.5
239
265.2
175

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3231-500TB	110V 50/60HZ									MRG2231 代表电压110V represent voltage
MRG-3231-500XB	110V 50/60HZ	1350rpm	25W	0.22A	20	35	5L	200-300CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3231-510XB	110V 50/60HZ									MRG2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1．工作时间：长按SET键,见"润滑"显示屏数字在跳动时，松开SET键，按▲ ▼ 键设定个位数;按下SET键，按▲ ▼ 键设定十位数；
再按下SET键，按▲ ▼ 键设定百位数(1-999秒)。
2．间歇时间：长按SET键，见"间歇"显示屏数字在跳动时，松开SET键，按▲ ▼ 键设置个位数；按下SET键，按▲ ▼ 键
设定十位数；再按下SET键，按▲ ▼ 键设定百位数；同时按键▲ ▼约2秒，间歇时间可分/秒转换（1-999分或1-999秒）；
也可定制为：同时按▲ ▼键约2秒，间歇时间可分/小时转换（1-999分或1-999小时）。
3．RST键，按一下此键可重新润滑或清除异常报警信号。
4．电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，
间歇时右边INT红灯亮。
5．ER0 闪烁时代表油量不足，ERP闪烁时代表压力异常。
6．数显中框内设有断电记忆功能，打开小开关⌐进入断电记忆。关闭小开关⌐，断电记忆停止。
7．数显框内设有按键锁功能⌐，可根据自行需要，设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

米朗 MIRAN®
润滑 LUB.(sec)　间歇 INT.(min)
8.8.8. 8.8.8.
SET ▲ ▼ RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again,
to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the
button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green
light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch,
and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
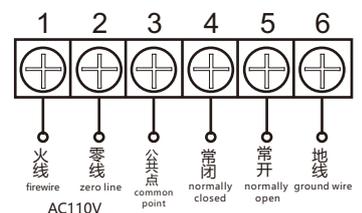(The lubrication program Can be customized according to customers' requirements)

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，
间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
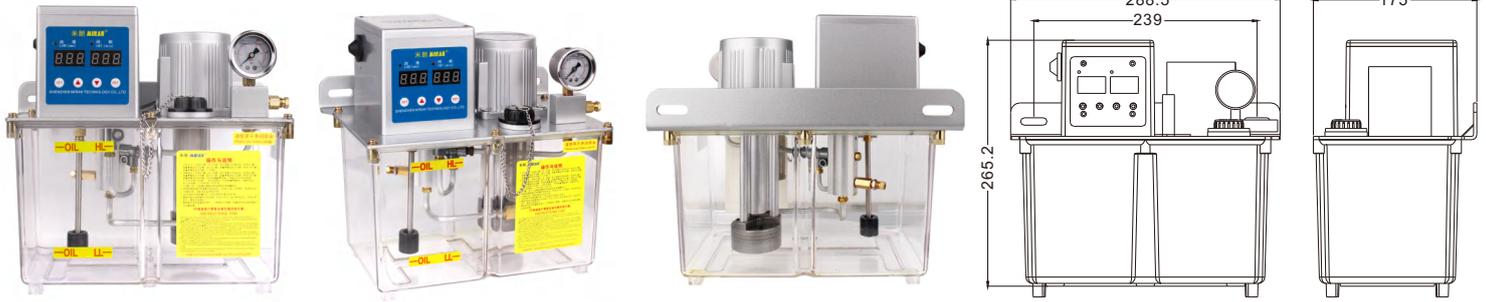3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，
油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、 Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、 Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump
is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display
ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、 3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump
pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil
pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC110V

米朗 MIRAN®

MRG-3232(5L)

稀油油脂一体润滑油泵微电脑型
Self-control Grease and Thin Oil Lubrication Pump

288.5
239
175
265.2

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3232-500TB	220V 50/60HZ									MRG2231 代表电压110V represent voltage
MRG-3232-500XB	220V 50/60HZ	1350rpm	25W	0.22A	20	35	5L	200-300CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-3232-510XB	220V 50/60HZ									MRG2232 代表电压220V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1. 工作时间：长按SET键，见"润滑"显示屏数字在跳动时，松开SET键，按▲ ▼键设定个位数;按下SET键，按▲ ▼键设定十位数；
再按下SET键，按▲ ▼键设定百位数(1-999秒)。
2. 间歇时间：长按SET键，见"间歇"显示屏数字在跳动时，松开SET键，按▲ ▼键设置个位数；按下SET键，按▲ ▼键
设定十位数；再按下SET键，按▲ ▼键设定百位数；同时按键▲ ▼约2秒，间歇时间可分/秒转换（1-999分或1-999秒）；
也可定制为：同时按▲ ▼键约2秒，间歇时间可分/小时转换（1-999分或1-999小时）。
3. RST键，按一下此键可重新润滑或清除异常报警信号。
4. 电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，
间歇时右边INT红灯亮。
5. ERO 闪烁时代表油量不足，ERP闪烁时代表压力异常。
6. 数显中框内设有断电记忆功能，打开小开关━进入断电记忆。关闭小开关━，断电记忆停止。
7. 数显框内设有按键锁功能━，可根据自行需要，设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again,
to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the
button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green
light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch,
and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
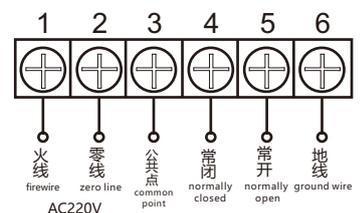(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®
润滑 LUB.(sec)   间歇 INT.(min)
8.8.8.   8.8.8.
SET ▲ ▼ RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，
间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
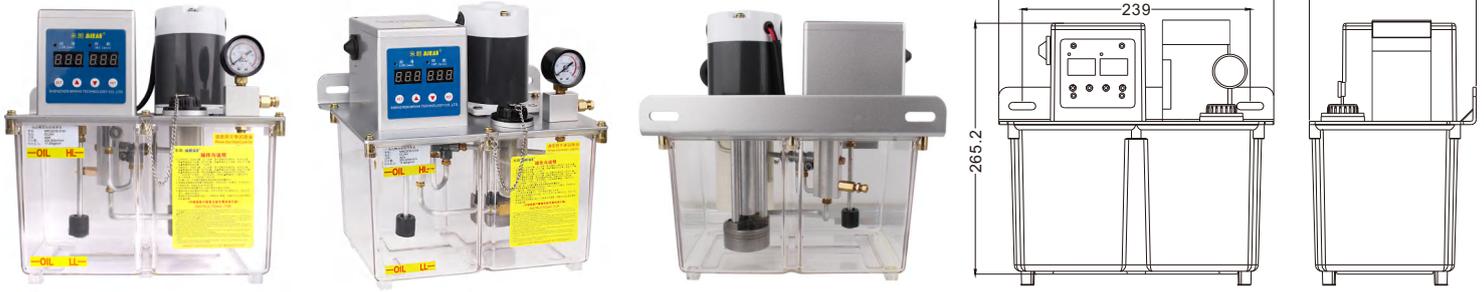3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，
油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、 Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、 Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump
is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display
ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、 3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump
pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil
pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC220V

MRG-3235（5L）

288.5
239
175
265.2

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3235-500TB	DC 24V									
MRG-3235-500XB	DC 24V	1800rpm	55W	3.8A	20	35	5L	300-500CC	30#00#	DC 24
MRG-3235-510XB	DC 24V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1. 工作时间：长按SET键，见"润滑"显示屏数字在跳动时，松开SET键，按▲▼键设定个位数;按下SET键，按▲▼键设定十位数；
再按下SET键，按▲▼键设定百位数（1-999秒）。
2. 间歇时间：长按SET键，见"间歇"显示屏数字在跳动时，松开SET键，按▲▼键设置个位数；按下SET键，按▲▼键
设定十位数；再按下SET键，按▲▼键设定百位数；同时按键▲▼约2秒，间歇时间可分/秒转换（1-999分或1-999秒）；
也可定制为：同时按▲▼键约2秒，间歇时间可分/小时转换（1-999分或1-999小时）。
3. RST键，按一下此键可重新润滑或清除异常报警信号。
4. 电路电源接通后系统属于给油状态，并进入LUB、INT循环，供油时左边LUB绿灯亮，
间歇时右边INT红灯亮。
5. ER0闪烁时代表油量不足，ERP闪烁时代表压力异常。
6. 数显中框内设有断电记忆功能，打开小开关━进入断电记忆。关闭小开关━，断电记忆停止。
7. 数显框内设有按键锁功能━，可根据自行需要，设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

米朗 MIRAN®
润滑 LUB.(sec)   间歇 INT.(min)
8.8.8.   8.8.8.
SET ▲ ▼ RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again,
to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the
button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green
light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch,
and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
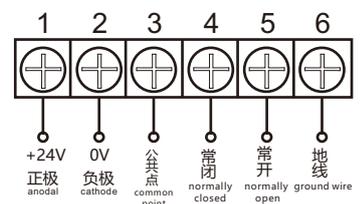(The lubrication program Can be customized according to customers' requirements)

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接DC24V正极，端子2接0V负极，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，
间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，
油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 is connected to the positive pole of DC24V, terminal 2 is connected to the negative pole of 0V, the oil
pump can start to work.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump
is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display
ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
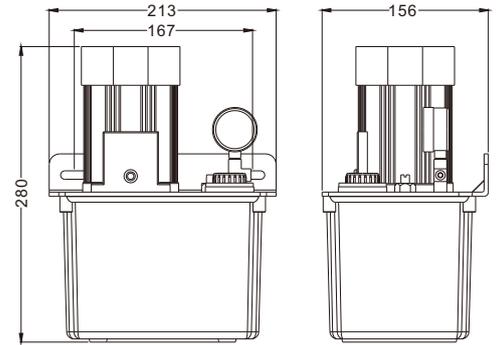3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump
pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil
pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
+24V 正极 anodal	0V 负极 cathode	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

MRG-5202(3L)

213
167
156
280

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5202-300T	220V 50/60HZ									MRG5202 代表电压220V represent voltage
MRG-5202-300X	220V 50/60HZ	2800rpm	60W	60W:0.45A	20	50（外调压）(external pressure regulation)	3L	300-500CC	30#稀油 ～00#油脂 30# thin oil ～ 00# grease	
MRG-5202-310X	220V 50/60HZ									MRG5203 代表电压380V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1. 使用全新稀油或00#油脂，禁止使用0#及浓油脂。
2. 禁止使用旧油，否则容易造成油路堵塞，机械零件磨损，影响油泵运行。
3. 适用于抵抗式，加压式或递进式黄油分配器配套使用。
4. 禁止无油启动，以免损坏电机。
5. 齿轮泵上的吊座有一个调压阀体，可调整压力。
6. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）

1. Using new thin oil or 00 # grease, prohibit to use 0 # and concentrated grease.
2. It is forbidden to use old oil, otherwise it will cause oil road blockage, mechanical parts wear and affect the operation of the oil pump.
3. Suitable for resistive, pressurized or progressive butter dispensers.
4. Do not start without oil so as not to damage the motor.
5. The suspension seat on the gear pump has a pressure regulator body to adjust the pressure.
6. Metal tanks can be customized according to customer needs.
（The lubrication program Can be customized）

接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子1接PLC控制电源火线，端子2接零线，可实现PLC控制油泵工作。
2、赫斯曼插头接线盒中的端子1和端子2为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、如果选配带压力开关，则赫斯曼插头中的1和2为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
4、注意：此款默认压力开关与液位开关二选一，如同时需要压力开关和液位开关，可定制。

1、The motor terminal 1 connected to the PLC control power supply line, terminal 2 connected to the zero line, can realize the PLC control of the oil pump work.
2、Hersman plug terminal 1 and terminal 2 in the junction box for the liquid level signal terminal, the default oil is normally open state, when the oil pump is out of oil, to reach
the alarm setting value when the closed path, liquid level alarm indicator light, to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
3、If optional with pressure switch, the Hersman plug in the 1 and 2 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is closed, the oil pump output pressure signal, can be used as a simple switch, connected in series in the customer's circuit.
4、Note: This default pressure switch and level switch two choose one, if you need both pressure switch and level switch, can be customized.
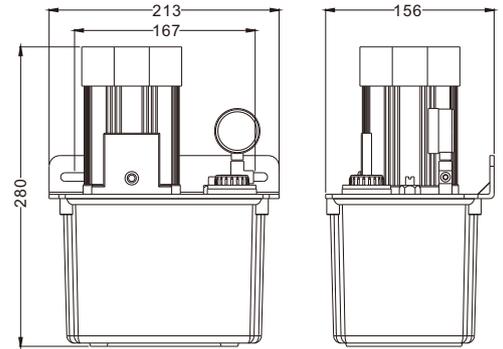
单相
single phase
1   2
AC 220V
火线   零线
firewire   zero line
L   N
电机接线盒
Motor Junction Box
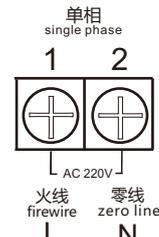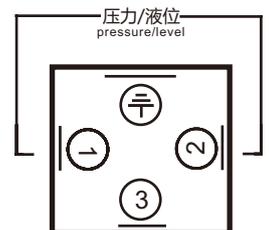
压力/液位
pressure/level
1
2
3
赫斯曼插头接线盒
Hersman Plug Junction Box

MRG-5203(3L)

稀油油脂一体润滑油泵PLC型

Automatic Grease and Thin Oil Lubrication Pump with PLC Type

213
167
156
280

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5203-300T	380V									MRG5202 代表电压220V represent voltage
MRG-5203-300X	380V	2800rpm	90W	90W:0.32A	20	50（外调压） (external pressure regulation)	3L	300-500CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	
MRG-5203-310X	380V									MRG5203 代表电压380V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1．使用全新稀油或00#油脂，禁止使用0#及浓油脂。
2．禁止使用旧油，否则容易造成油路堵塞，机械零件磨损，影响油泵运行。
3．适用于抵抗式，加压式或递进式黄油分配器配套使用。
4．禁止无油启动，以免损坏电机。
5．齿轮泵上的吊座有一个调压阀体，可调整压力。
6．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）

1. Using new thin oil or 00 # grease, prohibit to use 0 # and concentrated grease.
2. It is forbidden to use old oil, otherwise it will cause oil road blockage, mechanical parts wear and affect the operation of the oil pump.
3. Suitable for resistive, pressurized or progressive butter dispensers.
4. Do not start without oil so as not to damage the motor.
5. The suspension seat on the gear pump has a pressure regulator body to adjust the pressure.
6. Metal tanks can be customized according to customer needs.
（The lubrication program Can be customized）

接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子1、2、3分别接PLC控制电源三相电，可实现PLC控制油泵工作。注意：若接电后，电机工作，但不出油，电机反转，将任意两相对调即可！
2、赫斯曼插头接线盒中的端子1和端子2为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、如果选配带压力开关，则赫斯曼插头中的1和2为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
4、注意：此款默认压力开关与液位开关二选一，如同时需要压力开关和液位开关，可定制。

1、Will motor terminal 1、2、3 were connected to the PLC control power supply three-phase electricity, can realize PLC control oil pump work. Note: If after connecting the power, the motor works, but not out of oil, the motor reversed, will be any two-phase power can be adjusted!
2、Hersman plug terminal 1 and terminal 2 in the junction box for the liquid level signal terminal, the default oil for the normally open state, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light, to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
3、If the optional pressure switch, the Hersman plug in the 1 and 2 for the pressure signal terminal, the default pressure is normally closed when the pressure is normal, when the oil pump pressure is lower than the pressure setting value when the circuit is closed, the oil pump output pressure signal, can be used as a simple switch, connected in series in the customer's circuit.
4、Note: This default pressure switch and level switch two choose one, if you need both pressure switch and level switch, can be customized.

三相
three-phase

1	2	3
A	B	C
L1	L2	L3

电机接线盒
Motor Junction Box

压力/液位
pressure/level
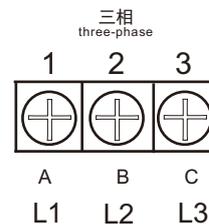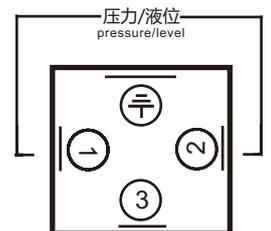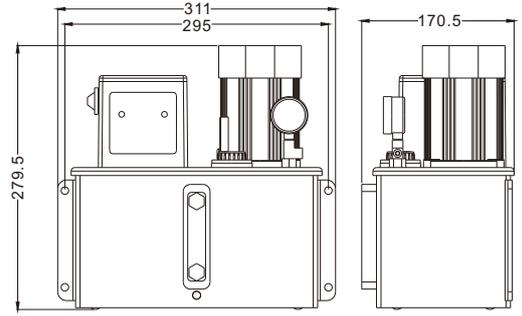
赫斯曼插头接线盒
Hersman Plug Junction Box

MRG-3202-41(4L)

下图为金属油箱，材质为铁或铝。4L塑胶油箱也是常规产品。
The picture below shows the metal fuel tank, the material is iron or aluminum.4L plastic fuel tank is also a regular product.

稀油油脂电动一体润滑油泵PLC型
Self-control Grease and Thin Oil Lubrication Pump with PLC Type

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3202-4100T	220V 50/60HZ	1350rpm	25W	60W:0.22A	20	40（外调压）(external pressure regulation)	4L	200~300 CC/min	30#稀油~00#油脂 30# thin oil ~ 00# grease	MRG5202 代表电压220V represent voltage MRG5203 代表电压380V represent voltage
MRG-3202-4100X	220V 50/60HZ									
MRG-3202-4110X	220V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定
2. 油箱容量油2、3、4升等，吐出量200-300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3. 油泵里面内设两个阀（一个调压阀，一个卸压阀）。
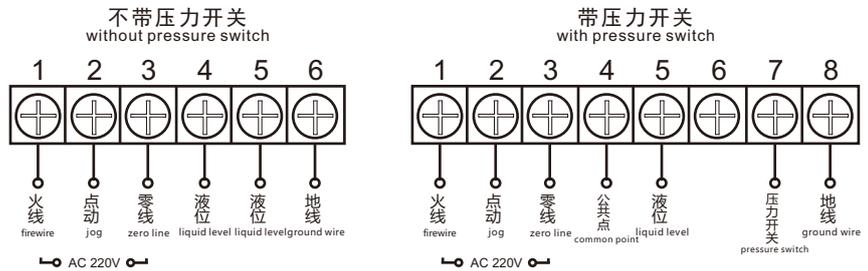4. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1. Oil supply and intermittent time are adjustable by PC controller.
2. With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3. There are two valves in the oil pump, pressure regulating valve and unloading valve.
4. Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源 POWER

报警 ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯 WORK

报警指示灯 ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6
火线 firewire	点动 jog	零线 zero line	液位 liquid level	液位 liquid level	地线 ground wire

AC 220V

带压力开关
with pressure switch

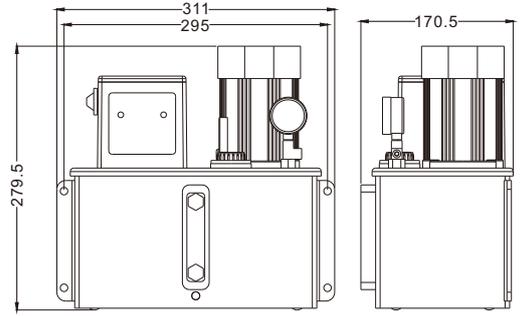| 1	2	3	4	5	6	7	8
火线 firewire	点动 jog	零线 zero line	公共点 common point	液位 liquid level		压力开关 pressure switch	地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、Terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-3205-41(4L)

下图为金属油箱，材质为铁或铝。4L塑胶油箱也是常规产品。
The picture below shows the metal fuel tank, the material is iron or aluminum.4L plastic fuel tank is also a regular product.

稀油油脂电动一体润滑油泵PLC型
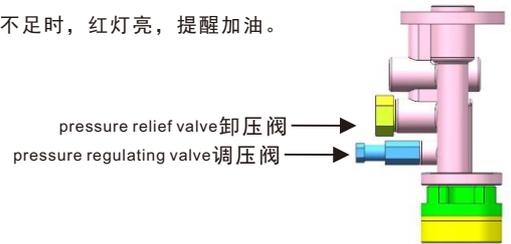### Self-control Grease and Thin Oil Lubrication Pump with PLC Type

311
295
170.5
279.5

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3205-4100T	DC 24V									
MRG-3205-4100X	DC 24V	1800rpm	55W	3.8A	20	60（外调压） （external pressure regulation）	4L	200-300 CC/min	30#稀油~00#油脂 30# thin oil ~ 00# grease	
MRG-3205-4110X	DC 24V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

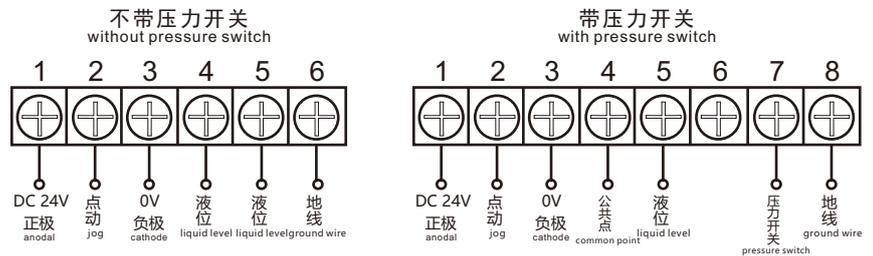## 性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定。
2. 油箱容量有2、3、4、5升等，吐出量200-300ml/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3. 油泵里面内设两个阀（一个调压阀，一个卸压阀），如右图。
4. 可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The red light is on when the oil quantity is insufficient, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve. (refer to figure)
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

pressure relief valve卸压阀
pressure regulating valve调压阀

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1	2	3	4	5	6

DC 24V
正极
anodal | 点动
jog | 0V
负极
cathode | 液位
liquid level | 液位
liquid level | 地线
ground wire

带压力开关
with pressure switch

1	2	3	4	5	6	7	8

DC 24V
正极
anodal | 点动
jog | 0V
负极
cathode | 公共点
common point | 液位
liquid level | | 压力开关
pressure switch | 地线
ground wire

1、端子1接PLC控制电源DC24V正极，端子3接0V负极，可实现PLC控制油泵工作。
2、端子2接（经PLC或不经PLC）一直通电的DC24V正极，端子3接0V负极，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the positive pole of DC24V of PLC control power supply, and terminal 3 is connected to the negative pole of 0V, which can realize the work of PLC control oil pump.
2、Terminal 2 is connected(by PLC or not) to the DC24V positive terminal that is always energized, and terminal 3 connects to 0V negative pole, which can realize the oil pump oil supply through the oil pump's own point switch.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.
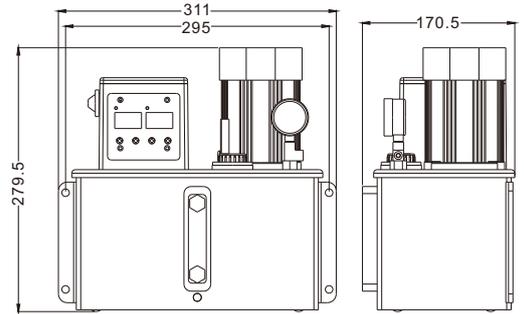
MRG-3232-41(4L)

下图为金属油箱，材质为铁或铝。4L塑胶油箱也是常规产品。

The picture below shows the metal fuel tank, the material is iron or aluminum.4L plastic fuel tank is also a regular product.

稀油油脂电动一体润滑油泵微电脑型
Self-controlled Grease and Thin Oil Lubrication Pump

311
295
170.5
279.5

技术参数 Technical parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3232-4100TB	220V 50/60HZ									
MRG-3232-4100XB	220V 50/60HZ	1350rpm	25W	0.22A	20	40（外调压） （external pressure regulation）	4L	200-300 CC/min	30#稀油~00#油脂 30# thin oil ~ 00# grease	
MRG-3232-4110XB	220V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

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使用方法 Method

1. 工作时间：请长按SET键,见数字在跳动时，松开SET键，按▲▼键设定个位数;按下SET键，按▲▼键设定十位数；再按下SET键，一下SET键设定百位数(1~999秒)。
2. 间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲▼设置个位数；按一下SET键，同时按键▲▼约2秒，间歇时间可分秒转换（1~999分或1~999秒）。
3. RST键：按住此键可重新润滑或清除异常报警。
4. 电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5. ERO闪烁时代表油量不足，ERP闪烁时代表压力异常。
6. 数显中框内设有断电记忆功能，打开小开关 ⊏ 进入断电记忆。关闭小开关 ⊏ ，断电记忆停止。
7. 数显框内设有按键锁功能 ⊏ ，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
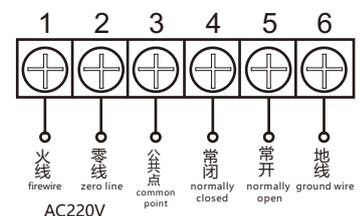(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®
润滑 LUB.(sec)   间歇 INT.(min)
8.8.8.   8.8.8.
SET   ▲   ▼   RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ERO，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1 2 3 4 5 6
火线 firewire | 零线 zero line | 公共点 common point | 常闭 normally closed | 常开 normally open | 地线 ground wire
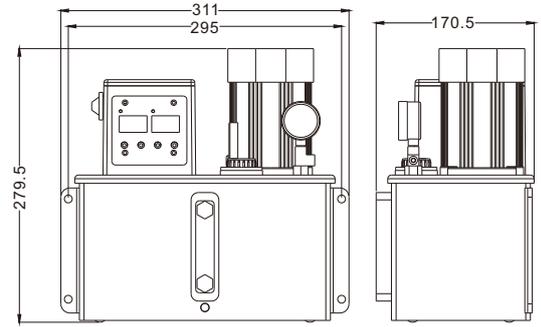AC220V

米朗 MIRAN®

MRG-3235-41(4L)

下图为金属油箱，材质为铁或铝。4L塑胶油箱也是
常规产品。

The picture below shows the metal fuel tank, the material
is iron or aluminum.4L plastic fuel tank is also a regular product.

稀油油脂电动一体润滑油泵微电脑型
Self-controlled Grease and Thin Oil Lubrication Pump

技术参数 Technical parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-3235-4100TB	DC 24V									
MRG-3235-4100XB	DC 24V	1800rpm	55W	3.8A	20	60（外调压） （external pressure regulation）	4L	200-300 CC/min	30#稀油~00#油脂 30# thin oil ~ 00# grease	
MRG-3235-4110XB	DC 24V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1.工作时间：请长按SET键,见数字在跳动时，松开SET键，按▲ ▼键设定个位数;按下SET键，按▲ ▼键设定十位数；再按下SET键，一下SET键设定百位数(1-999秒)。
2.间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲ ▼键设置个位数；按一下SET键，同时按键▲ ▼约2秒，间歇时间可分秒转换（1-999分或1-999秒）。
3.RST键：按住此键可重新润滑或清除异常报警。
4.电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5.ERO闪烁时代表油量不足，ERP闪烁时代表压力异常。
6.数显中框内设有断电记忆功能，打开小开关▬进入断电记忆。关闭小开关▬，断电记忆停止。
7.数显框内设有按键锁功能▬，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
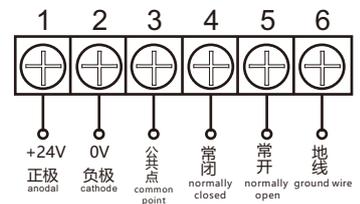(The lubrication program Can be customized according to customers' requirements)

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接DC24V正极，端子2接0V负极，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ERO，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the positive pole of DC24V, terminal 2 is connected to the negative pole of 0V, the oil pump can start to work.
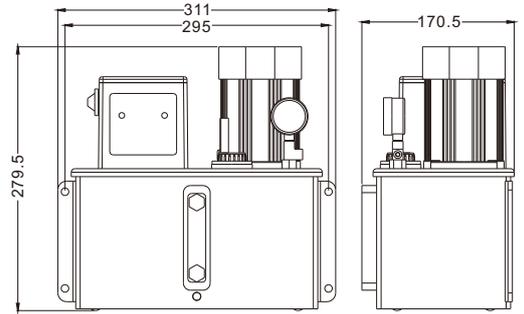2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-5202-41(4L)

下图为金属油箱，材质为铁或铝。4L塑胶油箱也是常规产品。

The picture below shows the metal fuel tank, the material is iron or aluminum.4L plastic fuel tank is also a regular product.

