



We Specialize in Flame Detector

MEKASENTRON Inc.

MEKASENTRON Inc.

Email : overseas@mekasentron.com

TEL : ++82-31-731-9418

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1. Intro

Mekasentron Inc. designs and manufactures flame detector products. It became the first company in Korea to localize the production of flame detectors. With its Korean title of 'We are the history in flame detectors field, since 2003' Mekasentron has highly achieved the leading-edge technology through its long experience in Korea, constantly developing through the acquisition of various internationally qualified approvals, including the CCCF and NEPSI, as well as the FM approval, CE ATEX and IECEx global explosion-proof certification.

Mekasentron Inc. is a future-oriented company that is constantly developing through the acquisition of various internationally qualified approvals, including the domestic product-type approval and explosion-proof certification, as well as the FM approval and international explosion-proof certification. We promise to advance further into the broader world market, and become a leading Korean technology company that creates the true paragon of 'the Mecca of flame detector industry' to raise the status of Korea.

Mekasentron Inc. will stand in the center of the flame detector industry of Korea with responsibility. Thus, we promise to become an advancement-oriented company through constant development to prioritize customer safety, as well as an exemplary company with the excellent competitiveness that coexists with the customers through differentiated services.

Thank you.

- All Employees of Mekasentron Inc. -

2. History

2003 : Establishment of Mekasentron Inc.

Relevant R&D and certification processes regarding flame detecting technology

Development of flame sensor and product and algorithm

Optical source spectrum analysis. PCB and Test Lamp development

2016 : Established Seongnam Plant branch office

Completed registration of 5 patents

Achieved RX500 and UX150 Product Type Approval from KFI

Passed Chinese CCCF product test

2017 : Completed trademark registration of Alpha-eye

Completed product design registration

Achieved total 10 Product Type Approval for 4 models from KFI

Achieved RX500 and UX150 FM Approvals

Achieved TLX300 Test Lamp Ex-proof Product Type Approval from KGS

Achieved IECEX Certificate for RX500, DX500, UX300 and UX150

2018 : Received the Achievement Award from the Korea Government

Participation in "Int'l Fire & Safety Expo Korea" and "K-SAFETY Expo 2018"

Achieved CE ATEX for RX500, DX500, UX300 and UX150

Achieved China CCCF for model RX500

2019 : Participation in 3 different fire expo in Korea

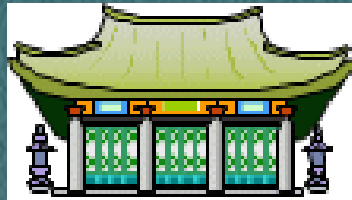
Participation in Secutech VIETNAM 2019 and China Fire 2019

Achieved China NEPSI for all models

3. Customers

– Domestic Market

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3. Customers

– Global Market



USA

· AMAZON USA, OEM Project



PAKISTAN

· Distributor : Fasin
· Supply to NANJING CHEMICAL CONSTRUCTION CO.,LTD



TURKEY

· Supply to Kiper Energy



THAILAND

· Distributor : Intime



TUNISIA

· Project Name : Barracks of the National Guard NABEUL



ISRAEL

· Distributor : Huber Ben



Others

· Philippines, Malaysia, Qatar

4. Product Introduction

4.1 RX500

AlphaEye®

RX500

Triple IR Flame Detector



Specifications

General

Spectral Response	Triple Infrared
Detection Range	200ft(60m) for n-Heptane fire
Field of View	Horizontal 90° Vertical 90°

Response Characteristics

Typical	5sec
Temperature Range	Operating : -40°C to +75°C Storage : -50°C to +80°C

Humidity Range	0 to 95% relative humidity
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Electrical

Operating Voltage	Typical DC24V (18 to 30)
Power Consumption	3W maximum at 24 vdc
Wiring	14 AWG(2.08 mm ²) to 24 AWG(0.205 mm ²) shielded cable recommended.

