

駿衛科技有限公司

您好，

很高興能夠為您重點介紹駿衛科技有限公司，總部在台灣高科技發源地及國際機場所在地桃園市，主要的產品是日本品
牌Aleph產品台灣總代理以及各種工控產品類別的感測器IC元件+半成品+成品，所以駿衛可以提供您Magnetic sensor
with reed switch，Photo sensor with invisible infrared element as core component & all kinds of sensors and
control units of automobile transmission；的相關產品全系列方案。

為了符合您的需求，我們的服務宗旨是以最優惠的價格提供最優質的客製化商品，而且品質更是我們一直秉持的信念與
原則，我們相信有著多年與客戶成功合作的經驗，駿衛是值得信任的。

若有任何細節或疑問也歡迎您隨時以E-mail聯繫我們biz01@twgwtec.com，我們將會快速回覆您的疑問，我們也期待
能夠有榮幸成為您的合作夥伴並發展長期的多贏合作關係。

很感謝您的寶貴時間，耐心地閱讀完此ppt，我們期待能快速收到您的回覆，謝謝。

Aleph總代理 駿衛科技有限公司 GW PROTECTION TECHNOLOGY CO., LTD.，

地址：桃園市中壢區延平路500號12樓之1

12 F-1, No. 500, Yanping Rd., Zhongli Dist., Taoyuan City 320061, Taiwan (R.O.C.)

歡迎您與Sales 謝先生聯繫 公司電話:03-4937227 手機:+886-0906813103

郵件:biz01@twgwtec.com website:www.twgwtec.com

Aleph Group Profile

Sensor Professional around You!

Small Sensor, Bright Future!



Business Philosophy

 1

Small Sensor, Bright Future!

Make positive contributions to the establishment of a safe, comfortable and harmonious society!

 2

Deliver the answer and realize the dream pursued by the society and customers!

Actively explore, lead and achieve all kinds of sensing technology, to help social progress and development!

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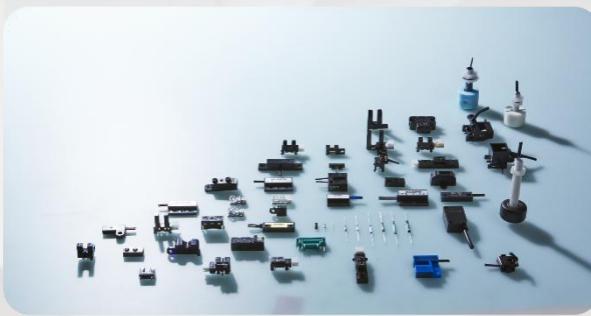
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Business Overview



31,450,000; 6,200,000

Monthly Capacity Planning:
All products: 31.45million pcs ;
Automotive: 6.20million pcs



773,000,000

Y2021 Turnover: 773 million RMB



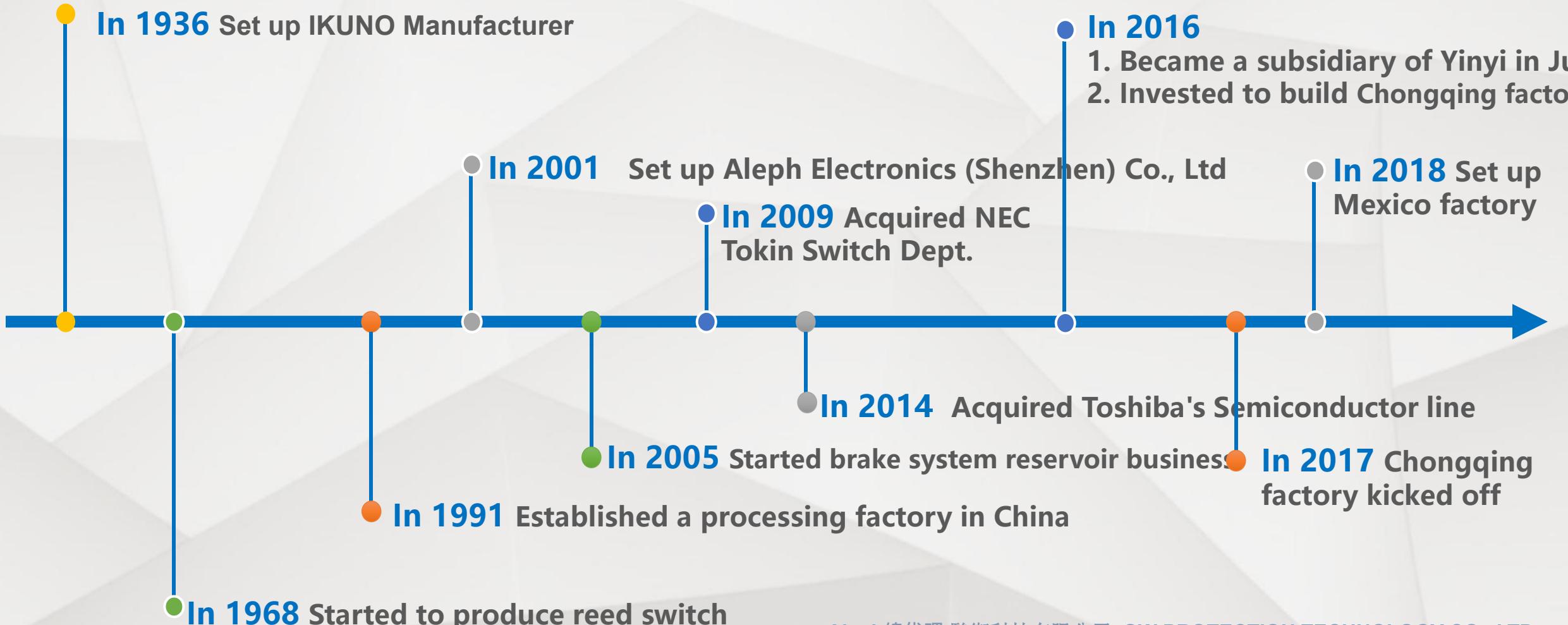
8 ; 1900

5 factories, 3 R&D Centers,
1900 employees (including 20
Engineers in Europe R&D
Center).