稀油油脂电动一体润滑油泵PLC型
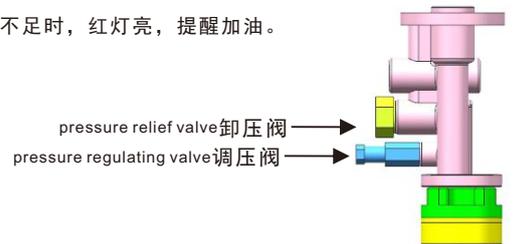### Self-control Grease and Thin Oil Lubrication Pump with PLC Type

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5202-4100T	220V 50/60HZ									MRG5202 代表电压220V represent voltage
MRG-5202-4100X	220V 50/60HZ	2800 rpm	60W	0.45A	20	60 (外调压) （external pressure regulation）	4L	300~500CC	30#稀油~00#油脂 30# thin oil ~ 00# grease	MRG5203 代表电压380V represent voltage
MRG-5202-4110X	220V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor
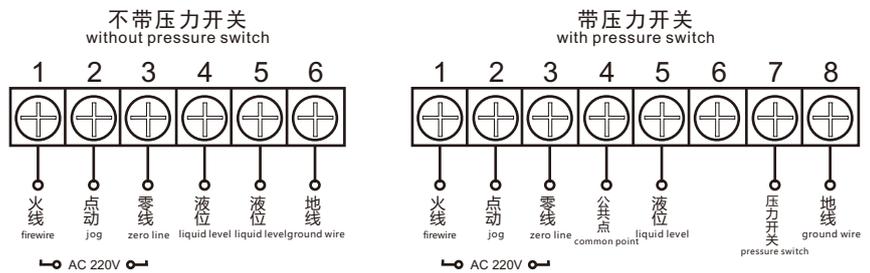
性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定。
2．油箱容量有2、3、4、5升等，吐出量200- 300ml/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3．油泵里面内设两个阀（一个调压阀，一个卸压阀），如右图。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）

1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The red light is on when the oil quantity is insufficient, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve. (refer to figure)
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

pressure relief valve卸压阀
pressure regulating valve调压阀

面板图 The control panel

米朗 MIRAN®

电源 POWER
报警 ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯 WORK
报警指示灯 ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1 2 3 4 5 6

火线 firewire
点动 jog
零线 zero line
液位 liquid level
液位 liquid level
地线 ground wire

AC 220V

带压力开关
with pressure switch

1 2 3 4 5 6 7 8

火线 firewire
点动 jog
零线 zero line
公共点 common point
液位 liquid level
压力开关 pressure switch
地线 ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接(经PLC或不经PLC)一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、Terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.
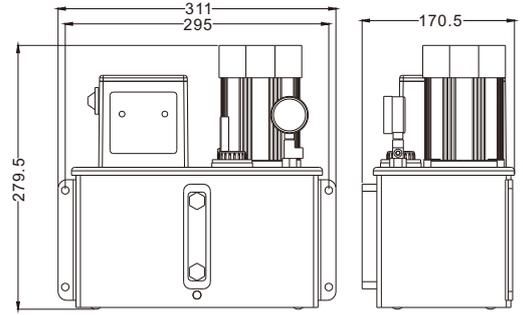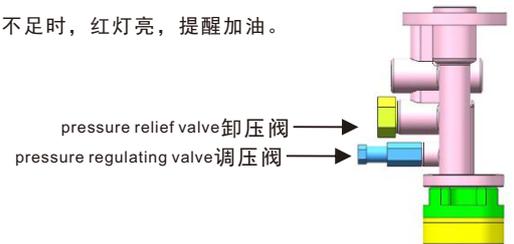
MRG-5203-41(4L)

下图为金属油箱，材质为铁或铝。4L塑胶油箱也是常规产品。
The picture below shows the metal fuel tank, the material is iron or aluminum.4L plastic fuel tank is also a regular product.

311
295
170.5
279.5

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5203-4100T	380V									MRG5202 代表电压220V represent voltage
MRG-5203-4100X	380V	2800rpm	90W	90W:0.32A	20	60（外调压） (external pressure regulation）	4L	300-500CC	30#稀油~00#油脂 30# thin oil ~ 00# grease	
MRG-5203-4110X	380V									MRG5203 代表电压380V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定。
2．油箱容量有2、3、4、5升等，吐出量200-300ml/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
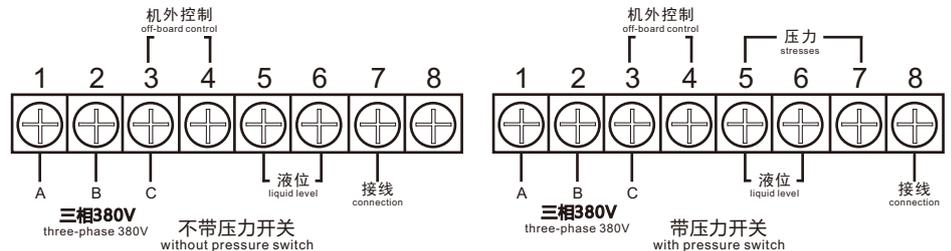3．油泵里面内设两个阀（一个调压阀，一个卸压阀），如右图。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）

1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The red light is on when the oil quantity is insufficient, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve. (refer to figure)
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

pressure relief valve卸压阀
pressure regulating valve调压阀

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯WORK
报警指示灯ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

机外控制 off-board control

1 2 3 4 5 6 7 8

A B C

三相380V
three-phase 380V

不带压力开关
without pressure switch

液位 liquid level

接线 connection

机外控制 off-board control

压力 stresses

1 2 3 4 5 6 7 8

A B C

三相380V
three-phase 380V

带压力开关
with pressure switch

液位 liquid level

接线 connection

1、将端子1、2、3分别连接三相电后，PLC连接端子3和端子4，可实现PLC控制油泵工作。
注意：若接电后，电机工作，但不出油，电机反转，将任意两相电对调即可！
2、将端子1、2、3分别接三相电后，端子3、4断开时，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子5和6为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则5和7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、The terminal 1、2、3 were connected to the three-phase electricity, PLC connected to terminal 3 and terminal 4, can realize PLC control oil pump work.
Note: If the motor works after connecting the electricity, but no oil, the motor reverses, any two-phase electricity can be adjusted!
2、The terminal 1、2、3 were connected to the three-phase electricity, terminal 3、4 disconnected, can be realized through the oil pump comes with a point switch to control the oil pump oil supply.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 5 and 6 for the liquid level signal terminal, the default oil for the normally open state, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If the optional pressure switch, 5 and 7 are pressure signal terminals, normally closed when the default pressure is normal, when the oil pump pressure is lower than the pressure setting value, the oil pump outputs a signal of insufficient pressure, which can be used as a simple switch and connected in series in the customer's circuit.
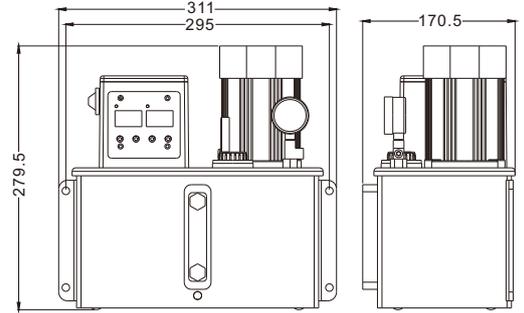
米朗 MIRAN®

MRG-5232-41(4L)

下图为金属油箱，材质为铁或铝。4L塑胶油箱也是常规产品。
The picture below shows the metal fuel tank, the material is iron or aluminum.4L plastic fuel tank is also a regular product.

稀油油脂电动一体润滑油泵微电脑型
Self-controlled Grease and Thin Oil Lubrication Pump

311
295
279.5
170.5

技术参数 Technical parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5232-4100TB	220V 50/60HZ									MRG5232 代表电压 220V represent voltage MRG5233 代表电压 380V represent
MRG-5232-4100XB	220V 50/60HZ	2800rpm	60W	0.45A	20	60（外调压）(external pressure regulation)	4L	300-500CC	30#稀油～00#油脂 30# thin oil ~ 00# grease	
MRG-5232-4110XB	220V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

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使用方法 Method

1. 工作时间：请长按SET键，见数字在跳动时，松开SET键，按▲ ▼键设定个位数;按下SET键，按▲ ▼键设定十位数；再按下SET键，一下SET键设定百位数(1-999秒)。
2. 间歇时间：请长按SET键，见另一个显示屏数字在跳动时，松开SET键，按键▲ ▼键设置个位数；按一下SET键，同时按键▲ ▼约2秒，间歇时间可分秒转换（1-999分或1-999秒）。
3. RST键：按住此键可重新润滑或清除异常报警。
4. 电路电源接通后系统属于给油状态，并进入LUB、INT循环，供油时左边LUB绿灯亮，间歇时右边INT红灯亮。
5. ERO闪烁时代表油量不足，ERP闪烁时代表压力异常。
6. 数显中框内设有断电记忆功能，打开小开关━进入断电记忆。关闭小开关━，断电记忆停止。
7. 数显框内设有按键锁功能━，可根据自行需要设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again, to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch, and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
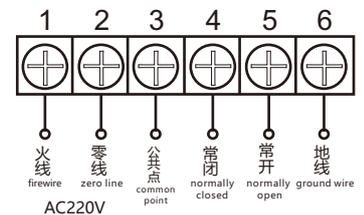(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®
润 滑 LUB.(sec)　间 歇 INT.(min)
8.8.8.　8.8.8.
SET　▲　▼　RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1　2　3　4　5　6
火线 firewire　零线 zero line　公共点 common point　常闭 normally closed　常开 normally open　地线 ground wire
AC220V

MRG-5202（5L）

Self-control Grease and Thin Oil Lubrication Pump with PLC Type

288.5
239
265.2
175

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5202-500T	220V 50/60HZ									MRG5203 代表电压380V represent voltage
MRG-5202-500X	220V 50/60HZ	2800rpm	60W	0.45A	20	50（外调压） （external pressure regulation）	5L	300~500CC	30#稀油~00#油脂 30# thin oil ~ 00# grease	MRG5202 代表电压220V represent voltage
MRG-5202-510X	220V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
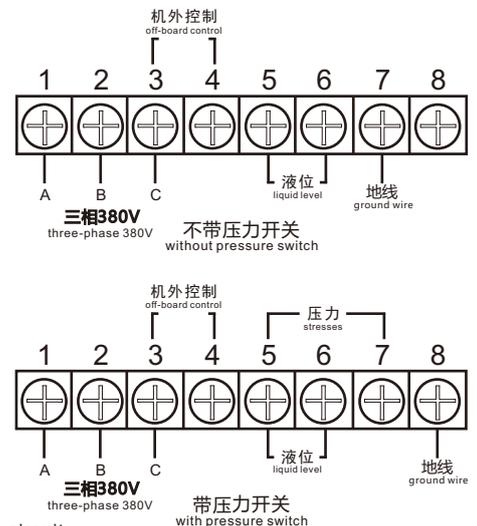*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1.供油和间歇时间同主机电脑控制设定
2.油箱容量油2、3、4升等，吐出量200-300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3.油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4.可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc.
There are oil level gauge and automatic oil control device on the oil tank.
The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

面板图 The control panel

米朗 MIRAN®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

不带压力开关
without pressure switch

1 2 3 4 5 6

火线 点动 零线 液位 液位 地线
firewire jog zero line liquid level liquid level ground wire

AC 220V

带压力开关
with pressure switch

1 2 3 4 5 6 7 8

火线 点动 零线 公共点 液位 压力开关 地线
firewire jog zero line common point liquid level pressure switch ground wire

AC 220V

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。
2、端子2接（经PLC或不经PLC）一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。
3、端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则端子4和端子7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.
2、Terminal 2 is connected to the fire wire which is always energized (by PLC or not), and terminal 3 is connected to the zero wire, which can be realized to control the oil supply of the oil pump by the oil pump's own ignition switch.
3、Terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, then terminal 4 and terminal 7 for the pressure signal terminal, default pressure normal normally closed, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRG-5203（5L）

288.5
239
175
265.2

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5203-500T	380V									
MRG-5203-500X	380V	2800rpm	90W	90W:0.32A	20	50（外调压） （external pressure regulation）	5L	300-500CC	30#稀油 ～00#油脂 30# thin oil ～ 00# grease	
MRG-5203-510X	380V									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

性能与特点 Performance characteristics

1．供油和间歇时间同主机电脑控制设定
2．油箱容量油2、3、4升等，吐出量200- 300CC/min，油箱有目视油位计和自动控油装置，当油量不足时，红灯亮，提醒加油。
3．油泵里面内设两个阀（一个调压阀，一个卸压阀）。
4．可根据客户需求定制专属金属油箱。
（可根据客户需要定做专属润滑方案）
1.Oil supply and intermittent time are adjustable by PC controller.
2.With the out of oil 200~300CC/min, the oil tank capacity has 2, 3 and 4 litre, etc. There are oil level gauge and automatic oil control device on the oil tank.The oil quantity is insufficient when the red light is on, which reminds you to fill it up.
3.There are two valves in the oil pump, pressure regulating valve and unloading valve.
4.Metal oil tank can be customized.
(specific lubrication plan can be customized)

米朗 **MIRAN**®

电源
POWER

报警
ALARM

SHENZHEN MIRAN TECHNOLOGY CO.,.LTD

工作指示灯
WORK

报警指示灯
ALARM

接线图与接线说明 Wiring diagrams and wiring instructions

1、将端子1、2、3分别连接三相电后，PLC连接端子3和端子4，可实现PLC控制油泵工作。
注意：若接电后，电机工作，但不出油，电机反转，将任意两相电对调即可！
2、将端子1、2、3分别接三相电后，端子3、4断开时，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，端子5和6为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则5和7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、The terminal 1、2、3 were connected to the three-phase electricity, PLC connected to terminal 3 and terminal 4, can realize PLC control oil pump work. Note: If the motor works after connecting the electricity, but no oil, the motor reverses, any two-phase electricity can be adjusted!
2、The terminal 1、2、3 were connected to the three-phase electricity, terminal 3 and 4 disconnected, can be realized through the oil pump comes with a point switch to control the oil pump oil supply.
3、The oil pump itself comes with a liquid level alarm indicator, terminal 5 and 6 for the liquid level signal terminal, the default oil for the normally open state, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If the optional pressure switch, 5 and 7 are pressure signal terminals, normally closed when the default pressure is normal, when the oil pump pressure is lower than the pressure setting value, the oil pump outputs a signal of insufficient pressure, which can be used as a simple switch and connected in series in the customer's circuit.

机外控制
off-board control

1	2	3	4	5	6	7	8

A B C 液位 地线
liquid level ground wire
三相380V 不带压力开关
three-phase 380V without pressure switch

机外控制
off-board control

压力
stresses

1	2	3	4	5	6	7	8

A B C 液位 地线
liquid level ground wire
三相380V 带压力开关
three-phase 380V with pressure switch

MRG-5232(5L)

288.5
239
265.2
175

技术参数 Technical Parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kgf/cm²	最大压力 Max pressure kgf/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kgf/cm²	备注 Remarks
MRG-5232-500TB	220V 50/60HZ									
MRG-5232-500XB	220V 50/60HZ	2800rpm	60W	0.45A	20	50（外调压） （external pressure regulation）	5L	300-500CC	30#稀油 ~00#油脂 30# thin oil ~ 00# grease	MRG5232 代表电压220V represent voltage
MRG-5232-510XB	220V 50/60HZ									

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1．工作时间：长按SET键，见"润滑"显示屏数字在跳动时，松开SET键，按▲▼键设定个位数;按下SET键，按▲▼键设定十位数;
再按下SET键，按▲▼键设定百位数(1-999秒)。
2．间歇时间：长按SET键，见"间歇"显示屏数字在跳动时，松开SET键，按▲▼键设置个位数；按下SET键，按▲▼键
设定十位数；再按下SET键，按▲▼键设定百位数；同时按键▲▼约2秒，间歇时间可分/秒转换（1-999分或1-999秒）；
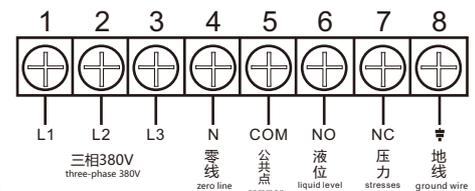也可定制为：同时按▲▼键约2秒，间歇时间可分/小时转换（1-999分或1-999小时）。

3．RST键，按一下此键可重新润滑或清除异常报警信号。
4．电路电源接通后系统属于给油状态，并进入LUB、INT循环，供油时左边LUB绿灯亮，
间歇时右边INT红灯亮。
5．ER0闪烁时代表油量不足，ERP闪烁时代表压力异常。
6．数显中框内设有断电记忆功能，打开小开关┗进入断电记忆。关闭小开关┗，断电记忆停止。
7．数显框内设有按键锁功能┗，可根据自行需要，设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲▼ to set unit digit; and press the button of SET again,
to set ten digit with pressing ▲▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲▼ to set unit digit; and press the
button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green
light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch,
and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

米朗 MIRAN®
润滑 LUB.(sec) | 间歇 INT.(min)
8.8.8. | 8.8.8.
SET ▲ ▼ RST
SHENZHEN MIRAN TECHNOLOGY CO.,LTD

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，
间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，
油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump
is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display
ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump
pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil
pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

AC220V

MRG-5233(5L)

288.5
239
265.2
175

技术参数 Technical parameters

型号 Model	电压频率 Voltage	额定转速 Rated ritary Speed	功率 Power	电流 Current	额定压力 Rated pressure kfg/cm²	最大压力 Max pressure kfg/cm²	容积 Volume	吐出量 Discharge capacity ml/min	使用油粘度 Rated pressure kfg/cm²	备注 Remarks
MRG-5233(5L)	380V 50/60HZ	2800rpm	90W	0.32A	20	50（外调压） （external pressure regulation）	5L	300-500CC	30# ~00# 30# thin oil ~ 00# grease	MRG5233 代表电压380V represent voltage

*型号带"T"为抵抗式，带"X"为容积式，不带"A"为异步电机
*Model with "T" for resistance type, with "X" for volumetric type, without "A" for asynchronous motor

使用方法 Method

1. 工作时间：长按SET键,见"润滑"显示屏数字在跳动时，松开SET键，按▲ ▼键设定个位数;按下SET键，按▲ ▼键设定十位数；
再按下SET键，按▲ ▼键设定百位数(1~999秒)。
2. 间歇时间：长按SET键，见"间歇"显示屏数字在跳动时，松开SET键，按▲ ▼键设置个位数；按下SET键，按▲ ▼键
设定十位数；再按下SET键，按▲ ▼键设定百位数；同时按键▲ ▼约2秒，间歇时间可分/秒转换（1-999分或1-999秒）；
也可定制为：同时按▲ ▼键约2秒，间歇时间可分/小时转换（1-999分或1-999小时）。

3. RST键，按一下此键可重新润滑或清除异常报警信号。
4. 电路电源接通后系统属于给油状态，并进入LUB、 INT循环，供油时左边LUB绿灯亮，
间歇时右边INT红灯亮。
5. ERO 闪烁时代表油量不足，ERP闪烁时代表压力异常。
6. 数显中框内设有断电记忆功能，打开小开关⊏进入断电记忆。关闭小开关⊏，断电记忆停止。
7. 数显框内设有按键锁功能⊏，可根据自行需要，设置好时间后是否需锁住设置按键。
（可根据客户需要定做专属润滑方案）

1.Working time: press and hold the SET button, release it when the numbers jump, then press ▲ ▼ to set unit digit; and press the button of SET again,
to set ten digit with pressing ▲ ▼; press SET to hundreds digit(1~999 seconds).
2.Interval time: press and hold the SET button, release it when the numbers in other Display screen jump, then press ▲ ▼ to set unit digit; and press the
button of SET for two seconds, the interval time can shift between minutes and second(1~999 minutes or 1~999 seconds).
3.RST: Press and hold this key to relubricate or clear the abnormal alarm.
4.After the circuit power is turned on, the system belongs to the oil supply state, and enters the LUB, INT cycle. When the fuel is supply , the left LUB green
light is on, the right INT red light is on when the system is on rest.
5.When the ERO flashes, it means that the amount of oil is insufficient, and when the ERP flashes, it means that the pressure is abnormal.
6.There is no power-off memory function in the digital display box, and a small switch is turned on to enter the power-off memory. Turn off the small switch,
and the power off memory stops.
7.There is a key lock function in the digital display box. You can lock the set button after setting the time according to your needs.
(The lubrication program Can be customized according to customers' requirements)

接线图与接线说明 Wiring diagrams and wiring instructions

1、将端子1、2、3分别连接三相电后，PLC连接端子3和端子4，可实现PLC控制油泵工作。注意：若接电后，
电机工作，但不出油，电机反转，将任意两相电对调即可！
2、将端子1、2、3分别接三相电后，端子3、4断开时，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，5和6为液位信号端子，默认有油时为常开状态，当油泵缺油时，
到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户
的电路中。
4、如果选配带压力开关，则5和7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定
值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、the terminal 1、2、3 were connected to three-phase electricity, PLC connected to terminal 3 and terminal 4,
can realize PLC control oil pump work. Note: If after connecting the electricity, the motor works, but does not produce
oil, the motor reverses, any two-phase electricity can be adjusted!
2、the terminal 1、2、3 were connected to the three-phase power, terminal 3、4 disconnected, can be realized through
the oil pump comes with a point switch to control the oil pump oil supply.
3、the oil pump itself comes with a liquid level alarm indicator, 5 and 6 for the liquid level signal terminals, the default oil is normally open state, when the oil
pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as
a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, 5 and 7 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure
is lower than the pressure setting value when the circuit is closed, the oil pump output pressure signal, can be used as a simple switch, connected in series in
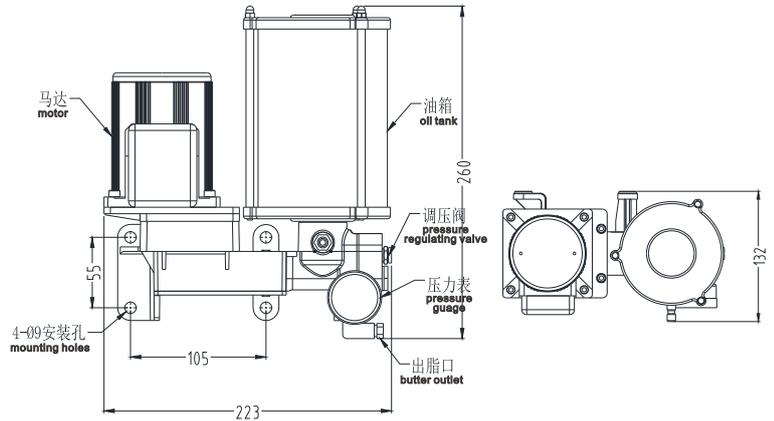the customer's circuit.

1	2	3	4	5	6	7	8
L1	L2	L3	N	COM	NO	NC	
三相380V three-phase 380V			零线 zero line	公共点 common point	液位 liquid level	压力 stresses	地线 ground wire

MRH-1201-100T

技术参数 Technical parameters

操作方式	Operating mode	PLC控制 containment
额定注油压力	Max.discharge pressure	0~70Kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	单相110VAC single phase
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	NLGI 000#~0#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

外形图 External figure

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定。

2. 油箱容量有1L、2L、3L、4L，吐出量50ml/min，视油箱有油位计。

3. 电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器,将润滑油脂注入所需润滑点;该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.

2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.

3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission. The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.
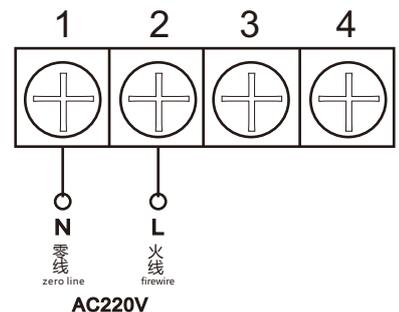
接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子2接PLC控制电源火线,端子1接零线,可实现PLC控制油泵工作。

注意：此款默认无压力开关，无液位开关，如有需要，下单时请备注。

1、the motor terminal 2 connected to the PLC control power supply fire wire, terminal 1 connected to the zero line, can realize the PLC control oil pump work.

Note: This default no pressure switch, no level switch, if necessary, please note when ordering.
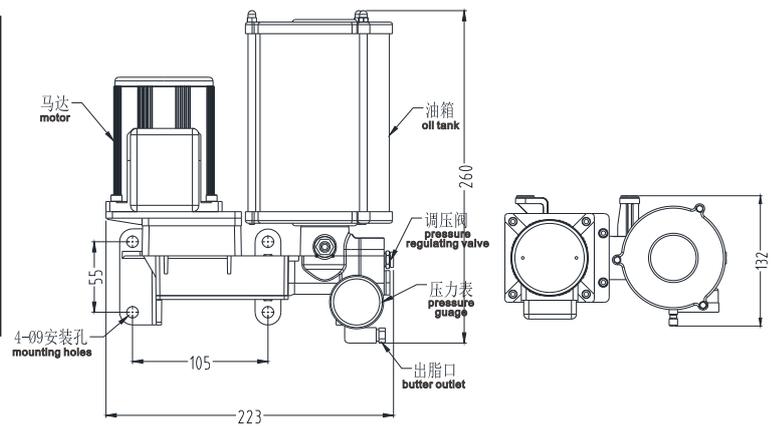
MRH-1202-100T

技术参数 Technical parameters

操作方式	Operating mode	PLC控制 containment
额定注油压力	Max.discharge pressure	0~70Kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	单相220VAC single phase
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	NLGI 000#~0#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

外形图 External figure

马达 motor
油箱 oil tank
调压阀 pressure regulating valve
压力表 pressure guage
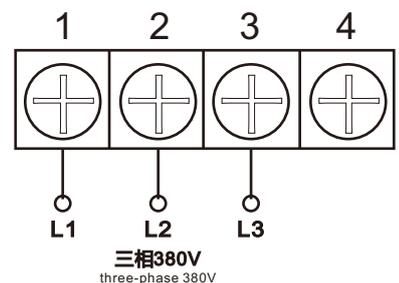4-Φ9安装孔 mounting holes
出脂口 butter outlet
260
132
55
105
223

性能与特点 Performance characteristics

1.供油和间歇时间同主机电脑控制设定。

2.油箱容量有1L、2L、3L、4L，吐出量50ml/min，视油箱有油位计。

3.电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器,将润滑油脂注入所需润滑点;该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.

2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.

3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission. The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.

接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子2接PLC控制电源火线,端子1接零线,可实现PLC控制油泵工作。

注意：此款默认无压力开关，无液位开关，如有需要，下单时请备注。

1、 the motor terminal 2 connected to the PLC control power supply fire wire, terminal 1 connected to the zero line, can realize the PLC control oil pump work.

Note: This default no pressure switch, no level switch, if necessary, please note when ordering.

1　2　3　4

N 零线 zero line
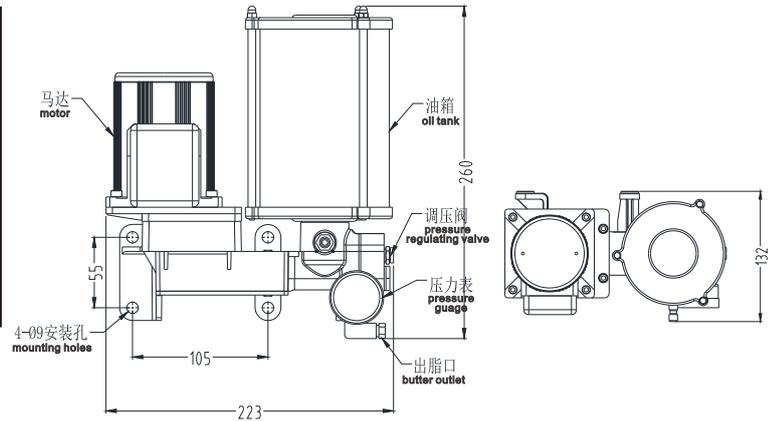L 火线 firewire

AC220V

MRH-1203-100T

技术参数 Technical parameters

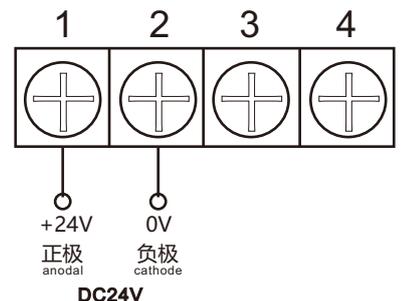| 操作方式	Operating mode	PLC控制	containment
额定注油压力	Max.discharge pressure	0~70Kgf/cm²	
注油流量	Theoretical discharge	50ml/min	
电机电压	Motor voltage	三相380VAC three-phase	
电机功率	Motor power	40W	
润滑油粘度范围	Viscosity range	NLGI 000#~0#	
油箱容积	Reservoir	1L/2L/3L/4L	
出油口管道	Outlet pipe	Φ6mm	
适用系统	Applicable system	抵抗式	resistant

外形图 External figure

性能与特点 Performance characteristics

1.供油和间歇时间同主机电脑控制设定。

2.油箱容量有1L、2L、3L、4L，吐出量50ml/min，视油箱有油位计。

3.电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器,将润滑油脂注入所需润滑点;该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.

