

# 樣品承認書

## Samples Specification Approval Authorization

客 戶

Customer

認 可 編 號

Approval No.

客 戶 料 號

Customer P/N

世 康 料 號

SHIKANG P/N

產 品 類 型

ZR5553PM DC12V pump

Model No.

日 期

20250614

Date

版 本

1.0

Version

客戶承認用印欄

Customer Approved Signatures

Approved	Checked	Evaluated

Please Return One Copy With Your Approved Signatures

公司：东莞市致荣环保设备有限公司

## SPECIFICATION FOR APPROVAL

Customer Name :	Customer P/N:
Part Name :ZR5553PM DC12V pump	SHIKANG P/N:

### 1.適用範圍 Application:

本規格書適用於微型泵 ZR5553PM DC12V pump 之用。

This specification is applicable to Micro air Pump ZR5553PM DC12V pump .

### 2.測試條件 Test condition:

- 2-1 測試環境溫度濕度：周圍溫度 20℃，相對濕度 65%RH 為標準。如無爭議發生可以在下述環境測試：周圍溫度 5—45℃，相對濕度 30—80%RH

The standard of environment test is the ambient temperature of 20℃ and relative humidity of 65% RH. If no disputes occur, the test can be conducted under the blow circumstance: the ambient temperature of 5-45℃ and relative humidity of 30~80% RH.

- 2-2 測試姿勢 position:

- 2-3 負荷 Load:

空氣 air

### 3.性能 Function:

- 3-1 額定電壓 Rated voltage: DC12V

- 3-2 使用電壓 Operating voltage : DC 10V~14V

- 3-3 電流 Current

Current with load: <1000mA

在 DC12V 電壓氣泵抽氣壓力從 0 到-75kpa 的最高電流.

During pumping from 0 to -75kpa at DC12V voltage.

- 3-4 噪音 Noise: Less than 60dB(FIG 1)

將泵體之下墊 5cm 厚的海綿，放置在距離噪音儀 30cm 位置，12V 電壓下充氣壓力從 0 至-75kpa 所測得的 dB 值。

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Put a sponge of 5cm under the pump and distance to noise meter from 30cm.  
and while pressurizing from 0 to -75kpa to test noise value at 12V voltage (FIG1)

3-5 空載流量 Free Flow  $\geq 12\text{LPM}$

3-6 充氣壓力 Pressure :More than 200Kpa

在 DC12V 電壓使充氣壓力從 0 到停止升壓之最高壓力值。

The pressurization value is while the pump stop the inflation at DC12V voltage

3-7 真空度 Vacuum:  $\leq -75\text{kpa}$

3-8 使用溫度範圍 Operation temperature range:

在溫度  $5^{\circ}\text{C}$  到  $50^{\circ}\text{C}$  及濕度 30%RH 到 80%RH 之間氣泵運作良好。

The temperature have to be between  $5^{\circ}\text{C}$  and  $50^{\circ}\text{C}$  and humidity must is between 30%and 80%RH to function the pump well.

3-9 保存溫度範圍 Preservation temperature range:

在溫度  $-20^{\circ}\text{C}$  到  $60^{\circ}\text{C}$  及濕度 30%RH 到 85%RH 之間氣泵保持在良好的狀態。

The temperature has to be between negative  $20^{\circ}\text{C}$  and positive  $60^{\circ}\text{C}$  and humidity has to be between 30%and 85% RH to keep the pump in a good condition.

### 4. 可靠性試驗 Reliability test:

4-1 低溫特性 Low-temperature characteristic:

放置在  $-20^{\circ}\text{C}$  經 72 小時後，再取出置於常溫 ( $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ) 中 2 小時按 3.3 3.4 3.5 3.6 3.7 測試無異常。

Putting the pump in the temperature at negative  $20^{\circ}\text{C}$  for 72 hours; then taking it out and putting it in a room temperature at  $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$  for two hours. Under this circumstance, running through test 3.3 3.4 3.5 3.6 3.7 and finding out that the pump still performs well.

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### 4-2 高溫特性 High-temperature characteristic:

在 60℃ 經 72 小時放置後，再取出置於常溫（20℃±5℃）中 2 小時按 3.3 3.4 3.5 3.6 3.7 測試無異常。

Putting the pump in the temperature at 60℃ for 72 hours; then taking it out and putting it in a room temperature at 20℃±5℃ for two hours. Under this circumstance, running through test 3.3 3.4 3.5 3.6 3.7 and finding out that the pump still performs well.