Electromagnetic Compatibility	EMC protected
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Mechanical

Dimensions	94 x 96 x 105 mm 3.70 x 3.78 x 4.13 Inch
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Enclosure Material	Aluminium
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Shipping Weight	1.4 kg
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Color	Red
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Conduit Entry Size	M20x1.5mm or 1/2"-14 NPT
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Output

Relays

Fire Alarm	- Form A - normally de-energized - latching - Contacts rated 2A at 30 vdc.
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Fault Alarm

- From B - normally Energized - Contacts rated 2A at 30 vdc.
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Serial Communication

RS-485 / PLC Proprietary communication

Approvals

Performance	FM3260, IECEx, KFI, KGS CCCF (waiting approvals)
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Explosion proof	Ex db IIB+H2 Gb
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Water and dust tight	IP66
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Accessories

Fire Simulator	TLX300 (Flame proof)
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Tilt mount	MB-01
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Sun shade	SUS
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Registered ISO 9001:2008

MEKASENTRON

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www.mekasentron.com

4. Product Introduction

4.2 DX500

AlphaEye®

DX500

Triple IR Flame Detector



Specifications

General

Spectral Response	Triple Infrared
Detection Range	50m for n-Heptane fire
Field of View	Horizontal 90° Vertical 90°
Response Characteristics	Typical 5sec
Temperature Range	Operating : -40°C to +75°C Storage : -50°C to +80°C
Humidity Range	0 to 95% relative humidity

Electrical

Operating Voltage	Typical DC24V (18 to 30)
Power Consumption	3W maximum at 24 vdc
Wiring	14 AWG(2.08 mm ²) to 24 AWG(0.205 mm ²) shielded cable recommended.

Electromagnetic Compatibility

Electromagnetic Compatibility	EMC protected
-------------------------------	---------------

Mechanical

Dimensions	94 x 96 x 105 mm 3.70 x 3.78 x 4.13 Inch
Enclosure Material	Aluminium
Shipping Weight	1.4 kg
Color	Red
Conduit Entry Size	M20x1.5mm or 1/2"-14 NPT

Output

Relays

Fire Alarm	- Form A - normally de-energized - latching - Contacts rated 2A at 30 vdc.
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Fault Alarm

	- From B - normally Energized - Contacts rated 2A at 30 vdc.
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Serial Communication

	RS-485 / PLC Proprietary communication
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Approvals

Performance	KFI, KGS, IECEx
Explosion proof	Ex db IIB+H2 Gb
Water and dust tight	IP66

Accessories

Fire Simulator	TLX300 (Flame proof)
Tilt mount	MB-01
Sun shade	SUS



Registered ISO 9001:2008

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4. Product Introduction

4.3 UX150

AlphaEye®

UX150

UV / IR Flame Detector



Specifications

General

Spectral Response	Ultraviolet and Infrared
Detection Range	50ft(15m) for n-Heptane fire 33ft(10m) for Hydrogen* * 30" (0.75m) high, 10" (0.25m) width plume fire
Field of View	Horizontal 90° Vertical 90°
Response Characteristics	Typical 5sec
Temperature Range	Operating : -40°C to +75°C Storage : -50°C to +80°C
Humidity Range	0 to 95% relative humidity

Electrical

Operating Voltage	Typical DC24V (18 to 30)
Power Consumption	3W maximum at 24 vdc
Wiring	14 AWG(2.08 mm²) to 24 AWG(0.205 mm²) shielded cable recommended.
Electromagnetic Compatibility	EMC protected

Mechanical

Dimensions	94 x 96 x 105 mm 3.70 x 3.78 x 4.13 Inch
Enclosure Material	Aluminium
Shipping Weight	1.4 kg
Color	Red
Conduit Entry Size	M20x1.5mm or 1/2"-14 NPT

Output

Relays	
Fire Alarm	- Form A - normally de-energized - latching - Contacts rated 2A at 30 vdc.
Fault Alarm	- From B - normally Energized - Contacts rated 2A at 30 vdc.
Serial Communication	RS-485 / PLC Proprietary communication

Approvals

Performance	FM3260, KFI, KGS, IECEx
Explosion proof	Ex db IIB+H2 Gb
Water and dust tight	IP66

Accessories

Fire Simulator	TLX300 (Flame proof)
Tilt mount	MB-01
Sun shade	SUS



Registered ISO 9001:2008

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4. Product Introduction

4.4 UX300

AlphaEye®

UX300

UV / IR Flame Detector



Specifications

General

Spectral Response	Ultraviolet and Infrared
Detection Range	30m(100ft) for n-Heptane fire
Field of View	Horizontal 90° Vertical 90°
Response Characteristics	Typical 5sec
Temperature Range	Operating : -40°C to +75°C Storage : -50°C to +80°C
Humidity Range	0 to 95% relative humidity

Electrical

Operating Voltage	Typical DC24V (18 to 30)
Power Consumption	3W maximum at 24 vdc
Wiring	14 AWG(2.08 mm²) to 24 AWG(0.205 mm²) shielded cable recommended.