2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.

3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission. The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.

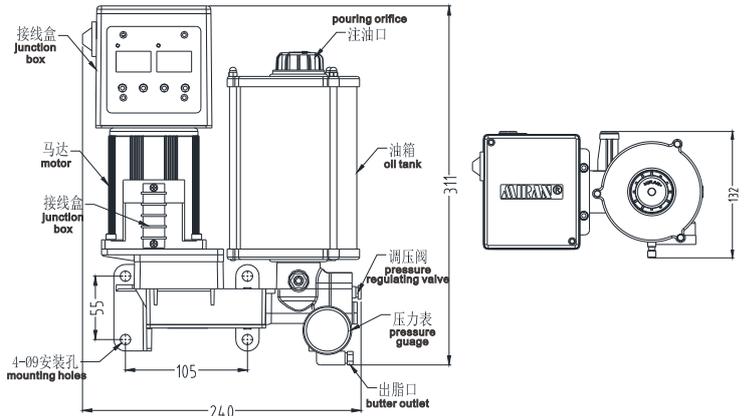## 接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子1、2、3分别接PLC控制电源三相电，可实现PLC控制油泵工作。

注意：此款默认无压力开关，无液位开关，如有需要，下单时请备注。

1、The motor terminal 1、2、3 were connected to the PLC control power supply three-phase electricity, can realize the PLC control oil pump work.

Note: This default no pressure switch, no level switch, if necessary, please note when ordering.

MRH-1205-100T

技术参数 Technical parameters

操作方式	Operating mode	PLC控制　containment
额定注油压力	Max.discharge pressure	0~70Kgf/cm^2
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	24VDC
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	NLGI 000#~0#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式　resistant

外形图 External figure

性能与特点 Performance characteristics

1.供油和间歇时间同主机电脑控制设定。

2.油箱容量有1L、2L、3L、4L，吐出量50ml/min，视油箱有油位计。

3.电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器,将润滑油脂注入所需润滑点;该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.

2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.

3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission. The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.

接线图与接线说明 Wiring diagrams and wiring instructions

1、端子1接DC24V正极，端子2接0V负极，油泵即可开始工作。

注意：此款默认无压力开关，无液位开关，如有需要，下单时请备注。

1、Terminal 1 is connected to DC24V positive pole, terminal 2 is connected to 0V negative pole, the oil pump can start to work.

Note: This default no pressure switch, no level switch, if necessary, please note when ordering.

MRH-1231-100TB

全自动油脂泵微电脑型
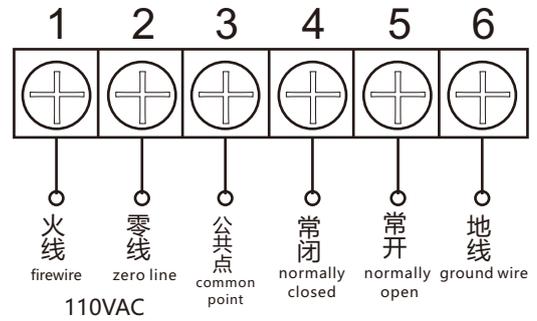## Automatical Grease Lubrication Pump

技术参数 Technical parameters

操作方式	Operating mode	由自带微电脑控制 controlled by its own microcomputer
额定注油压力	Max.discharge pressure	$0\sim100kgf/cm^2$
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	110V
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	NLGI 000#~0#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

110VAC

性能与特点 Performance characteristics

1. 加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时，按一次按键，跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man)按键后，即刻生效。
2. 当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3. 当油泵显示ER0时，表示油量不足，加油后自动消除报警。
4. 按住（Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
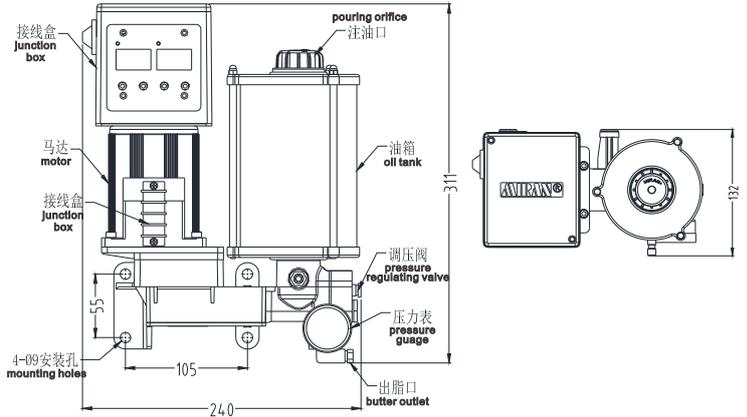(specific lubrication plan can be customized)

接线说明 Wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.
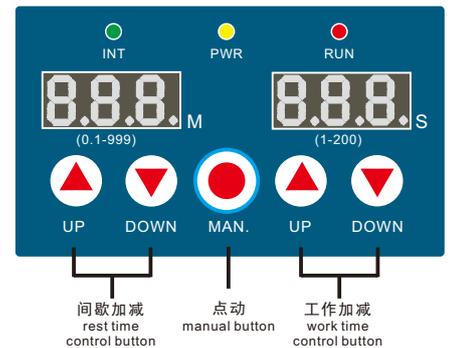
MRH-1232-100TB

接线盒 junction box / pouring orifice 注油口 / 马达 motor / 油箱 oil tank / 接线盒 junction box / 调压阀 pressure regulating valve / 压力表 pressure guage / 4-09安装孔 mounting holes / 出脂口 butter outlet

311 / 132 / 55 / 105 / 240

技术参数 Technical parameters

controlled by its own microcomputer

操作方式	Operating mode	由自带微电脑控制
额定注油压力	Max.discharge pressure	0~100kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	1φ220VAC
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	NLGI 000#~0#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

220VAC

性能与特点 Performance characteristics

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键,跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man)按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3.当油泵显示ERO时，表示油量不足，加油后自动消除报警。
4.按住 （Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
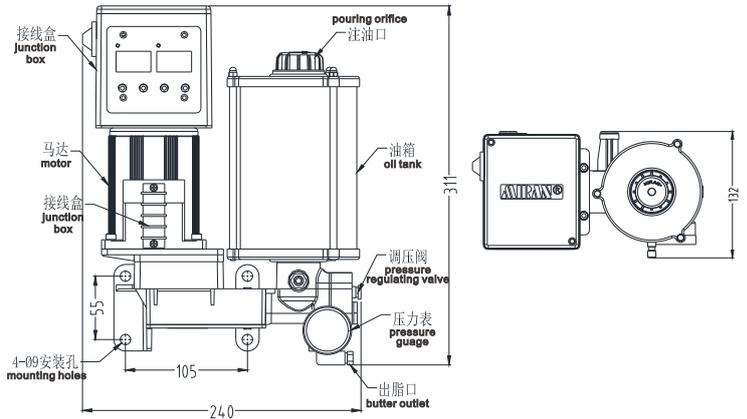(specific lubrication plan can be customized)

INT / PWR / RUN
M (0.1-999) / S (1-200)
UP / DOWN / MAN. / UP / DOWN
间歇加减 rest time control button / 点动 manual button / 工作加减 work time control button

接线说明 Wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

MRH-1233-100TB

Diagram labels: 接线盒 junction box / pouring orifice 注油口 / 马达 motor / 油箱 oil tank / 接线盒 junction box / 调压阀 pressure regulating valve / 压力表 pressure guage / 4-Φ9安装孔 mounting holes / 出脂口 butter outlet / 311 / 55 / 105 / 240 / 132

技术参数 Technical parameters

操作方式	Operating mode	由自带微电脑控制 controlled by its own microcomputer
额定注油压力	Max.discharge pressure	0~100kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	三相220V three-phase
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	NLGI 000#~0#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1	2	3	4	5	6	7	8
L1	L2	L3	N	COM	NO	NC	⏚
			零线	公共点	液位	压力	地线
			zero line	common point	liquid level	stresses	ground wire

三相220V
three-phase 220V

性能与特点 Performance characteristics

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键,跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动(Man)按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3.当油泵显示ER0时,表示油量不足，加油后自动消除报警。
4.按住（Man)按键不放为点动测试，可一直出油。（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
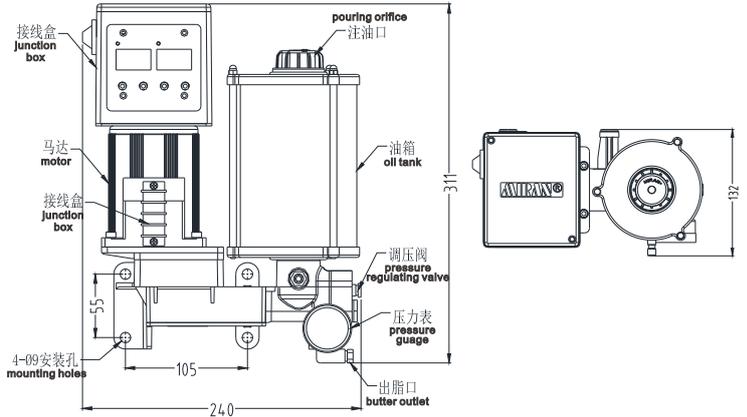4.Holding down the Man button is manual test.(specific lubrication plan can be customized)

Control panel labels: INT / PWR / RUN / M (0.1-999) / S (1-200) / UP / DOWN / MAN. / UP / DOWN / 间歇加减 rest time control button / 点动 manual button / 工作加减 work time control button

接线说明 Wiring instructions

1、将端子1、2、3分别连接三相电后，PLC连接端子3和端子4，可实现PLC控制油泵工作。注意：若接电后，电机工作，但不出油，电机反转，将任意两相电对调即可！
2、将端子1、2、3分别接三相电后，端子3、4断开时，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，5和6为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则5和7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、the terminal 1、2、3 were connected to three-phase electricity, PLC connected to terminal 3 and terminal 4, can realize PLC control oil pump work. Note: If after connecting the electricity, the motor works, but does not produce oil, the motor reverses, any two-phase electricity can be adjusted!
2、the terminal 1、2、3 were connected to the three-phase power, terminal 3、4 disconnected, can be realized through the oil pump comes with a point switch to control the oil pump oil supply.
3、the oil pump itself comes with a liquid level alarm indicator, 5 and 6 for the liquid level signal terminals, the default oil is normally open state, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, 5 and 7 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is closed, the oil pump output pressure signal, can be used as a simple switch, connected in series in the customer's circuit.

MRH-1235-100TB

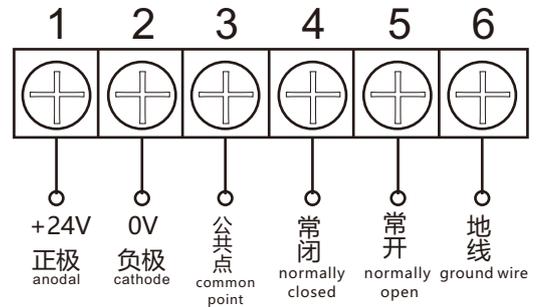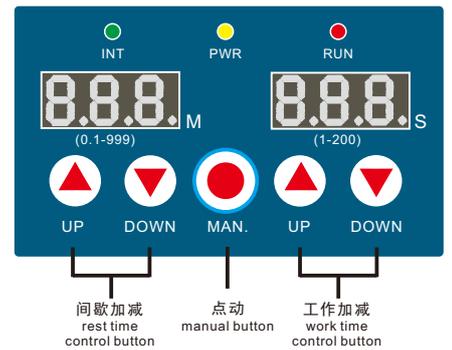## 全自动油脂泵微电脑型
Automatical Grease Lubrication Pump

接线盒 junction box
pouring orifice 注油口
马达 motor
接线盒 junction box
油箱 oil tank
调压阀 pressure regulating valve
压力表 pressure guage
4-09安装孔 mounting holes
出脂口 butter outlet
311 / 132 / 55 / 105 / 240

技术参数 Technical parameters

操作方式	Operating mode	由自带微电脑控制 controlled by its own microcomputer
额定注油压力	Max.discharge pressure	0~100kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	24V DC 3.8A
电机功率	Motor power	55W
润滑油粘度范围	Viscosity range	NLGI 000#~0#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1	2	3	4	5	6
+24V 正极 anodal	0V 负极 cathode	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

性能与特点 Performance characteristics

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键,跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man)按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3.当油泵显示ER0时，表示油量不足，加油后自动消除报警。
4.按住（Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
(specific lubrication plan can be customized)

INT / PWR / RUN
M (0.1-999) / S (1-200)
UP / DOWN / MAN. / UP / DOWN
间歇加减 rest time control button
点动 manual button
工作加减 work time control button

接线说明 Wiring instructions

1、端子1接DC24V正极，端子2接0V负极，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 is connected to the positive pole of DC24V, terminal 2 is connected to the negative pole of 0V, the oil pump can start to work.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.
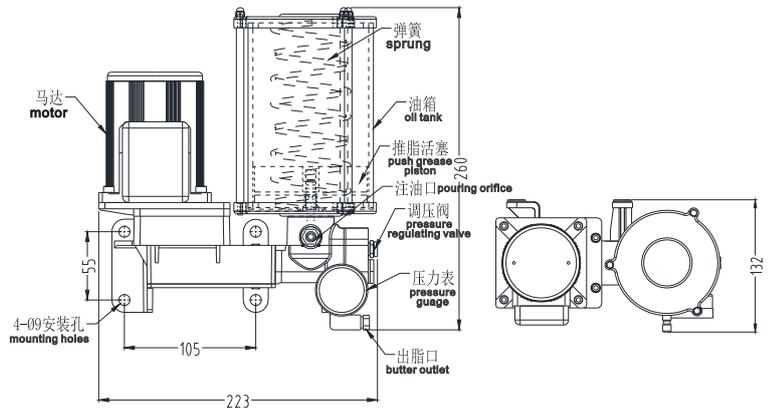
MGH-1201-100T

PLC半自动黄油泵
Semi-automatic Butter Lubrication Pump

技术参数 Technical parameters

操作方式	Operating mode	PLC控制 containment
额定注油压力	Max.discharge pressure	0~100kgf/cm^2
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	110VAC
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

外形图 External figure

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定。
2. 油箱容量有：1L、2L、3L、4L，吐出量50ml/min,视油箱有油位计。
3. 电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器将润滑油脂注入所需润滑点；该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.
2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.
3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission. The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.

接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子1接PLC控制电源火线，端子2接零线，可实现PLC控制油泵工作。
2、端子3和4为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、端子5和6为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
注意：此款默认带液位开关，无压力开关，如需压力开关，下单时请备注。

1、The motor terminal 1 connected to the PLC control power supply line, terminal 2 connected to the zero line, can realize the PLC control oil pump work.
2、Terminals 3 and 4 for the level signal terminals, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、Terminal 5 and 6 are pressure signal terminals, normally closed when the default pressure is normal, when the oil pump pressure is lower than the pressure setting value, the oil pump outputs a signal of insufficient pressure, which can be used as a simple switch and connected in series in the customer's circuit.
Note: This model default with level switch, no pressure switch, if you need a pressure switch, please note when ordering.
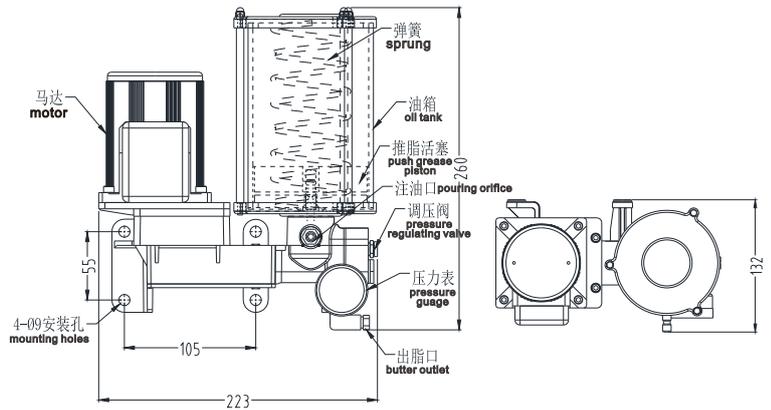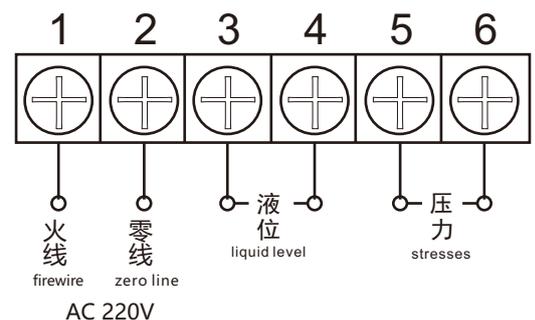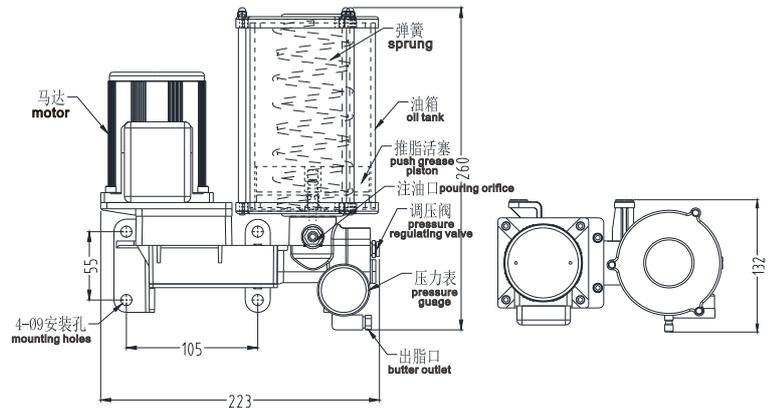
MGH-1202-100T

技术参数Technical parameters

操作方式	Operating mode	PLC控制　containment
额定注油压力	Max.discharge pressure	0~100kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	220VAC
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式　resistant

外形图 External figure
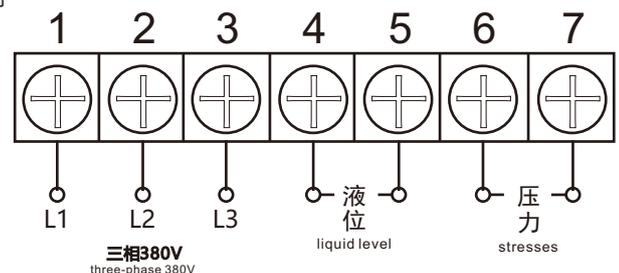

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定。
2. 油箱容量有：1L、2L、3L、4L，吐出量50ml/min,视油箱有油位计。
3. 电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器将润滑油脂注入所需润滑点;该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.
2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.
3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission.
The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.

接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子1接PLC控制电源火线,端子2接零线,可实现PLC控制油泵工作。
2、端子3和4为液位信号端子,默认有油时为常开状态,当油泵缺油时,到达报警设定值时闭合通路,实现缺油报警,可做为简单的开关,串联在客户的电路中。
3、端子5和6为压力信号端子,默认压力正常时常闭,当油泵压力低于压力设定值时断路,油泵输出压力不足信号,可做为简单的开关,串联在客户的电路中。
注意：此款默认带液位开关,无压力开关,如需压力开关,下单时请备注。

1、The motor terminal 1 connected to the PLC control power supply line, terminal 2 connected to the zero line, can realize the PLC control oil pump work.
2、Terminals 3 and 4 for the level signal terminals, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、Terminal 5 and 6 are pressure signal terminals, normally closed when the default pressure is normal, when the oil pump pressure is lower than the pressure setting value, the oil pump outputs a signal of insufficient pressure, which can be used as a simple switch and connected in series in the customer's circuit.
Note: This model default with level switch, no pressure switch, if you need a pressure switch, please note when ordering.

| 1 | 2 | 3 | 4 | 5 | 6 |

火线 firewire　零线 zero line　液位 liquid level　压力 stresses

AC 220V

MGH-1203-100T

技术参数 Technical parameters

操作方式	Operating mode	PLC控制 containment
额定注油压力	Max.discharge pressure	0~100kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	三相380VAC triphasic
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

外形图 External figure

弹簧 sprung
油箱 oil tank
推脂活塞 push grease piston
注油口 pouring orifice
调压阀 pressure regulating valve
压力表 pressure guage
马达 motor
4-09安装孔 mounting holes
出脂口 butter outlet
105
223
55
260
132

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定。
2. 油箱容量有：1L、2L、3L、4L，吐出量50ml/min,视油箱有油位计。
3. 电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器将润滑油脂注入所需润滑点;该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.
2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.
3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission. The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.

接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子1、2、3分别接PLC控制电源三相电，可实现PLC控制油泵工作。
2、端子4和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、端子6和7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
注意：此款默认带液位开关，无压力开关，如需压力开关，下单时请备注。

1、The motor terminal 1、2、3 were connected to the PLC control power supply three-phase electricity, can realize the PLC control oil pump work.
2、Terminals 4 and 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
3、Terminal 6 and 7 are pressure signal terminals, normally closed when the default pressure is normal, when the oil pump pressure is lower than the pressure setting value, the oil pump outputs a signal of insufficient pressure, which can be used as a simple switch and connected in series in the customer's circuit.
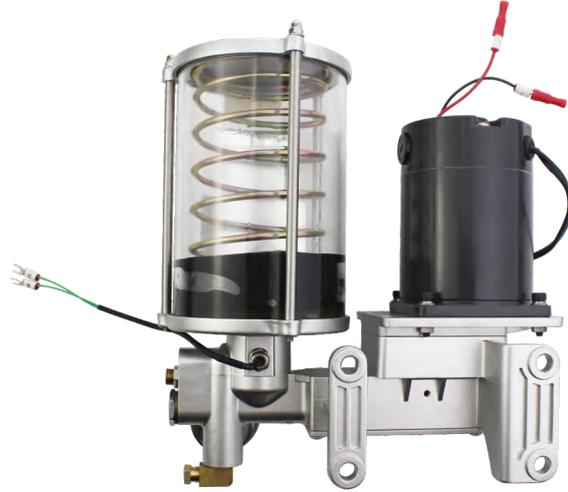Note: This model default with level switch, no pressure switch, if you need a pressure switch, please note when ordering.
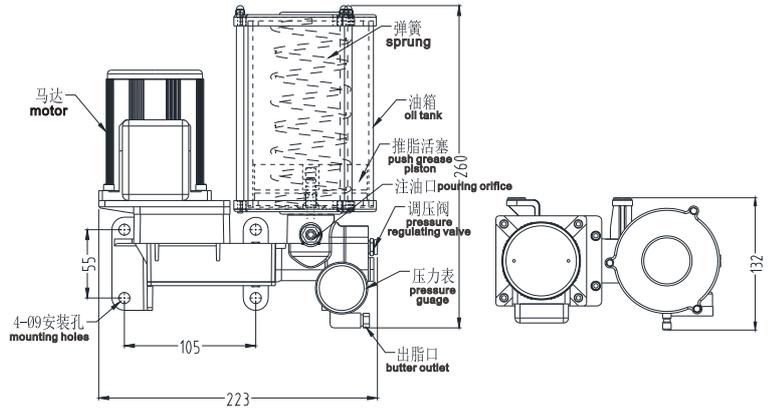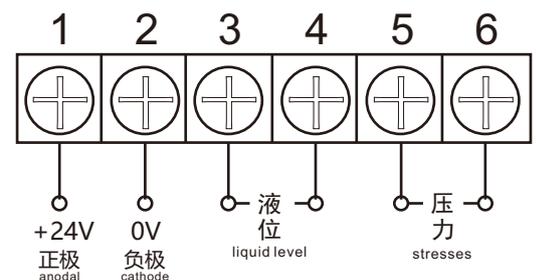
1	2	3	4	5	6	7
L1	L2	L3	液位		压力	

三相380V three-phase 380V
液位 liquid level
压力 stresses

MGH-1205-100T

技术参数Technical parameters

操作方式	Operating mode	PLC控制 containment
额定注油压力	Max.discharge pressure	0~100kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	DC24V 3.8A
电机功率	Motor power	55W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

外形图 External figure

性能与特点 Performance characteristics

1. 供油和间歇时间同主机电脑控制设定。
2. 油箱容量有：1L、2L、3L、4L，吐出量50ml/min,视油箱有油位计。
3. 电动油脂泵是用交流电源驱动的润滑脂泵,它通过电机和机械传动将润滑脂不断输出,该泵可用于抵抗式分配器将润滑油脂注入所需润滑点；该泵体积小,输出流量大,广泛用于轻工/锻压自动化等机械设备的集中润滑系统中。

1. Oil supply and intermittent time is settled by host computer.
2. The fuel tank capacity is 1L、2L、3L、4L, and the discharge amount is 50ml/min.The tank has an oil level gauge.
3. The electric oil pump is driven with AC power grease pump. The grease will output unceasingly through the motor and mechanical transmission.
The pump can be used to resist distributor which will inject grease into lubrication points. The pump has a small volume and large output flow. It is widely used in the centralized lubrication system of light industry/forging and pressure automation equipment.

接线图与接线说明 Wiring diagrams and wiring instructions

1、将电机接线端子1接PLC控制电源DC24V正极，端子2接0V负极，可实现PLC控制油泵工作。
2、端子3和4为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、端子5和6为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
注意：此款默认带液位开关，无压力开关，如需压力开关，下单时请备注。

1、Connect the motor terminal 1 to the positive pole of DC24V of PLC control power supply and terminal 2 to the negative pole of 0V to realize the work of PLC control oil pump.

2、Terminals 3 and 4 for the level signal terminals, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.

3、Terminal 5 and 6 are pressure signal terminals, normally closed when the default pressure is normal, when the oil pump pressure is lower than the pressure setting value, the oil pump outputs a signal of insufficient pressure, which can be used as a simple switch and connected in series in the customer's circuit.
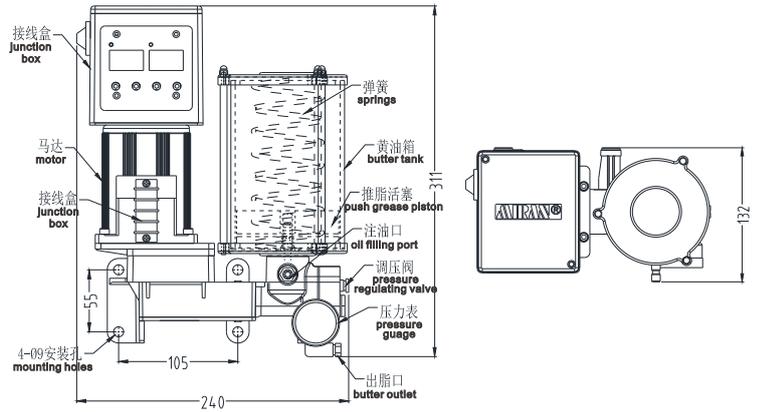
Note: This model default with level switch, no pressure switch, if you need a pressure switch, please note when ordering.

