


ECE TYPE-APPROVAL CERTIFICATE



Communication concerning: Approval granted
 Approval extended
 Approval refused
 Approval withdrawn
 ~~Production definitively discontinued~~

of a type of ~~front position lamps, rear position lamps, stop lamps, direction indicators and rear registration plate illuminating devices~~ for mopeds, motor cycles and vehicles treated as such pursuant to Regulation No. 50.

Approval No: **E24*50R00/20*0386*00**

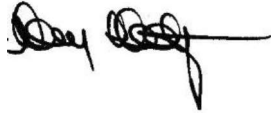
1. Trade name or mark of the device: **HIGHSIDER** 
2. Manufacturer's name for the type of device: **018**
3. Manufacturer's name and address: ***Tong Yah Electronic Technology Co., Ltd.
No.406 Ding-Ann Street,
Annan District, Tainan,
Taiwan, R.O.C***
4. If applicable, name and address of manufacturer's representative: **N/A**
5. Submitted for approval on: **19.06.2019**
6. Technical service responsible for conducting approval tests: ***ISOQA Technical Service Co., Ltd.
60, Yong Long Road,
41257 Da-Li, Taichung
Taiwan***
7. Date of test report issued by that service: **17.06.2019**
8. Number of report issued by that service: **ISOQA-19-0225-R50**

Approval No: **E24*50R00/20*0386*00**

9.	Concise description ¹ :	
	By category of lamp:	11 & 12 Front and rear direction indicator
	Colour of light emitted (red/white /amber):	Amber
	Number and category(ies) of light source(s):	6 non replaceable light source (6 LEDs connected as 6 light sources)
	Light source module: yes/no ²	N/A
	Light source module specific identification code:	N/A
	Geometrical conditions of installation and relating variations, if any:	Reference axis parallel to the median longitudinal plane of the vehicle and parallel to the bearing plane of the vehicle on the road (See drawing).
	Application of an electronic light source control gear/variable intensity control:	
	(a) Being part of the lamp: yes/no /not applicable:	N/A
	(b) Being not part of the lamp: yes/no /not applicable:	N/A
	Input voltage(s) supplied by an electronic light source control gear/variable intensity control:	N/A
	Electronic light source control gear/variable intensity control manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body):	N/A
	Only for limited mounting height of equal to or less than 750mm above the ground: yes/no ²	No
	Function(s) produced by an interdependent lamp forming part of an interdependent lamp system:	
	Front position lamp: yes/no ²	N/A
	Rear position lamp: yes/no ²	N/A
	Stop lamp: yes/no ²	N/A
	Sequential activation of light sources (see paragraph 6.8. of this Regulation): yes/no ²	No

¹ For the purpose of this Regulation "being part of the lamp" means to be physically included in the lamp body or to be external, separated or not, but supplied by the lamp manufacturer as part of the lamp system. The functioning and installation conditions of these additional systems will be defined by special provisions."

Approval No: **E24*50R00/20*0386*00**

- | | | |
|-----|--|--|
| 10. | Position of the approval mark: | <i>On the lens</i> |
| 11. | Reason(s) for extension (if applicable): | <i>N/A</i> |
| 12. | Approval granted/ extended/refused/withdrawn : | <i>Granted</i> |
| 13. | Place: | <i>Dublin</i> |
| 14. | Date: | <i>28th June, 2019</i> |
| 15. | Signature:  | |



16. The list of documents deposited with the Administrative Service which has granted approval, is annexed and may be obtained on request.

Approval No: **E24*50R00/20*0386*00**

Index to the Information Package

Date of issue:	28th June, 2019
Date of latest amendment:	N/A
Reason for extension/revision:	N/A
1. Additional conditions, and advisory notes on legal alternatives.	
2. Test report(s)	
- numbers(s):	ISOQA-19-0225-R50
- date of issue:	17.06.2019
- date of latest amendment:	N/A
3. Information document	
- number(s):	ISOQA-19-0225 -Appendix 1_Information Document.xlsx
- date of issue:	15.04.2019
- date of latest amendment:	N/A
Documentation:	13 pages



Approval No: E24*50R00/20*0386*00

Appendix: **Additional conditions, and advisory notes on legal alternatives.**

A: Additional conditions:

1. The device, type *018*, shall be marked as prescribed in the regulation.
2. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
3. Each individual product from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
4. Changes in the product are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
5. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type of product no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
6. NSAI may at any time check the correct performance of the duties imposed by the grant of this Type Approval, and in order to do so, may make tests, or have tests made.
7. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to the NSAI.
8. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
9. When the manufacture or sale of the vehicle, system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

B : Legal Options

Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
Type : 018
Manufacturer : Tong Yah Electronic Technology Co., Ltd.