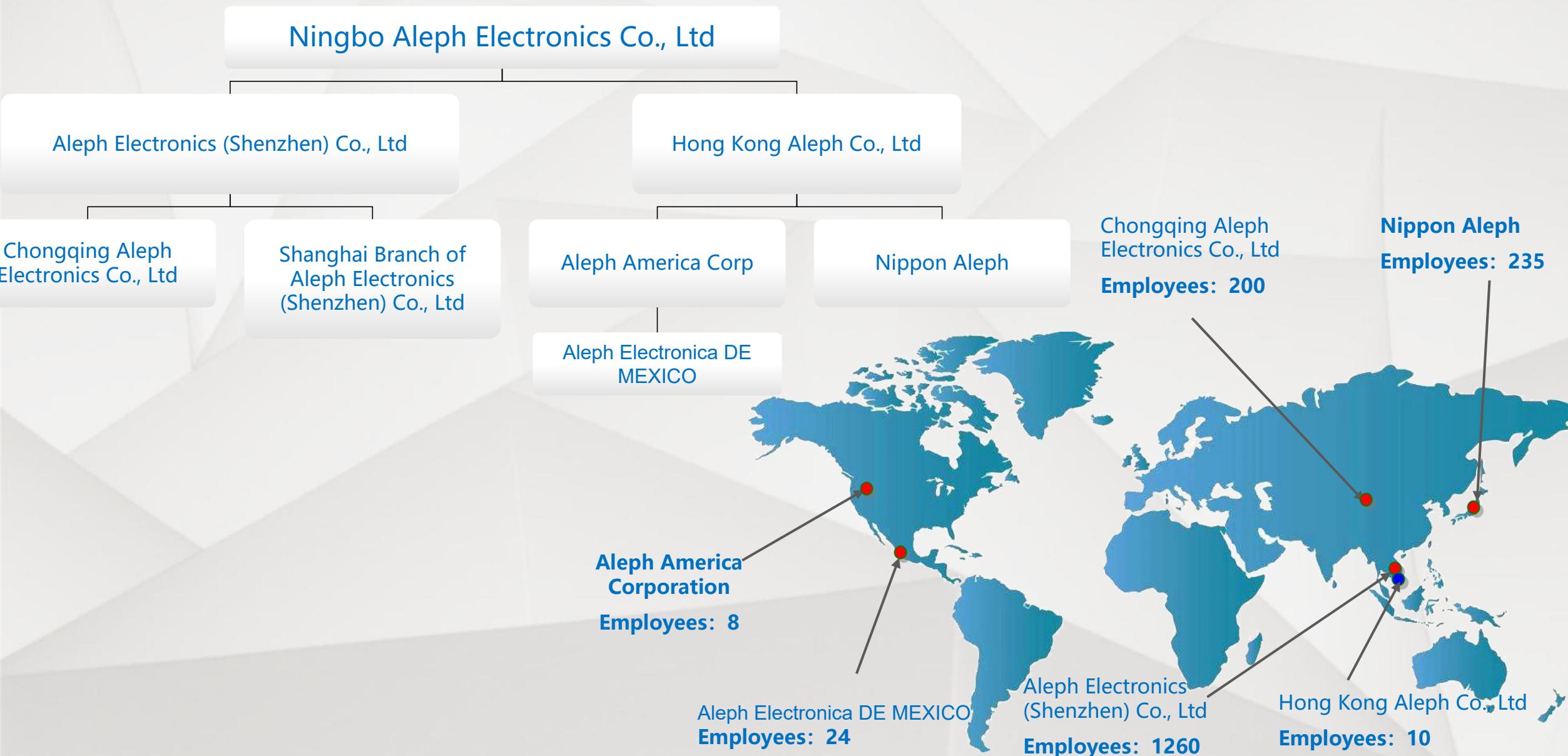
1936

Established in 1936, it is **the third largest reed switch manufacturer in the world!** Products are widely used in fields like automotive brake system, transmission, industrial automation, home appliances, housing facilities, financial equipment, medical equipment.

Group History



Aleph Group Organizational Chart



Main Function of Each Company and Business Office

Ningbo Aleph Electronics Co., Ltd

Aleph Electronics (Shenzhen) Co., Ltd
(Since 1991)

Chongqing Aleph Electronics Co., Ltd
(Since 2016)

- ※ Automotive brake system reservoir production factory

Shanghai Branch of Aleph Electronics (Shenzhen) Co., Ltd
(Since 2012)

- ☆ Sales Company in Eastern China

Sendai Factory
(Since 1971)

- ※ Develop and produce several all kinds of sensors;
- ※ Manage each company's production and quality

Hyogo Factory
(Since 2009)

- ※ R&D and production center of Reed Switch
- ※ Full-automatic production line

Tokyo Headquarters

- ☆ Administration, R&D, and Sales office

Nagoya Business Office

- ☆ Sales office

Osaka Business Office

- ☆ Sales office

Aleph Electronica DE MEXICO
(Since 2018)

- ☆ Sales company in U.S.A (Nevada)

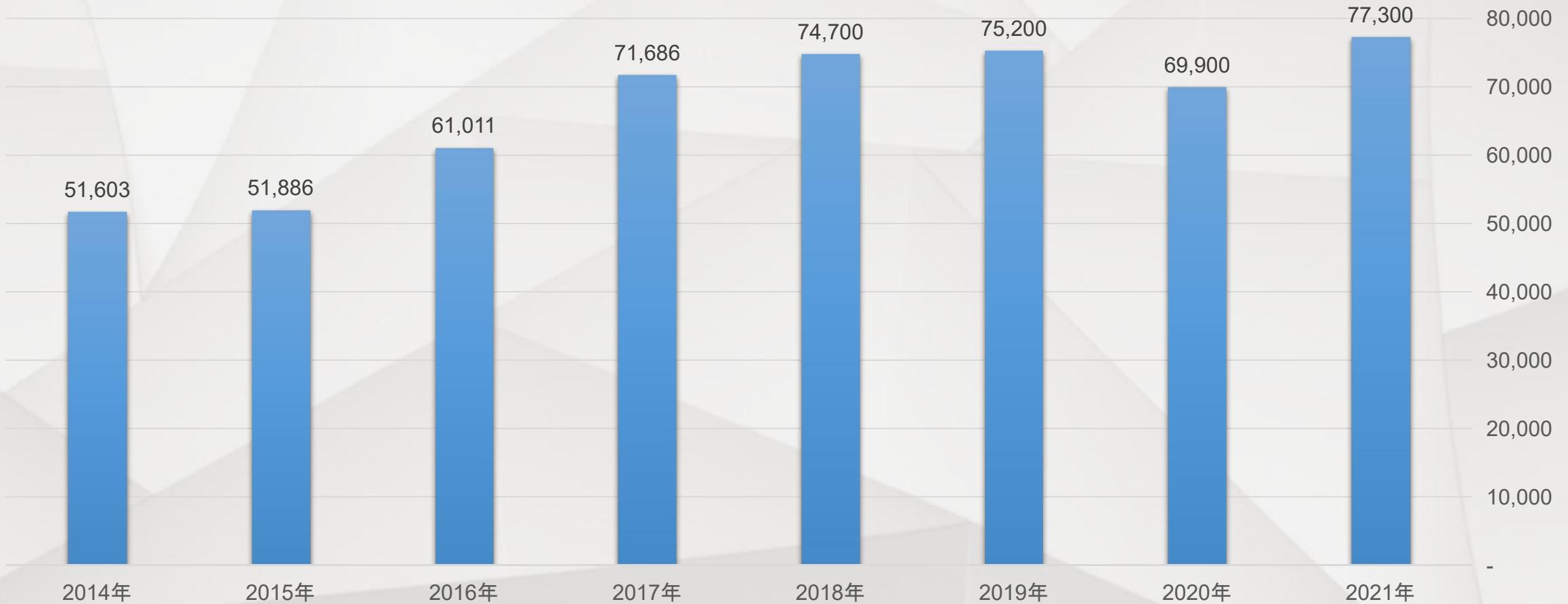
Hong Kong Aleph Co., Ltd
(Since 1985)