Electromagnetic Compatibility

	EMC protected
--	---------------

Mechanical

Dimensions	94 x 96 x 105 mm 3.70 x 3.78 x 4.13 Inch
Enclosure Material	Aluminium
Shipping Weight	1.4 kg
Color	Red
Conduit Entry Size	M20x1.5mm or 1/2"-14 NPT

Output

Relays

Fire Alarm	- Form A - normally de-energized - latching - Contacts rated 2A at 30 vdc.
-------------------	---

Fault Alarm

	- From B - normally Energized - Contacts rated 2A at 30 vdc.
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Serial Communication

	RS-485 / PLC Proprietary communication
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Approvals

Performance	KFI, KGS, IECEx
Explosion proof	Ex db IIB+H2 Gb (T6)
Water and dust tight	IP66

Accessories

Fire Simulator	TLX300 (Flame proof)
Tilt mount	MB-01
Sun shade	US



Registered ISO 9001:2008

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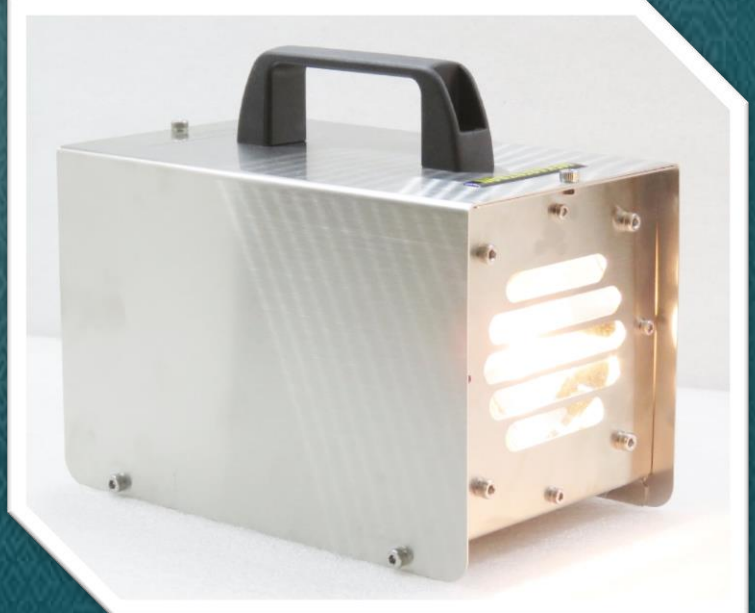
E-mail. overseas@mekasentron.com

www.mekasentron.com

4. Product Introduction

4.5 Test Lamp

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5. Certification

5.1 ISO 9001:2015 & ISO14001:2015



Certificate of Registration

This is to certify that :

MEKASENTRON Inc.

Dream Techno 307, #464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea

Has been assessed by International Certification Registrar Ltd., in respect of their Quality Management Systems and found to comply with

ISO 9001:2015

Approval is hereby granted for registration providing the rules and conditions relating to certification are observed at all times.

Certification Scope

Development and Manufacture of Flame Detector

Certificate Issue Date : 21st November 2017 Initial Issued Date : 30th October 2015
Expiration Date : 20th November 2020 Certificate No. : Q228015

The Seal of ICR Limited was here to affixed in the presence of :

President



This certificate is intellectual property of ICR.
This certificate is only valid with completion of surveillance activities as conducted unless stated a year.
If you cannot meet the conditions, this certificate shall be suspended by ICR.



Registered ISO 9001:2015



Certificate of Registration

This is to certify that :

MEKASENTRON Inc.

Dream Techno 307, #464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea

Has been assessed by International Certification Registrar Ltd., in respect of their Environmental Management Systems and found to comply with

ISO 14001:2015

Approval is hereby granted for registration providing the rules and conditions relating to certification are observed at all times.

Certification Scope

Development and Manufacture of Flame Detector

Certificate Issue Date : 21st November 2017 Initial Issued Date : 30th October 2015
Expiration Date : 20th November 2020 Certificate No. : E115915

The Seal of ICR Limited was here to affixed in the presence of :

President



This certificate is intellectual property of ICR.
This certificate is only valid with completion of surveillance activities as conducted unless stated a year.
If you cannot meet the conditions, this certificate shall be suspended by ICR.



5. Certification

5.2 FM Approvals (RX500&UX150)



Certificate of Compliance

FIRE PROTECTION EQUIPMENT

This certificate is issued for the following equipment:

System Description – Model RX500 Flame detector

Approval Guide Listing: Category:
Electrical Signaling, Alarm Signal Initiating Devices, Fire Detection, Flame-Actuated

Flame detector model RX500 Triple IR Band uses firmware RX500-V1.0. The detectors operate from 20 to 30 V dc (24 V dc nominal) via connection to a compatible FM Approved control panel providing separate power circuits and latching initiating device circuits connecting to the detector through a dry contact relay with contacts rated 2A 30Vdc, 0.6A 110Vdc, 0.6A 125Vac. The detector enclosure is rated IP66 for use in ambient temperatures from -40° to 167°F (-40° to 75°C).