TEST REPORT

Concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations

Uniform provisions concerning the approval of ~~front position lamps, rear position lamps, stop lamps, direction indicators and rear registration plate illuminating devices~~ for vehicles of category L

Tested according ECE-R50, supplement 20 to the original version of 10 February 2018


Kind of device: Front and Rear Direction Indicator

Approval status	
X	Application for granting of a type approval
	Application for an extension of type approval No.
	Reason for the extension:

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
Type : 018
Manufacturer : Tong Yah Electronic Technology Co., Ltd.

0. General

- 0.1. Make (trade name of manufacturer) : **HIGHSIDER** or 
- 0.2. Type : 018
- 0.3. Version / Variant : --
- 0.4. Manufacturer's name and address : Tong Yah Electronic Technology Co., Ltd.
No.406 Ding-Ann Street,
71072, Annan District, Tainan,
Taiwan, R.O.C
- 0.5. Test laboratory : ISOQA Technical Service Co., Ltd
60, Yong Long Road,
41257 Da-Li, Taichung
Taiwan

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
 Type : 018
 Manufacturer : Tong Yah Electronic Technology Co., Ltd.

1. Test object (s)

1.1. Information :

Material of Outer Lens	PMMA	
Material of Inner Lens	PC	
Material of Housing	AL6061	
Material of Reflector	-	
Rated Voltage	12 V	
Front and Rear Direction Indicator	Category	11 & 12
	Light Source	6 x LED, 12 V, 2.6 W
	Color of light emitted	Amber
	Color of Outer lens	Smoke
	Color of Inner lens	Clear
	Visibility	The visibility angles are symmetrical, the horizontal arrow is not required.
	Grouped with	--
	Combined with	--
	Incorporated with	--

1.2. Location of Marking: see Appendix 2

1.3. Remark(s) :

1.3.1 There are no objections against the variants that may be described in the Information folder respectively the information document by the manufacturer because adversely effects are not expected.

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
 Type : 018
 Manufacturer : Tong Yah Electronic Technology Co., Ltd.

2. Test Specification

- 2.1. Place of test : Laboratory of ISOQA in Taiwan
- 2.2. Date of test : 2019/5/28
- 2.3. Date of receipt of test device(s) : 2019/5/28
- 2.4. Test results :
- 2.4.1. Markings (according to ECE R50.00 paragraph 4)
- | | | | |
|----|---|----------------|------------------------------|
| a. | trade name or mark | Complies | see Appendix 2 |
| b. | Category of Light sources or light source module specific identification code | Not Applicable | non replaceable light source |
| c. | Space reserved for the approval mark | Complies | see Appendix 2 |
| d. | rated voltage or the range of voltages | Complies | see Appendix 2 |
| e. | marking on replaceable light source module | Not Applicable | |
- 2.4.2. General Specifications (according to ECE R50.00 paragraph 6)
- | | | | |
|----|---|----------------|--|
| a. | maintenance of satisfactory operation and of photometric characteristics | Complies | |
| b. | rear position lamp reciprocally incorporated with a stop lamp | Not Applicable | |
| c. | replaceable light source(s) | Not Applicable | |
| d. | sequential activation of light sources | Not Applicable | |
| e. | Light source module(s) | Not Applicable | |
| f. | non-replaceable filament lamp(s) or light source module(s) equipped with non-replaceable filament lamp(s) | Not Applicable | |
- 2.4.3. Intensity of light emitted (according to ECE R50.00 paragraph 7)
- | | | | |
|----|---------------------------------------|----------|-------------------|
| a. | Light distribution | Complies | see 3.1 |
| b. | Visibility | Complies | see 3.1 |
| c. | failure of more than one light source | Complies | see 2.5.1 and 3.1 |
- 2.4.4. colour of light emitted (according to ECE R50.00 paragraph 9)
- | | | | |
|--|--|----------|---------|
| | | Complies | see 3.2 |
|--|--|----------|---------|

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
Type : 018
Manufacturer : Tong Yah Electronic Technology Co., Ltd.