### 4-3 高溫高濕 High-temperature & High humidity:

在溫度 60℃，濕度 80～85% 環境中 72 小時取出置於常溫（20℃±5℃）中 2 小時按 3.3 3.4 3.5 3.6 3.7 測試無異常。

Putting the pump in the temperature at 60℃ and the humidity between 80~85% for 72 hours; then taking it out and putting it in a room temperature at 20℃±5℃ for two hours. Under this circumstance, running through test 3.3 3.4 3.5 3.6 3.7 and finding out that the pump still performs well.

### 4-4 壽命試驗 Life test:

在 500CC 容器中，抽氣 30 分鐘，停 30 分鐘為一迴圈，測試大於 2,400 次以後按 3.3 3.4 3.5 3.6 3.7 測試無異常。

In a 500CC tank, pressurizing for 30 minutes and stopping for 30 minutes is as one cycle. Doing it for more than 2,400 times then examine the pump by test 3.3 3.4 3.5 3.6 3.7 and figure out that the pump is still in a good function.

### 4-5 低溫環境測試 Low-temperature environment test:

在 5℃ 經 5 小時後 在此溫度下測試無異狀。

Measuring after 5 hours neglect and there are no abnormalities a deed following test in 5℃.

### 4-6 高溫環境測試 High-temperature environment test:

在 50℃ 經 5 小時後 在此溫度下測試無異狀。

Measuring after 5 hours neglect and there are no abnormalities a deed following test in 50℃.

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### 5.其他 Others

#### 5-1 跌落試驗 Fall test:

使用標準的包裝方式，在水泥地面上將其從 50CM 的高度分別從正面、側面、邊角自由落下其性能及結構無異常。

Basic performance and the structure shall not be defected ater following test: With a standard packaging conditions, the dropping it at the front, side, and edges part from 50cm height to the concrete floor.

#### 5-2 異常試驗 Unusual test:

用 DC12V 連續通電 8 小時無燃燒、冒煙現象。

There is no burning and smoking occurrence while the power is on with DC12V for 8 hours continuously.

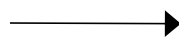
#### 5-3 外觀 Appearance:

產品不能有破損，髒汙。

The appearances of the valve shall not contain cracks and impurities, which will decrease the value of the goods.

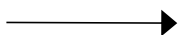
#### 5-4 標籤 Marking label

Product Name



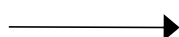
www.dgzqkj.cn

Part Name



ZR5553PM date

Rated Characteristic And Date



**DC12V** **CE**

### 6.如對此份規格書有任何須修改、增加、或刪除的意見，需經過客戶及致榮公司雙方面的協商。

In case any modifications, addition or elimination on this specifications are necessary, Decisions shall be made through the negotiations between our customer and Zhirong Electronic co.,LTD.

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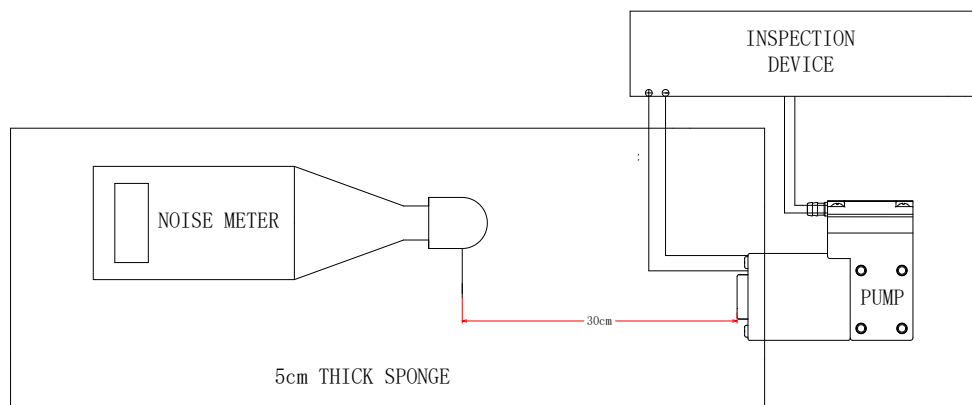
**Customer Name :**

