



**Xenon  
HID**



**Auto  
LED**

***German Brand German Quality***



**MIKROUNA (CHINA) CO., LIMITED**

*Made in Shanghai*

# About MIKROUNA

## GERMAN BRAND GERMAN QUALITY



German trademark certificate

Philips manufacturers certificate

As a fast-growing high-tech enterprise that integrates research, manufacture and services, Mikrouna has been committed to develop innovative products for clients around the world.

Mikrouna's 60 engineers apply their expertise in a number of disciplines including mechanical, electronic, chemical, physics, welding, instrument, vacuum technology, hydrodynamic, energetic, optical electronic and materials engineering.

**Main Products:** Auto LED Headlight and OEM Auto Xenon HID Headlight & matched electronic ballast.

**LED Chips:** LUMILEDS;

**Type:** LUXEON Z ES / LXE2-5770

**Quality:** Manufactured in Shanghai as German standard

**Certificates:** German and EU Certificates

**Mission:** Achieving social goals through advancing technology

## Development History

**1997** Mikrouna (China) Co., Ltd. was registered in Hong Kong.

**1998** Beijing Mikrouna Mech. Tech. Co., Ltd. was registered in Beijing.

**2002** Mikrouna has developed large modern Auto Xenon HID Lighting Production Lines.

**2004** Mikrouna has established the professional modern plant in Pudong Shanghai and manufactured several large modern Auto Xenon HID Lighting Production Lines for several large Chinese enterprises.

**2005** Mikrouna produced Xenon HID bulb and ballast.

**2006** ISO/TS16949:2009 was introduced into the enterprise.

**2009** Guangzhou Mikrouna Mech. Tech. Co., Ltd. was registered in Guangzhou.

**2012** American branch was established in Boston and named VTI;

Registered trademark in Germany.

**2013** Hubei branch and 60 acres of modern plant were established in Xiaogan, Hubei Province;

Mikrouna achieved industry 3.0 and ERP information management.

**2015** Mikrouna vigorously promoted the industry 4.0 process and established the Internet of things;

Mikrouna produced LED.

**2016** Mikrouna enlarged plant in Jinshan district of Shanghai; Mikrouna got E1-HID.

**2017** DOT-HID approved.

# Certificates

## ISO/TS16949:2009



# LED Advantages

## Maximum road safety and style

- **Brighter light on the road, without the glare**

MIKROUNA LED intense bright headlights bring a sophisticated & modern light appearance to your car, and maximum visibility with up to +100% brighter light on the road than halogen lamp, for maximum driving safety and visual comfort.

- **Maximum road safety**

+100 % brighter light on the road Maximum visibility, without the glare.

- **Long life span**

50000hours lifespan means you need not replace them till the car worthless.

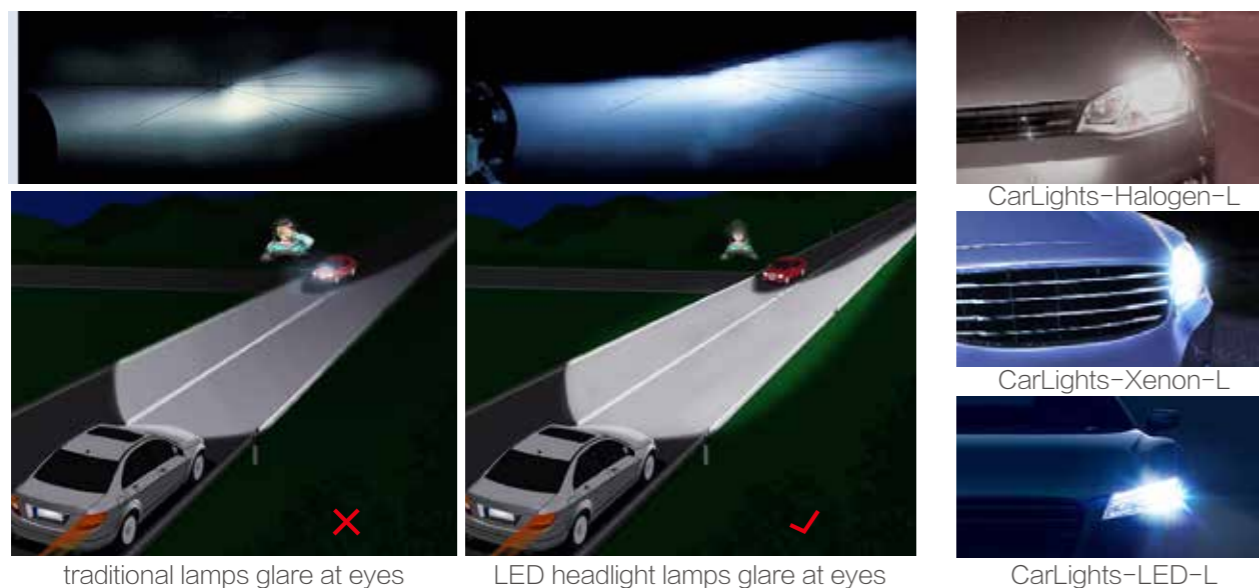
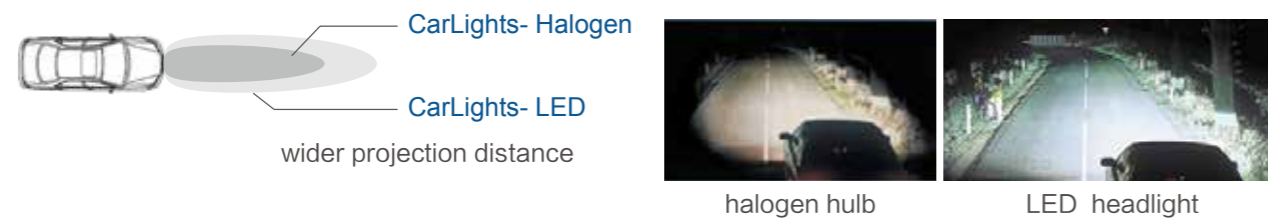
- **0 lumens decay**