2.4.5 rear-registration-plate illuminating device (according to ECE R50.00 Annex 5)

- | | | |
|----|-----------------------------|----------------|
| a. | Space to be illuminated | Not Applicable |
| b. | Colour of the light | Not Applicable |
| c. | Angle of incidence | Not Applicable |
| d. | Photometric characteristics | Not Applicable |

2.5. Remark (s) --

- 2.5.1 According to manufacturer's technical description, one light source consists of 1 LED. The n-1 rule was checked compliance by calculation. Detailed results are presented in 3.1

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
 Type : 018
 Manufacturer : Tong Yah Electronic Technology Co., Ltd.



ISOQA Technical Service Co., Ltd
 Web: www.isoqa.org
 E-mail: isoqa@isoqa.org

3. Performance test(s)

3.1. Photometric measurements test record

Function : Front and Rear Direction Indicator Category : 11 & 12
 Test Voltage : 13.5 V Light Source : 6 x LED
 Test Distance : 3.167 m Current : S1: 0.194 A / S2: 0.196 A

Test Point	Minimum (cd)	Maximum (cd)	Sample 1			Sample 2		
			1 min	30 mins	n-1 ⁽¹⁾	1 min	30 mins	n-1 ⁽¹⁾
H - V	90	500	155.30	144.00	108.00	159.40	149.70	112.28
10U - 5L	18	500	147.32	136.60	102.45	127.88	120.10	90.08
10U - 5R	18	500	145.70	135.10	101.33	138.74	130.30	97.73
5U - 20R	9	500	35.71	33.11	24.83	42.11	39.55	29.66
5U - 10R	18	500	114.43	106.10	79.58	116.81	109.70	82.28
5U - V	63	500	161.99	150.20	112.65	169.73	159.40	119.55
5U - 10L	18	500	115.94	107.50	80.63	110.21	103.50	77.63
5U - 20L	9	500	39.54	36.66	27.50	20.36	19.12	14.34
H - 10L	31.5	500	114.53	106.20	79.65	108.93	102.30	76.73
H - 5L	81	500	150.77	139.80	104.85	146.94	138.00	103.50
H - 5R	81	500	148.72	137.90	103.43	146.62	137.70	103.28
H - 10R	31.5	500	113.02	104.80	78.60	115.42	108.40	81.30
5D - 20R	9	500	30.02	27.84	20.88	42.67	40.07	30.05
5D - 10R	18	500	107.74	99.90	74.93	114.15	107.20	80.40
5D - V	63	500	166.19	154.10	115.58	158.76	149.10	111.83
5D - 10L	18	500	112.05	103.90	77.93	111.38	104.60	78.45
5D - 20L	9	500	37.23	34.52	25.89	22.32	20.96	15.72
10D - 5L	18	500	120.47	111.70	83.78	133.95	125.80	94.35
10D - 5R	18	500	120.79	112.00	84.00	134.16	126.00	94.50
Visibility ⁽²⁾	0.3	500	Min (0.42) Max 139.02	Min (0.39) Max 128.90	-	Min (0.53) Max 142.80	Min (0.50) Max 134.11	-
Result			PASS	PASS	PASS	PASS	PASS	PASS

(1) The Front and Rear Direction Indicator was equipped with 6 LEDs, according to manufacturer's technical description, one light source consists of 1 LED.

(2) Vertical angles: $\pm 15^\circ$; Horizontal angles: $\pm 80^\circ$

Test Report No. : ISOQA-19-0225-R50

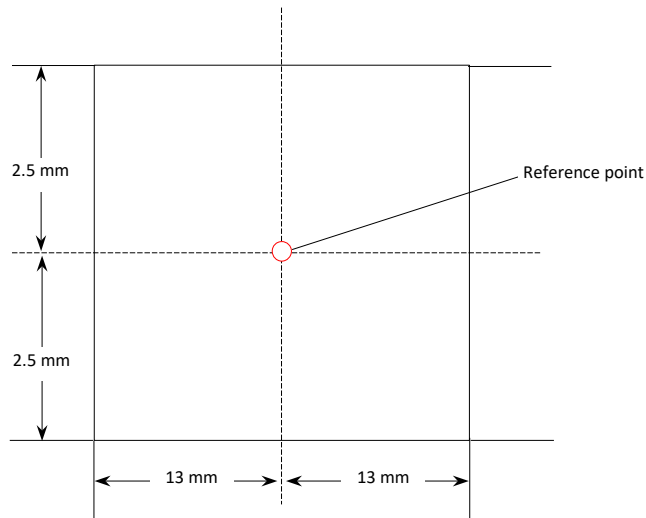
Approval No. : 50R-00 0386
Type : 018
Manufacturer : Tong Yah Electronic Technology Co., Ltd.

