

macxi[®]



苏州麦凯西流体技术有限公司

SUZHOU MACXI FLUID TECHNOLOGY CO.,LTD.

MACXI

Integrated Gear Pump

The product adopts the integrated design of pump head and motor, which makes the product structure compact and more suitable for the occasions with narrow installation space.



Catalogue

Model Instruction 01

Integrated S series 02

Integrated T series 03

40W Motor Instruction 05

70W Motor Instruction 06

Please refer to S series for the H series apperance and size

Product Model Selection Instruction

Pump Head			Motor
I	0.07	S	40W

Motor type and Power

Pump body materials, note ② details

Pump revolution, Unit: ml/rev, note ① for details

"I" means the Integrated Structure

Remark: ① Pump output volume: 0.07, 0.15, 0.3, 0.6, 0.9, 1.5, 3.0, 6., 12.0 (Unit: ml/rev)

② "S" means pump body material is 316L, gear and shaft sleeve are PEEK, seal with PTFE, the rest others are 316L.

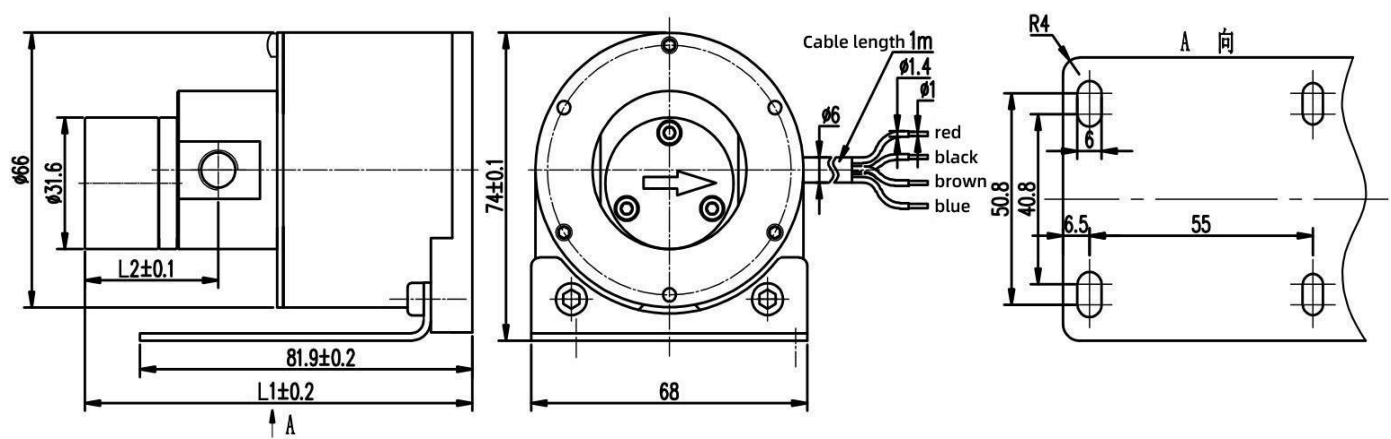
"T" means pump body material is 316L, gear and shaft are Tungsten steel, shaft sleeve is PEEK, seal with PTFE, the rest others are 316L.

"P" means pump body material is PPS, gear material and shaft sleeve are PEEK, seal with FFKM, the rest others are Hastelloy.

"H" means the pump body materials is Hastelloy, the gear and shaft sleeve is PEEK, the seal materials is PTFE, the rest of the pump flow material is Hastelloy, the appearance and size is same as 316L pump, details product parameters refer to 316L pump head.



» Product Diagram:



» Product Parameters:

Pump Model	Motor Type	L1 (mm)	L2 (mm)	Pressure (bar)	Weight (kg)	Rated Current (A)	Imp. &Exp. Size	Flow (L/H)
I0.07S	40W	93.1	30.5	8	0.77	2.5	G1/8	2.1~18.9
I0.15S		95.4	32.8		0.77			4.5~45
I0.30S		95.4	32.8		0.77			9~90
I0.60S		95.8	36.9	4	0.78	18~180		
	70W	108.1	36.9	8	0.93	18~180		
I0.90S		113.1	41.9	4	0.94	3.3		