Nippon Aleph
(Since 1968)

Aleph America Corp
(Since 2005)

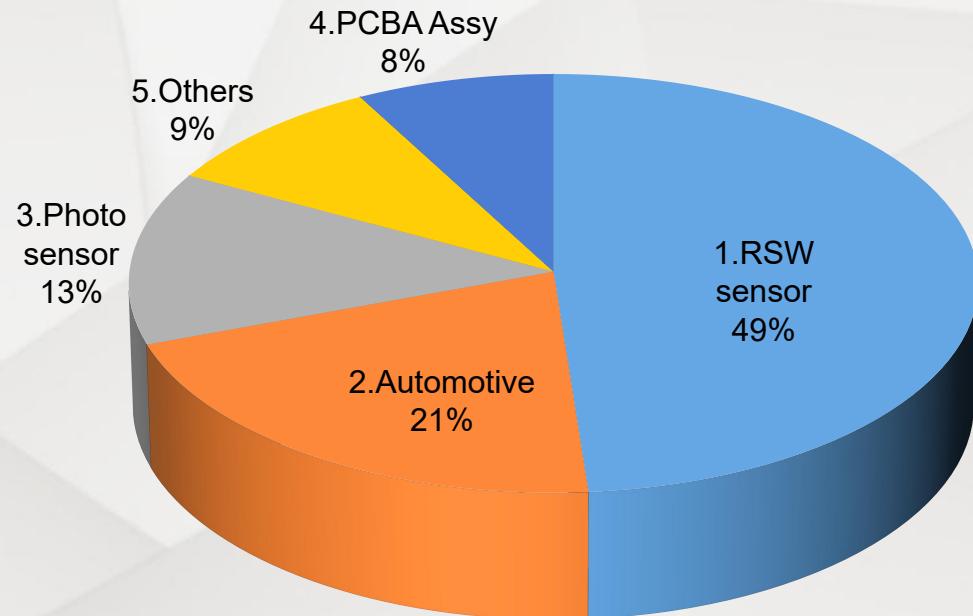
Annual Turnover Chart

Unit: 10KRMB

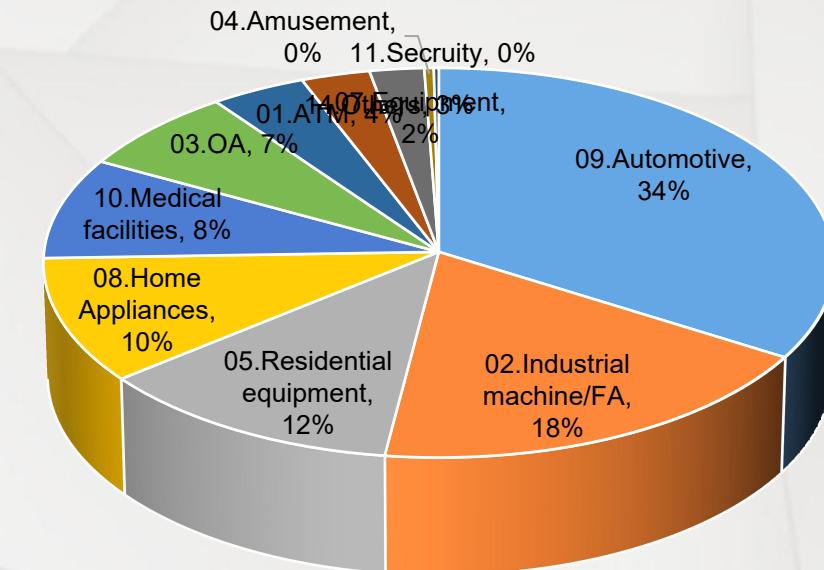


Sales distribution (Turnover of 2021)

【Product classification】



【Application classification】



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Category of Main Products

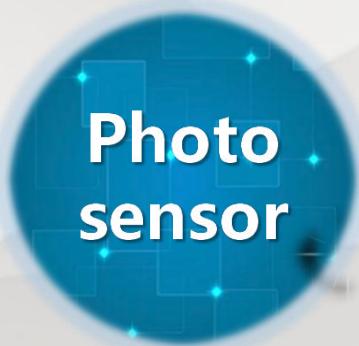
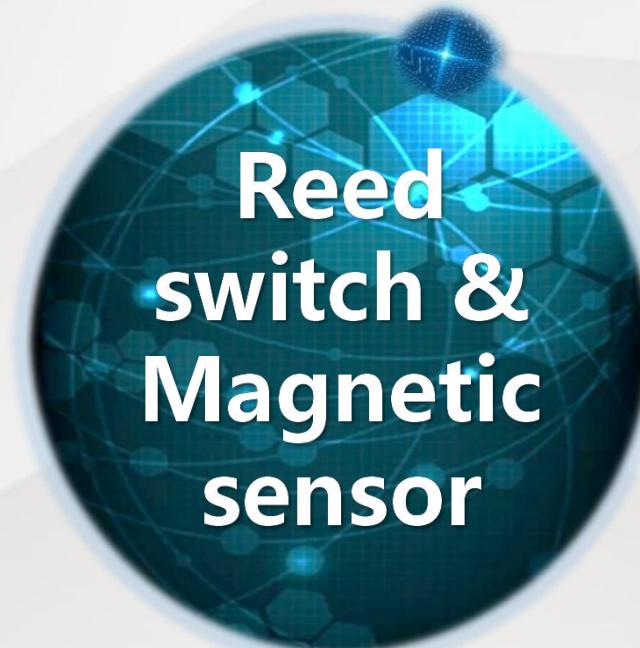


Photo
sensor



Reed
switch &
Magnetic
sensor



PCB
business



New
automotive
business

Main Products

1

Magnetic Sensor

- Magnetic sensor with reed switch as core component;
- Including proximity, liquid level, on-off detection, etc.