1	2	3	4	5	6
+24V 正极 anodal	0V 负极 cathode	液位 liquid level		压力 stresses	

MGH-1231-100TB

全自动黄油泵微电脑型
Self-control Butter Pump

接线盒 junction box
马达 motor
接线盒 junction box
注油口 oil filling port
4-09安装孔 mounting holes
出脂口 butter outlet

弹簧 springs
黄油箱 butter tank
推脂活塞 push grease piston
调压阀 pressure regulating valve
压力表 pressure guage

311
132
55
105
240

技术参数 Technical parameters

		controlled by microcomputer
操作方式	Operating mode	由微电脑控制
额定注油压力	Max.discharge pressure	$0\sim100kgf/cm^2$
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	110VAC
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

110VAC

性能与特点 Performance characteristics

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键，跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man)按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3.当油泵显示ER0时，表示油量不足，加油后自动消除报警。
4.按住（Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
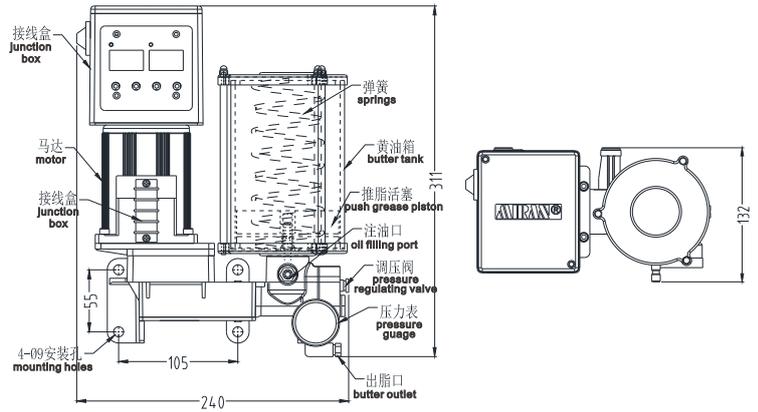(specific lubrication plan can be customized)

INT   PWR   RUN
M (0.1-999)   S (1-200)
UP   DOWN   MAN.   UP   DOWN
间歇加减 rest time control button
点动 manual button
工作加减 work time control button

接线说明 Wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

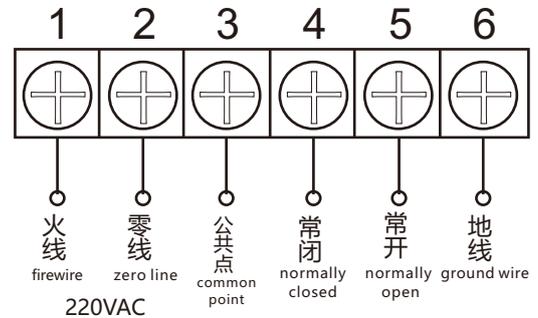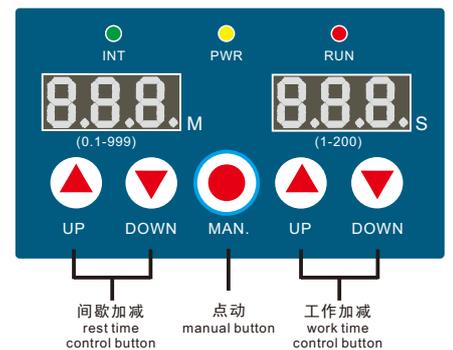# MGH-1232-100TB

全自动黄油泵微电脑型
Self-control Butter Pump

接线盒 junction box
马达 motor
接线盒 junction box
注油口 oil filling port
4-09安装孔 mounting holes
弹簧 springs
黄油箱 butter tank
推脂活塞 push grease piston
调压阀 pressure regulating valve
压力表 pressure guage
出脂口 butter outlet
311
132
55
105
240

技术参数 Technical parameters

操作方式	Operating mode	controlled by microcomputer 由微电脑控制
额定注油压力	Max.discharge pressure	$0\sim100kgf/cm^2$
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	220VAC
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1 2 3 4 5 6

火线 firewire | 零线 zero line | 公共点 common point | 常闭 normally closed | 常开 normally open | 地线 ground wire

220VAC

性能与特点 Performance characteristics

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键，跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man）按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3.当油泵显示ERO时，表示油量不足，加油后自动消除报警。
4.按住（Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
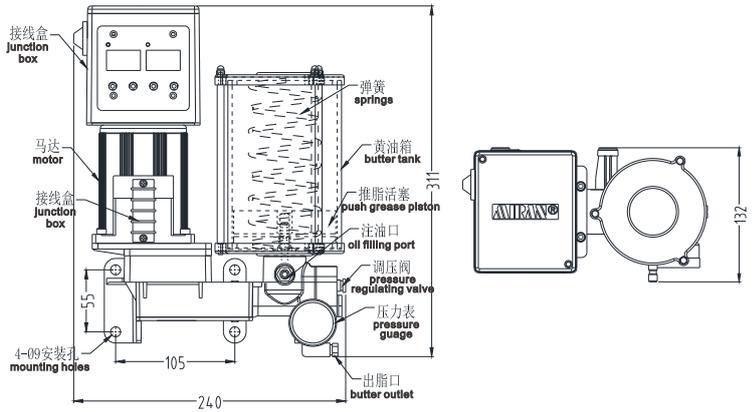(specific lubrication plan can be customized)

INT PWR RUN
M (0.1-999) S (1-200)
UP DOWN MAN. UP DOWN
间歇加减 rest time control button | 点动 manual button | 工作加减 work time control button

接线说明 Wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.
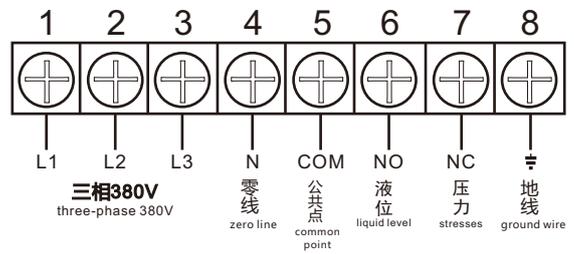
MGH-1233-100TB
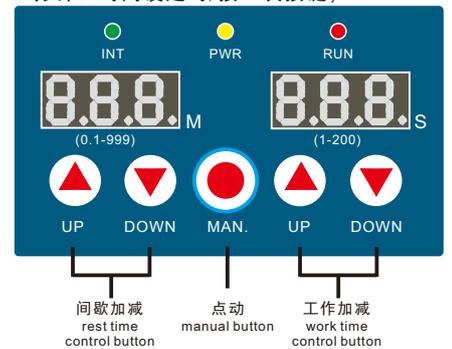
全自动黄油泵微电脑型
Self-control Butter Pump

接线盒
junction box

弹簧
springs

马达
motor

黄油箱
butter tank

接线盒
junction box

推脂活塞
push grease piston

注油口
oil filling port

调压阀
pressure regulating valve

压力表
pressure guage

4-09安装孔
mounting holes

出脂口
butter outlet

311
55
132
105
240

技术参数 Technical parameters

操作方式	Operating mode	由微电脑控制 containment
额定注油压力	Max.discharge pressure	0~100kgf/cm²
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	三相380VAC triphasic
电机功率	Motor power	40W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1	2	3	4	5	6	7	8
L1	L2	L3	N	COM	NO	NC	⏚
三相380V three-phase 380V			零线 zero line	公共点 common point	液位 liquid level	压力 stresses	地线 ground wire

性能与特点 Performance characteristics

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键,跳动数为1，按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man）按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man）按键，消除报警。
3.当油泵显示ERO时,表示油量不足，加油后自动消除报警。
4.按住（Man）按键不放为点动测试，可一直出油。（可根据客户需要定做专属润滑方案）

1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
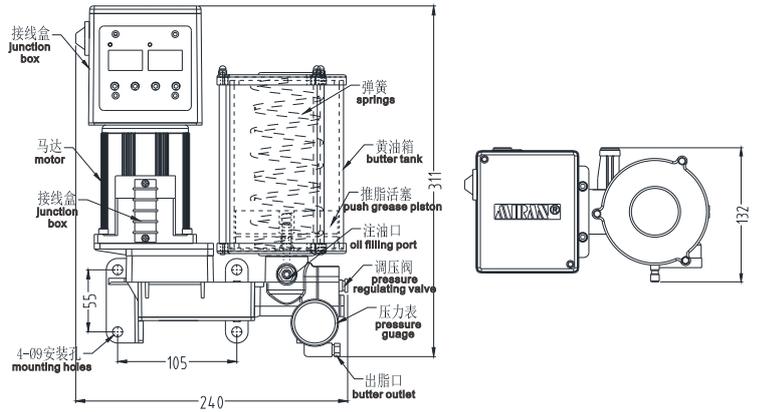4.Holding down the Man button is manual test.(specific lubrication plan can be customized)

INT PWR RUN
8.8.8. M (0.1-999)
8.8.8. S (1-200)
UP DOWN MAN. UP DOWN

间歇加减
rest time control button

点动
manual button

工作加减
work time control button

接线说明 Wiring instructions

1、将端子1、2、3分别连接三相电后，PLC连接端子3和端子4，可实现PLC控制油泵工作。注意：若接电后，电机工作，但不出油，电机反转，将任意两相电对调即可！
2、将端子1、2、3分别接三相电后，端子3、4断开时，可实现通过油泵自带的点动开关控制油泵供油。
3、油泵本身自带液位报警指示灯，5和6为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。
4、如果选配带压力开关，则5和7为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、the terminal 1、2、3 were connected to three-phase electricity, PLC connected to terminal 3 and terminal 4, can realize PLC control oil pump work.
Note: If after connecting the electricity, the motor works, but does not produce oil, the motor reverses, any two-phase electricity can be adjusted!
2、the terminal 1、2、3 were connected to the three-phase power, terminal 3、4 disconnected, can be realized through the oil pump comes with a point switch to control the oil pump oil supply.
3、the oil pump itself comes with a liquid level alarm indicator, 5 and 6 for the liquid level signal terminals, the default oil is normally open state, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.
4、If optional with pressure switch, 5 and 7 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is closed, the oil pump output pressure signal, can be used as a simple switch, connected in series in the customer's circuit.
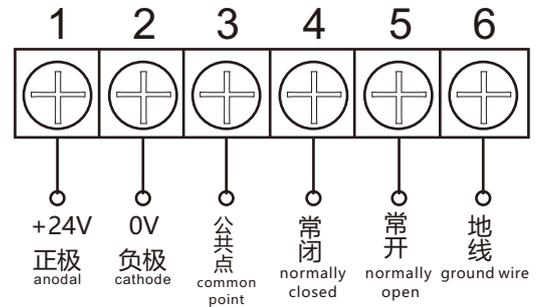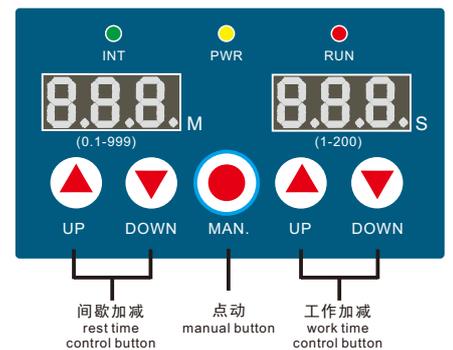
MGH-1235-100TB

接线盒 junction box
马达 motor
接线盒 junction box
注油口 oil filling port
4-09安装孔 mounting holes
弹簧 springs
黄油箱 butter tank
推脂活塞 push grease piston
调压阀 pressure regulating valve
压力表 pressure guage
出脂口 butter outlet
311
132
55
105
240

技术参数 Technical parameters

controlled by microcomputer

操作方式	Operating mode	由微电脑控制
额定注油压力	Max.discharge pressure	$0\sim100kgf/cm^2$
注油流量	Theoretical discharge	50ml/min
电机电压	Motor voltage	24VDC 3.8A
电机功率	Motor power	55W
润滑油粘度范围	Viscosity range	variety 000#~3#
油箱容积	Reservoir	1L/2L/3L/4L
出油口管道	Outlet pipe	Φ6mm
适用系统	Applicable system	抵抗式 resistant

接线图 The wiring diagram

1	2	3	4	5	6
+24V 正极 anodal	0V 负极 cathode	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire

性能与特点 Performance characteristics

1.加油时间由控制面板右侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，最长加油时间可达200秒，精度为1秒。间歇时间由控制面板左侧的上升(UP延长时间)和下降(DOWN缩短时间)按键设定，间歇时间最长可达999分钟，最短为0.1分钟，精度为0.1分钟。时间设定时,按一次按键，跳动数为1,按住按键不放，跳动可以加速，所有设定在设定完成后或按手动（Man)按键后，即刻生效。
2.当油泵显示ERP报警时，表示压力不足，检查压力正常时，按一下（Man)按键，消除报警。
3.当油泵显示ERO时，表示油量不足，加油后自动消除报警。
4.按住（Man)按键不放为点动测试，可一直出油。
（可根据客户需要定做专属润滑方案）
1.Fuel supply time is set by the UP button(extending the time) and DOWN button(shortening the time) on the right side of the control panel, which can reach up to 200 seconds, with the precision of 1 second. Intermittent time is set by the UP button(extending the time) and DOWN button(shortening the time) on the left side of the control panel, which can reach up to 999 minutes, with the precision of 0.1 minute. When setting the time, the beat number is 1 if you press the button once. The beat number can be accelerated if you hold down the button. All the settings will take effect immediately after the setting is completed or after the Man button is pressed.
2.When the oil pump shows the EPR alarm, it indicates that the pressure is insufficient. If the the pressure is normal, press the Man button to eliminate the alarm.
3.When the oil pump shows the ERO alarm, the oil quantity is insufficient, and the alarm will be automatically eliminated after refueling .
4.Holding down the Man button is manual test.
(specific lubrication plan can be customized)

INT   PWR   RUN
M (0.1-999)   S (1-200)
UP DOWN MAN. UP DOWN
间歇加减 rest time control button
点动 manual button
工作加减 work time control button

接线说明 Wiring instructions

1、端子1接DC24V正极，端子2接0V负极，油泵即可开始工作。
2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ERO，实现缺油报警，可做为简单的开关，串联在客户的电路中。
3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。
1、Terminal 1 is connected to the positive pole of DC24V, terminal 2 is connected to the negative pole of 0V, the oil pump can start to work.
2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ERO, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

摆线泵系列（BN series cycloidal pump）

马达泵
Motor pump
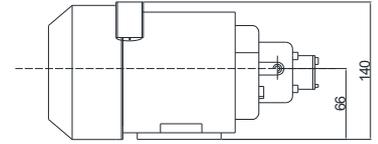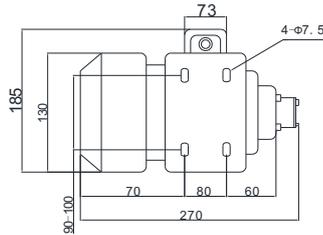
型号 Model	电机 Motor	摆线泵 Cycloidal pump
M-BMA-10A	三相（Three-phase）380V 50HZ 1/4Hp	BMA-10A
M-BMA-11A	三相（Three-phase）380V 50HZ 1/4Hp	BMA-11A
M-BMA-12A	三相（Three-phase）380V 50HZ 1/4Hp	BMA-12A
M-BMA-13A	三相（Three-phase）380V 50HZ 1/4Hp	BMA-13A
M-BMB-1FS	三相（Three-phase）380V 50HZ 1/4Hp	BMB-1FS
M-BMB-2FS	三相（Three-phase）380V 50HZ 1/4Hp	BMB-2FS
M-BMB-3FS	三相（Three-phase）380V 50HZ 1/4Hp	BMB-3FS

双向摆线泵 Bidirectional oscillating pumps

IRA给油泵浦（可逆转式）
IRA feed pumps（reversible）
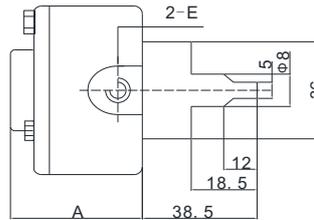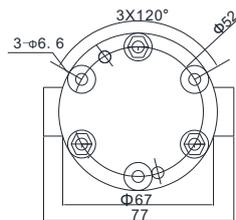
功能
该泵浦结构简单，自吸性强，输油平稳，噪音低，具有良好的高转速特性，适用于润滑系统中的低压连续润滑。
该泵浦特点：
双向摆线泵的设计必须确保无论是正转还是反转，油的流动始终向一个方向。双向摆线泵的进油口和出油口保持不变，泵轴旋转向可改变。适用于一般正、逆转机械。如：车床、旋臂铣床、制药机械、研磨机、各种冷冻机械、铣床等。

Function
The structure is simple ,strong self-absorplion,stable oil flow, low noise, good high speed characteristic, which is suitable for low pressure continuous lubricaion in lubricating system. The pump features:
The bidirectional cycloidal pump must be designed to ensure that the flow of oil is always in one direction, whether it is forward or reverse. The inlet and outlet of the two-way cycloidal pump remain unchanged, and the direction of rotation of the pump shaft can be changed. Suitable for general positive and reverse machinery,.Such as: lathes, rotary milling machines, pharmaceutical machinery, grinding machines, various refrigeration machinery, milling machines, etc.

型号 Model	理论吐出量 Theoretical discharge capacity	吐出量 Discharge capacity（L/min）		最大压力 Max.pressure（kgf/cm²）	最高转速 Max.rotary speed	出入口螺纹 Entrance outlet thread	A	重量 Weight（kg）
		(1500rpm)	(1800rpm)					
1RA-2FS	1.8	2.7	3.24	5	2000	PT 1/4	50	1.1
1RA-3FS	2.5	3.75	4.5	5	2000	PT 1/4	55	1.2

给油泵浦 Oil feed pumps
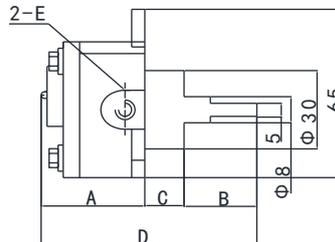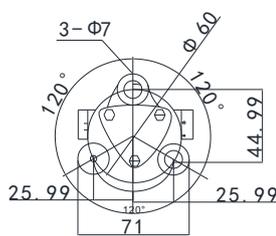
功能
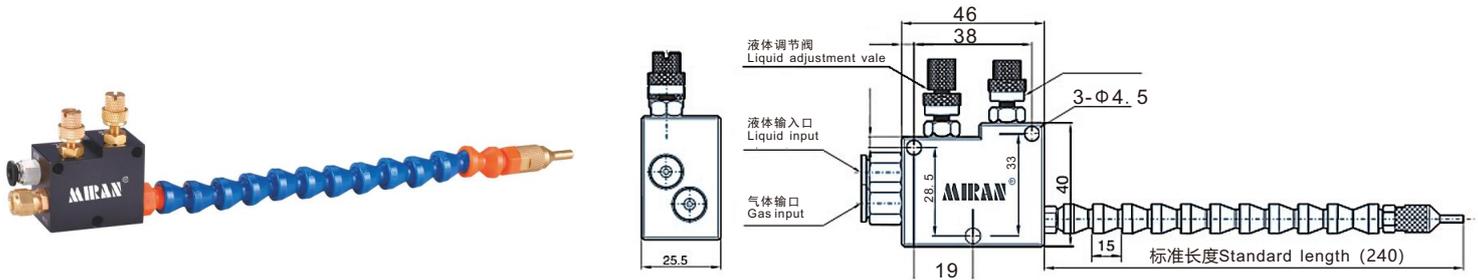该泵浦结构简单，自吸性强，输油平稳，噪音低，具有良好的高转速特性，适用于润滑系统中的低压连续润滑。适用于油品粘度：30cSt-150cSt给油泵浦。

Function
The structure of pump is simple , strong self-absorption, stable oil flow, low noise, and have a good high speed characteristic, which is suitable for low pressure continuous lubrication in lubricating system. Applicable oil viscosity: 30cst-150cst to pump.

型号 Model	理论吐出量 Theoretical discharge capacity(cc/rev)	吐出量 Discharge capacity（L/min）		最大压力 Max.pressure（kgf/cm²）	最高转速 Max.rotary speed(rpm)	出入口螺纹（E） Entrance outlet thread	A	B	C	D	重量 Weight（kg）
		(1500rpm)	(1800rpm)								
TOP-10A	0.8	1.2	1.4	5	3000	PT1/8	40	10.5	8	58.5	0.5
TOP-11A	1.5	2.2	2.7	5	2000	PT1/8 ,PT 1/4	49	10.5	8	68	0.55
TOP-12A	2.5	3.7	4.5	5	1800	PT 1/4	56	11.5	8	76	0.6
TOP-13A	4.5	6.7	7.5	5	1800	PT 3/8	62	14	5	82	0.8

自吸式冷却润滑喷雾器（喷雾式润滑系统）

Self-priming cooling lubrication sprayer (spray lubrication system)

液体调节阀
Liquid adjustment vale

液体输入口
Liquid input

气体输口
Gas input

3-Φ4.5

46
38
28.5 33
40
19
25.5
15

标准长度Standard length (240)

液体品名 Liquid variety	流量范围 Flow range(cc/min)	气体压力 Gas pressure（0.5MPa）
水，酒精 water, alcohol	0.3~30	
10号高速主轴油 No.10 high-speed main shaft oil	0.2~25	

　　此产品应用真空自呼吸之原理，使液体经由喷嘴和空气混合雾化，喷射至加工件，刀具轴承等润滑点。冷却效果佳，并提供润滑、除屑、清洁等功能，以提升生产效率及加工品质，减少机械刀具之损耗。

1. 在加工过程中冷却，润滑，吹除铁屑可一次完成。
2. 可提高加工速度，节省加工时间及费用，并减少刀具磨损。
3. 有助于加工品质的确保及刀具最佳使用效果。
4. 加工合金或超硬材质，亦可达到平滑、高精度之表面。
5. 增加密合方式，可避免内部泄漏，延长使用寿命。
6. 可针对不同的固定方式，选择不同配件搭配使用。

注意事项：
1. 需使用清洁之液体。
2. 请勿使用腐蚀性之液体。
3. 气压源气压范围0.5-0.7MPa.（雾化效果与气量，气压有关系）
4. 适用液体黏度：0-68cSt.

使用场合：
车床，钻床，铣床，磨床，攻牙机，刀具研磨机，CNC机床，冲床，锯床，木工机械，送料机等。

MPV-□□-□□□□

万向曲管类型
universal crank tube type

| 1 | 金属 |
| 2 | 塑胶 |

1: metal
2: plastic

标准管长
standard tube length

| 24 | 240mm |
| | 其他长度可定制 |

other lengths can be customized

液体输入管径
standard tube length

| 4 | Φ4 |
| 6 | Φ6 |

止逆阀
check valve

| Z | 带止逆阀 |
| 空白 | 不带止逆阀 |

Z: with check valve
void: without check valve

喷嘴类型
nozzle type

| A | 平喷嘴 |
| B | 尖喷嘴 |

A: flat nozzle
B: tip nozzles

气体输入管径
gas input pipe diameter

4	Φ4
6	Φ6
8	Φ8

　　This product applies vacuum self-suction principle to make the liquid atomized by nozzle and air. Spray to the work-piece, tool bearing and other lubrication points. Good cooling effect, lubrication, Clean and other functions to improve production efficiency and quality, and reduce the loss of mechanical tool.

1. During the process, cooling, lubrication, blowing off iron filings can be completed at one time.
2. It can improve machining speed, save machining time and cost and reduce tool wear.
3. Help to ensure the quality and the best use of the tool.
4. Processing alloy or super hard material can also achieve smooth and high precision surface.
5. Increase the sealing method to avoid internal leakage and prolong service life.
6. Different parts can be used for different fixed ways.

Notes:
1. Use clean liquid.
2. Do not use corrosive liquid.
3. Air pressure range 0.5-0.7MPa. (atomization effect is related to air volume and air pressure)
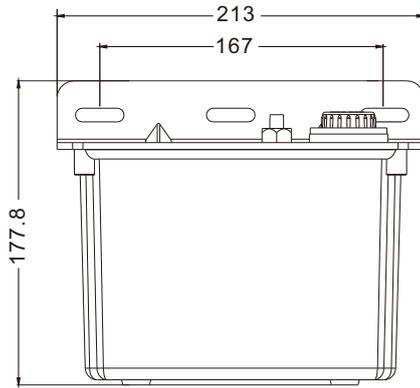4. Applicable liquid viscosity: 0-68cSt.

Usage:
Lathe, drilling machine, milling machine, grinding machine, tapping machine, cutter grinding machine, CNC machine tool, punching machine, sawing machine, woodworking machinery, feeding machine, etc.
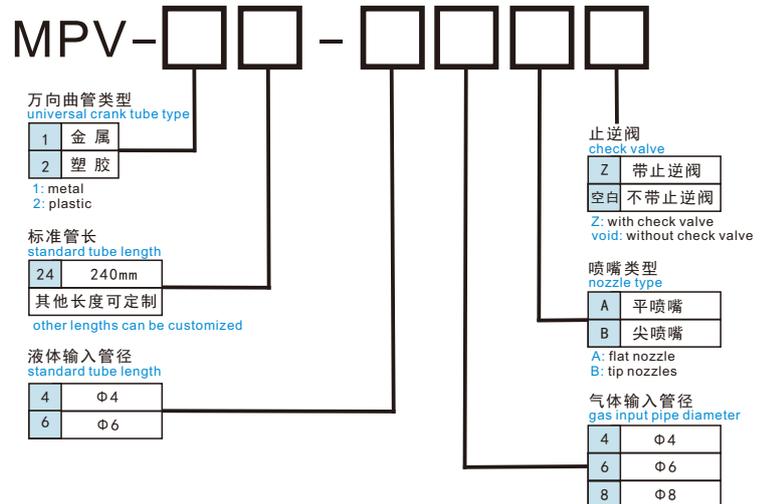
MRQ油雾润滑系统 MRQ Oil Mist Lubrication System

MRQ-0实物图Physical drawing

3L外形尺寸图External Dimensions

213
167
177.8
156

型号选型 Model

MRQ-☐☐☐—☐☐☐

控制器类型 Control types

A	数显 Digital display
C	PLC
O	无线框 Wireless frame

MPV 喷雾器个数 MPV Number sprayer

1	1个 Each
2	2个 Each
3	3个 Each
4	4个 Each

油箱容积 Oil tank volume

2	2L
3	3L
4	4L
5	5L

液位开关 Liquid level seitch

空白 Blank	下通电 Lower power supply
D	上通电 Upper power supply
W	无液位开关 Liquid level switch unavailable

配管长度 Piping length

2	2m
3	3m
4	4m
5	5m

输入电压 Lnput voltages

1	单相 110V SINGLE PHASE 110V
2	单相 220V SINGLE PHASE220V
6	DC12V
5	DC24V

性能与特点

·系统设有电磁阀可加装气动调压阀，对气源进行精确控制，与润滑液充分混合雾化，减少机械刀具之损耗，冷却润滑效果更佳。

·a.PLC控制：冷却润滑时间和间歇时间由外部PLC控制

·b.无控制：冷却润滑时和间歇时间无需控制

·当冷却润滑液不足时蜂鸣器会发出报警信号、并将异常信号输出到PLC系统。

·系统建议使用气压为0.4-0.6MPa

·默认液体和气管直径6mm

·配合（MPV型）自吸式冷却润滑喷雾器使用。

Performance and characteristics

· the system is equipped with a solenoid valve that can be equipped with a pneumatic pressure regulating valve to precisely control the air source and fully atomize it with lubricating fluid to reduce the loss of mechanical tools and achieve better cooling and lubrication effect.

· a. PLC control: cooling and lubrication time and intermittent time are controlled by external PLC

·b. No control: no control is required for cooling and lubrication and intermittent time

· when the cooling lubricant is insufficient, the buzzer will send an alarm signal and output the abnormal signal to the PLC system.

· air pressure of 0.4-0.6mpa is recommended for the system

· default diameter of liquid and trachea is 6mm

· suitable for use with (MPV) self-priming cooling and lubricating sprayer.

MRQ油雾润滑系统 MRQ Oil Mist Lubrication System

MRQ-A实物图Physical drawing

288.5
239
175
265
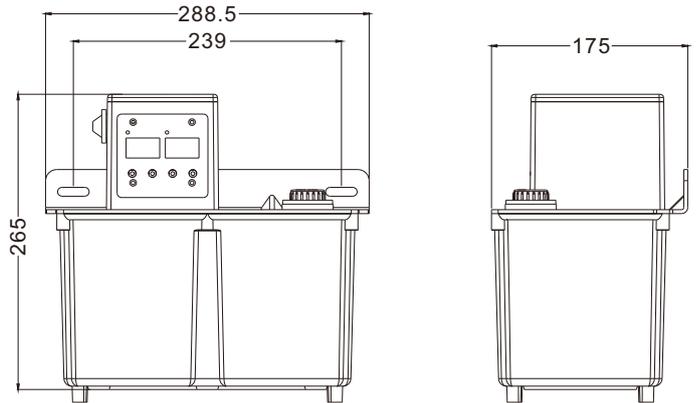
5L外形尺寸图External Dimensions

型号选型 Model

MRQ-□□□—□□□

控制器类型 Control types

A	数显 Digital display
C	PLC
O	无线框 Wireless frame

MPV 喷雾器个数 MPV Number sprayer

1	1个 Each
2	2个 Each
3	3个 Each
4	4个 Each

油箱容积 Oil tank volume

2	2L
3	3L
4	4L
5	5L

液位开关 Liquid level seitch

空白 Blank	下通电 Lower power supply
D	上通电 Upper power supply
W	无液位开关 Liquid level switch unavailable

配管长度 Piping length

2	2m
3	3m
4	4m
5	5m

输入电压 Lnput voltages

1	单相 110V SINGLE PHASE 110V
2	单相 220V SINGLE PHASE220V
6	DC12V
5	DC24V

性能与特点

·系统设有电磁阀可加装气动调压阀，对气源进行精确控制，与润滑液充分混合雾化，减少机械刀具之损耗，冷却润滑效果更佳。
·a. 数显控制：冷却润滑时间和间歇时间均可调整。（内般有锁键功能，可锁定设置后的润滑和间歇系统时固可设定，"LUB"润滑时：也设有断电记忆功能，如工作时间设定16秒工作到14秒断电了，下次通电可以继续按14秒开始计时 1-999（秒），"INT"间歇：1-999（秒）特殊要求可定制
·b. PLC控制：冷却润滑时间和间歇时间由外部PLC控制
·c. 无控制：冷却润滑时和间歇时间无需控制
·设有液位开关、当冷却润滑液不足时蜂鸣器会发出报警信号、并将异常信号输出。（数显控制器液位不足显示ER0）。
·面板指示灯可显示出润滑和间歇状态
·系统建议使用气压为0.4-0.6MPa
·默认液体和气管直径6mm
·配合（MPV型）自吸式冷却润滑喷雾器使用。

Performance and Characteristics

·the system is equipped with a solenoid valve that can be equipped with a pneumatic pressure regulating valve to precisely control the air source and fully atomize it with lubricating fluid to reduce the loss of mechanical tools and achieve better cooling and lubrication effect.
·a. Digital display control: adjustable cooling and lubrication time and intermittent time."LUB"lubrication: also has a power failure memory function, such as the working time set 16 seconds to 14 seconds of work, the next power can continue to press 14 seconds start timing 1-999(seconds),"INT" intermittent: 1-999(seconds) special requirements can be customized
·b. PLC control: cooling and lubrication time and intermittent time are controlled by external PLC
·c. No control: no control is required for cooling and lubrication and intermittent time: with liquid level switch, the buzzer will send out alarm signal and output abnormal signal when the cooling lubricant is insufficient. Digital display controller liquid level is insufficient to show ERO.
·the indicator light on the panel can show lubrication and intermittent state
·air pressure of 0.4-0.6mpais recommended for the system default diameter of liquid and trachea is 6mm suitable for use with (MPV) self-priming cooling and lubricating sprayer.