Pump Head Parameters		Motor Parameters		Motor wiring definition	
Fluid Viscosity	0.2-1500cps	Drive Type	Built in drive DC brushless	Red	+24V
AAmbient TemperAture	-40℃-70℃	Rated Voltage	24V	Black	0
Static sealing	PTFE	Speed regulating voltage	0-5 (0.35V ON 0.3V OFF)	Brown	Speed control signal 0-5V input
Pump Body	316L	Speed rpm	500-5000rpm		
Gear	PEEK, 316L	Working system	Continuous	Blue	square wave, 2 pulses per

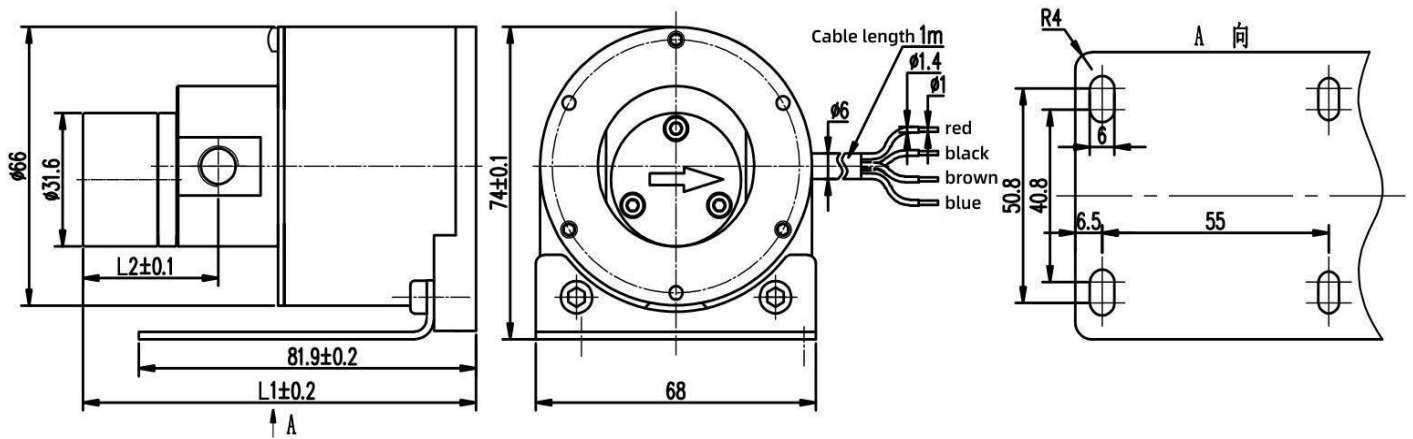
●The values in this table are for reference only.

» Remarks:

- ▲The pump head and motor are integrated, and the brushless driver is integrated in the motor tail, which makes the product structure compact and more suitable for the occasions with narrow installation space.
- ▲Attentions:
 - 1.400 Mesh filter shall be installed at the inlet of gear pump.
 - 2.This gear pump is suitable for continuous operation for a long time and can not be used under the condition of frequent start and stop.
 - 3.Before using, squeeze in a small amount of medium to lubricate the gear from the gear pump inlet.



》 Product Diagram:



》 Product Parameters:

Pump Model	Motor Type	L1 (mm)	L2 (mm)	Pressure (bar)	Weight (kg)	Rated Current (A)	Imp. &Exp. Size	Flow (L/H)
I0.15T	40W	95.4	32.8	8	0.73	2.5	G1/8	4.5~45
I0.30T		95.4	32.8		0.73			9~90
I0.60T		95.8	36.9	4	0.74			18~180
	70W	108.1	36.9	8	0.89	3.3		18~180

Pump Head Parameters		Motor Parameters		Motor wiring definition	
Fluid Viscosity	0.2~1500cps	Drive Type	Built in drive DC brushless	Red	+24V
AAmbient Temperature	-40℃~70℃	Rated Voltage	24V	Black	0
Static sealing	PTFE	Speed regulating voltage	0~5 (0.35V ON 0.3V OFF)	Brown	Speed control signal 0~5V input
Pump Body	Stainless steel with Titanium nitride coating	Speed rpm	500~5000rpm	Blue	5V level, square wave, 2 pulses per revolution
Gear	Gear and gear shaft are WC	Working system	Continuous		

●The values in this table are for reference only.