2

Photo Sensor

- Photo sensor with invisible infrared element as core component;
- Including penetration detection, liquid level detection etc.

3

PCB Assembly

- PCB SMT, manual soldering;
- Being able to make the hard board and flexible board(FPC).

4

New Automotive Business

- Apply to all kinds of sensors and control units of automobile transmission;
- Other automotive components under development.

A wide range of applications





- 1 Magnetic sensor**
- 2 Photo sensor**
- 3 PCB Assembly**
- 4 New automotive business**

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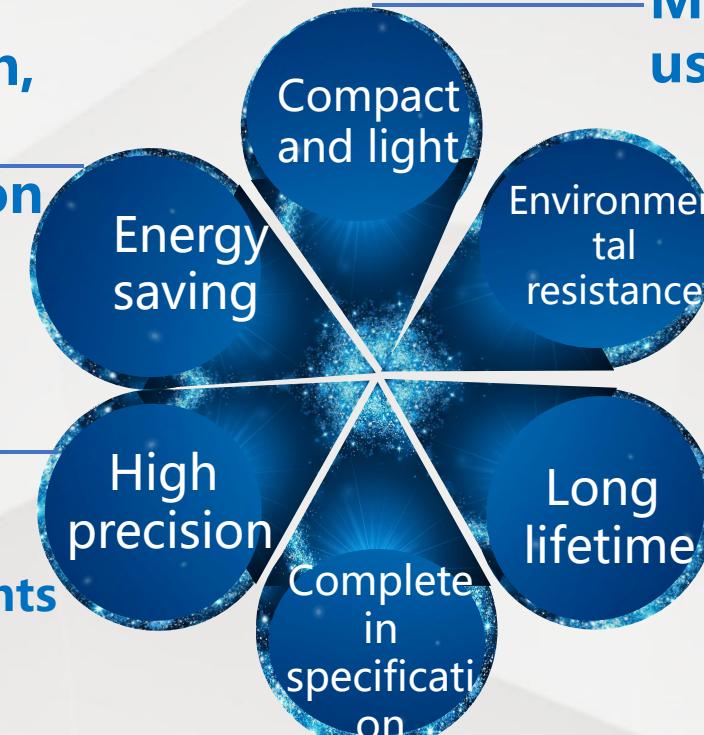
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Characteristics of reed switches

**Low power consumption,
energy saving and
environmental protection**
No current leakage

**High precision
precious metal plating**
Ensure accurate operating points

A wide variety of products can meet a variety of demands



**Minimum size:3mm,
used for gastroscopy capsule**

**Operating point sealed,
environmental resistance and
anti-interference.**

More than 100 million lifetime



Types of magnetic sensors and its applications

Products	Industrial equipment			Home appliances						Residential equipment				Medical	Automotive	Others	
	Automation	Fuel cell	Large printer	Dehumidifier	Humidifier	Washing machine	Fridge	Electric cooker	Coffee maker	Toilet	Gas meter	Gas heater	Electric heater	Air-conditioner	Blood analyzer	Braking system	Ceramic heater
Proximity sensor				●	●	●	●	●	●		●	●					●
Level sensor		●			●	●				●				●	●	●	
Hall sensor			●			●			●	●		●	●				
Automatic sensor	●																

Application Cases (Home Appliances)

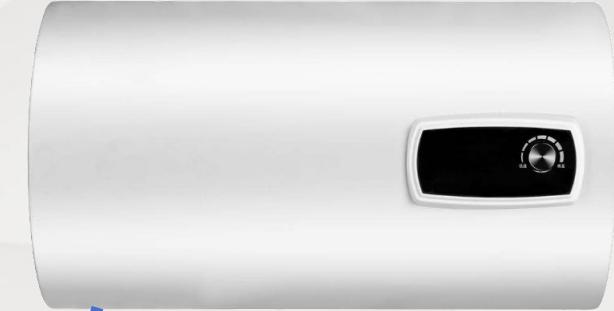


Proximity sensor 接近传感器

Used for detecting the ON-OFF of doors

Level sensor 液位传感器

Used for detecting the water volume



Level or flow sensor 液位或流量传感器

Used for detecting the water volume



Application Cases (Home Appliances)



中央空调
Central air-conditioning

Level sensor
液位传感器

Used for detecting
the water volume



Warm water toilet
温水马桶

Level sensor
液位传感器

Flow sensor
流量传感器



**Petroleum
heater**
石油取暖器

Level sensor
液位传感器

Used for detecting
the oil volume

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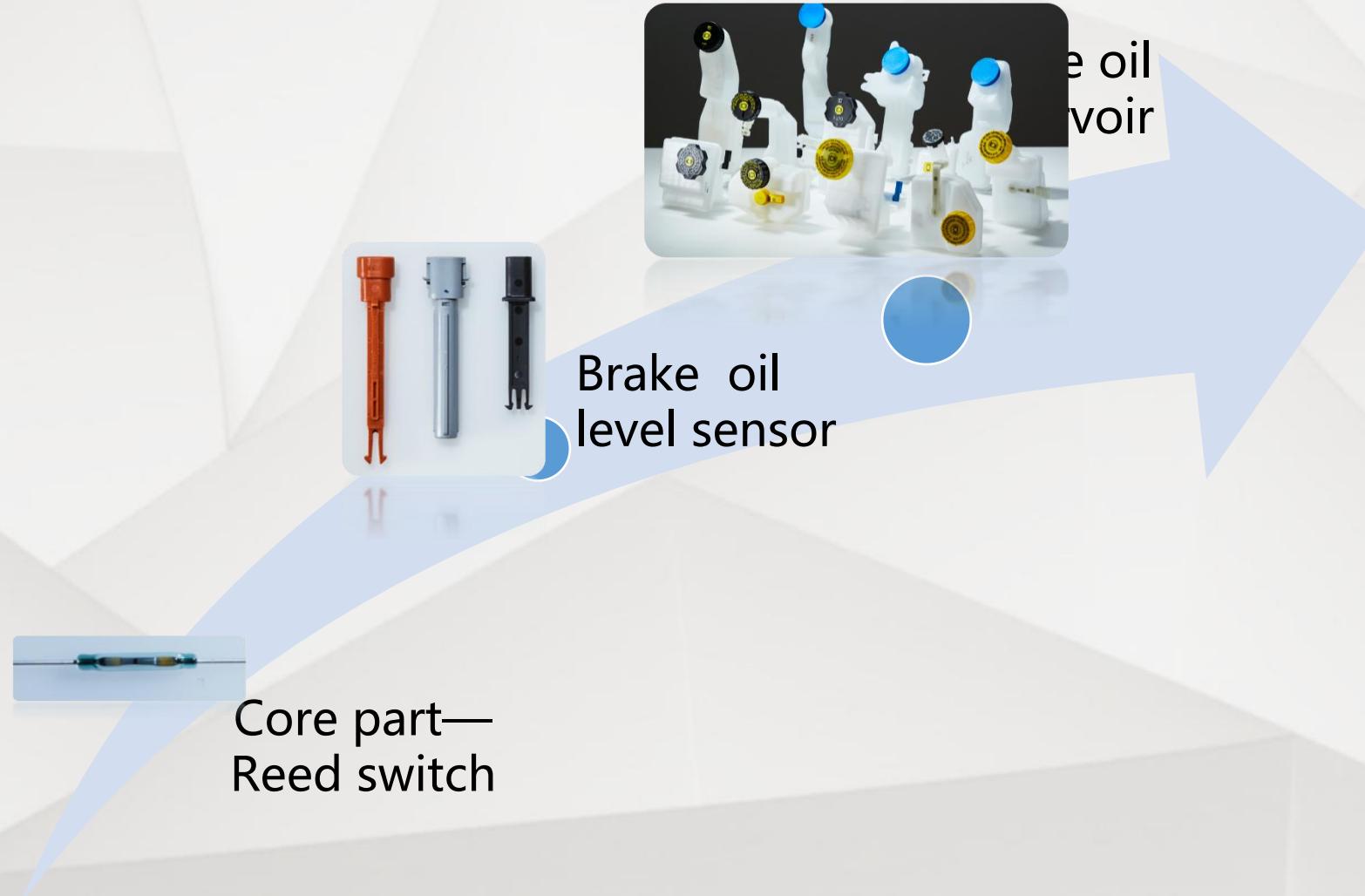
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Application Cases (Braking System)