MYW-A油雾润滑系统 MYW-A Oil Mist Lubrication System

MYW-A实物图Physical drawing

5L外形尺寸图External Dimensions

288.5
239
175.00
265
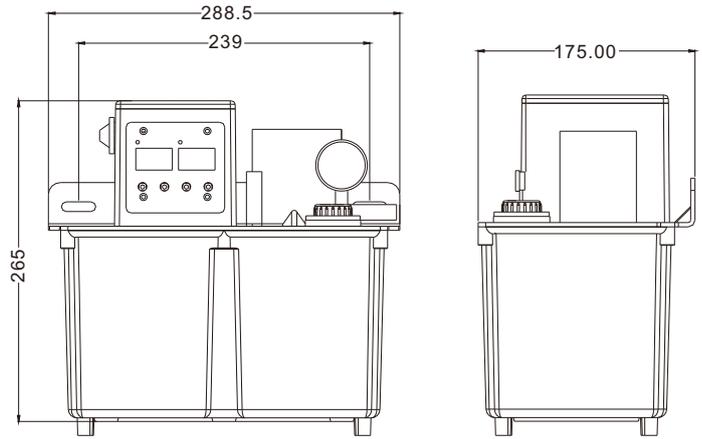
型号选型 Model

MYW-□□□□—□□□

控制器类型 Control types

A	数显Digital display
C	PLC

MPV 喷雾器个数 MPV Number sprayer

1	1个 Each
2	2个 Each
3	3个 Each
4	4个 Each

油箱容积 Oil tank volume

3	3L
4	4L
5	5L

液位开关 Liquid level seitch

空白 Blank	下通电 Lower power supply
D	上通电 Upper power supply
W	无液位开关 Liquid level switch unavailable

配管长度 Piping length

2	2m
3	3m
4	4m
5	5m

输入电压 Lnput voltages

1	单相 110V SINGLE PHASE 110V
2	单相 220V SINGLE PHASE220V
5	DC24V

性能与特点

· 系统设有电磁阀可加装气动调压阀，对气源进行精确控制，与润滑液充分混合雾化，减少机械刀具之损耗，冷却润滑效果更佳。主要由电动润滑油泵，油气可调混合器，气源二联件及气动元件组成，电磁阀与油泵供油时间同步，油泵可调混合器，每个润滑点的油量，气量微量可调.

· a. 数显控制：冷却润滑时间和间歇时间均可调整。（内般有锁键功能，可锁定设置后的润滑和间歇系统时固可设定，"LUB"润滑时：也设有断电记忆功能，如工作时间设定16秒工作到14秒断电了，下次通电可以继续按14秒开始计时 1-999（秒），"INT"间歇：1-999（秒）特殊要求可定制

· b. PLC控制：冷却润滑时间和间歇时间由外部PLC控制

· c. 无控制：冷却润滑时和间歇时间无需控制

· 设有液位开关、当冷却润滑液不足时蜂鸣器会发出报警信号、并将异常信号输出。（数显控制器液位不足显示ERO）。

· 面板指示灯可显示出润滑和间歇状态

· 系统建议使用气压为0.4-0.6MPa

· 默认液体和气管直径6mm

· 配合（MPV型）自吸式冷却润滑喷雾器使用。

Performance and characteristics

· the system is equipped with a solenoid valve that can be equipped with a pneumatic pressure regulating valve to precisely control the air source and fully atomize it with lubricating fluid to reduce the loss of mechanical tools and achieve better cooling and lubrication effect. It is mainly composed of electric lubricating oil pump, oil and gas adjustable mixer, air source two couplings and pneumatic components, electromagnetic valve and oil supply time of oil pump are synchronous, oil pump adjustable mixer, oil amount and gas amount of each lubricating point are adjustable in trace.

· a. Digital display control: adjustable cooling and lubrication time and intermittent time. "LUB" lubrication: also has a power failure memory function, such as the working time set 16 seconds to 14 seconds of work, the next power can continue to press 14 seconds start timing 1-999 (seconds), "INT" intermittent: 1-999 (seconds) special requirements can be customized

· b.plc control: cooling and lubrication time and intermittent time are controlled by external PLC·c. No control: no control is required for cooling and lubrication and intermittent time

· with liquid level switch, the buzzer will send out alarm signal and output abnormal signal when the cooling lubricant is insufficient. Digital display controller liquid level is insufficient to show ERO.

· the indicator light on the panel can show lubrication and intermittent state·air pressure of 0.4-0.6mpa is recommended for the system

· default diameter of liquid and trachea is 6mm· suitable for use with (MPV) self-priming cooling and lubricating sprayer.

油雾润滑系统接线图/接线说明

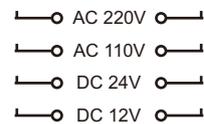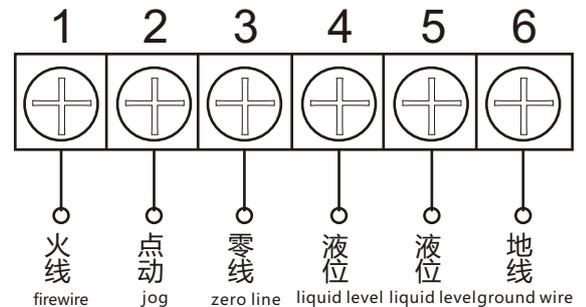## Oil Mist Lubrication System Wiring diagrams/Wiring Instructions

半自动接线图与接线说明
Semi-automatic wiring diagrams and wiring instructions

1、端子1接PLC控制电源火线，端子3接零线，可实现PLC控制油泵工作。

2、端子2接不经PLC或经PLC但一直通电的火线，端子3接零线，可实现通过油泵自带的点动开关控制油泵供油。

3、油泵本身自带液位报警指示灯，端子4和端子5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路、液位报警指示灯亮，实现缺油报警，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 connect the PLC control power supply fire wire, terminal 3 connect the zero line, can realize the PLC control oil pump work.

2、Terminal 2 connects to the fire wire which is not connected to the PLC or is connected to the PLC but is always energized, and terminal 3 connects to the zero wire, which can be realized to control the oil supply of the oil pump through the oil pump's own ignition switch.

3、The oil pump itself comes with a liquid level alarm indicator, terminal 4 and terminal 5 for the liquid level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm setting value when the closed circuit, the liquid level alarm indicator light to realize the lack of oil alarm, can be used as a simple switch, connected in series in the customer's circuit.

1	2	3	4	5	6
火线 firewire	点动 jog	零线 zero line	液位 liquid level	液位 liquid level	地线 ground wire

AC 220V
AC 110V
DC 24V
DC 12V

全自动接线图与接线说明
Automatic wiring diagrams and wiring instructions

1、端子1接火线，端子2接零线，油泵即可开始工作。

2、端子3和5为液位信号端子，默认有油时为常开状态，当油泵缺油时，到达报警设定值时闭合通路，间歇指示灯亮，油泵显示ER0，实现缺油报警，可做为简单的开关，串联在客户的电路中。

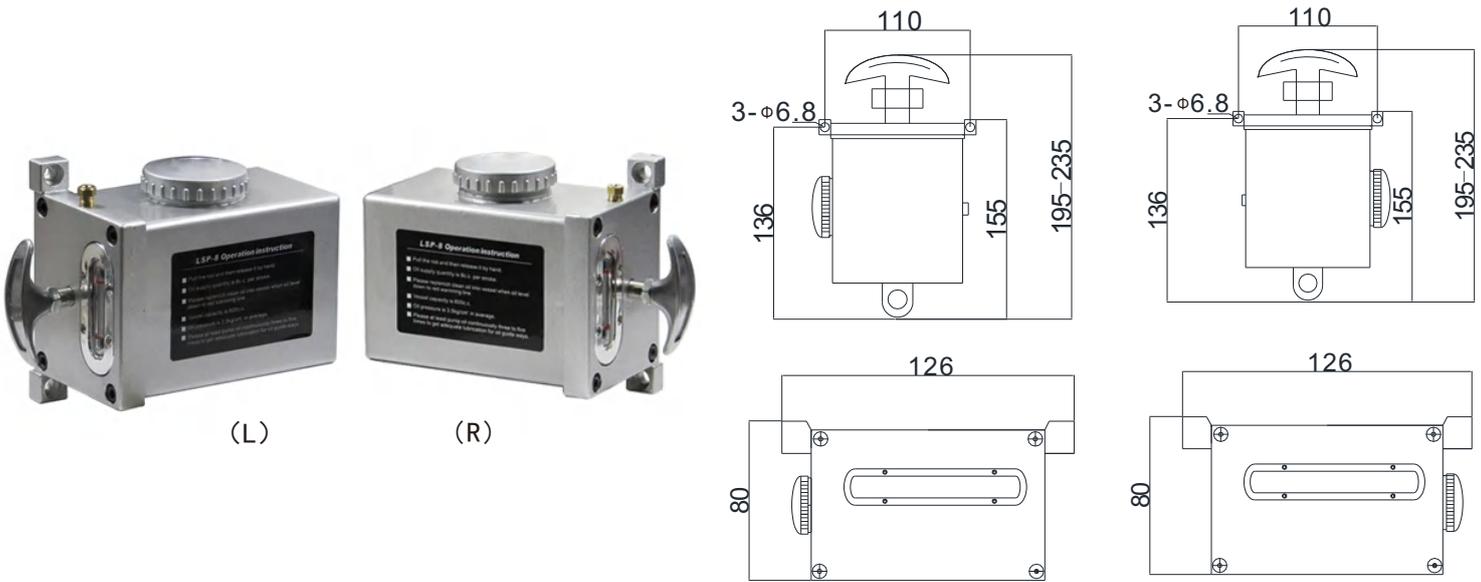3、3和4为压力信号端子，默认压力正常时常闭，当油泵压力低于压力设定值时断路，油泵显示ERP报警，油泵输出压力不足信号，可做为简单的开关，串联在客户的电路中。

1、Terminal 1 is connected to the fire line, terminal 2 is connected to the zero line, the oil pump can start working.

2、Terminals 3 and 5 for the level signal terminal, the default is normally open when there is oil, when the oil pump is out of oil, to reach the alarm set value when the closed path, the intermittent indicator light, the oil pump display ER0, to achieve the lack of oil alarm, can be used as a simple switch, series connection in the customer's circuit.
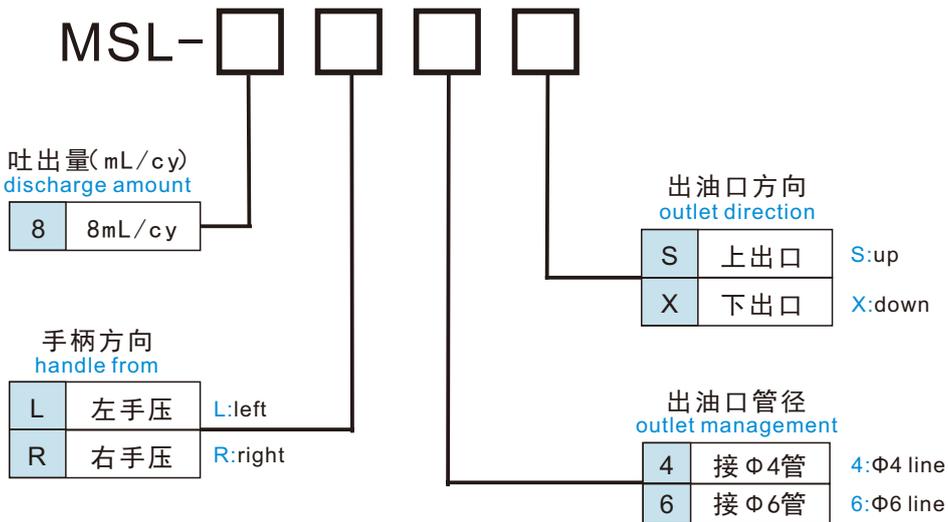
3、3 and 4 for the pressure signal terminal, the default pressure is normally closed when normal, when the oil pump pressure is lower than the pressure setting value when the circuit is broken, the oil pump shows ERP alarm, the oil pump output pressure signal, can be used as a simple switch, series connection in the customer's circuit.

1	2	3	4	5	6
火线 firewire	零线 zero line	公共点 common point	常闭 normally closed	常开 normally open	地线 ground wire
正极 anodal	负极 cathode				

AC 220V
AC 110V
DC 24V
DC 12V

MSL型手拉式稀油润滑油泵 MSL Manual Pull Lubricating Oil Pump

（L）　　　　　（R）

型号选型 Model

MSL-□□□□

吐出量（mL/cy）
discharge amount

| 8 | 8mL/cy |

手柄方向
handle from

| L | 左手压 | L:left |
| R | 右手压 | R:right |

出油口方向
outlet direction

| S | 上出口 | S:up |
| X | 下出口 | X:down |

出油口管径
outlet management

| 4 | 接Φ4管 | 4:Φ4 line |
| 6 | 接Φ6管 | 6:Φ6 line |

规格型号及技术参数 Specification and technical parameters

型号规格 Specifications	最大吐出压力 Maximum discharge pressure	吐出量 Discharge amount	出油口管径 Outlet management	手柄形式 Handle form	油箱容量 Fuel tank capacity	出油口方向 Outlet direction	重量 weight
MSL-8L	0.5MPa	8cc/cy	Φ4 or Φ6	左手压left	600cc	向上或者向下 up or down	0.9kg
MSL-8R				右手压right			

性能与特点 Performance characteristics

1.体积小，安装方便、使用简易。附止逆装置避免油回流。通用于对油量要求不严格的润滑场所。

2.适用于润滑系统较简单的机械。

3.油品粘度：20-150cst。

1. Small size, easy to use and install. With anti-backup device to avoid oil back flow. It is commonly used in places where lubrication is not strictly required.

2. Applicable to simpler lubrication system.

3. Oil viscosity: 20-150 cst.

MSY型手摇式稀油润滑油泵 MSY Oil Lubrication Pump With Hand Shake

(ML-6)

(ML-8)
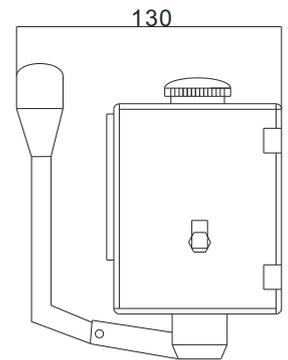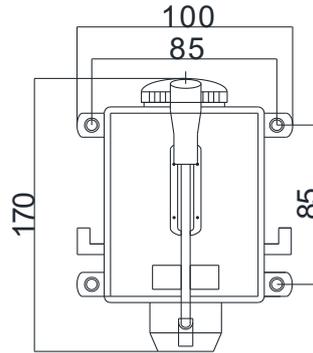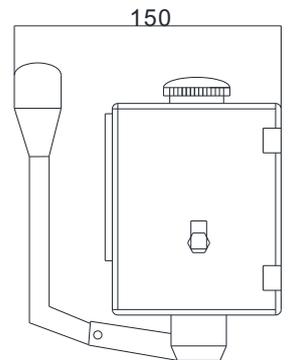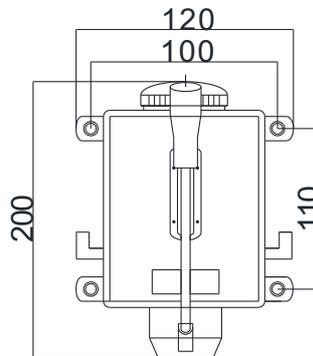
MSY-□ □ □

出油口管径
outlet management

| 4 | 接 Φ4管 | 4:Φ4 line |
| 6 | 接 Φ6管 | 6:Φ6 line |

出油口位置
outlet position

L	左侧出油口	L:left oil outlet
R	右侧出油口	R:right side oil outlet
LR	左右出油口	LR:left and right oil spouts

吐出量(mL/cy)
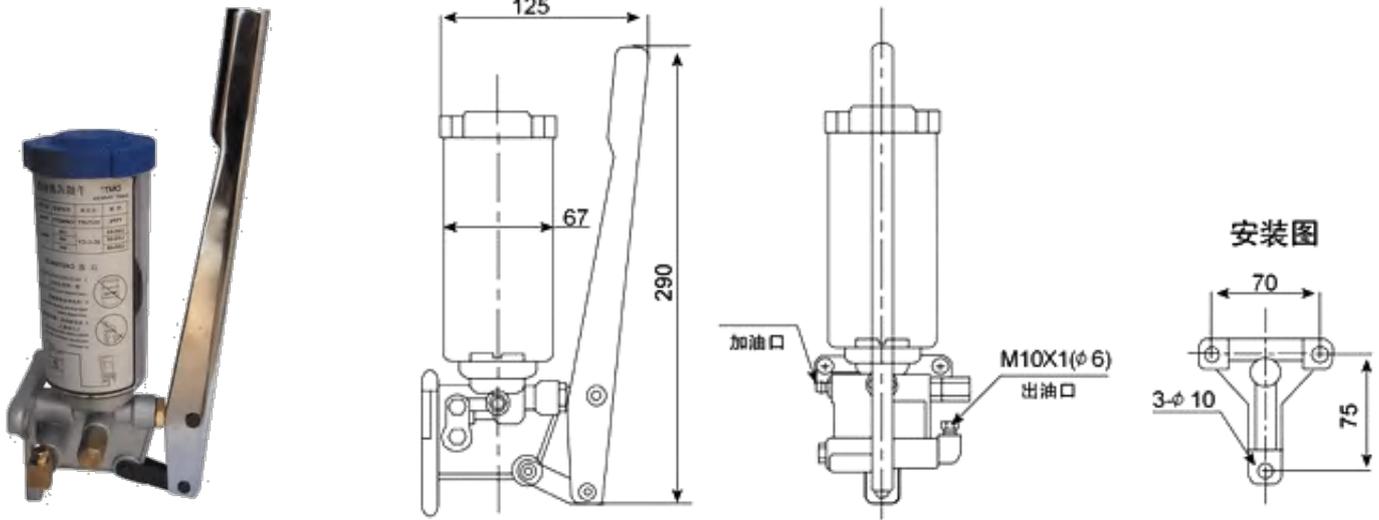discharge amount

| 6 | 6 |
| 8 | 8 |

规格型号及技术参数 Specification and technical parameters

型号规格 Specifications	最大吐出压力 Maximum discharge pressure	吐出量 Discharge amount	出油口管径 Outlet management	出油口位置 Outlet position	油箱容量 Fuel tank capacity	出油口方向 Outlet direction	重量 weight
MSY-6	1.5MPa	6ml/cy	Φ4 orΦ6	左或右 left or right	600ml	向上或者向下 up or down	1.2kg
MSY-8					800ml		1.4kg

性能与特点 Performance characteristics

1. 体积小，安装方便、使用简易。附止逆装置避免油回流。通用于对油量要求不严格的润滑场所。

2. 适用于润滑系统较简单的机械。

3. 油品粘度：20-150cst。

1. Small size, easy to use and install. With anti-backup device to avoid oil back flow. It is commonly used in places where lubrication is not strictly required.

2. Applicable to simpler lubrication system.

3. Oil viscosity: 20-150 cst.

MYK型手压式稀油润滑油泵 MYK Oil Lubrication Pump With Hand Press

（L）　　　　　　　（R）

型号选型 Model

MYK-□□□

出油口管径 outlet management

| 4 | 接Φ4管 | 4:Φ4 line |
| 6 | 接Φ6管 | 6:Φ6 line |

手柄方向 handle from

| L | 左手压 | L:left |
| R | 右手压 | R:right |

吐出量（mL/cy）discharge amount

| 5 | 3-5 |
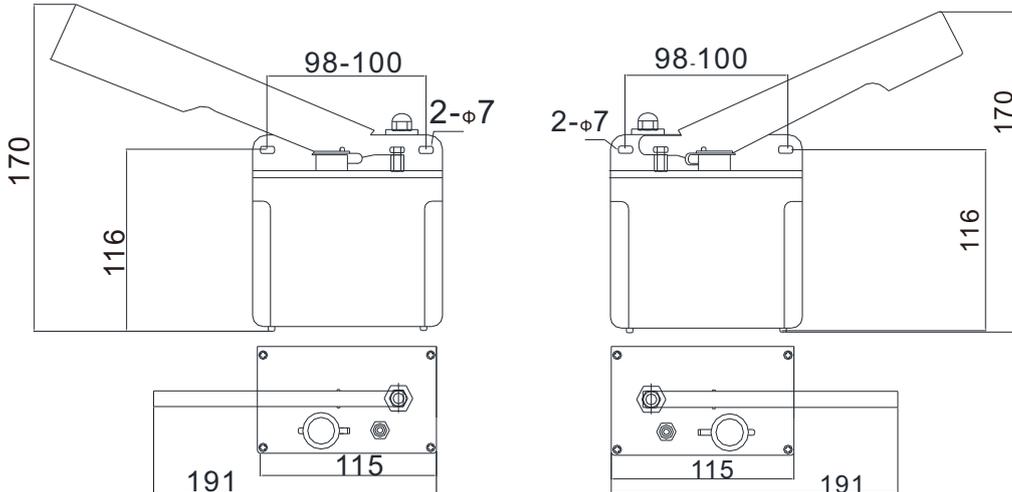
98-100
2-Φ7
170
116
191
115

2-Φ7
98-100
170
116
115
191

规格型号及技术参数 Specification and technical parameters

型号规格 Specifications	最大吐出压力 Maximum discharge pressure	吐出量 Discharge amount	出油口管径 Outlet management	手柄形式 Handle form	油箱容积 Fuel tank volume	重量 weight
MYK-5L	0.4MPa	3-5cc/cy 油量可调 oil is adjustable	Φ4orΦ6	左手压left	500cc	0.7kg
MYK-5R				右手压right		

性能与特点 Performance characteristics

1.该油泵是活塞泵，压下手柄时将油吸入活塞腔内，手柄复位时，在弹簧力的作用下将活塞管内的油排出。

2.该泵可与抵抗式分配器组成集中润滑系统，适用于注油管路长5米、高3米、15个润滑点以内的各种润滑设备。

1. The oil pump is a piston pump. When the handle is pressed down, the oil will be sucked into the piston cavity.

2. The pump can be combined with the resistance distributor to form a centralized lubrication system, which is suitable for various lubrication equipment within length in 5 meters , height in 3 meters and 15 lubrication points.

MYG型手摇式油脂润滑油泵 MYG Grease Lubrication Pump with Hand Shake

安装图

型号选型 Model

MYG-□□

Blank: without pressure relief valve
X: with pressure relief valve

	不带卸压
X	带卸压

油箱容量（mL）
tank capacity

03	300
05	500
08	800

规格型号及技术参数 Specification and technical parameters

型号规格 Specifications	最大吐出压力 Maximum discharge pressure	吐出量 Discharge amount	出油口管径 Outlet management	吐出口数 Discharge number	油箱容量 Fuel tank capacity	出油口方向 Outlet direction	形式 system
MYG-03					300ml		
MYG-05	100kgf/cm²	2ml/cy	Φ4/Φ6	1~3个 1-3 pcs	500ml	向上或者向下 up or down	抵抗式 resistant
MYG-08					800ml		

性能与特点 Performance characteristics

1. 柱塞式容积泵，树脂油箱。

2. 手动操作，使用简单、方便。

3. 透明树脂油箱，方便观察油位。

4. 可直接向润滑点供送油剂，可与可调型分配器或与单边型分配器配套使用。

1. Plunger volumetric pump, resin tank.

2. Manual operation, simple and convenient to use.

3. Transparent resin oil tank for easy observation of oil level.

4. The oilfeed agent can be suppied directly to the lubrication point. It can be used with adjustable distributor or single side.

润滑系统分配器 Lubrication system distributor

LA分配器 LA Distributor

套管帽Sleeve bearing
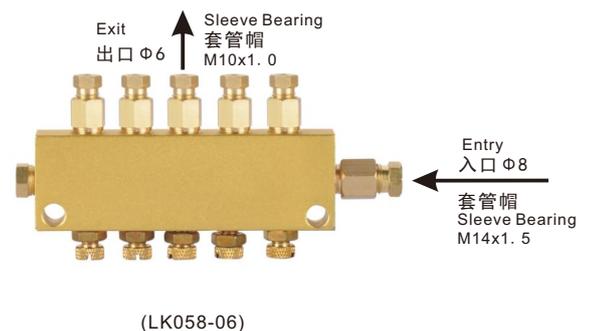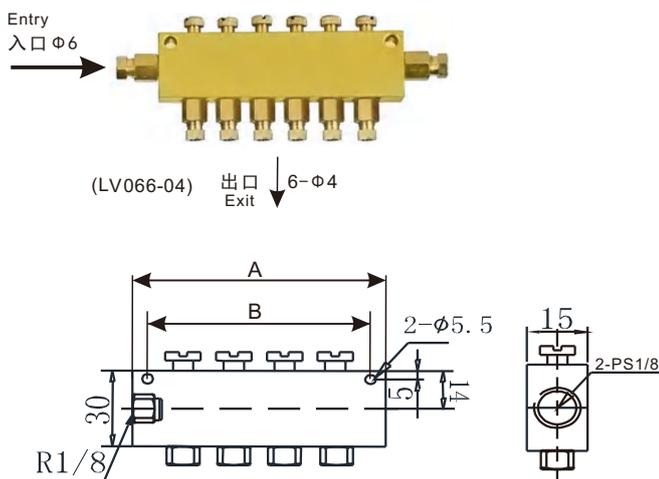M8x1.0
Exit出口 Φ4
堵 头Plug
M10x1.0
Entry入口 Φ6
套管帽
M10x1.0
Sleeve bearing

（LA082）

尺寸图 Dimension Diagram

2-Φ7
A
B
16
6
5
15
15
T
T1
N-M8XP1.0
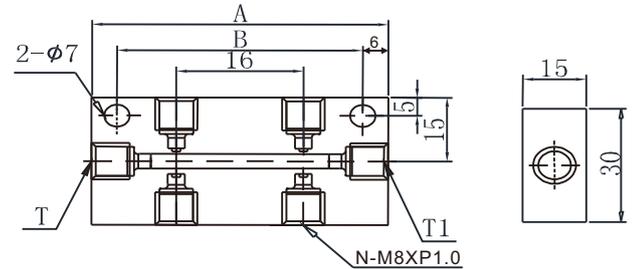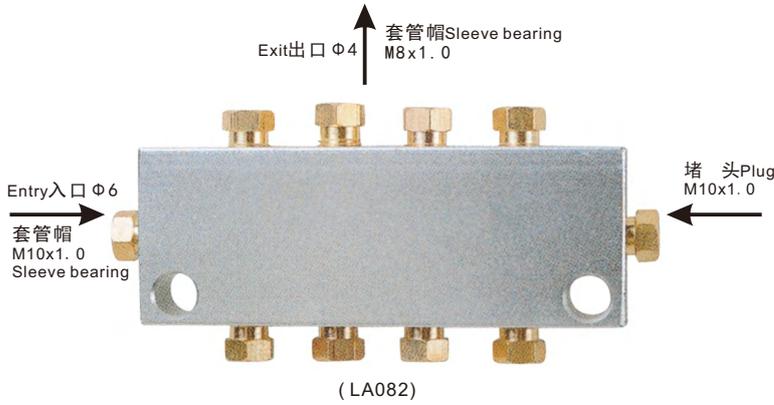
型号 Model	主管/支管直径 Main/Branch pipe diameter	出口数 Outlet	A	B	备注 note
LA041 LA042 LA043	Φ4/Φ4 Φ6/Φ4 Φ6/Φ6	4	48	36	双边可根据客户所需孔位定做 The hole can be customized
LA061 LA062 LA063	Φ4/Φ4 Φ6/Φ4 Φ6/Φ6	6	64	52	
LA081 LA082 LA083	Φ4/Φ4 Φ6/Φ4 Φ6/Φ6	8	80	68	
LA101 LA102 LA103	Φ4/Φ4 Φ6/Φ4 Φ6/Φ6	10	96	84	
LA121 LA122 LA123	Φ4/Φ4 Φ6/Φ4 Φ6/Φ6	12	112	99	

LV可调分配器

LV Adjustable Distributor

Entry
入口 Φ6

（LV066-04）

出口 6-Φ4
Exit

A
B
2-Φ5.5
15
2-PS1/8
30
5
14
R1/8

LK带锁止抗震可调分配器

LK with locking vibration-resistant adjustable distributor

Exit
出口 Φ6
Sleeve Bearing
套管帽
M10x1.0

Entry
入口 Φ8
套管帽
Sleeve Bearing
M14x1.5

（LK058-06）

LV可调分配器 LK带锁可调分配器 LV Adjustable Distributor LK Locking Adjustable Distributor

型号 Model	入口口径 Input dimension	出口口径 Outlet dimension	出口数 Outlet number	A	B
LV024-04 LV026-04 LV026-06 LV028-06	Φ4 Φ6 Φ6 Φ8	Φ4 Φ4 Φ6 Φ6	2	47	37
LV034-04 LV036-04 LV036-06 LV038-06	Φ4 Φ6 Φ6 Φ8	Φ4 Φ4 Φ6 Φ6	3	62	52
LV044-04 LV046-04 LV046-06 LV048-06	Φ4 Φ6 Φ6 Φ8	Φ4 Φ4 Φ6 Φ6	4	77	67
LV054-04 LV056-04 LV056-06 LV058-06	Φ4 Φ6 Φ6 Φ8	Φ4 Φ4 Φ6 Φ6	5	92	82
LV066-04 LV066-06 LV068-06	Φ6 Φ6 Φ8	Φ4 Φ6 Φ6	6	107	97
LV076-04 LV076-06 LV078-06	Φ6 Φ6 Φ8	Φ4 Φ6 Φ6	7	122	112
LV086-04 LV086-06 LV088-06	Φ6 Φ6 Φ8	Φ4 Φ6 Φ6	8	137	127
LV096-04 LV096-06 LV098-06	Φ6 Φ6 Φ8	Φ4 Φ6 Φ6	9	152	142
LV106-04 LV106-06 LV108-06	Φ6 Φ6 Φ8	Φ4 Φ6 Φ6	10	167	157

备注：LK所有规格和尺寸参数与LV相同。可调油排可根据客户所需孔位定做。
Attention: the parameter between LK and LV is same ,the oulet about the distributor can be customzed.