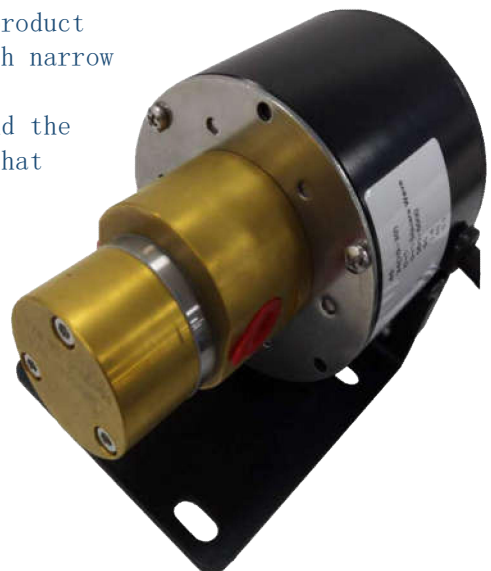
》 Remarks:

▲The pump head and motor are integrated, and the brushless driver is integrated in the motor tail, which makes the product structure compact and more suitable for the occasions with narrow installation space.

▲The gear of the gear pump is made of tungsten steel, and the surface of the pump body is hardened by tin coating, so that the pump can provide excellent pumping performance and longer service life in the application of abrasive liquid (such as pigment paint and pigment ink).

▲Attentions:

- 1.400 Mesh filter shall be installed at the inlet of gear pump.
- 2.This gear pump is suitable for continuous operation for a long time and can not be used under the condition of frequent start and stop.
- 3.Before using, squeeze in a small amount of medium to lubricate the gear from the gear pump inlet.



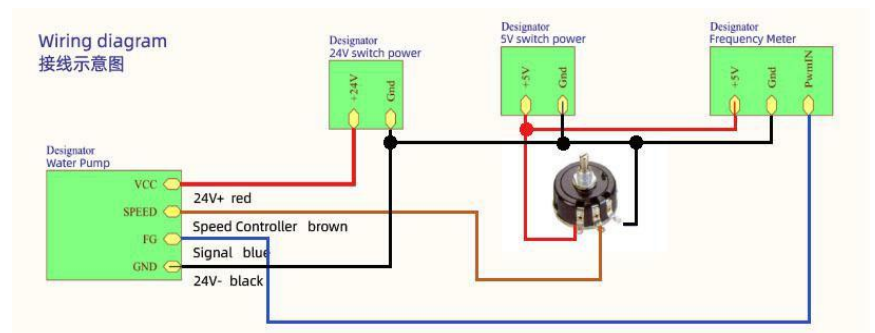
40W Motor Instruction

Motor parameter

(Number of phase)	N	3
(Rated Voltage)	VDC	24 (8-30VDC)
(Rated Power)	W	40W
(Speed regulating voltage)	VDC	0-5 (0.35V ON 0.3V OFF)
(Range of speeds)	RPM	500-5000
(Maximum current)	A	2.2A
(Instantaneous protection current)	A	5A

Wiring instructions

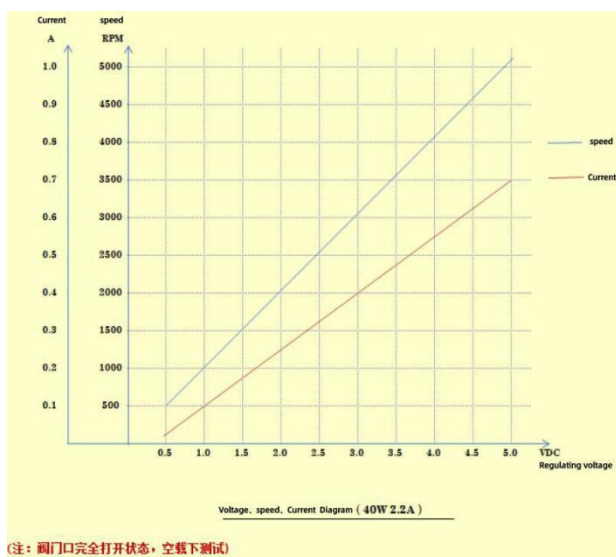
Red	+24VDC
Black	GND
Brown	Speed control signal 0-5V input
Blue	5V level, square wave, 2 pulses per revolution



Secure features

- Operation protection: when the motor running current reaches the limit current of 2.2A, the motor drive will start the protection and stop running.
- Locked rotor protection: when the pump body is locked, the drive will start the protection function and cut off the internal power supply of the motor.
- Software / hardware over-current protection: when the system detects that the instantaneous current of software and hardware inside the motor is greater than 5a, the drive will start the protection.
- Hall error protection: when the motor Hall sensor failure, the motor will start protection stop running, to prevent burning the motor.
- Under voltage protection: when the operating voltage is lower than the specified range, it will stop operation.