Global Vehicle Production and Aleph Product Delivery for Brake System in 2021

Unit: 10k

10,000

56% of Global market share

8,000

6,000

5,000

4,000

3,000

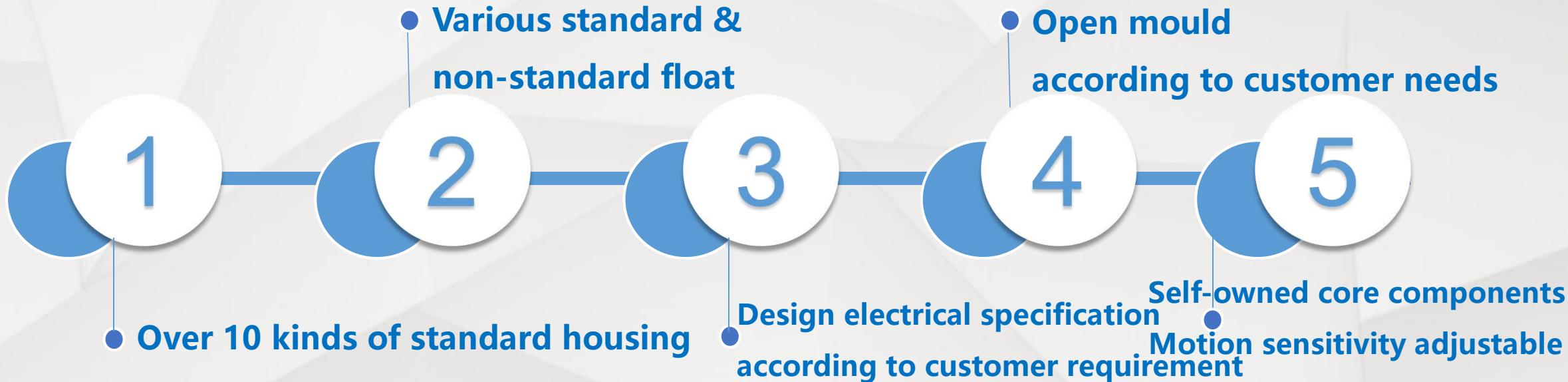
2,000

1,000

4,472

7,979

Features of Aleph Magnetic Sensor



- **Various non-standard floats are suitable for different types of liquids, various wires and sizes for different environments;**
- **Nearly 3,500 types, annual output over 42.34 million pcs**

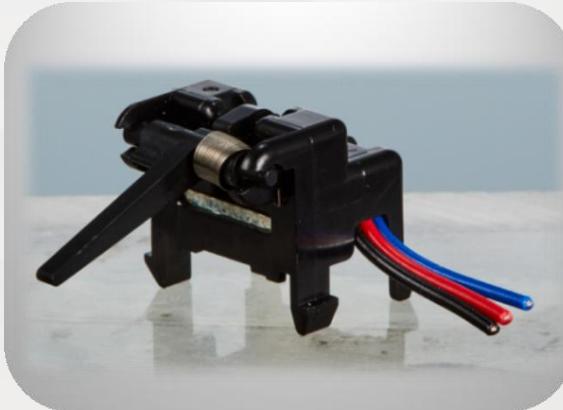


- 1 Magnetic Sensor**
- 2 Photo Sensor**
- 3 PCB Assembly**
- 4 New Automotive Business**

Photo Sensor



Interrupter type



Actuator type



Separate type



Reflective type



Prism type



Turbidity sensor

Features of Aleph Photo Element

♦High reliability

- Molding resin has high temperature resistance, with silicone coating structure very high reliability could be achieved;

♦High quality

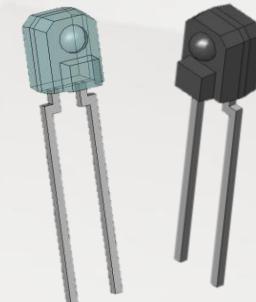
- Using materials with market-proven performance
- Auto injection machine + vacuum injection to ensure the quality stability
- Production is undertaken by a factory with 28 years 'experience in photo semi-conductors
- Function test implemented by automatic inspection machine
- Double-color electroplating

♦Stable supply

- Responding shipment according to Aleph brand

♦High output/Quick response

- High CTR is realized by high output of emitting element
- Quick response can be achieved by decreasing the increase rate on the receiving side