LE双边分配器(铝合金) LE wo-way coupling body(aluminum alloy)

标准外形尺寸图
Standard configuration dimension figure
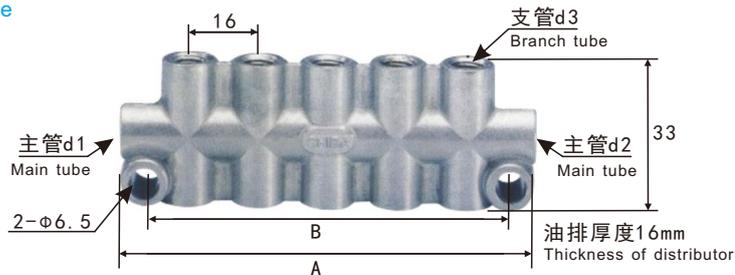
型号Model	d1=d2	d3	出油口数量Number of oil outlet	A(mm)	B(mm)
LE-6-8-8	M8X1	M8X1	4	36	48
LE-6-10-10	M10X1	M8X1	4	36	48
LE-8-8-8	M8X1	M8X1	6	52	64
LE-8-10-10	M10X1	M8X1	6	52	64
LE-10-8-8	M8X1	M8X1	8	68	80
LE-10-10-10	M10X1	M8X1	8	68	80
LE-12-8-8	M8X1	M8X1	10	84	96
LE-12-10-10	M10X1	M8X1	10	84	96

润滑系统分配器 Lubrication system distributor

LB 分配器 LB distributor

input 出口 Φ4　M8X1.0

outlet
入口 Φ6
M10X1.0

(LB083)

LB 分配器尺寸图 LB distributor dimension drawing
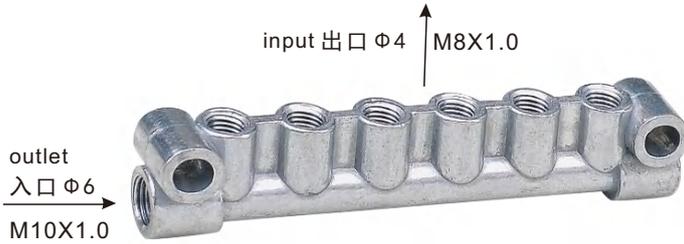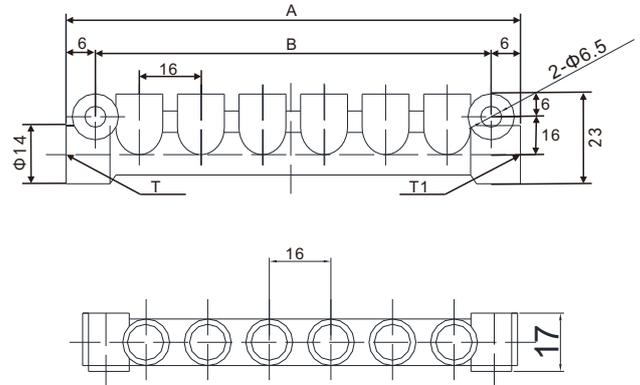
型号 Model	T/T1	出口口径 Outlet dimension	出口数 Outlet number	A	B
LB041 LB042 LB043 LB044	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	2-04 / 2-06	4	48	35-36
LB051 LB052 LB053 LB054	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	3-04 / 3-06	5	64	51-52
LB061 LB062 LB063 LB064	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	4-04 / 4-06	6	80	68
LB071 LB072 LB073 LB074	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	5-04 / 5-04	7	96	84
LB081 LB082 LB083 LB084	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	6-04 / 6-06	8	112	96-100
LB091 LB092 LB093 LB094	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	7-04 / 7-06	9	128	116
LB101 LB102 LB103 LB104	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	8-04 / 8-06	10	144	132
LB121 LB122 LB123 LB124	Φ4/Φ4 Φ4/Φ6 Φ6/Φ6 Φ6/Φ6	10-04 / 10-06	12	176	164

润滑系统分配器 Lubrication system distributor

LBM 限流分配器 LBM current limiting distributor

尺寸图 dimension drawing
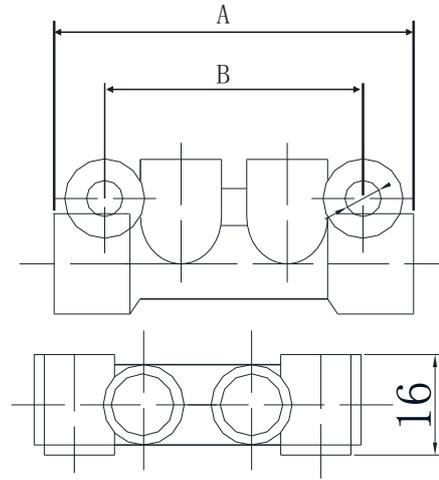
抵抗式分配器包含LB/MV/MK型等系列分配器，其中LBM型分配器由LB分配器和计量件DPM等组合而成。
Resistance distributor includes LB/MV/MK and other series distributors, among which LBM distributor is composed of LB distributor and measuring parts DPM.

型号 Model	T/T1	出口口径 Outlet Dimension	出口数 Outlet number	A	B
LBM041 LBM042	Φ4/Φ4 Φ4/Φ6	2-04	4	48	35~36
LBM051 LBM052	Φ4/Φ4 Φ4/Φ6	3-04	5	64	51~52
LBM061 LBM062	Φ4/Φ4 Φ4/Φ6	4-04	6	80	68
LBM071 LBM072	Φ4/Φ4 Φ4/Φ6	5-04	7	96	84
LBM081 LBM082	Φ4/Φ4 Φ4/Φ6	6-04	8	112	96~100
LBM091 LBM092	Φ4/Φ4 Φ4/Φ6	7-04	9	128	116
LBM101 LBM102	Φ4/Φ4 Φ4/Φ6	8-04	10	144	132
LBM121 LBM122	Φ4/Φ4 Φ4/Φ6	10-04	12	176	164

LD定量脱压式稀油分配器/定量容积式稀油分配器

LD quantitative depressurized thin oil distributor/quantitative volumetric thin oil distributor
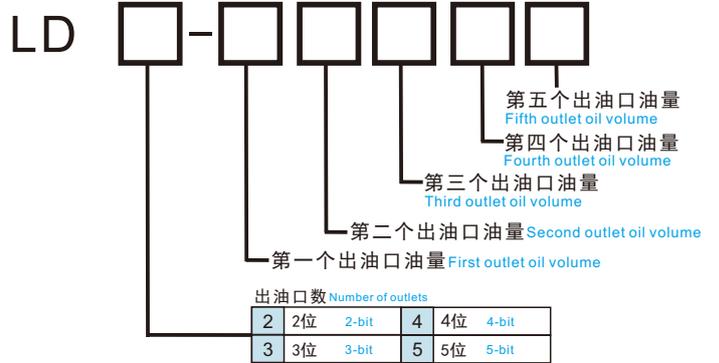
17

A

81

15

81

Mounting hole
安装孔2-Φ6.5mm

M10X1.0

B

型号说明 Model Description

LD □ - □ □ □ □ □

第五个出油口油量
Fifth outlet oil volume

第四个出油口油量
Fourth outlet oil volume

第三个出油口油量
Third outlet oil volume

第二个出油口油量 Second outlet oil volume

第一个出油口油量 First outlet oil volume

出油口数 Number of outlets

2	2位 2-bit	4	4位 4-bit
3	3位 3-bit	5	5位 5-bit

注：如没有特殊要求，出油口油量默认为3，代表0.3mL每次。
Attention: if there isn't any other requirement, the standard oil is 0.3ml for one time

技术参数 Technical Parameters

型号Mold	出口数Outlet number	A	B	吐出量Discharge amount
LD2	2	53	39	
LD3	3	68.5	54	0.1;0.2;0.3;0.4;0.5 (ml/cy)
LD4	4	84	70	
LD5	5	103	88	

*油量表示方法：
（注：当所有出油口油量值一样时，只用一个油量值表示）
例1:LD5-2表示为5位分配器,第1,2,3,4,5出油口油量全部为0.2ml每次。
例2:LD5-53235表示为5位分配器,第1,2,3,4,5出油口油量分别为0.5; 0.3; 0.2 ;0.3 ;0.5ml每次。
注：其中：7; 8; 9; 10位，为5位和2; 3; 4; 5位组合。6位为3位与3位的组合。
* oil quantity representation method:
(note: when the oil value is the same, only one oil value is used)
Example 1: LD5-2 indicates LD model and the amount of 1 and 2 oil outlet in 2 allocator is 0.3ml each time.
Example 2:LD5-53235 indicates 5 allocators, and 1, 2, 3, 4, 5 outlet flow rate respectively is 0.3ml, 0.5ml, 0.3ml, 0.5ml, and 0.4ml each time.
Note: among them: 7,8,9,10 bits is the combination of 5 bits and 2,3,4, or 5 bits. The 6 bits, the combination of 3 and 3 bits.

工作原理 Operating Principle

(1) | (2) | (3) | (4) | (5)

(1)休止中
in the hiatus

(2)主管加压计量中
mains pressurized metering

(3)计量完毕
measurement completed

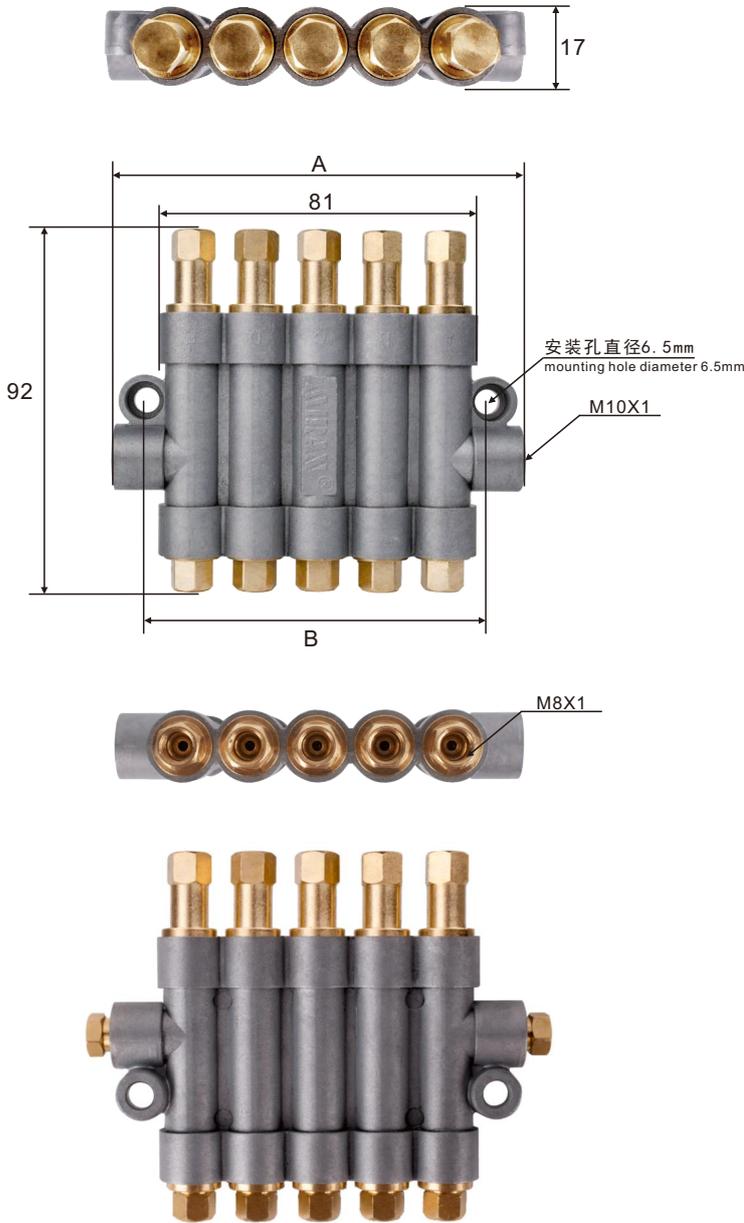(4)吐油过程
process of spitting oil

(5)吐油完毕
end of spitting oil

工作原理：A：计量活塞动作行程 B：伞形双向阀动作行程见上图，从润滑泵压送的油从主管A注入，并将伞形双向阀B向推开流入，通过通路C压送活塞室到F内。受压力油作用下计量活塞向下动作弹簧G被压缩蓄油，从而进行计量蓄油，当主管A内油压被释放〈即卸压〉，伞形阀B因压力差而动作，同时开启吐出口E，于是活室内计量蓄油通过吐出口E送入油管H而将油输送到润滑点，信号销I当计量蓄油时突出。而供油给润滑点时缩回，从而确认分配动作完成情况。
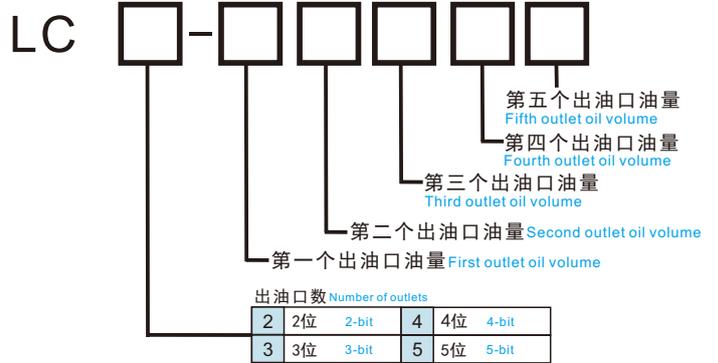
Operating principle: A: metering piston action schedule B: the action trip of the umbrella type two-way valve is shown in the figure above. The oil from the lubrication pump is injected from the director A, and the umbrella-type two-way valve B is pushed open. Push the piston chamber to F through the channel C. The piston moves downward under the action of pressure oil. The spring G is compressed. Thus the measurement of oil storage. When the oil pressure is released in charge of A(the discharge pressure). The umbrella valve B moves with pressure difference. At the same time, it opens the outlet E, so the living room measures the oil storage. The oil is transported to the lubrication point by outlet E to the pipe H, and the signal pin I is prominent when measuring the oil storage. When the oil is supplied to the lubrication point, it is retracted to confirm the completion of the distribution.

LC定量脱压式全封闭稀油分配器/定量全封闭容积式稀油分配器

LC quantitative depressurized fully enclosed thin oil distributor/quantitative fully enclosed volumetric thin oil distributor

17

A
81

92

安装孔直径6.5mm
mounting hole diameter 6.5mm

M10X1

B

M8X1

型号说明 Model Description

LC □ - □ □ □ □ □

第五个出油口油量
Fifth outlet oil volume

第四个出油口油量
Fourth outlet oil volume

第三个出油口油量
Third outlet oil volume

第二个出油口油量 Second outlet oil volume

第一个出油口油量 First outlet oil volume

出油口数 Number of outlets

| 2 | 2位 | 2-bit | 4 | 4位 | 4-bit |
| 3 | 3位 | 3-bit | 5 | 5位 | 5-bit |

注：如没有特殊要求，出油口油量默认为3，代表0.3mL每次。
Attention: if there isn't any other requirement, the standard oil is 0.3ml for one time

技术参数 Technical Parameters

型号Mold	出口数Outlet number	A	B	吐出量Discharge amount
LC2	2	53	39	0.1;0.2;0.3;0.4;0.5 (ml/cy)
LC3	3	65	54	
LC4	4	84	70	
LC5	5	103	88	

*油量表示方法：
（注：当所有出油口油量值一样时，只用一个油量值表示）
例1:LC5-2表示为5位分配器,第1,2,3,4,5出油口油量全部为0.2ml每次。
例2:LC5-53235表示为5位分配器,第1,2,3,4,5出油口油量分别为0.5;0.3;0.2;0.3;0.5ml每次。
注：其中：7;8;9;10位,为5位和2;3;4;5位组合。6位为3位与3位的组合。
* oil quantity representation method:
(note: when the oil value is the same, only one oil value is used)
Example 1: LC5-2 indicates LC model and the amount of 1 and 2 oil outlet in 2 allocator is 0.3ml each time.
Example 2:LC5-53235 indicates 5 allocators, and 1, 2, 3, 4, 5 outlet flow rate respectively is 0.3ml, 0.5ml, 0.3ml, 0.5ml, and 0.4ml each time.
Note: among them: 7,8,9,10 bits is the combination of 5 bits and 2,3,4, or 5 bits. The 6 bits, the combination of 3 and 3 bits.
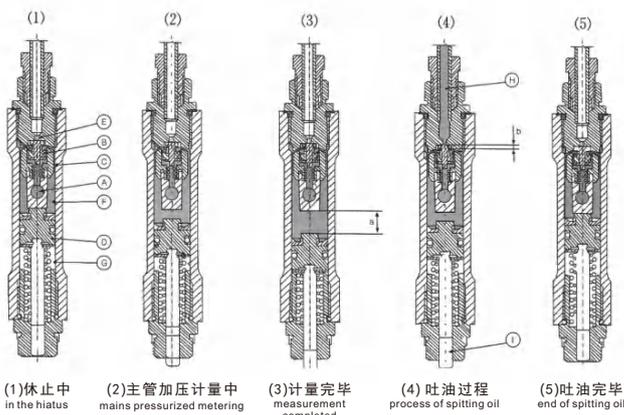
性能与特点：
　　LC全封闭定量分配器有效解决灰尘、铁渣、木屑、切削液等杂物进入分配器内部而减少分配器寿命。全封闭定量分配器有效解决了以上存在问题，增强了分配器使用寿命更能充分的润滑设备，使设备更加健康。
Performance and Features:
LC fully enclosed quantitative distributor effectively solves the dirt, iron slag, wood chips, cutting fluid and other debris into the distributor causing reduce the life of the distributor. The fully closed quantitative distributor can effectively solve above problems and enhance the service life of the distributor so that it can lubricate the equipment adequately and make the equipment better using.
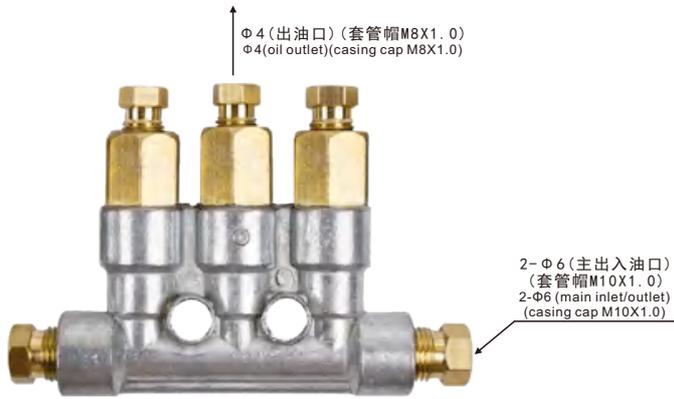
工作原理 Operating Principle

(1)休止中
in the hiatus

(2)主管加压计量中
mains pressurized metering

(3)计量完毕
measurement completed

(4)吐油过程
process of spitting oil

(5)吐油完毕
end of spitting oil

工作原理：A：计量活塞动作行程　B：伞形双向阀动作行程见上图，从润滑泵压送的油从主管A注入，并将伞形双向阀B向推开流入，通过通路C压送活塞室到F内。受压力油作用下计量活塞向下动作弹簧G被压缩蓄油，从而进行计量蓄油，当主管A内油压被释放〈即卸压〉，伞形阀B因压力差而动作，同时开启吐油出口E，　于是活室内计量蓄油通过吐油出口E送入油管H而将油输送到润滑点，信号销I当计量蓄油时突出，而供油给润滑点时缩回，从而确认分配动作完成情况。
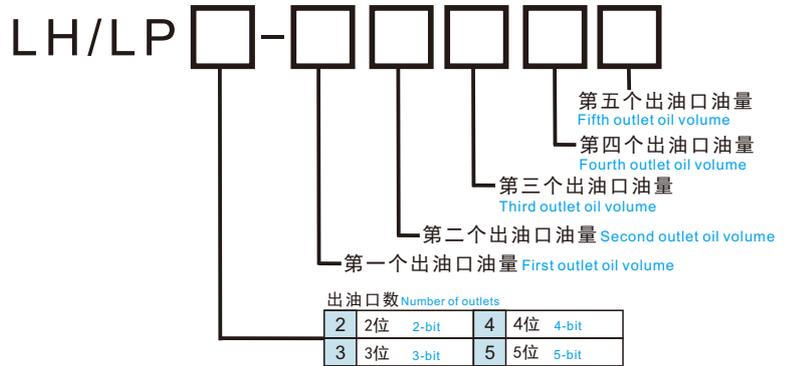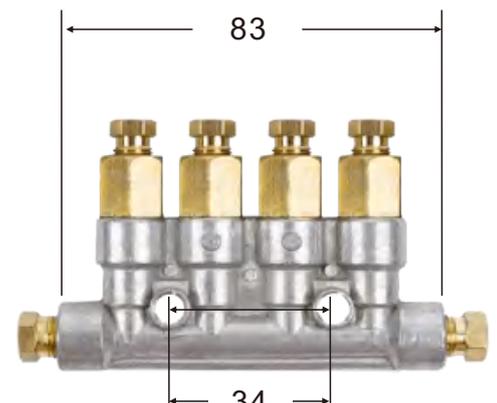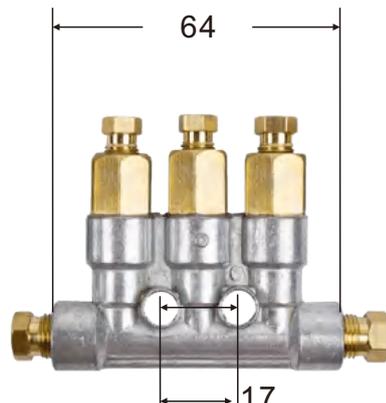
Operating principle: A: metering piston action schedule B: the action trip of the umbrella type two-way valve is shown in the figure above. The oil from the lubrication pump is injected from the director A, and the umbrella-type two-way valve B is pushed open. Push the piston chamber to F through the channel C. The piston moves downward under the action of pressure oil. The spring G is compressed. Thus the measurement of oil storage. When the oil pressure is released in charge of A(the discharge pressure). The umbrella valve B moves with pressure difference. At the same time, it opens the outlet E, so the living room measures the oil storage. The oil is transported to the lubrication point by outlet E to the pipe H, and the signal pin I is prominent when measuring the oil storage. When the oil is supplied to the lubrication point, it is retracted to confirm the completion of the distribution.

LH/LP定量油脂加压式分配器 LH/LP Quantitative grease pressurized dispenser

Φ4（出油口）（套管帽M8X1.0）
Φ4(oil outlet)(casing cap M8X1.0)

2-Φ6（主出入油口）
（套管帽M10X1.0）
2-Φ6(main inlet/outlet)
(casing cap M10X1.0)

(LH3)

型号说明 Model Description

LH/LP□-□□□□□

第五个出油口油量 Fifth outlet oil volume
第四个出油口油量 Fourth outlet oil volume
第三个出油口油量 Third outlet oil volume
第二个出油口油量 Second outlet oil volume
第一个出油口油量 First outlet oil volume

出油口数 Number of outlets			
2	2位 2-bit	4	4位 4-bit
3	3位 3-bit	5	5位 5-bit

注：如没有特殊要求，出油口油量默认为3，代表0.3mL每次。
Attention: if there isn't any other requirement, the standard oil is 0.3ml for one time

油量表示方法 Oil Quantity Indication

*油量表示方法：
（注：当所有出油口油量值一样时，只用一个油量值表示）
例1:LH3-2表示为3位分配器,第1,2,3出油口油量全部为0.2ml每次。
例2:LH5-53235表示为5位分配器,第1,2,3,4,5出油口油量分别为
0.5; 0.3; 0.2; 0.3 ;0.5ml每次。
注：其中：7；8；9；10位，为5位和2；3；4；5位组合。6位为3位与3位
的组合。
* oil quantity representation method:
(note: when the oil value is the same, only one oil value is used)
Example 1: LD3-2 indicates LD model and the amount of 1 and 2
oil outlet in 2 allocator is 0.3ml each time.
Example 2: LD5-53235 indicates 5 allocators, and 1, 2, 3 outlet flow
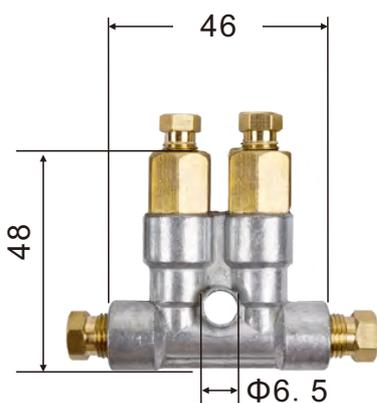rate respectively is 0.3ml, 0.5ml, 0.3ml, 0.5ml, and 0.4ml each time.
Note: among them: 7,8,9,10 bits is the combination of 5 bits and 2,3,
4, or 5 bits. The 6 bits, the combination of 3 and 3 bits.