Performance data



Note: The valve door is fully opened and tested under no-load condition



Note: The valve door is blocked and tested under full load condition

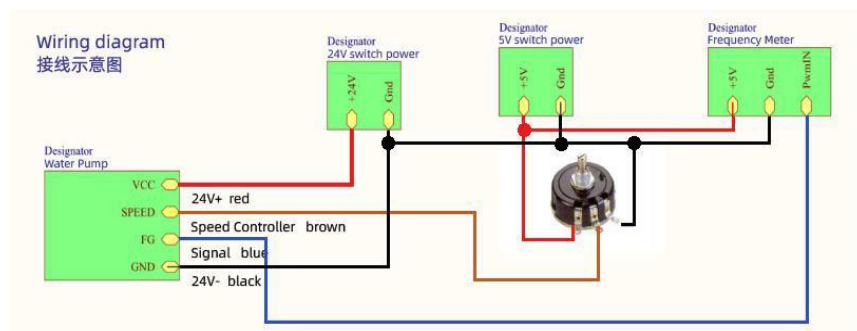
70W Motor Instruction

Motor parameter

(Number of phase)	N	3
(Rated Voltage)	VDC	24 (8-30VDC)
(Rated Power)	W	70W
(Speed regulating voltage)	VDC	0-5 (0.35V ON 0.3V OFF)
(Range of speeds)	RPM	500-5000
(Maximum current)	A	3.3A
(Instantaneous protection current)	A	5A

Wiring instructions

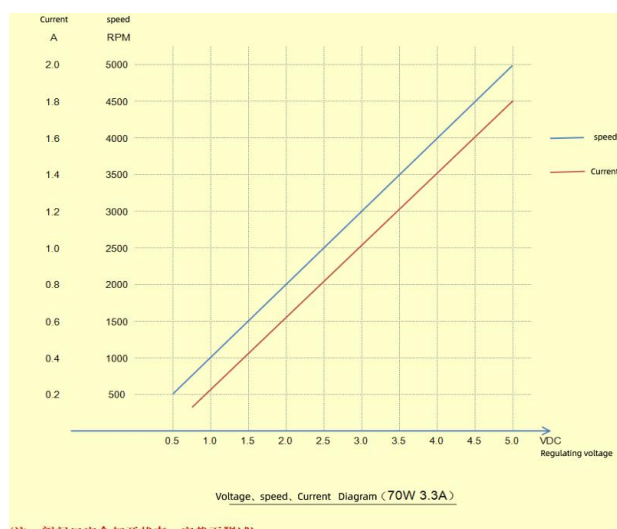
Red	+24VDC
Black	GND
Brown	Speed control signal 0-5V input
Blue	5V level, square wave, 2 pulses per revolution



Secure features

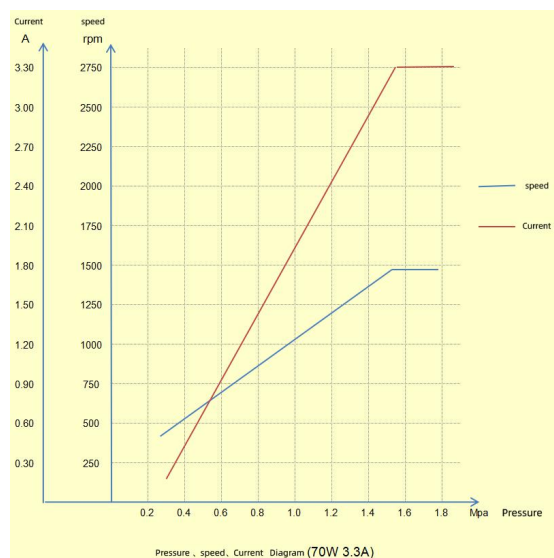
- Operation protection: when the motor running current reaches the limit current of 3.3A, the motor drive will start the protection and stop running.
- Locked rotor protection: when the pump body is locked, the drive will start the protection function and cut off the internal power supply of the motor.
- Software / hardware over-current protection: when the system detects that the instantaneous current of software and hardware inside the motor is greater than 5a, the drive will start the protection.
- Hall error protection: when the motor Hall sensor failure, the motor will start protection stop running, to prevent burning the motor.
- Under voltage protection: when the operating voltage is lower than the specified range, it will stop operation.