**Customer P/N:**

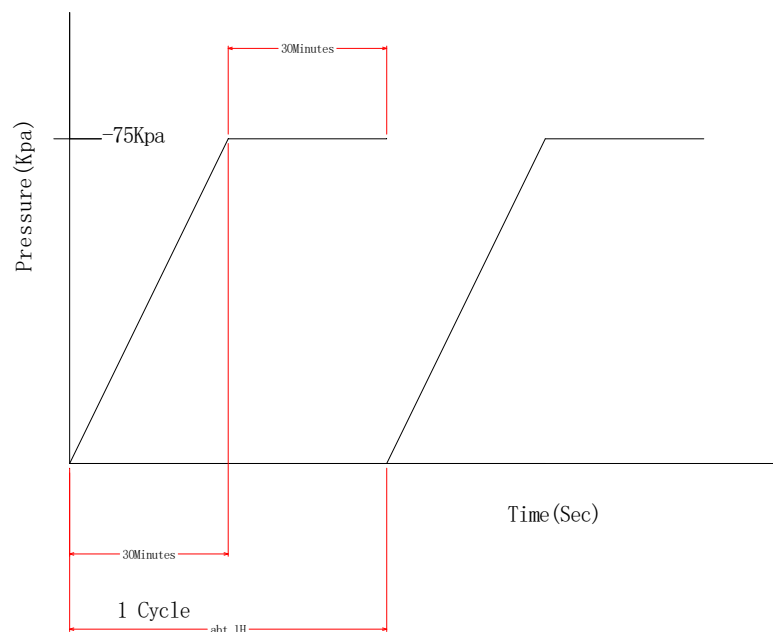
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**SHIKANG P/N:**

**FIG 1**



**FIG 2**



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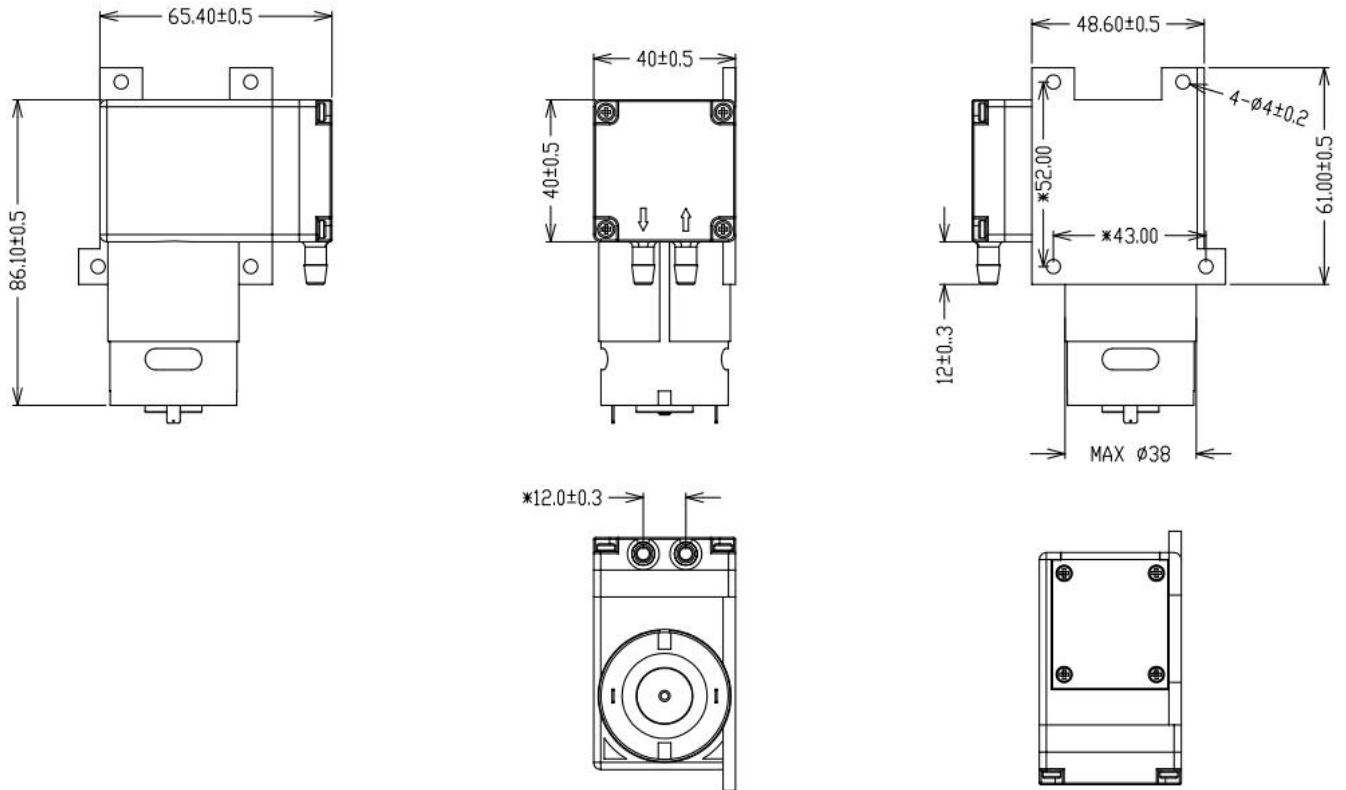
Customer Name :