技术参数 Technical Parameters
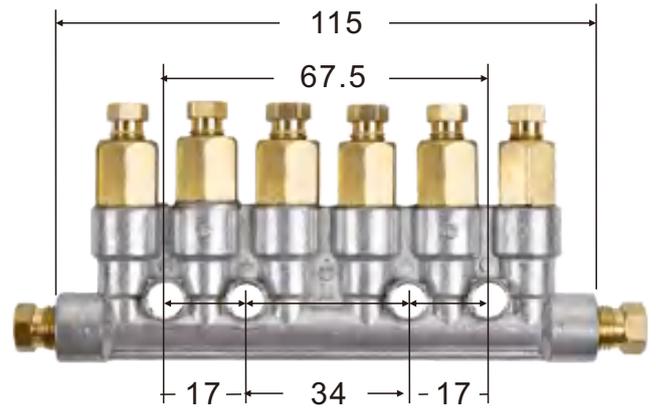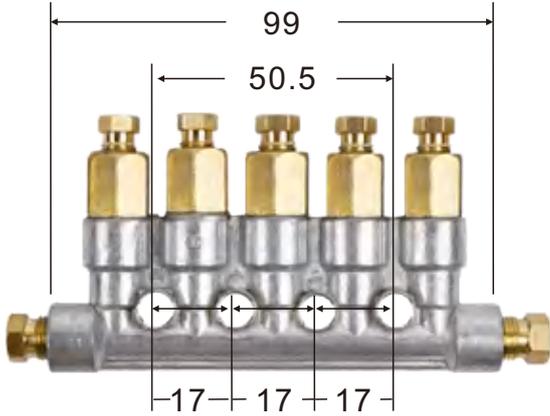
型号Model	工作压力(MPa) work pressure	出口数 outletnumber	吐出量（ml/cy) discharge amount
A型 A-type			
LH2		2	
LH3		3	
LH4	≥1.6	4	0.1; 0.2; 0.3; 0.4; 0.5;
LH5		5	
LH6		6	
B型 B-type			
LP3	≥1.6	3	0.1;0.2;0.3;0.4;0.5;
LP5		5	可根据用户定做 The size of the distributor also can be customized

产品尺寸图 Product Dimension Drawing

A 型 A-type(LH)：

46
48
Φ6.5

64
17

83
34

99
50.5
17 17 17

115
67.5
17 34 17

B型 B-type（LP）：

Φ4（主出入油口）（套管帽M8X1.0）
Φ4(main oil inlet and outlet)(casing cap M8X1.0)

Φ6（主出入油口）（套管帽M10X1.0）
Φ6(main oil inlet and outlet)(casing cap M10X1.0)

44

(can be customized)
75(可根据客户定制)

91
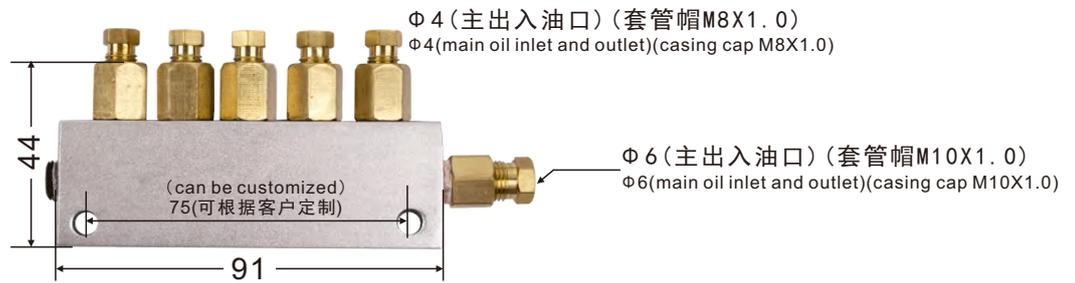
可根据用户需求定制B型加压式分配器的长度：

出油孔位如：2位、3位、10位、15位等分配器的安装尺寸也可根据用户定做。

The length of B-type pressurized distributor can be customized according to the user's needs:

the oil outlet position such as: 2, 3, 10, 15, etc. The installation size of the distributor can also be customized according to the user.

* 该尺寸为手工测量，误差在1mm内。
* The size is measured by hand, the error is within 1mm.
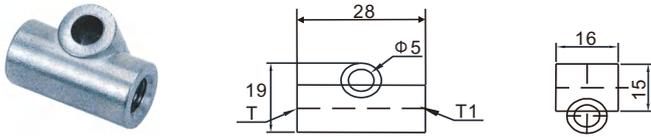
黄油过滤器 Grease Filter

84
138
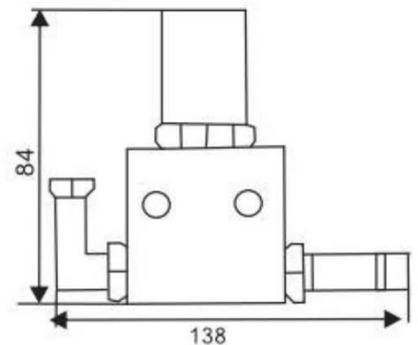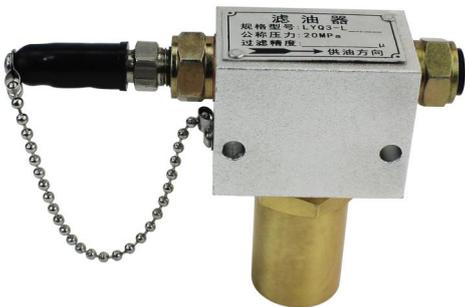
技术参数 Technical Parameters

型号 Model	公称压力 Nominal pressure	过滤精度 Filtration accuracy	进油口 Oil inlet	出油口 Oil outlet	用脂范围 Grease viscosity
LYQ3-L8.5	20Mpa	80μm	φ6mm	φ6mm	NLGI 000#--2#

润滑附件 Lubrication Accessories

固定双接头 Fixed Double Connector

型号 Model	管径 Pipe diameter	T	T1	重量（g） Weight
MJ0808	Φ4xΦ4	M8x1	M8x1	23
MJ0810	Φ4xΦ6	M8x1	M10x1	22
MJ1010	Φ6xΦ6	M10x1	M10x1	20

过滤双接头 Filter Double Joints
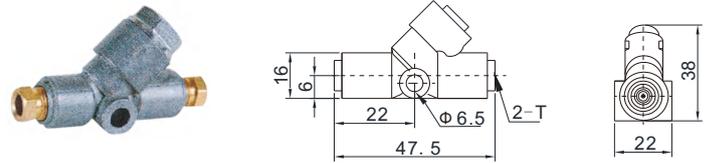
型号 Model	MPJ04	MPJ04
规格 Specification	Φ4-Φ4	Φ6-Φ6
T	M8X1	M10X1
过滤精度（μ） Filtration accuracy	20	
使用范围 Range of application	抵抗式润油系统 resistant lubrication systems	
压力 Pressure(kgf/cm²)	25	
最大流量 Maximum flow(L/min)	1	
用油粘度 Oil viscosity(cSt)	30-250	

三通管/三通接头 Tee Tubes/Tee Fittings
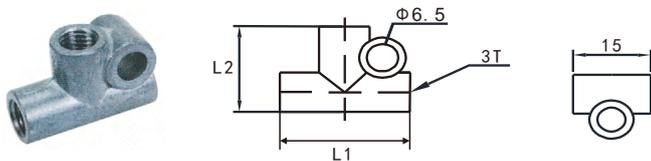
型号 Model	管径 Diameter	T	L1	L2	重量（g） Weights
MKD04	Φ4	M8x1	28	19.5	15
MKD06	Φ6	M10x1	30	22	26

四通管/四通接头 Four-way Tubes / Four-way Fittings
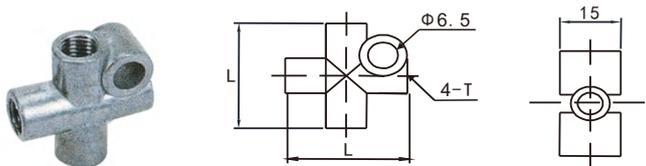
型号 Model	管径 Diameter	T	L1	重量（g） Weights
MJD04	Φ4	M8x1	28	19.5
MJD06	Φ6	M10x1	30	22

直接头 Directly

型号 Model	管径 Diameter	ΦD	L	T	T1	H	重量（g） Weights
MD0406	Φ4	2.5	18	M8X1	M6X1	10	6
MD0406-1	Φ4	2.5	18	M8X1	M6X0.75	10	6
MD0408	Φ4	3	18	M8X1	M8X1	10	6
MD0410	Φ4	3	18	M8X1	M10X1	10	8
MD0418	Φ4	3	18	M8X1	PT1/8	10	8
MD0414	Φ4	3.5	18	M8X1	PT1/4	14	17
MD0618	Φ6	4	18	M10X1	PT1/8	10	8
MD0608	Φ6	4	18	M10X1	M8X1	12	8
MD0614	Φ6	5	18	M10X1	PT1/4	14	14
MD0610	Φ6	3	18	M10X1	M10X1	12	8
MD0818	Φ8	5	26	M14X1.5	PT1/8	17	22
MD0814	Φ8	6	26	M14X1.5	PT1/4	17	26
MD1018	Φ10	5	28	M16X1.5	PT1/8	19	29
MD1014	Φ10	7	28	M16X1.5	PT1/4	19	33

润滑附件 Lubrication Accessories

单向直接头 Unidirectional Direct Header
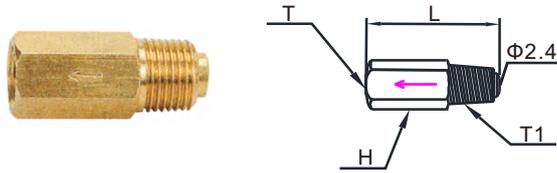
型号 Model	管径 Pipe diameter	L	T	T1	H	重量(g) Weight
MD0418A	Φ4	26	M8x1	PT1/8	10	11
MD0618A	Φ6	26	M10x1	PT1/8	12	14

反向直接头 Reverse Direct Header
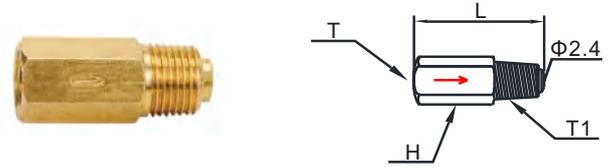
型号 Model	管径 Pipe diameter	L	T	T1	H	重量(g) Weight
MD0418B	Φ4	26	M8x1	PT1/8	10	11
MD0618B	Φ6	26	M10x1	PT1/8	12	14

单向直角接头 Unidirectional Right Angle Joints
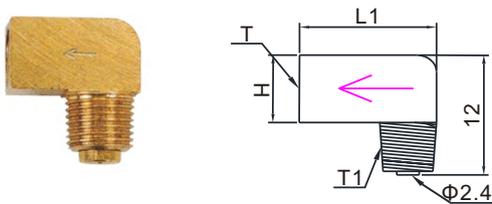
型号 Model	管径 Pipe diameter	L1	L2	T	T1	H	重量(g) Weight
MH0418A	Φ4	18	20	M8X1	R1/8	14	14
MH0618A	Φ6	20	22	M10X1	R1/8	21	21

反向直角接头 Reverse Right Angle Joints
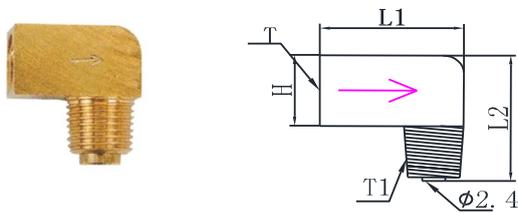
型号 Model	管径 Pipe diameter	L1	L2	T	T1	H	重量(g) Weight
MH0418B	Φ4	18	20	M8X1	R1/8	14	14
MH0618B	Φ6	20	22	M10X1	R1/8	21	21

直角接头 Right Angle Joint

型号 Model	管径 Pipe diameter	ΦD	L1	L2	T	T1	H	重量(g) Weight
MH0406	Φ4	2	18	18	M8X1	M6X1.0	10	12
MH0406-1	Φ4	2	18	18	M8X1	M6X0.75	10	13
MH0408	Φ4	3	18	18	M8X1	M8X1.0	10	13
MH0418	Φ4	3	18	18	M8X1	PT1/8	10	13
MH0414	Φ4	4	20	22	M8X1	PT1/4	14	32
MH0608	Φ6	3	20	20	M10X1	M8X1.0	12	20
MH0610	Φ6	4	20	20	M10X1	M10X1.0	12	20
MH0618	Φ6	4	20	20	M10X1	PT1/8	12	20
MH0614	Φ6	4	20	22	M10X1	PT1/4	14	29
MH0818	Φ8	5	26	29	M14X1.5	PT1/8	17	52
MH0814	Φ8	6	26	29	M14X1.5	PT1/4	17	56
MH1018	Φ10	5	29	31	M16X1.5	PT1/8	19	70
MH1014	Φ10	7	29	31	M16X1.5	PT1/4	19	70

润滑附件 Lubrication Accessories

套管帽/油管接头 Casing Caps / Tube Fittings
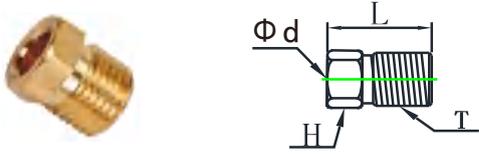
型号 Model	管径 Pipe diameter	Φd	L	T	H	重量（g） Weight
MA04	Φ4	4.15	12	M8X1.0	8	3
MA04-1	Φ4	4.25	12	M8X1.0	8	3
MA06	Φ6	6.1	12.5	M10X1.0	10	4
MA08	Φ8	8.1	14	M14X1.5	14	9
MA010	Φ10	10.1	15	M16X1.5	16	10

套管/密封圈 Sleeve/Seal

型号 Model	管径 Pipe diameter	Φd	ΦD	L	重量（g） Weight
MB04	Φ4	4.1	6	4.5	0.3
MB06	Φ6	6.1	8	4.5	0.6
MB08	Φ8	8.1	11	7	2
MB10	Φ10	10.1	13.5	8	3

管内衬/油管衬套 Pipe Liners/oil Pipe Bushings
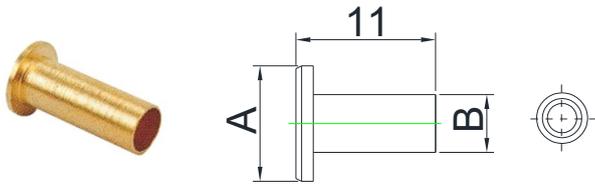
型号 Model	A	B	重量（g） Weight
MF04	Φ4	Φ2	0.1
MF04-1	Φ4	Φ2.5	0.1
MF06	Φ6	Φ4	0.2

活动直接头 Active Direct Header
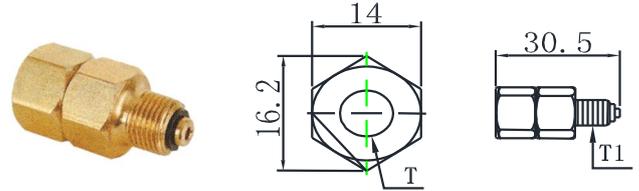
型号 Model	管径 Pipe diameter	T	T1	重量（g） Weight
MW0418	Φ4	M8X1.0	PT1/8	28
MW0618	Φ6	M10X1.0	PT1/8	26
MW0118		PT1/8	PT1/8	26

螺帽/接头螺母 Nuts/joint Nuts

型号 Model	管径 Pipe diameter	Φd	L	T	H	重量（g） Weight
MP04	Φ4	Φ4.05	13	M8X1.0	10	3

补芯 Coring

型号 Model	T1内牙 (inter thread)	T2外牙 (outer thread)
MBX1814	PS1/8	PT1/4
MBX1438	PS1/4	PT3/8
MBX3812	PS3/8	PT1/2
MBX1234	PS1/2	PT3/4
MBX341	PS3/4	PT1

润滑附件 Lubrication Accessories

活动直角接头 Movable Right-angle Joints
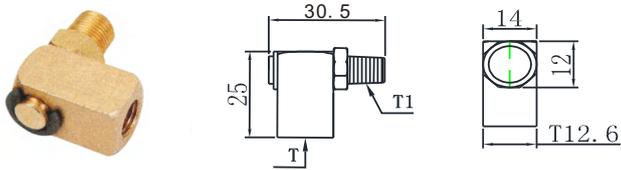
型号 Model	管径 Pipe diameter	T	T1	重量(g) Weight
MC0418	Φ4	M8X1.0	PT1/8	38
MC0406	Φ4	M8X1.0	M6X1.0	38
MC0408	Φ4	M8X1.0	M8X1.0	38
MC0118		PT1/8	PT1/8	36

过渡三通 Transition Tee
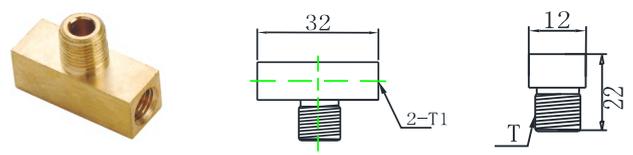
型号 Model	管径 Pipe diameter	T	T1
BGT0806	Φ4	M6X1.0	M8X1.0
BGT0808	Φ4	M8X1.0	M8X1.0
BGT0818	Φ4	PT1/8	M8X1.0
BGT1006	Φ4	M6X1.0	M10X1.0
BGT1008	Φ6	M8X1.0	M10X1.0
BGT1018	Φ6	PT1/8	M10X1.0

平面直角接头 Flat Right Angle Joints
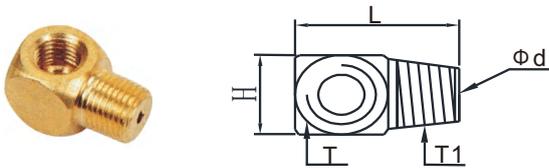
型号 Model	管径 Pipe diameter	Φd	L	T	T1	H	重量(g) Weight
MI0408	Φ4	2	21	M8X1.0	M8X1.0	12.7	15
MI0410	Φ4	2	21	M8X1.0	M10X1.0	12.7	15
MI0418	Φ4	2	21	M8X1.0	PT1/8	12.7	17
MI0408Z	Φ4	2	21	M8X1.0	Z1/8	12.7	17
MI0618	Φ6	2	22.3	M10X1.0	PT1/8	12.7	15
MI1818		2.5	21	PS1/8	PT1/8	12.7	15

孔内三通接头 In-hole Tee Fittings
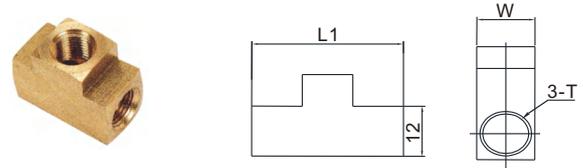
型号 Model	T	L1	L2	W	重量(g) Weight
MT18	PS1/8	27	21	14	34
MT14	PS1/4	31	25	18	47
MT38	PS3/8	40	31	21	86

套管塞头 Casing Plug
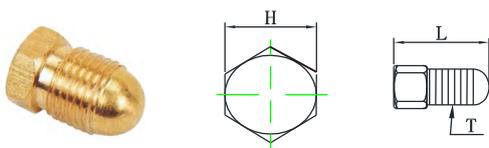
型号 Model	L	T	H	重量(g) Weight
MG0408	15	M8X1.0	8	5.4
MG0610	18	M10X1.0	10	8.8

平端塞头 Flat end Plug
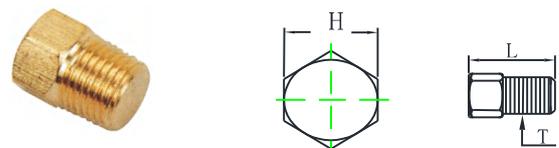
| 型号 Model	L	T	H	重量(g) Weight
MG04	12	M8X1	8	4.4
MG06	14	PT1/8	10	7.6

润滑附件 Lubrication Accessories

内接双通接头 In a Two-way Connection
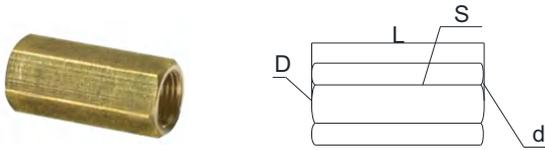
型号 Code	d牙径 Tooth size	D牙径 Tooth size	L长度 Length	S角位 Angle
2T-8-8	M8X1	M8X1	24	10
2T-8-10	M8X1	M10X1	24	12
2T-10-10	M10X1	M10X1	26	12
2T-10-12	M10X1	M12X1.25	29	14
2T-8-G1/8	M8X1	G1/8	23	10
2T-10-G1/8	M10X1	G1/8	23	12
2T-14-G1/4	M14X1.5	G1/4	33	16
2T-16-G1/4	M16X1.5	G1/4	36	18
2T-18-G3/8	M18X1.5	G3/8	39	21

连接接头 Connector
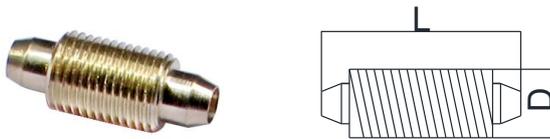
型号 Code	D牙径 Tooth size	L长度 Length
PJ-6	M6X1.0	20
PJ-8	M8X1.0	23
PJ-10	M10X1.0	25

侧外接三通接头 Lateral External Tee Joint
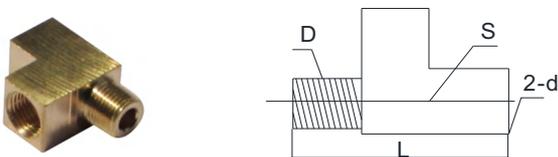
型号 Code	D牙径 Tooth size	d牙径 Tooth size	L长度 Length	S角位 Angle
3TZ-8-8	M8X1	M8X1	28	12
3TZ-8-10	M10X1	M8X1	28	12
3TZ-8-1/8	R1/8	M8X1	28	12
3TZ-10-8	M8X1	M10X1	30	12
3TZ-10-10	M10X1	M10X1	30	12
3TZ-10-1/8	R1/8	M10X1	30	12

黄油嘴 Grease nipple

（铜制）
Made of Copper

（铁制）
Made of Iron
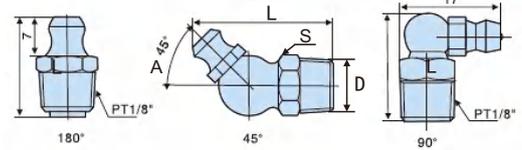
型号 Code	D牙径 Tooth size	A角度 Angle	L长度 Length	S角位 Angle
HY-106T	M6X1	0°	12	8
HY-108T	M8X1	0°	15	10
HY-110T	M10X1	0°	17	11
HY-114T	R1/4	0°	24	13.5
HY-118T	R1/8	0°	17	11
HY-206T	M6X1	45°	16	10
HY-208T	M8X1	45°	19	10
HY-210T	M10X1	45°	19	11
HY-214T	R1/4	45°	26	13.5
HY-218T	R1/8	45°	19	11
HY-306T	M6X1	90°	16	10
HY-308T	M8X1	90°	19	10
HY-310T	M10X1	90°	22	11
HY-318T	R1/8	90°	22	11

A=0° 时为直黄油嘴 (A=0° as grease nipple)
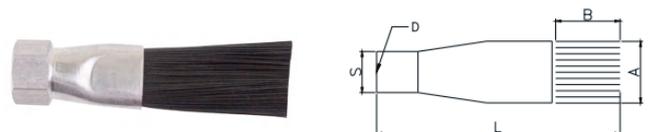A=45° 时为弯黄油嘴 (A=45° to turn yellow when the nozzle)
A=90° 时为直角黄油嘴 (A=90° as for right grease nipple)

注：不带T为铁制 (Note: don't take T for aluminum)
如：HY-118 (Such as：HY-118)

油刷 Oil Brush

型号 Model	D牙径 Tooth size	D	S	B	A
MOB1816	RC1/8	75	14	37	16
MOB1816	M8*1	75	14	37	16
MOB1010	M10*1	75	14	37	16

润滑附件 Lubrication Accessories

宝塔型直接头 Pagoda Type Direct Header

型号 Model	管径 Pipe diameter	T外牙螺纹 T male thread
MYBD0418	Φ4	PT1/8
MYBD0618	Φ6	PT1/8
MYBD0614	Φ6	PT1/4
MYBD0638	Φ6	PT3/8
MYBD0818	Φ8	PT1/8
MYBD0814	Φ8	PT1/4
MYBD0838	Φ8	PT3/8
MYBD1018	Φ10	PT1/8
MYBD1014	Φ10	PT1/4
MYBD1038	Φ10	PT3/8
MYBD1012	Φ10	PT1/2
MYBD1214	Φ12	PT1/4
MYBD1238	Φ12	PT3/8
MYBD1212	Φ12	PT1/2
MYBD1638	Φ16	PT3/8
MYBD1612	Φ16	PT1/2
MYBD1634	Φ16	PT3/4
MYBD1912	Φ19	PT1/2
MYBD1934	Φ19	PT3/4
MYBD2534	Φ25	PT3/4

宝塔型直角接头 Pagoda Type Right Angle Joint

型号 Model	管径 Pipe diameter	T外牙螺纹 T male thread
MYBH0418	Φ4	PT1/8
MYBH0618	Φ6	PT1/8
MYBH0614	Φ6	PT1/4
MYBH0638	Φ6	PT3/8
MYBH0818	Φ8	PT1/8
MYBH0814	Φ8	PT1/4
MYBH0838	Φ8	PT3/8
MYBH1018	Φ10	PT1/8
MYBH1014	Φ10	PT1/4
MYBH1038	Φ10	PT3/8
MYBH1012	Φ10	PT1/2
MYBH1214	Φ12	PT1/4
MYBH1238	Φ12	PT3/8
MYBH1212	Φ12	PT1/2
MYBH1638	Φ16	PT3/8
MYBH1612	Φ16	PT1/2
MYBH1634	Φ16	PT3/4
MYBH1912	Φ19	PT1/2
MYBH1934	Φ19	PT3/4
MYBH2534	Φ25	PT3/4

内牙三通 Tee With Internal Teeth

型号 Model	T1（内牙） Inner Thread	T2（内牙） Inner Thread	T3（内牙） Inner Thread
MCBT11818	PS1/8	PT1/8	PT1/8
MCBT11414	PS1/4	PT1/4	PT1/4
MCBT13838	PS3/8	PT3/8	PT3/8
MCBT11212	PS1/2	PT1/2	PT1/2
MCBT13434	PS3/4	PT3/4	PT3/4

外牙三通 External Teeth Tee

型号 Model	T1（内牙） Inner Thread	T2（内牙） Inner Thread	T3（内牙） Inner Thread
MCBT21818	PS1/8	PT1/8	PT1/8
MCBT21414	PS1/4	PT1/4	PT1/4
MCBT23838	PS3/8	PT3/8	PT3/8
MCBT21212	PS1/2	PT1/2	PT1/2
MCBT23434	PS3/4	PT3/4	PT3/4

润滑附件 Lubrication Accessories

外牙双通接头 External Two-way Connector
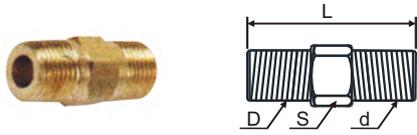
型号 Model	D	d	L	S
T-6-8	M6X1	M8X1	20	8
T-8-8	M8X1	M8X1	23	10
T-8-10	M8X1	M10X1	23	10
T-8-R1/8	M8X1	R1/8	23	10
T-10-10	M10X1	R10X1	25	10
T-10-R1/8	M10X1	R1/8	25	10
T-R1/8-R1/8	R1/8	R1/8	25	10
T-R1/8-R1/2	R1/8	R1/2	30	22
T-R1/8-R1/4	R1/8	R1/4	27	14
T-R1/4-R1/4	R1/4	R1/4	30	14
T-R1/4-R3/8	R1/4	R3/8	30	17

内外牙直角接头 Right-angle Joints with Inner and Outer Teeth

型号 Model	D1内牙 Inner Thread	D2外牙 Outer Thread
MBH21818	PS1/8	PT1/8
MBH21414	PS1/4	PT1/4
MBH33838	PS3/8	PT3/8
MBH31212	PS1/2	PT1/2
MBH33434	PS3/4	PT3/4

内牙直角接头 Right Angle Fittings with Female Teeth

型号 Model	D1内牙 Inner Thread	D1内牙 Inner Thread
MBH11818	PS1/8	PT1/8
MBH11414	PS1/4	PT1/4
MBH13838	PS3/8	PT3/8
MBH11212	PS1/2	PT1/2
MBH13434	PS3/4	PT3/4

内牙双通接头 Internal Teeth Two-way Connector
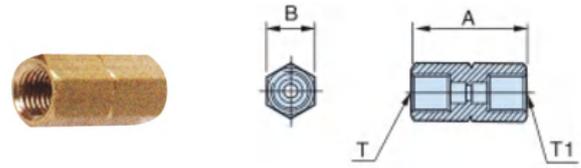
型号 Model	A	B	T	T1	重量（g） Weight
MK108	23	10	M8X1	M8X1	10
MK110	25	12	M10X1	M10X1	15

铜快速直接头 Copper Rapid Connectors

型号 Model	管径 Pipe diameter	外牙 Outer Thread
MKBD0418	Φ4	PT1/8
MKBD0618	Φ6	PT1/8
MKBD0614	Φ6	PT1/4
MKBD0638	Φ6	PT3/8
MKBD0818	Φ8	PT1/8
MKBD0814	Φ8	PT1/4
MKBD0838	Φ8	PT3/8

外牙直角接头 Male Right Angle Fitting

型号 Model	D1外牙 Outer Thread	D2外牙 Outer Thread
MBH21818	PS1/8	PT1/8
MBH21414	PS1/4	PT1/4
MBH23838	PS3/8	PT3/8
MBH21212	PS1/2	PT1/2
MBH23434	PS3/4	PT3/4

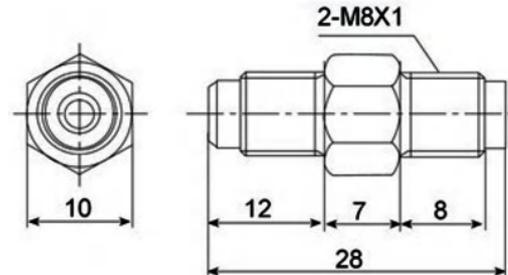# 比例式限流杆 Proportional restrictor rod
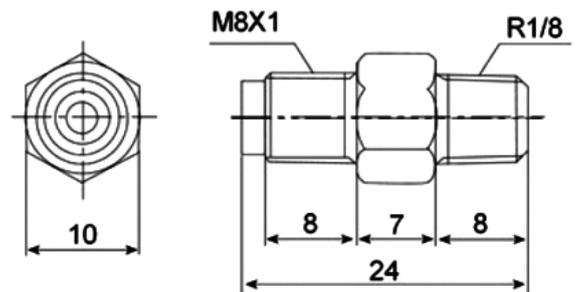
DPM型type
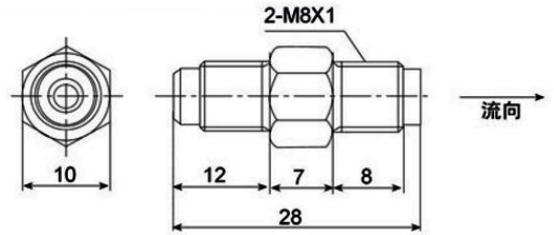
DPJ型type
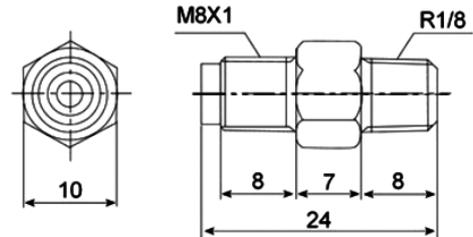
MC型type

MJ型type

1.DPM/DPG/MC/MJ型抵抗式计量件又称比例接头。

2.管式结构，内设有限流杆和单向阀。

3.开启压力：0.2MPa。

4.通过节流原理控制流量，按流通能力（流量定数）对流量进行比例分配。同型号计量件再润滑系统中相互间距离的远、近、高、低、卧装或立装均在实际使用中其出油量基本相同等。使用寿命长，比例接头单向阀其橡胶密封件外部试压铜套（除密封面外）防止橡胶密封件膨胀和老化。

5.动作灵敏,排油畅通:比例接头单向阀采用锥形弹簧，确保计量件动作敏与排油畅通,并防止排除的油剂逆流。

6.流量比：同一型号的流量在实际使用过程中会有环境温度的变化和油的粘度不同而发生变化。

1.DPM/DPG/MC/MJ type resistance measuring parts are also called proportional joints.