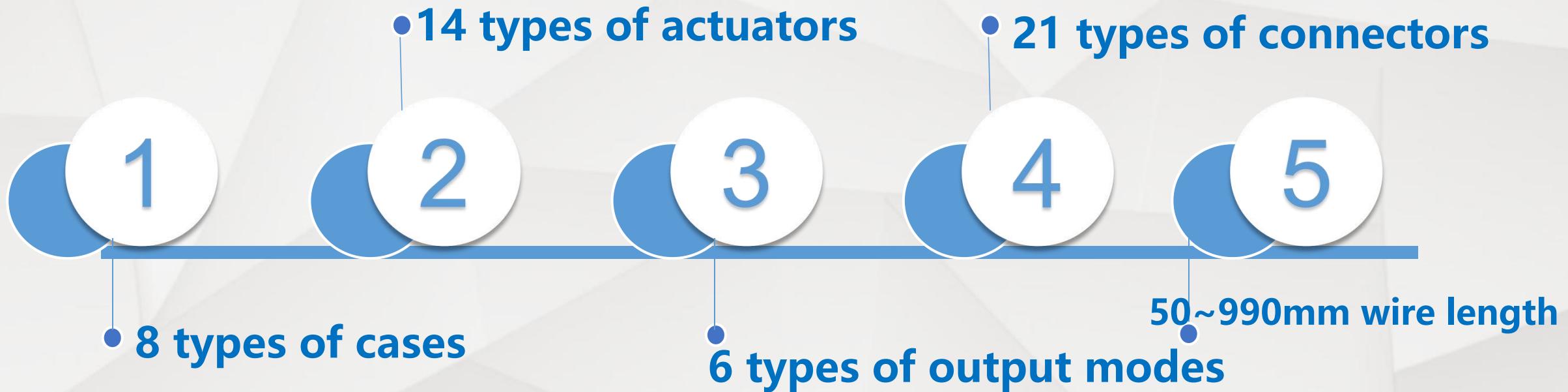


Oita, Kyushu Mede in Japan

Received the equipment, materials, production technology and staff from T Company which has the highest evaluation in terms of reliability in the field, and produced under Aleph brand.



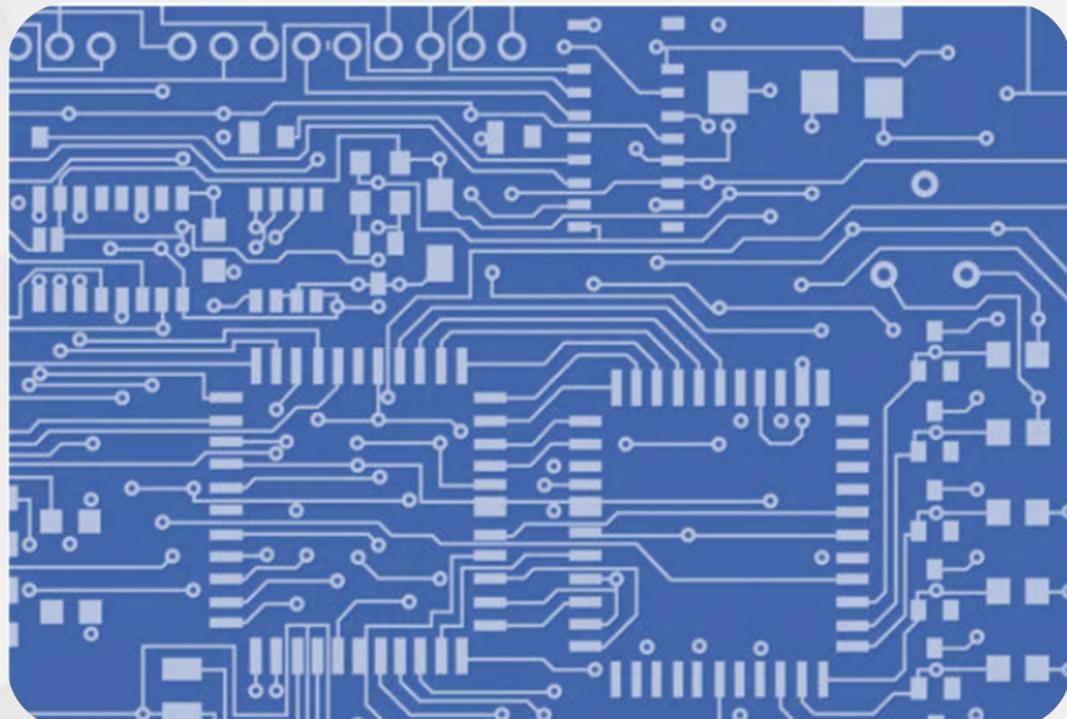
Features of Aleph Photo Sensor



- Self-owned brand photo element, which could provide various combination of customized photo sensors;
- Around 5,000 types, the annual output is about 14.50million pcs.

Types of Photo Products & Application

Product types	Industrial	Financial	Industrial	OA		Medical	Amusement	Home & home appliances	
	Large-sized camera	ATM	AFC	Printer	Copy machine	Blood analyzer	Game machine	Kitchen & bathroom	Washing machine
Interrupter type	●	●	●	●	●	●	●		
Reflective type		●	●	●	●	●	●	●	
Actuator type				●	●				
Separate type		●	●	●		●	●		
Prism type		●	●	●					
Photo flow type							●		
Other special types (Turbidity sensor)									●



- 1 Magnetic Sensor**
- 2 Photo Sensor**
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PCB Business Overview



1. Having 4 full-auto SMT line;
2. The newly introduced TCU production line is equipped with advanced MES management system;
3. Provide high quality PCB processing service for well-known OA customers and medical customers;