Zero lumens decay at 3000 hours make driving lighting stable and lasting.

- **Distinct cutoff line**

distinct cutoff line and high intensity lighting at right area no glare at eyes makes driving safer and relaxed.

## Compared With Traditional



# F Series Auto LED

- All types color temperature from 3000K to 6000K
- The following lumen test results are based on the color temperature 6000K

TYPES				
H1-F1	H3-F1	H4-F1	H7-F1	H8-F1
H1-F2	H3-F2	H4-F2	H7-F2	H8-F2
H9-F1	H10-F1	H11-F1	9004-F1	9005-F1
H9-F2	H10-F2	H11-F2	9004-F2	9005-F2
9006-F1	9007-F1	9012-F1		
9006-F2	9007-F2	9012-F2		

★ Other types available on request

## Technical specifications

### product description

Type :	H4-F1
Technology:	LED
Housing Material:	Magnesium Alloy
Cooling Method:	Fans & Air
Lifespan:	> 50,000hs
Voltage:	12V DC
Rated Power:	22W ± 15%
Lumens Decay:	Zero lumens decay at 3000 hours
Lumen:	High beam 1900 lm ± 150 lm Low beam 1500 lm ± 150 lm
FOM:	↑ 150% (compared with traditional as ECE R112)



Type :	H4-F2
Technology:	LED
Housing Material:	Magnesium Alloy
Cooling Method:	Air
Lifespan:	> 50,000hs
Voltage:	12V DC
Rated Power:	22W ± 15%
Lumens Decay:	Zero lumens decay at 3000 hours
Lumen:	High beam 1900 lm ± 150 lm Low beam 1500 lm ± 150 lm
FOM:	↑ 150% (compared with traditional as ECE R112)





**Type :** H7-F1  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Fans & Air  
**Lifespan:** >50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 22W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 2200 lm ± 150lm  
**FOM:** ↑ 150%(compared with traditional as ECE R112)



**Type :** H7-F2  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Air  
**Lifespan:** > 50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 20W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 1800 lm ± 150lm  
**FOM:** ↑ 120%(compared with traditional as ECE R112)



**Type :** H11-F1  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Fans & Air  
**Lifespan:** > 50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 22W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 2200 lm ± 150lm  
**FOM:** ↑ 150%(compared with traditional as ECE R112)



**Type :** H11-F2  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Air  
**Lifespan:** >50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 20W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 1800 lm ± 150lm  
**FOM:** ↑ 120%(compared with traditional as ECE R112)



**Type :** 9005-F1  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Fans & Air  
**Lifespan:** >50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 22W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 2200 lm ± 150lm  
**FOM:** ↑ 150%(compared with traditional as ECE R112)



**Type :** 9006-F1  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Fans & Air  
**Lifespan:** >50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 22W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 2200 lm ± 150lm  
**FOM:** ↑ 150%(compared with traditional as ECE R112)



**Type :** 9012-F1  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Fans & Air  
**Lifespan:** >50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 22W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 2200 lm ± 150lm  
**FOM:** ↑ 150%(compared with traditional as ECE R112)



**Type :** 9005-F2  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Air  
**Lifespan:** > 50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 20W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 1800 lm ± 150lm  
**FOM:** ↑ 120%(compared with traditional as ECE R112)