2. Tubular structure with restrictor rod and check valve.

3. Opening pressure: 0.2MPa

4. Control the flow through the throttling principle and distribute the flow proportionately according to the flow capacity (flow number). The far, near, high, low, horizontal or vertical installations in the relubrication system of the same type of metering component are all basically the same in actual use. Long service life, the proportion of joints check valve rubber seal external pressure test copper sleeve (except the sealing surface) to prevent rubber seals from swelling and aging.

5. Sensitive operation and smooth oil discharge: The proportional joint check valve adopts conical spring to ensure that the metering part is sensitive and oil-free and prevents the excluded oil agent from flowing backwards.

6. Flow ratio: The flow of the same model will change with the change of the ambient temperature and the viscosity of the oil during the actual use.

DPM型 type

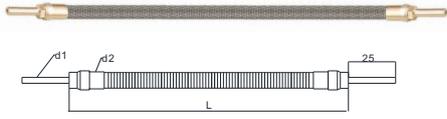| 型号 Model	流量 Traffic(CC/min)	连接方式 Connection Mode	备注 Notes
DPM-0	1.8	进油口链接方式可与可调型和单边分配器链接；出油口方式可与套管PB和螺帽PN链接，常用于支管分配到机械润滑点 The inlet link can be linked to the adjustable and single side allocator; The outlet method can be connected with the casing PB and nut PN which is often used in the branch pipe distribution to the mechanical lubrication point	限流杆可根据客户所需流量定做 The restrictor bar can be customized
DPM-1	3.8		
DPM-2	6		
DPM-3	12		
DPM-4	18		
DPM-5	22		

DPJ型 type

型号 Model	流量 Traffic(CC/min)	连接方式 Connection Mode	备注 Notes
DPJ-0	1.8	进油口连接方式可与套管PB和螺帽PN链接出油口端与设备连接，常用于支管末端分配到机械润滑点 The inlet connection mode can be connected with the casing PB and nut PN. The outlet end is connected with the equipment and is often used to allocate the end of the branch pipe to the mechanical lubrication point	限流杆可根据客户所需流量定做 The restrictor bar can be customized
DPJ-1	3.8		
DPJ-2	6		
DPJ-3	12		
DPJ-4	18		
DPJ-5	22		

MC型 type

型号 Model	流量 Traffic(CC/min)	连接方式 Connection Mode	备注 Notes
MC-0	1.8	两端分别与套管PB和螺帽PN链接，常用于油路中端 The two ends are respectively connected with the casing PB and the nut PN, which are often used in the middle of the oil road	限流杆可根据客户所需流量定做 The restrictor bar can be customized
MC-1	3. 8		
MC-2	6		
MC-3	12		
MC-4	18		
MC-5	22		

MJ型 type

型号 Model	流量 Traffic(CC/min)	连接方式 Connection Mode	备注 Notes
MC-0	1.8	进油口连接方式可与套管PB和螺帽PA链接出油口端与设备连接，常用于支管末端分配到机械润滑点 The inlet connection mode can be linked to the casing PB and nut PA. The outlet end is connected with the equipment and is often used to allocate the end of the branch pipe to the mechanical lubrication point	限流杆可根据客户所需流量定做 The restrictor bar can be customized
MC-1	3. 8		
MC-2	6		
MC-3	12		
MC-4	18		
MC-5	22		

润滑油管 Lubricating oil hose

外钢丝软管 Outer Steel Wire Hose

MST-□ 1200

型号 Model	配管外径d1 Outer Diameter	使用压力 Operate Pressue	最小弯曲半径 Minimum Bendng Radius	d2	L（mm）
MST-4	Φ4	3.0Mpa	R20mm	Φ12	可根据用户需求定制 can be customized
MST-6	Φ6	2.7Mpa	R40mm		

型号选型 Model 说明:
- 表示长度（mm） indicates length (mm)
- 4 表示配管外径为Φ4　4:indicates outer diameter is φ4
- 6 表示配管外径为Φ6　6:indicates outer diameter is φ6
- 表示型号　indicates model

* 外钢丝软管使用橡胶管，可在有切屑和工作环境恶劣的场所下使用，适用于温度范围-20~+80°C
* Outside steel wire hose uses rubber hose, which can be in the use of chip and rough work environment and can apply to the temperature range - 20 ~ + 80 ° C
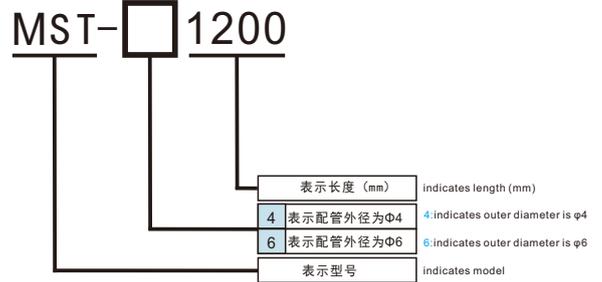
外钢丝护套软管 Outer Steel Wire Sheathed Hose
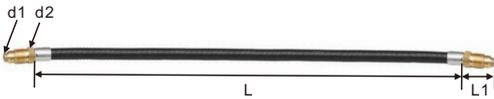
型号选型 Model

MSP-□ 1200 □

型号 Model	配管外径d1 Outer Diameter	使用压力 Operate Pressue	最小弯曲半径 Minimum Bendng Radius	d2	L1	L（mm）
MSP-4	Φ4	3.0Mpa	R20mm	Φ8	17	可根据用户需求定制 can be customized
MSP-6	Φ6	2.7Mpa	R40mm	Φ10	18	

型号选型 说明:
- 空白 表示钢丝护套和尼龙管一样长　blank: indicates wire sheath as long as nylon tube
- 数字 表示钢丝护套的长度单位　digital: indicates length unit of the wire sheath
- 表示长度（mm）　indicates length (mm)
- 4 表示配管外径为Φ4　4:indicates outer diameter is φ4
- 6 表示配管外径为Φ6　6:indicates outer diameter is φ6
- 表示型号　indicates model

* 外钢丝护套软管是一种外套弹簧的尼龙管，可在有切屑和工作环境恶劣的场所下使用，适用于温度范围-20~+80°C
* Outside wire sheath uses nylon tube with spring, which can be in the use of chip and rough work environment and can apply to the temperature range - 20 ~ + 80 ° C
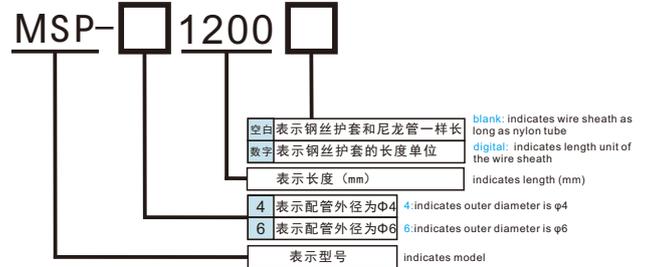
## 高压软管 High Pressure Hose
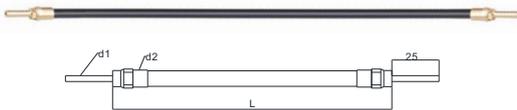
型号选型 Model

MSG-□ 1200 □

型号 Model	配管外径d1 Outer Diameter	使用压力 Operate Pressue	最小弯曲半径 Minimum Bendng Radius	d2	L（mm）
MSG-4	Φ4	20Mpa	R40	Φ12	可根据用户需求定制 can be customized
MSG-6	Φ6	18Mpa	R80	Φ12	

型号选型 说明:
- 空白 表示无弹簧　blank: indicates no spring
- TH 表示外加弹簧　digital: indicates external spring
- 表示长度（mm）　indicates length (mm)
- 4 表示配管外径为Φ4　4:indicates outer diameter is φ4
- 6 表示配管外径为Φ6　6:indicates outer diameter is φ6
- 表示型号　indicates model

* 耐高压软管使用聚氨酯材料软管，可在有切屑和工作环境恶劣的场所下使用，适用于温度范围-20~+80°C
* The high pressure hose uses polyurethane hose, which can in the use of chip and rough work environment and apply to the temperature range - 20 ~ + 80 ° C
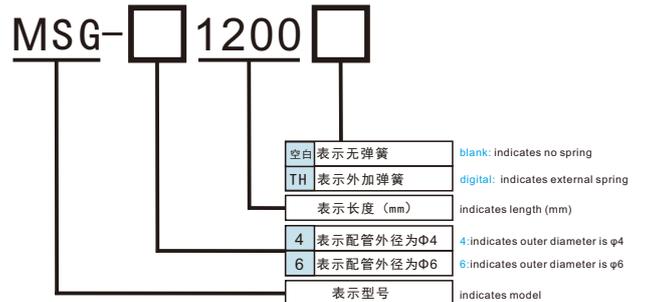
## 钢丝弹簧护套 Wire Spring Sheath

型号选型 Model

THT/THM-□ 1200 □

型号 Model	配管内径 Inner Diameter	弹簧长度/条 Spring Length	使用范围 Using Range
THT	Φ4/Φ6/Φ8	2m/4m	与尼龙管胶管配合使用 used with nylon hose
THM	Φ4/Φ6/Φ8	2m/4m	

型号选型 说明:
- 空白 表示黑色弹簧　blank: indicates black spring
- 白 表示白色弹簧　digital: indicates white spring
- 表示长度（mm）　indicates length (mm)
- 4 表示配管外径为Φ4　4:indicates outer diameter is φ4
- 6 表示配管外径为Φ6　6:indicates outer diameter is φ6
- THT 表示标准护套　THT:indicates standard sheath
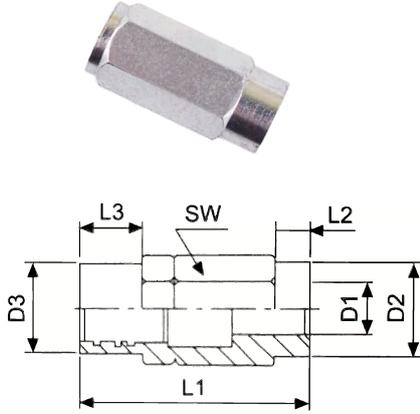- THM 表示紧密护套　THM:indicates close-packed

* 外钢丝软管使用橡胶管，可在有切屑和工作环境恶劣的场所下使用，适用于温度范围-20~+80°C
* Outside steel wire pressure hose uses rubber hose, which can be in the use of chip and rough work environment and apply to the temperature range - 20 ~ + 80 ° C
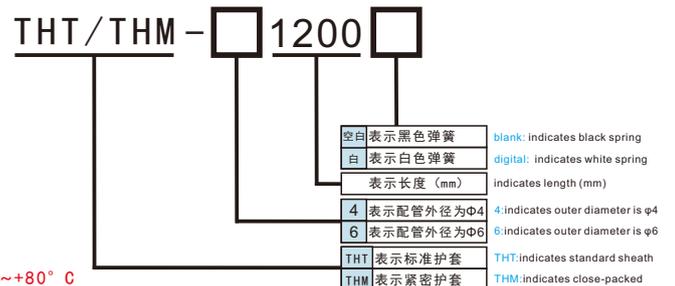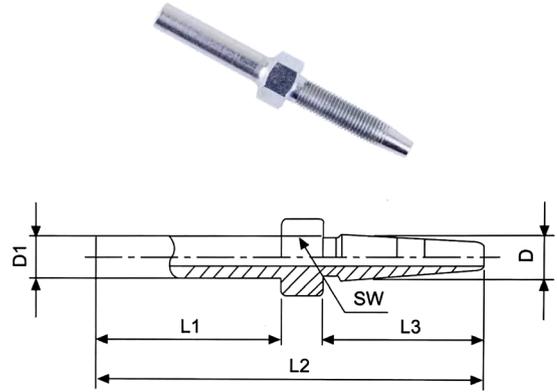
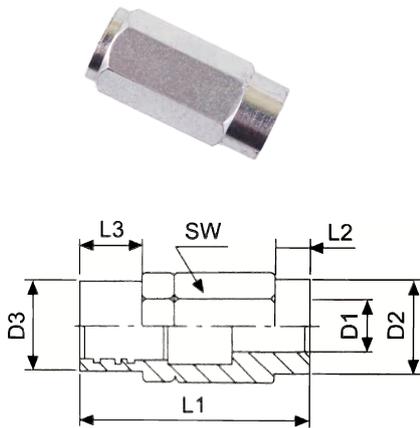# 高压管接头 High Pressure Tubing Joint

高压管接头外套 High pressure adapter jacket

规格型号(外套) Model(outer casing)	D1	D2	D3	L1	L2	L3	SW	材料 Material
MSG(D/L)	M7X0.75	Φ11.8	Φ11.7	28	4	8	12	钢 Steel
规格型号(直涨芯管针) Model (straight core needle)	管外径D1 Diameter	D	L1	L1	L2	L3	SW	材料 Material
MSGD04	Φ4	M7X0.75	18	28	4	8	12	钢 Steel
MSGD06	Φ6	M7X0.75	18	28	4	8	12	钢 Steel

高压管直涨芯 The high pressure pipe goes straight up to the core

高压管接头外套 High pressure adapter jacket

规格型号(外套) Model(outer casing)	D1	D2	D3	L1	L2	L3	SW	材料 Material
MSG(D/L)	M7X0.75	Φ11.8	Φ11.7	28	4	8	12	钢 Steel
规格型号(弯涨芯管针) Model (straight core needle)	管外径D1 Diameter	D		L1	L2	L3	SW	材料 Material
MSGL04	Φ4	M7X0.75		45	20.7	25	10	钢 Steel
MSGL06	Φ6	M7X0.75		45	20.7	25	10	钢 Steel

高压管弯涨芯 The high pressure pipe bends the rising core

管夹 Clamp

名称Item	型号 Model	管径 Diameter	管夹数 Amount	A	C	重量 Weight（g）
单边固定管夹 unilateral fixed pipe clamp	MZ1104	Φ4	1	6	5	1.2
	MZ1106	Φ6	1	8.5	7	2.6
	MZ1108	Φ8	1	10	9	2.2
	MZ1110	Φ10	1	12.5	11	3.6
	MZ1204	Φ4	2	11	5	1.8
	MZ1206	Φ6	2	14.5	7	2.8
	MZ1304	Φ4	3	15	5	2.2
双边固定管夹 bilateral tube clamps	MZ2404	Φ4	4	18	5	3.0
	MZ2504	Φ4	5	22	5	3.2
	MZ2306	Φ6	3	20	7	3.5

单边固定管夹
unilateral fixed pipe clamp

双边固定管夹
bilateral tube clamps
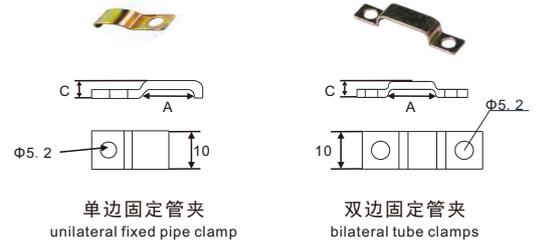
油管 Oil pipe

胶 管 Hose　　尼龙管 Nylon tube　　铝 管 Aluminum tube　　镀铜铝管 Copper coated aluminum tube　　铜 管 Copper tube

名称 Description	型号 Mode	管径规格（外径x内径）Pipe diameter specifications (outer diameterxinside diameter)				使用压力（Mpa）Pressure applied	最小弯曲半径（mm）Minimum bending diameter	长度（m）Length
胶管 rubber pipe	PP	Φ4x2	/	Φ6x4	Φ10x8	1.0	R30	每卷ech coil 100m
尼龙管 nylon pipe	NP-PA6	Φ4x2	Φ4x2.5	Φ6x4	Φ10x8	4.0	R30	每卷ech coil 100m
尼龙管 nylon pipe	NP-PA11	Φ4x2	Φ4x2.5	Φ6x4	Φ10x8	6.0	R20	每卷ech coil 100m
铝管 aluminum pipe	AP	Φ4x2	/	Φ6x4	Φ10x8	4.0	R40	每卷ech coil 100m
镀铜铝管 copper-coated aluminum pipe	AP	Φ4x2	/	Φ6x4	Φ10x8	4.0	R40	每卷ech coil 100m
铜管 copper pipe	CP	/	Φ4x2.5	Φ6x4.5	Φ10x8	10.0	R20	每卷ech coil 30m

调整型过滤器 Adjustable Filter

## 性能与特点 Performance and Features
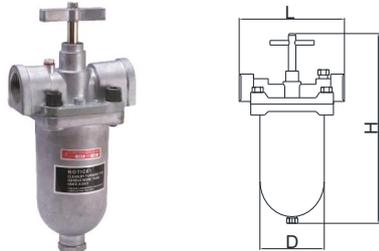
滤油面在承受压力背压力下不至于弯曲变形牢固可靠。滤油面积大。流量不会因过滤而减少。清洗杂物简单，易操作，只需转动十字手柄,杂物即可掉入杯体中。使用寿命长，安全无故障。
The oil filter will not bend and deformation under pressure back pressure. The oil filter area is large. The flow will not be reduced by filtration. Clean sundries is simple, easy to operate. Just turn the cross handle, and the sundry can fall into cup body. Long service life, safe and trouble-free.

名称 Model	口径（E）Caliber	H	L	D	流量（L/min）Flow	过滤精度(μ）filtering precision	最大使用压力（Mpa）Maximum application pressure
FL102	PT1/4	160	75	55	25	100	3.5
FL103	PT3/8	160	75	55	35	100	3.5
FL104	PT1/2	230	100	75	50	100	3.5
FL106	PT3/4	230	100	75	80	100	3.5
FL108	PT1	270	120	75	105	100	3.5

过滤器 Filter

性能与特点 Performance and Features
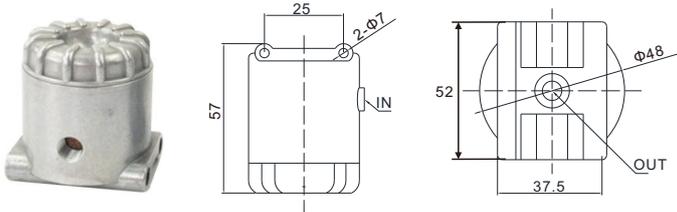
该过滤器采用铜基滤网，具有高密集过滤，操作简单，安装方便。
The filter is made of copper - based filter with high - density filtration, easy to operate and easy to install.

名称 Model	最大工作压力（kg/cm²）Maximum operating pressure	(L/min) Maximun flow	过滤精度(μ）Filtering precision	IN X OUT	重量（kg）Weight
ML-1025	30	2.5	10	PS1/8XPS1/8	0.3
ML-2530	30	3.0	25		0.3
ML-12535	30	3.0	125	PS1/4XPS1/4	0.3

油量计算方法

运动的种类		计算公式	例题K=1时	运动副种类		计算公式	例题K=1时
滚珠/滚柱/滚针轴承		油量Q=0.14KX轴承直径X轴承数（ml/h）	假设有个滚珠轴承，轴直径80MM，求每小时所需油量 Q=0.4X8X1=0.32ml/h	滚珠轴承导轨		油量Q=0.012KX滑块长x滑块宽（ml/h）	假设有一滚珠导轨，滑块长8mm，滑块数为2，求每小时所需油量 Q=0.012X8X2=0.19ml/h
滑动轴承		油量Q=0.023KX轴承直径X接触轴长（ml/h）	假设有一滑动轴承，轴直径80mm，接触轴长100mm 求每小时所需油量 Q=0.023X8X10=1.84ml/h	凸轮		油量Q=0.013KX圆周长x宽（ml/h）	假设有一凸轮机构，凸轮圆周200mm，宽20mm，求每小时所需油量 Q=0.013X20X2=0.52ml/h
平面导轨		水平：油量Q=0.0017KX滑块长X滑块宽（ml/h）垂直：油量Q=0.006KX滑块长X滑块宽（ml/h）	假设有一垂直平面导轨滑块长100mm宽40mm，求每小时所需油量 Q=0.006x10x4=0.24ml/h	齿轮		油量Q=0.046KX节圆直径x齿轮宽（ml/h）	假设有一正齿轮，节圆直径8mm，齿宽2mm，求每小时所需油量 Q=0.046X8X2=0.74ml/h
圆柱滑轨		油量Q=0.023KX轴直径X轴长（ml/h）	假设有一圆柱滑轨，轴直径80mm长100mm，求每小时所需油量 Q=0.0023x8x10=1.84ml/h	链条		油量Q=0.008KXx节链长X宽（ml/h）	假设有一链条总长300mm，链宽8mm，求每小时所需油量 Q=0.008X30X0.8=0.19ml/h

故障排除法

序号	现象	可能原因	排除方法
1	油泵不转	电压等级不对	使用正确的电源
		接线错误	按接线图配线
		吸入异物将泵卡死	解体油泵、清除异物
		联轴器损坏或脱落	重新恢复联轴器
		电机热保护起作用	等待数分钟即可恢复
		油位太低	补充润滑油至液位
		马达损坏	更换马达
2	压力不足	油管泄漏	排除泄漏点
		压力表失效	更换压力表
		溢流阀中有杂物	拆卸清洗
		溢流阀压力调节过低	重新调高溢流阀压力
		吸油口过滤网被堵塞	清洗油箱、清洗过滤网
		油品粘度太低	选择较高粘度油品
		油箱存水位太高	排水
3	不出油但油泵转	泵内空气未排干净	手动泵油、排气
4	出油量少	吸油口过滤网被堵塞	清洗油箱、清洗过滤网
		溢流阀中有杂物	拆卸清洗
		管路阻力太大	疏通管路
		溢流阀压力调节过低	重新调整溢流阀压力
		长期使用油泵磨损	调高溢流阀压力或更换泵体
5	压力开关失控	系统压力不足	见序号2项故障及排除
		接线错误	正确配线
		压力开关坏	更换压力开关
6	液位开关失控	浮球损坏	更换浮球
		液位传感器失效	更换液位传感器
		接线错误	正确配线
7	容积式分配器不能正常工作	分配器活塞杆突出不够	延长泵油时间
		溢流阀中有杂物	拆卸清洗溢流阀
		卸压阀卡死	拆卸清洗卸压阀
		系统压力太高	适当降低溢流阀压力
		管路弹性太大	改用高质量高刚性管路
		分配器损坏	更换分配器

Calculation of oil volume required for lubrication

Type of Moving objects		Formula	Example(when K=1)	Type of Moving objects		Formula	Example(when K=1)
Ball-bearing Roller bearing Cylindrical		Oil volume Q=0.14K x bearing diameter x bearing qty(ml/h)	Suppose there is a ball-bearing, the bearing diameter is 80mm, every hour the required oil volume Q=0.04 x 8 x 1=0.32ml/h	Ball-bearing track		Oil volume Q=0.012k x block length x block width(ml/h)	Suppose there is a linear sliding track, the block length is 80mm, quality of blocks is 2, every hour the required oil volume Q=0.012 x 8 x 2=0.19ml/h
Plain bearing		Oil volume Q=0.023K x bearing diameter x contact length(ml/h)	Suppose there is a plain bearing, the bearing diameter is 80mm, contact length is 100mm, every hour the required oil volume Q=0.023 x 8 x 10=1.84ml/h	Cam		Oil volume Q=0.013k x perimeter x width(ml/h)	Suppose there is a cam, the perimeter is 200mm, width is 20mm, every hour the required oil volume Q=0.013 x 20 x 2=0.52ml/h
Smooth sliding track		Horizontal: Oil volume Q=0.0017 x block length x block width(ml/h) Vertical: Oil volume Q=0.006 x block length x block width(ml/h)	Suppose there is a smooth sliding track vertically placed, the block length is 100mm, width is 40mm, every hour the required oil volume Q=0.006 x 10 x 4=0.24ml/h	Gear		Oil volume Q=0.046k x diameter of pitchcircle x gear width(ml/h)	Suppose there is a gear, the diameter of pitchcircle is 80mm, gear width is 20mm, every hour the required oil volume Q=0.046 x 8 x 2=0.74ml/h
Cylindrical sidling track		Oil volume Q=0.023K x bearing diameter x contact length(ml/h)	Suppose there is a rolling cylinder, the diameter is 80mm, length is 100mm, every hour the required oil volume Q=0.023 x 8 x 10=1.84ml/h	Chain		Oil volume Q=0.008k x chain length x width(ml/h)	Suppose there is a chain, the length is 300mm, chair width is 8mm, every hour the required oil volume Q=0.008 x 30 x0.8=0.19ml/h

Eliminating methods

Series	Phenomenon	Possible causes	Eliminating methods
1	Non-rotation of oil pump	Incorrect voltage rates	Use the correct power source
		Incorrect connection	Follow the wiring diagram
		Pump is deadlocked by foreign body aspiration	Open oil pump and remove foreign body
		The coupling is damaged or shed	Restores the linoleum
		Thermal protection of motor works	Wait for a few minutes to recover
		The oil level is too low	Add lubricating oil to liquid level
		The motor damage	Replace the motor
2	insufficient pressure	Oil tube leaking	Eliminating leaking point
		Pressure gauge failures	Replace pressure gauge
		There is sundries in the overflow valve	Disassemble and clean
		The pressure of the overflow valve is too low	Reset higher pressure of the overflow valve
		The filter screen of the suction nozzle is blocked	Clean oil tank and filter screen
		The oil viscosity is too low	Disassemble and clean
		The reservoir of oil tank is too high	Select high viscosity oils
3	No oil outlet while the pump rotates	The air in the pump is not clean	Drainage
4	Little oil outlet	The filter screen of the suction nozzle is blocked	Press the man button to venting
		There is sundries in the overflow valve	Clean oil tank and filter screen
		There is too much resistance in the pipeline	Disassemble and clean
		The pressure of the overflow valve is too low	Dredge the pipe line
		Wear of oil pump for a long time use	Reset the pressure of the overflow valve
5	Pressure switch is out of control	Inadequate system pressure	Reset higher pressure of the overflow valve or replace the pump body
		Incorrect connection	Follow the wiring diagram
		Pressure switch is broken	Replace pressure switch
6	The liquid level switch is out of control	Floating ball damage	Replace the float ball
		The liquid level sensor fails	Replace the liquid level sensor
		Incorrect connection	Follow the wiring diagram
7	The volume distributor is not working properly	The piston rod of distributor is not prominent enough	Extend pump oiling time
		There is sundries in the overflow valve	Remove and clean the overflow valve
		Pressure release valve is deadlocked	Disassemble and clean the pressure release valve
		System pressure is too high	Properly reduce pressure of overflow valve
		The pipe line is too elastic	Use high quality and high rigid pipe line
		Distributor damage	Change distributor

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