3.2. Color of light emitted test record

Function : Front and Rear Direction Indicator Category : 11 & 12
Test Voltage : 13.5 V Light Source : 6 x LED
Distance : 3.073 m Current : S1: 0.194 A / S2: 0.196 A

Function (s)	Color of light emitted	Sample 1		Sample 2		Result
		x	y	x	y	
Front and Rear Direction Indicator	Amber	0.5680	0.4258	0.5692	0.4252	PASS

3.3. Determination of the limits of the apparent surface according to paragraph 2.7.2 of ECE-R53



Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
Type : 018
Manufacturer : Tong Yah Electronic Technology Co., Ltd.

4. Communication

Concerning : APPROVAL GRANTED

of a type of device pursuant to Regulation No. 50

Approval No. 50R-00 0386 Extension No. 00

4.1. Concise description

4.1.1 By category of lamp : 11 & 12
Colour of light emitted : Amber
Number, category and kind of light source(s) : 6 non replaceable light source (6 LEDs connected as 6 light sources)
Light source module : N/A
Light source module specific identification code : N/A
Geometrical conditions of installation and relating variations, if any : reference axis parallel to the median longitudinal plane of the vehicle and parallel to the bearing plane of the vehicle on the road (see drawing).
Application of an electronic light source control gear/variable intensity control
(a) being part of the lamp : N/A
(b) being not part of the lamp : N/A
Input voltage(s) supplied by an electronic light source control gear/variable intensity control : N/A
Electronic light source control gear/variable intensity control manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body) : N/A

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
Type : 018
Manufacturer : Tong Yah Electronic Technology Co., Ltd.

Only for limited mounting height of equal to or less than 750 mm above the ground : NO

Function(s) produced by an interdependent lamp forming part of an interdependent lamp system

Front position lamp : N/A

Rear position lamp : N/A

Stop lamp : N/A

Sequential activation of light sources : NO

4.2. Position of the approval mark : On the Lens

4.3. Reason(s) for extension (if applicable) : N/A

5. Appendices

- | | |
|------------------------------------|--------------------|
| 1. Appendix 1 Information document | 1 page(s) in total |
| 2. Appendix 2 Drawing | 2 page(s) in total |

Test Report No. : ISOQA-19-0225-R50

Approval No. : 50R-00 0386
Type : 018
Manufacturer : Tong Yah Electronic Technology Co., Ltd.

6. Statement of conformity

- 6.1 The information folder respectively information document by the manufacturer and the type described therein are in compliance with the Test Specification mentioned above.
- 6.2 The device is so designed and constructed that in normal use, and despite the vibrations to which they may be subjected, their satisfactory operation continues to be assured and they retain the characteristics prescribed by this Regulation.

ISOQA Technical Service Co., Ltd

Place : Taichung, Taiwan Date : 2019/6/17

Signature



Laboratory Manager - Chih-Hua Chang

Tong Yah Electronic Technology Co., Ltd.