**Type :** 9006-F2  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Air  
**Lifespan:** >50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 20W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 1800 lm ± 150lm  
**FOM:** ↑ 120%(compared with traditional as ECE R112)



**Type :** 9012-F2  
**Technology:** LED  
**Housing Material:** Magnesium Alloy  
**Cooling Method:** Air  
**Lifespan:** >50,000hs  
**Voltage:** 12V DC  
**Rated Power:** 20W ± 15%  
**Lumens Decay:** Zero lumens decay at 3000 hours  
**Lumen:** 1800 lm ± 150lm  
**FOM:** ↑ 120%(compared with traditional as ECE R112)



# Compare Table for All LED Suppliers

	Philips	Mikrouna	Others
chips	Lumileds	Lumileds	All Suppliers
cooling method	Air	Fans & Air Air	Fans & Air
housing material	Allu Alloy	Magnesium Alloy	Allu Alloy
power	23w ± 2w	23w ± 2w	18w~25w
lumen	2200lm ± 150lm	2200lm ± 150lm	1400lm~2000lm
FOM	↑ 150%	↑ 150%	- 10%~150%
decay @ 200hs	0	0	↓ 30%
decay @ 1000hs	0	0	↓ 60%
decay @ 3000hs	0	0	↓ 100%

## Electronic Ballast for Auto LED LED 4 Head Lighting Driver Box



<b>LED H4</b>			
V input DC :	12V or 24V	P output :	23W norm
I input :	1.7A@13.2V	Body size :	58 × 41 × 20mm

## LED Lighting Driver Box



<b>LED H7/H8/H11/9005/9006/9012 for F1</b>	
V input DC :	12V
I input :	1.7A@13.2V
P output :	23W norm
Body size :	60 × 35 × 13mm



<b>LED H7/H8/H11/9005/9006/9012 for F2</b>	
V input DC :	12V
I input :	1.5A@13.2V
P output :	20W norm
Body size :	60 × 35 × 13mm

# Auto Xenon HID Advantages

- 1.OEM Quality
- 2.We developed HID technology originally
- 3.Consistently improves HID manufacturing process
- 4.Strong technique team
- 5.Large-scale modern production line
- 6.TS16949 Certified
- 7.Perfect sales-service system

## Auto Xenon HID for OEM Quality

Compatible with matched electronic ballast

### Our Auto CoolBlue Xenon Lamp Features

—for lamps of 35W with mercury

Product name	D1S
lamp voltage	85 ± 10V
High luminous flux	3100LM ± 200LM
Quick start	Reach 20% of objective luminous flux within 0.8 second, While above 80% of objective luminous flux within 4 seconds
Long lifetime	3000 hours,Lumen maintenance > 70%
Color temperature deviation	5000K ± 200K



—for lamps of 35W without mercury

Product name	D3S
lamp voltage	42 ± 5V
High luminous flux	3000LM ± 200LM
Quick start	Reach 20% of objective luminous flux within 0.8 second, While above 80% of objective luminous flux within 4 seconds
Long lifetime	2500 hours,Lumen maintenance > 70%
Color temperature deviation	5000K ± 200K





## Our Auto Xenon HID Lamp Features

### —for lamps of 35W with mercury

Product name	D2S
lamp voltage	85 ± 10V
High luminous flux	3300LM ± 100LM
Quick start	Reach 20% of objective luminous flux within 0.8 second, While above 80% of objective luminous flux within 4 seconds
Long lifetime	3000 hours, Lumen maintenance > 70%
Color temperature deviation	4300K + 200K / - 100K



### —for lamps of 35W without mercury

Product name	D4S
lamp voltage	42 ± 5V
High luminous flux	3000LM ± 100LM
Quick start	Reach 20% of objective luminous flux within 0.8 second, While above 80% of objective luminous flux within 4 seconds
Long lifetime	2500 hours, Lumen maintenance > 70%
Color temperature deviation	4300K + 200K / - 100K



### —for lamps of 25W without mercury

Product name	D5S/D6S/D8S
lamp voltage	42 ± 5V
High luminous flux	1950LM ± 100LM
Quick start	Reach 20% of objective luminous flux within 0.8 second, While above 80% of objective luminous flux within 4 seconds
Long lifetime	2500 hours, Lumen maintenance > 70%
Color temperature deviation	4300K + 200K / - 100K