Mekasentron Co, Ltd
307, Dream-Techno, 464, Dunchon-daero, Jungwon-gu
Seongnam-si, Gyeonggi-do [Kyeonggi-do]
Korea, Republic of

This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standards and other documents:

Approval Standards Class Number	Date	Other Standards Organization, Designation	Date
3260	August 2000		

Original Approval Job Identification: 3056815 Approval Granted: 2 May 2017

Related Report:

Subsequent Revisions:

To verify the availability of the Approved product, please refer to www.approvalguide.com

J.E. Marquardt
J.E. Marquardt
VP, Manager of Electrical Systems
FM Approvals
1151 Boston-Providence Turnpike,
Norwood MA, 02062 USA

2 May 2017
Date



Member of the FM Global Group

Page 1 of 1 Cert. No. 0003059815



Certificate of Compliance

FIRE PROTECTION EQUIPMENT

This certificate is issued for the following equipment:

System Description – Model UX150 Flame detector

Approval Guide Listing: Category:
Electrical Signaling, Alarm Signal Initiating Devices, Fire Detection, Flame-Actuated

Flame detector model UX150 UV/IR Band uses firmware UX150-V1.0. The detectors operate from 20 to 30 V dc (24 V dc nominal) via connection to a compatible FM Approved control panel providing separate power circuits and latching initiating device circuits connecting to the detector through a dry contact relay with contacts rated 2A 30Vdc, 0.6A 110Vdc, 0.6A 125Vac. The detector enclosure is rated IP66 for use in ambient temperatures from -40° to 167°F (-40° to 75°C).

Mekasentron Co, Ltd
307, Dream-Techno, 464, Dunchon-daero, Jungwon-gu
Seongnam-si, Gyeonggi-do [Kyeonggi-do]
Republic of Korea

This certifies that the equipment described has been found to comply with the applicable requirements, as stated in the Approval Report(s), of the following FM Approval Standards and other documents:

Approval Standards Class Number	Date	Other Standards Organization, Designation	Date
3260	August 2000		

Original Approval Job Identification: 3056624 Approval Granted: 2 May 2017

Related Report:

Subsequent Revisions:

To verify the availability of the Approved product, please refer to www.approvalguide.com

J.E. Marquardt
J.E. Marquardt
VP, Manager of Electrical Systems
FM Approvals
1151 Boston-Providence Turnpike,
Norwood MA, 02062 USA

2 May 2017
Date



Member of the FM Global Group

Page 1 of 1 Cert. No. 0003059824

5. Certification

5.3 IECEx (RX500,DX500,UX300,UX150)

		IECEx Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres <small>for rules and details of the IECEx Scheme visit www.iecex.com</small>			
Certificate No.:	IECEx KGS 17.0008X	Issue No: 0	Certificate history: Issue No. 0 (2017-12-27)
Status:	Current	Page 1 of 3	
Date of Issue:	2017-12-27		
Applicant:	MEKASENTRON INC. #307, 464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, KOREA Korea, Republic of		
Equipment:	Triple IR Flame Detectors : RX500 and DX500, UV/IR Flame Detectors : UX300 and UX150		
Optional accessory:			
Type of Protection:	Ex db		
Marking:	Ex db IIB+H ₂ T6 Gb Rating : 18Vdc ~ 30Vdc Tamb = -40°C ~ +75°C		
Approved for issue on behalf of the IECEx Certification Body:		Gihoi Kim	
Position:		General Manager	
Signature: (for printed version)			
Date:		2017. 12. 27	
<p>1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.</p>			
Certificate issued by:			
Korea Gas Safety Corporation 1390 Wonjung-ro, Maengdong-myeon, Eumseong-gun, Chungcheongbuk-do KOREA 369-811 Korea, Republic of			

5. Certification

5.4 CE ATEX

KR HELLAS LTD.
41, Athinas Av., Vouliagmeni,
GR-16671, Athens, Greece

TEL: +30-210-428-6736
FAX: +30-210-428-6728




Certificate No:
KRH 18 ATEX 1020X
Issue No: 1 (2018-10-12)