No.406 Ding-Ann Street,
 Annan District, Tainan, Taiwan, R.O.C


TEL: 886-6-2556565#307

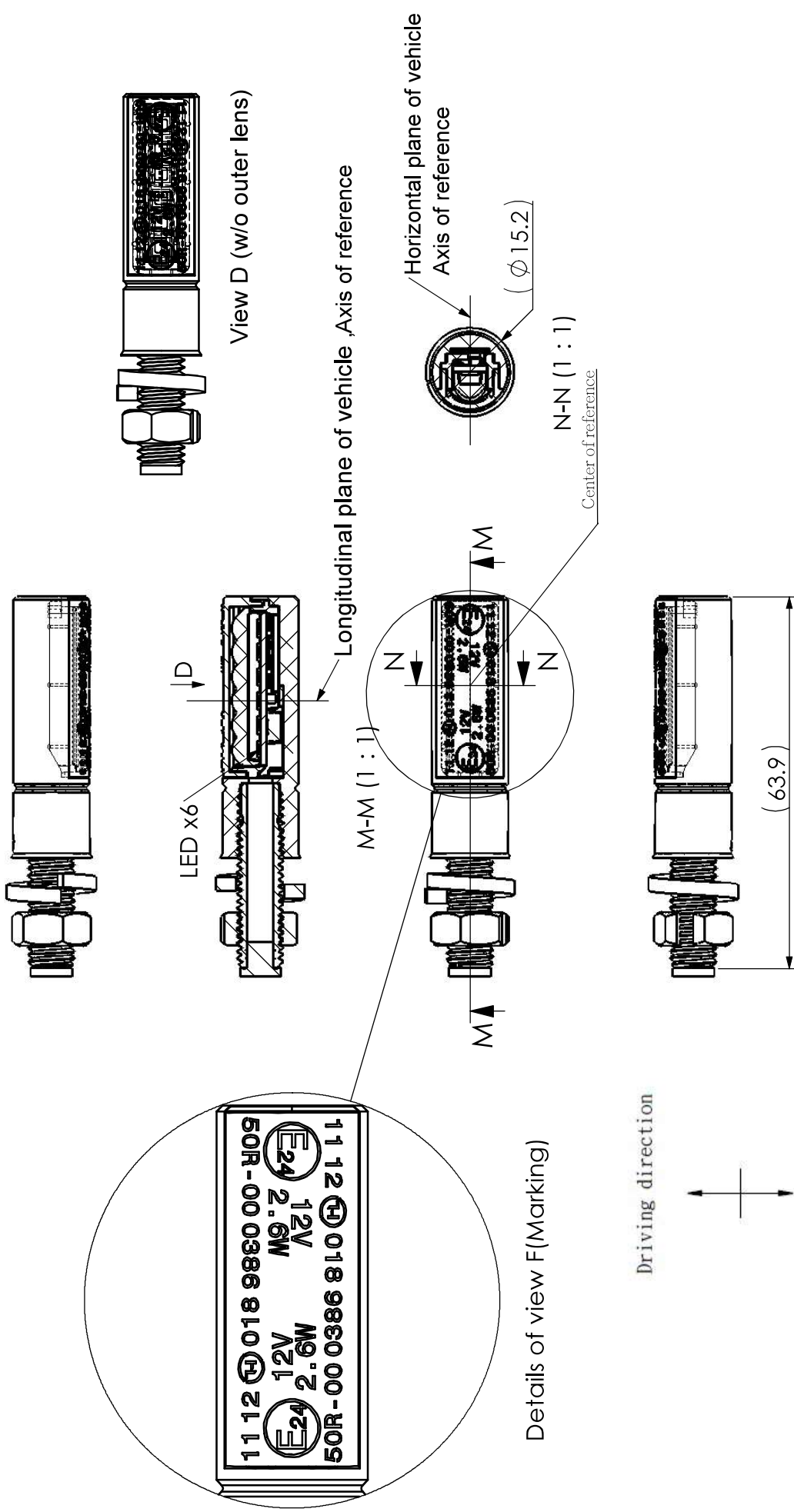
FAX: 886-6-2461878

INFORMATION

for Initial Application

Date: 2019/4/15

Manufacturer's Name and Address	Tong Yah Electronic Technology Co., Ltd. No.406 Ding-Ann Street, Annan District, Tainan, Taiwan, R.O.C	
Trade name or mark	HIGHSIDER or 	
Type Name	018	
Material of Outer Lens(es)	PMMA	
Material of Inner Lens(es)	PC	
Material of Housing	AL6061	
Rate Voltage	12 V	
Rate Wattage	see below	
Front and Rear Direction Indicator (R50.00)	Category	11 & 12
	Light Source	6 x LED, 12 V, 2.6 W
		(if anyone LED fails, at most this one fails)
	Color of light emitted	Amber
	Color of Outer lens	Smoke
Color of Inner lens	Clear	



機種	018 前後方向燈		繪圖	陳俊良	2019/05/29	SIZE	A4	圖名	方向燈_本體	版次	A
材質			校對			比例	1:1	料號			
表面處理			審核			角法	MM	 統亞電子科技股份有限公司			
備註欄						單位	MM				