Types of PCB Assembly

COOK PCB



UYUNEI PCB



ID CHIP PCB



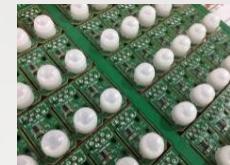
Simultaneous detection PCB



FPC PCB



Body induction PCB



Coding PCB



Metis-MF3 PCB



QFN SMT PCB



QFP (Gap:0.4mm SMT PCB



Medical equipment PCB



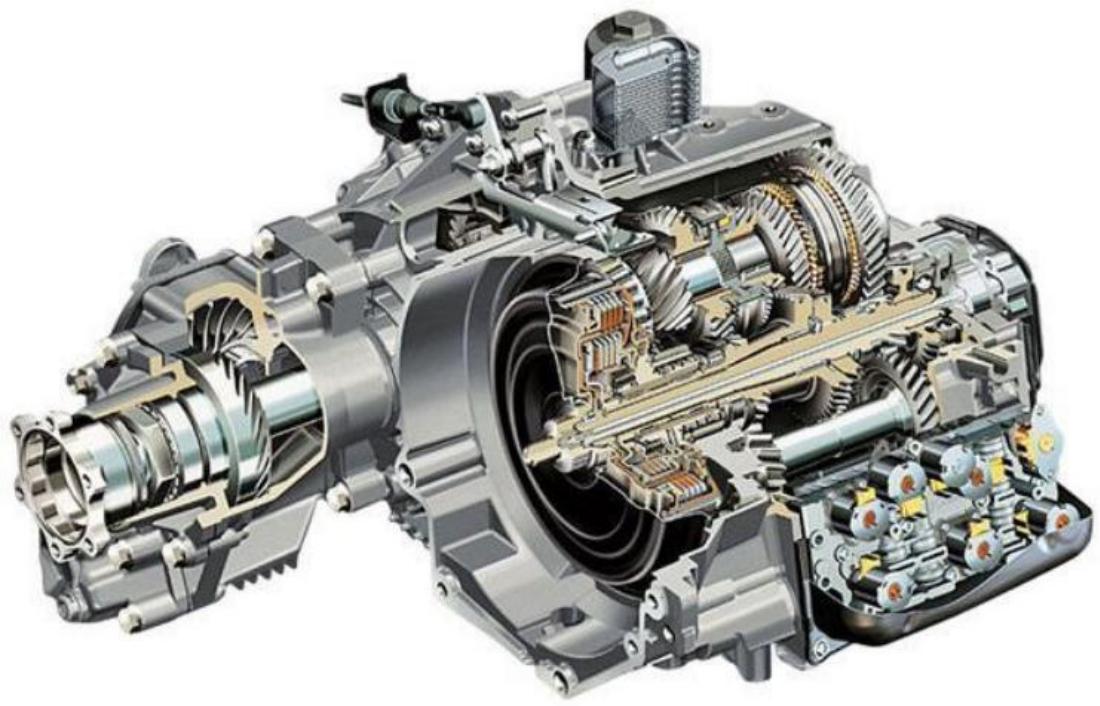
Transmission PCB



ECU

BGA

SOP from 2018



- 1 Magnetic Sensor**
- 2 Photo Sensor**
- 3 PCB Assembly**
- 4 New Automotive Business**

Transmission Control Unit (TCU)



Transmission Control Unit

Application:

1. Shift position detection
2. Actuator control
3. Automatic failure diagnosis

Aleph features:

1. Lower cost
2. Stable quality standard
3. Full automatic production line
4. One-stop production (made in-house)

Position Sensor



Position sensor

Application:

Position sensor is a kind of product that is systematically applied to integrated circuit characteristics, output high and low voltage, and control P/R/N/D/L.

Aleph features:

1. High sensitivity and stable working efficiency;
2. Long life cycle, capable of performing 150,000 cycles of tasks;
3. The product has passed the electrical load, mechanical load, climate load, environmental load test.

Speed Sensor



Speed sensor

Application:

1. Detecting the vehicle speed;
2. Detecting the vehicle speed signal will be output to the control unit;
3. Applied to automatic transmission system and cruise control system.

Aleph features:

1. Using the Well-known Japanese Brand TDK's Hall Components;
2. Injection processing in-house;
3. Double function test.

Angle Sensor



Angle Sensor

Application :

Angle sensor is a kind of product which is systematically applied to integrated circuit, high and low voltage, P/R/N/D-controlling.

Aleph features :

1. High sensitivity and stable efficiency;
2. Long lifespan, capable of performing 150,000 cycles of tasks;
3. Products have passed the electrical, mechanical, climate, environmental load test

Project under development



ieVP

(Intelligent electric vacuum pump)

※ Project under development is expected to SOP in 2022!

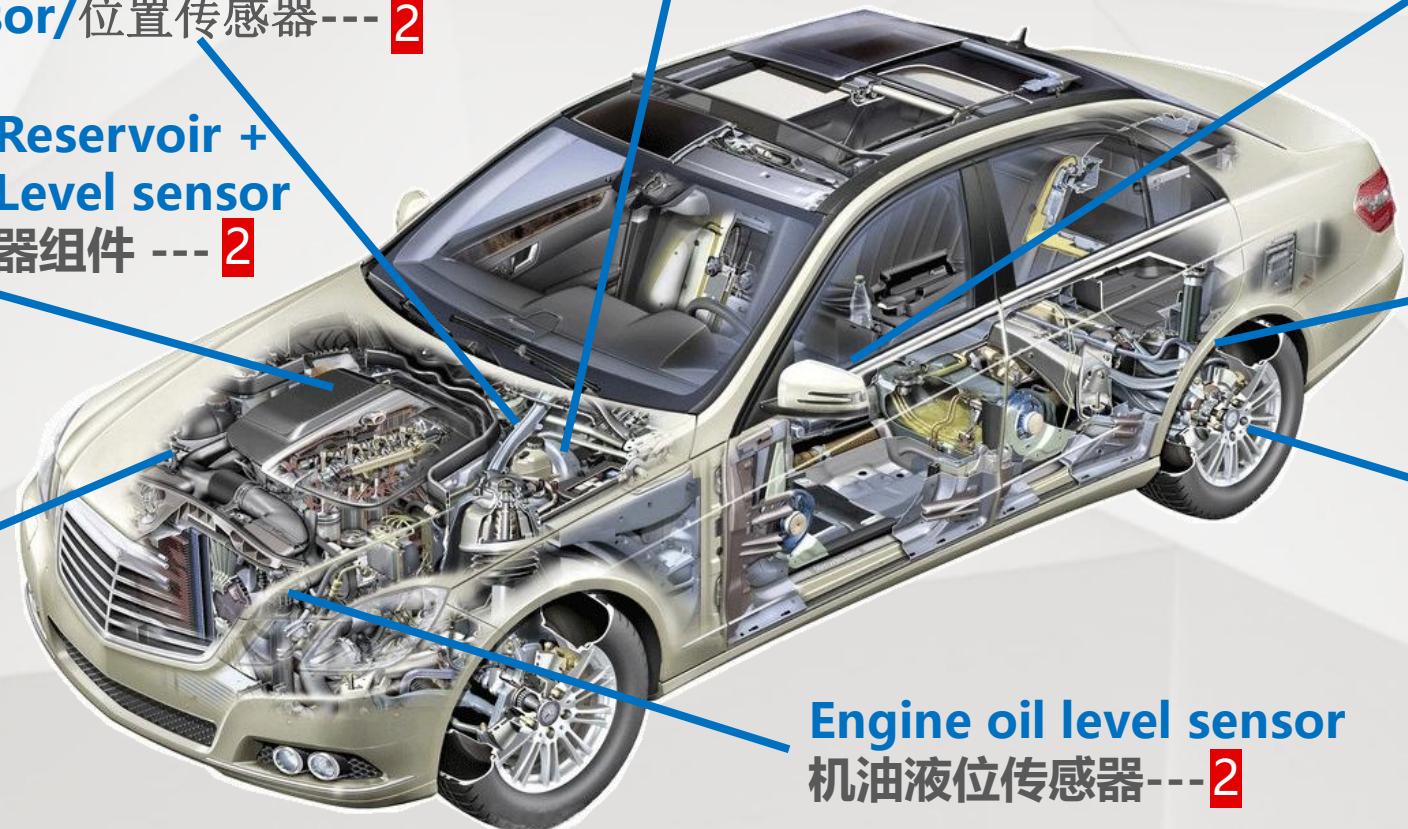
Aleph製品 自動車向け採用製品

【Powertrain】

- TCU/控制单元 --- 2
- Speed sensor/速度传感器 --- 2
- Angle sensor/角度传感器 --- 2
- Temperature sensor/温度传感器 --- 2
- Pressure sensor/压力传感器 --- 2
- Position sensor/位置传感器 --- 2