Page: 1/4

EU-TYPE EXAMINATION CERTIFICATE

- Equipment and Protective systems intended for use in potentially explosive atmospheres:
Directive 2014/34/EU
- EU-Type-examination Certificate Number: **KRH 18 ATEX 1020X**
- Equipment or Protective system: **Triple IR Flame Detectors type RX500 and DX500,
UV/IR Flame detectors type UX300 and UX150**
- Manufacturer: **MEKASENTRON INC.**
- Address: **#307, 464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea**
- This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- The KRH certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive 2014/34/EU of 26 February 2014.
The examination and test results are recorded in the confidential reports listed in section 16.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012+A11:2013 EN 60079-1:2014
- If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- This EU-Type examination Certificate relates only to the design and construction of the specified equipment or protective system in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacturing process and supply of this equipment or protective systems. These are not covered by this certificate.
- The marking of the equipment or protective system shall include the following:

 **II 2 G Ex db IIB+H₂ T6 Gb**

This certificate is issued at Athens on 2018-10-12, under the authority of the Hellenic Republic of Greece by KR Hellas Ltd., Notified Body No. 2198.




Shin Jeong-Do
CEO of KR Hellas Ltd

Any person not a party to the contract pursuant which this document is delivered may not assert a claim against KRH for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgment, fault or negligence committed by personal of KRH in establishment or issuance of this document, and in connection with any activities for which it may provide. In this provision KRH shall mean the KR Hellas Ltd. as well as all its subsidiaries, directors, officers, employees and any other acting on behalf of KR Hellas Ltd.

5. Certification

5.5 CCCF China Certification

 **中国国家强制性产品认证证书**
CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

证书编号: 2018081801002326

认证委托人: 韩国麦卡龙株式会社 (Mekasentron Inc.)

地址: 韩国京畿道城南市中院区遁村大路 464, 307 室
(#307, 464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea)

生产者: 韩国麦卡龙株式会社 (Mekasentron Inc.) (H007773)

地址: 韩国京畿道城南市中院区遁村大路 464, 307 室
(#307, 464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea)

生产企业: 韩国麦卡龙株式会社 (Mekasentron Inc.)

地址: 韩国京畿道城南市中院区遁村大路 464, 307 室
(#307, 464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea)

产品名称: 点型红外火焰探测器

认证单元: RX500

内含: RX500 (主型)

产品认证实施规则: CNCA-C18-01: 2014

产品认证实施细则: CCCF-HZBJ-01

产品认证基本模式: 型式试验 + 企业质量保证能力和产品一致性检查 + 获证后生产现场抽取样品检测或者检查

产品标准: GB 15631-2008



上述产品符合强制性产品认证实施规则 CNCA-C18-01: 2014、强制性产品认证实施细则 CCCF-HZBJ-01 的要求, 特发此证。


首次发证日期: 2018-12-05

发(换)证日期: 2018 年 12 月 05 日 有效期至: 2023 年 12 月 04 日

本证书的有效性需依靠通过证后监督获得保持

本证书的相关信息可通过国家认监委网站 www.cnca.gov.cn 和中国消防产品信息网站 www.cccf.com.cn 查询

  中国认可
产品
PRODUCT
CNAS C073-P

 发证机构名称(盖章)

公安部消防产品合格评定中心
中国·北京市东城区永外西革新里甲 108 号 100077
<http://www.cccf.net.cn>

A 0114694

5. Certification

5.6 NEPSI China Ex-Proof Certification



防 爆 合 格 证

证 号: GYJ19.1349X

由 MEKASENTRON INC. 制造的产品:
(地址: #307, 464, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Republic of Korea)
名 称 火焰探测器
型 号 规 格 RX500、DX500、UX300、UX150
防 爆 标 志 Ex d II B+H2 T6 Gb
产 品 标 准 —
图 样 编 号 ENG-RX500-FLPH-001、ENG-UX150-FLPH-001

经图样及技术文件的审查和样品检验, 确认上述产品
符合 GB 3836.1-2010、GB 3836.2-2010 标准,
特颁发此证。

本证书有效期: 2019年11月11日至2024年11月10日

备 注 1. 安全使用注意事项见本证书附件。
2. 证书编号后缀“X”表明产品具有安全使用特殊条件, 内容见本证书附件。
3. 外壳防护等级: IP66。

站 长

国家级仪器仪表防爆安全监督检验站

颁发日期二〇一九年十一月十一日

本证书仅对与认可文件和样品一致的产品有效。

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邮编: 200233

网址: www.nepsi.org.cn
Email: info@nepsi.org.cn

电话: +86 21 64368180
传真: +86 21 64844580

Thank you



Flame Detector Manufacturer since 2003

Mekasentron Inc.