## D Series Xenon HID Lamp

Followed the ECE Certificate standard

### D series big breakthrough

All items are cerefilated with ECE R99

#### BREAKTHROUGH IN XENON

		MIKROUNA X-TREME VISION	PHILIPS X-TREME VISION	OTHERS
35W-4300K with mercury	Luminous	3300 ± 100LM	3300 ± 100LM	3300 ± 300LM
	Light Decay in 100 hours	< 100LM	< 100LM	> 300LM
	Light Decay in 500 hours	< 250LM	< 250LM	> 500LM
35W-up to 5500K with mercury	Luminous	3300 ± 100LM	3300 ± 100LM	3300 ± 300LM
	Light Decay in 100 hours	< 100LM	< 100LM	> 300LM
	Light Decay in 500 hours	< 250LM	< 250LM	> 500LM
35W-up to 6000K with mercury	Luminous	2900 ± 200LM	2900 ± 200LM	2700 ± 200LM
	Light Decay in 100 hours	< 100LM	< 100LM	> 300LM
	Light Decay in 500 hours	< 250LM	< 250LM	> 500LM
35W-4300K without mercury	Luminous	3000 ± 100LM	3000 ± 100LM	2400 ± 200LM
	Light Decay in 100 hours	< 100LM	< 100LM	> 300LM
	Light Decay in 500 hours	< 250LM	< 250LM	> 500LM
35W-5000K without mercury	Luminous	3000 ± 100LM	3000 ± 100LM	NO
	Light Decay in 100 hours	< 100LM	< 100LM	NO
	Light Decay in 500 hours	< 250LM	< 250LM	NO
35W-6000K without mercury	Luminous	2800 ± 300LM	2800 ± 300LM	NO
	Light Decay in 100 hours	< 100LM	< 100LM	NO
	Light Decay in 500 hours	< 250LM	< 250LM	NO
25W-4300K without mercury	Luminous	1950 ± 100LM	1950 ± 100LM	1400 ± 200LM
	Light Decay in 100 hours	< 100LM	< 100LM	> 300LM
	Light Decay in 500 hours	< 250LM	< 250LM	> 500LM



# Electronic Ballast for Xenon HID Lamp for OEM Quality

## Technical Parameters

— for lamps of 35W with mercury

Type	D1S/D1R
Power input	41W
Test voltage	12V or 24V
Power output	35W
Voltage output	MAX 1100V DC 85V AC
Lifspan Tc	3000hs
Operating temperature	-40°C~+105°C
Output open short protection	Shutdown in 1.5 sec

Type	D2S/D2R
Power input	41W
Test voltage	12V or 24V
Power output	35W
Voltage output	MAX 23KV 85V AC
Lifspan Tc	3000hs
Operating temperature	-40°C~+105°C
Output open short protection	Shutdown in 1.5 sec

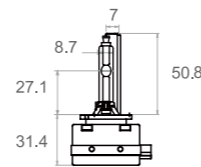


## D Series Xenon HID

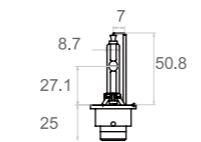
( D1S/R,D2S/R Varying from 300K to 12000K, others from 3000K to 8000K )



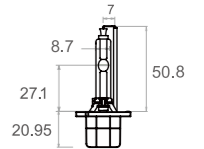
ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D1S	35	85	2000h	3000h	3300 ± 100lm	PK32d-2
D1R	35	85	2000h	3000h	3000 ± 100lm	PK32d-3



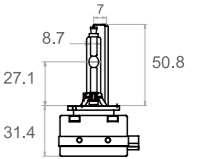
ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D2S	35	85	2000h	3000h	3300 ± 100lm	P32d-2
D2R	35	85	2000h	3000h	3000 ± 100lm	P32d-3



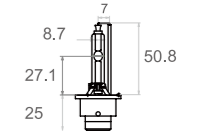
ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D2H	35	85	2000h	3000h	3300 ± 100lm	P32d-2



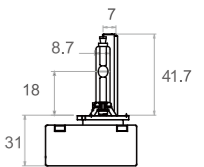
ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D3S	35	42	1500h	2500h	3000 ± 100lm	PK32d-5
D3R	35	42	1500h	2500h	2700 ± 100lm	PK32d-6



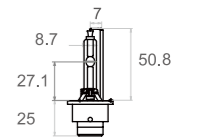
ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D4S	35	42	1500h	2500h	3000 ± 100lm	P32d-5
D4R	35	42	1500h	2500h	2700 ± 100lm	P32d-6



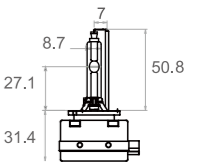
ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D5S	25	42	1500h	2500h	1950 ± 100lm	PK32d-7
D5C	30	85	2000h	3000h	2800 ± 100lm	PK32d-7



ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D6S	25	42	1500h	2500h	1950 ± 100lm	P32d-1



ITEM	W	V	B <sub>3</sub>	T <sub>c</sub>	Luminous Flux at 4300K	Base
D8S	25	42	1500h	2500h	1950 ± 100lm	PK32d-1



## D Series Ballast



ITEM	W	V
D1000	35W	9V-16V

ITEM	W	V
D1002	35W	9V-16V
D3002	35W	9V-16V

ITEM	W	V
D1003	35W	9V-16V

ITEM	W	V
D1100	35W	9V-16V



ITEM	W	V
D1103	35W	9V-16V

ITEM	W	V
D1200	35W	9V-16V
D1260	35W	12V-32V

ITEM	W	V
D1301	35W	9V-16V

ITEM	W	V
D1302	35W	9V-16V



# D Series Ballast

ITEM	W	V
D1401	35W	9V-16V
D1461	35W	12V-32V
D1402	35W	9V-16V
D3402	35W	9V-16V
D8402	25W	9V-16V
D1403	35W	9V-16V
D1463	35W	12V-32V
D1404	35W	9V-16V
D1405	35W	9V-16V
D1465	35W	12V-32V
D1500	35W	9V-16V
D1560	35W	12V-32V
D1501	35W	9V-16V
D3501	35W	9V-16V
D1502	35W	9V-16V
D1503	35W	9V-16V
D3503	35W	9V-16V
D1504	35W	9V-16V
D1600	35W	9V-16V
D1660	35W	12V-32V

ITEM	W	V
D1800	35W	9V-16V
D2200	35W	9V-16V
D2500	35W	9V-16V
D2560	35W	12V-32V
D2600	35W	9V-16V
D2601	35W	9V-16V
D2602	35W	9V-16V
D2700	35W	9V-16V
D2800	35W	9V-16V
D2900	35W	9V-16V
D3102	35W	9V-16V
D8102	25W	9V-16V
D3605	35W	9V-16V
D4300	35W	9V-16V
D4400	35W	9V-16V

# H Series Xenon HID

( Varying from 3000K to 12000K )

ITEM	W	V	ITEM	W	V	ITEM	W	V
H1	25/35	85	H7	25/35	85	H13-1	25/35	85
H3	25/35	85	9004-1	25/35	85	H13-3	25/35	85
H4-1	25/35	85	9005	25/35	85	880	25/35	85
H4-2	25/35	85	H8	25/35	85	881	25/35	85
H4-3	25/35	85	H9	25/35	85	9006	25/35	85
H4-3	25/35	85	H10	25/35	85	9007-3	25/35	85
H6	25/35	85	H11	25/35	85			

# H Series Ballast

ITEM	W	V	ITEM	W	V
H8000	25	9V-16V	H6000	25	9V-16V
H8010	35	9V-16V	H6010	35	9V-16V
H8020	35	9V-16V CBUS	H6020	35	9V-16V CBUS
H8050	50	9V-16V	H6080	35	9V-32V
H8060	50	16V-32V			
H8080	35	16V-32V			
H9010	35	9V-16V			
H5010	35	9V-16V	S1000	25	9V-16V
H5020	35	9V-16V CBUS	S1010	35	9V-16V
H5080	35	9V-32V	S1020	35	9V-16V CBUS
			S1080	35	9V-32V





Achieving social goals through  
advancing technology

<http://www.mikrouna.com>



中文名片



Business card

## MIKROUNA (CHINA)CO.,LIMITED

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Fax: +86 10 6858 7629  
E-mail: [hid@mikrouna.com](mailto:hid@mikrouna.com)

### Shanghai Company

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district, Shanghai 201315, P.R. CHINA  
Tell: +86 21 6729 0813  
Fax: +86 21 6729 0822  
E-mail: [hid@mikrouna.com](mailto:hid@mikrouna.com)

### Guangzhou Company

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Innovation Park, No.31, Kefeng Road  
Tell: +86 20 3761 8172/1  
Fax: +86 20 3761 8170  
E-mail: [hid@mikrouna.com](mailto:hid@mikrouna.com)

### Shanghai Factory

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Shanyang Town, Jinshan District,  
Shanghai, China  
Tell: +86 21 6729 0813  
Fax: +86 21 6729 0822  
E-mail: [hid@mikrouna.com](mailto:hid@mikrouna.com)

### Hubei Factory

Add: Huanchuan Road and Jingguang Road  
Junction, Xiaotian Industrial Park, High-Tech  
Development Zone, Xiaogan City, Hubei  
Province, China  
Tell: +86 0712 2119090  
E-mail: [hid@mikrouna.com](mailto:hid@mikrouna.com)