Washer Fluid Reservoir + Washer Fluid Level sensor 水箱+液位传感器组件 --- 2

Coolant level sensor 冷却液液位 传感器 --- 1



【Brake System】

ieVP

电子真空泵 --- 1

Reservoir + Level sensor

刹车油壶+液位传感器组件 --- 2

Brake stop lamp switch

刹车灯传感器 --- 2

Engine oil level sensor 机油液位传感器 --- 2

1 供货层级 1
Tier 1

2 供货层级 2
Tier 2

Seatbelt buckle reminder sensor 安全带系扣提醒传感器 --- 2

Vehicle body height sensor/Acceleration sensor 车身高度传感器/ 加速度传感器 --- 1

ABS wheel speed sensor 轮速传感器 --- 1

Main Customers of Automotive



Main Customers of Other fields

Home appliances



Office applications



Medical equipment



Bathroom products



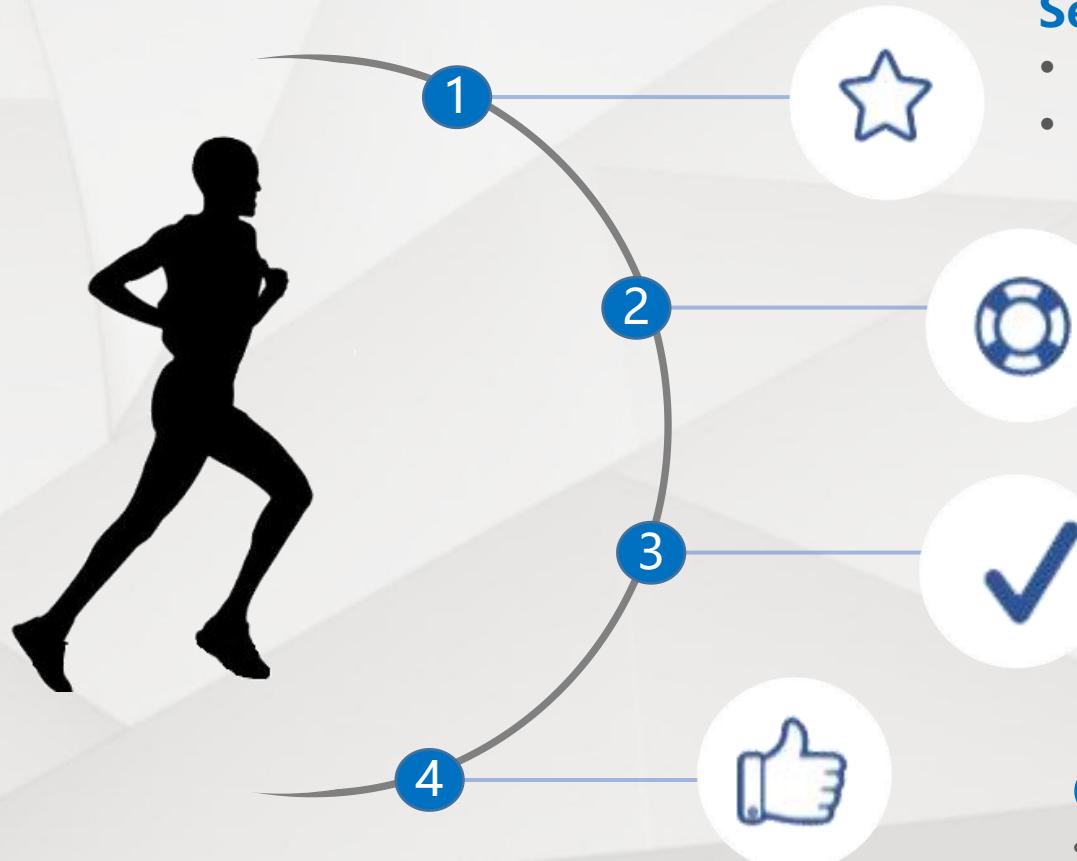
Industrial automation



Financial equipment



Aleph Features and Advantages



Self-owned core products(Reed switch + Photo element)

- Ensure high quality;
- Stable delivery ability.

Strong R&D capability and rigorous quality management

- Years of application technology accumulation of reed switch, with 120 engineers;
- Complete quality management system and strict and practical management style.

Customization service & Solution sales

- Taking meet customer needs as a starting point;
- Provide various design and services of customized product.

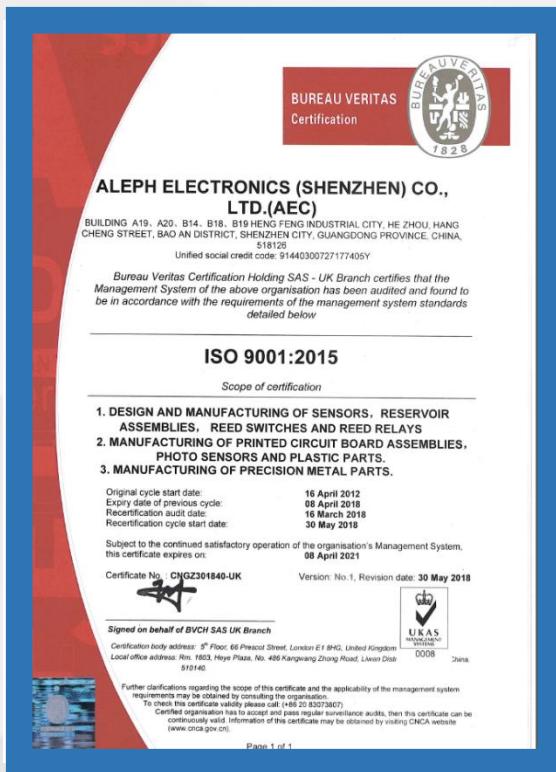
One-stop production

- Mold design & processing, press, injection, PCB SMT, plating;
- One-stop production chain to ensure QCD.

Company Qualifications and Honors (1)



IATF16949 Certification



ISO9001: 2015 Certification



ISO14001:2015 Certification



QC080000: 2012 Certification

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Company Qualifications and Honors



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