Performance data



(注：阀门口完全打开状态，空载下测试)

Note: The valve door is fully opened and tested under no-load condition



(注：阀门口完全关闭状态下测试)

Note: The valve door is blocked and tested under full load condition.

Adhere To Innovation & Determine To Progress

Suzhou Macxi Fluid Technology Co., Ltd., established in early 2014, is a production-oriented enterprise specializing in pump product development, production and sales. Main micro magnetic pump, diaphragm pump, wear-resistant gear pump, inkjet machine pressure pump, micro gear metering pump and other pump products. The company's main stainless steel magnetic drive micro gear metering pump is widely used in domestic large-scale inkjet printer manufacturers and ink-jet printing manufacturers, and has been well commented by customers. The company has been committed to the optimization of product structure, improvement of service life and customization according to customer requirements, so as to improve the competitiveness of its products for supporting manufacturers.

We are a young start-up company. Since the establishment of the company, we adhere to the concept of innovation and enterprising. With the joint efforts of all employees, we have achieved geometric level continuous growth of the company's sales in just three years, 2017 In the second half of the year, in order to cope with the expanding market demand, the company invested 1500 square meters of new plant, and added a number of advanced production equipment, laying a good foundation for the company's sustainable development.

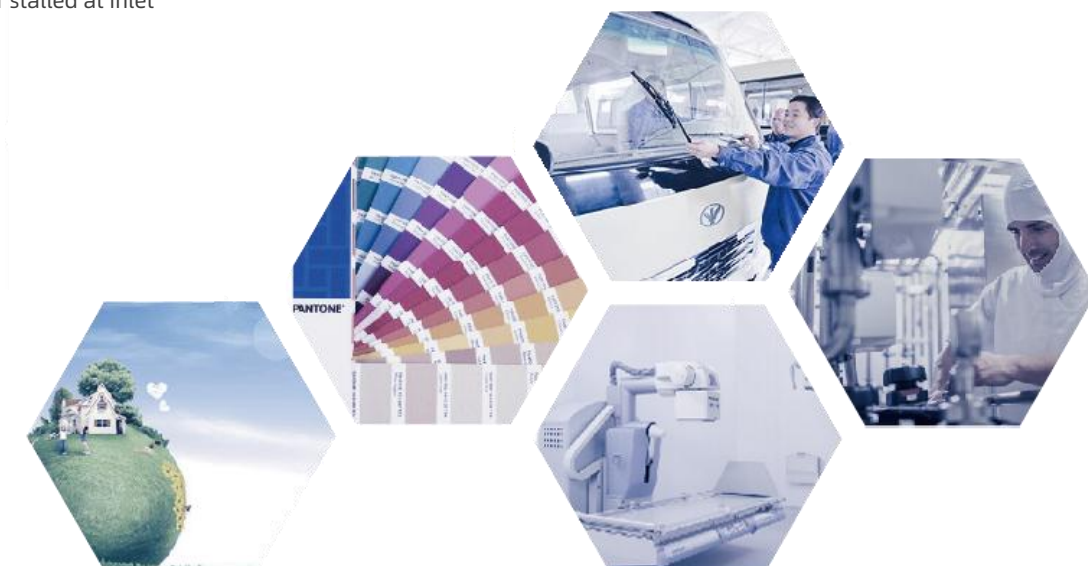
At present, Suzhou Macxi Fluid Technology Co., Ltd. has an annual production capacity of 50000 micro magnetic gear pumps. We are looking forward to providing more high-quality products and services to more domestic and foreign users.

Product features

- ▲ Smooth transmission, no pulse, accurate measurement
- ▲ Use magnetic drive structure, static seal, truly achieve zero leakage
- ▲ Hastelloy, titanium alloy, SUS304, SUS316, and PEEK plastics are available for Pump body, are suitable for most chemical media
- ▲ High efficiency and energy saving, easy maintenance, low installation cost and long service life
- ▲ Diversified drive, wide application in the industry, complete models

Attentions:

- ▲ It cannot be used to transport fluids with hard particles
- ▲ Filter to be installed at inlet



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