Customer P/N:

Part Name : ZR5553PM DC12V pump

SHIKANG P/N:

## 7. 外形尺寸 Dimensions



## 8. 圖片 photo



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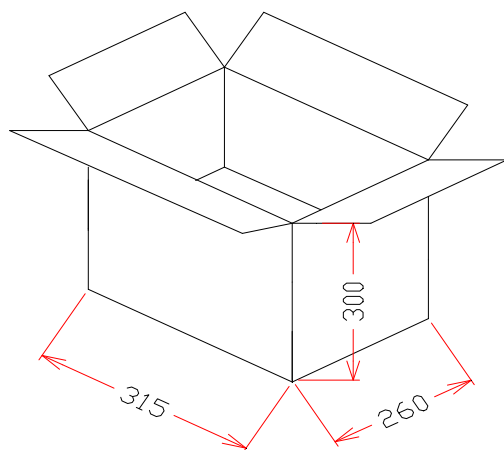
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### 9.包裝 Packing

每箱包裝數量 32PCS / carton



### 10.重量 Products weight

308g/pcs

10000g/carton

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### 11. ROHS 承諾書:

ROHS letter of commitment:

致榮公司鄭重保證，本公司向提供的全部產品或零部件均不含以下禁止物質（包括未滿限制值的情況）

限用物質一覽表：國內外法律禁止製造、禁止使用、限制含有之物質。

- 1) Cadmium and its Compounds(Cd) 鎘及其化合物
- 2) Lead and its Compounds(Pb) 鉛及其化合物
- 3) Mercury and its Compounds(Hg) 水銀及其化合物
- 4) Hexavalent Chromium Compounds(Cr6+) 六價鉻化合物
- 5) Polybrominated Biphenyls (PBBs) 多溴聯苯
- 6) Polybrominated Diphenyl ethers(PBDEs) 多溴二苯醚
- 7) Asbestos 石棉
- 8) Polychlorinated Biphenyls (PCBs) 多氯化聯苯
- 9) Tributyl Tin Oxide(TBTO) 三丁基氧化錫
- 10) Tributyl Tins & Triphenyl Tins 三苯基錫及三丁基錫類
- 11) Formaldehyde 甲醛
- 12) Polychloronaphthalenes(CI>3) 多氯化萘
- 13) Short Chain Chlorinated Paraffins 短鏈氯化石蠟
- 14) Brominated Flame Retardants 含溴阻燃劑
- 15) Vinyl Chloride Polymer PVC 膠皮
- 16) Azo Colorants 偶氮類染料及顏料
- 17) Ozone depleting Substances 破壞臭氧層物質
- 18) radioactive Substances 放射性物質

世康公司禁止物質限制值的標準：

- 1、Cadmium and its compounds(Cd) 鎘及其化合物 <100 ppm
- 2、Lead and its Compounds(Pb) 鉛及其化合物 <1000 ppm
- 3、Mercury and its Compounds(Hg) 水銀及其化合物 <1000 ppm
- 4、Hexavalent chromium compounds(Cr6+) 六價鉻化合物 <1000 ppm
- 5、Polybrominated Biphenyls(PBBs) 多溴聯苯 <1000 ppm
- 6、Polybrominated Diphenyl ethers(PBDEs) 多溴二苯醚 <1000 ppm

**12. 驗收標準：根據 MIL-STD-105E 單次抽樣，正常檢驗水準 II.**

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