

# (1) EC-TYPE EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 94/9/EC**
- (3) EC-Type-Examination Certificate Number

## TÜV 13 ATEX 7462 X

- (4) Equipment: **Universal Explosion Proof LED Lighting Type THT-2LA20Wd\*\*\*1203**
- (5) Manufacturer: **TOP HI-TECH CO.,LTD.**
- (6) Address: **5F, No.113, Zhongcheng Rd, Tucheng Dist, New Taipei City 236 Taiwan (R.O.C),**
- (7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Notified Body for ex-protected products of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies this equipment 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 atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex462.00/13

- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:


**EN 60079-0:2012**

**EN 60079-1:2007**

**EN 60079-31:2009**

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EC-Type-Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following:

 **II 2 G Ex d IIB+H2 T5...T4 Gb**

 **II 2 D Ex tb IIIC T105°C Db**

TÜV Rheinland Certification Body for explosion protected equipment

Cologne, 13<sup>th</sup> December 2013

Dipl.-Ing. Klaus Peter Graf



(Translation)

This EC-Type-Examination Certificate without signature and stamp shall not be valid.

It may be circulated only without alteration.

Extracts or alterations are subject to approval by the:

TÜV Zertifizierungsstelle für Ex-Schutz-Produkte

TÜV Rheinland Industrie Service GmbH, Am Grauen Stein, 51105 Köln

Tel. +49 (0) 221 806-0 Fax. + 49 (0) 221 806 114

(13) Annex

(14) **EC - Type Examination Certificate**  
**TÜV 13 ATEX 7462 X**

(15) Description of equipment:

15.1 Equipment and type:

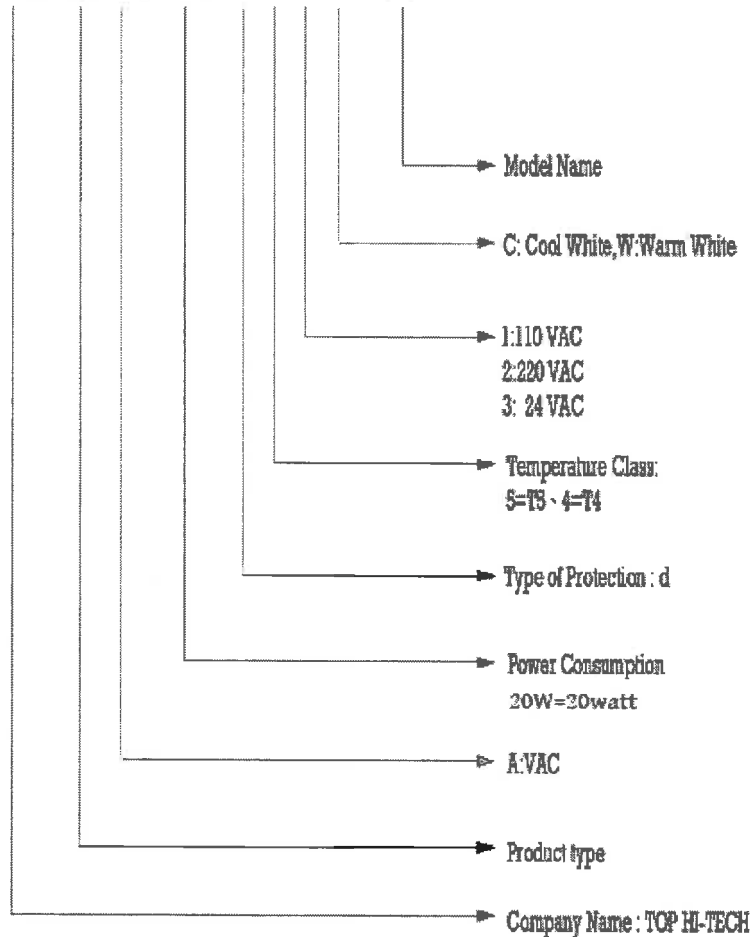
Universal Explosion Proof LED Lighting type THT-2LA20Wd\*\*\*1203. Due to the differences of rated power, work voltage and light source, L1203 series including 6 types as follow:

Type	Rated Parameters	Temperature Class
THT-2LA20Wd51W1203	11 0VAC, 20W, Warm white	T5
THT-2LA20Wd41C1203	110VAC, 20W, Cool white	T4
THT-2LA20Wd52W1203	22 0VAC, 20W, Warm white	T5
THT-2LA20Wd42C1203	220VAC, 20W, Cool white	T4
THT-2LA20Wd53W1203	24VAC, 20W, Warm white	T5
THT-2LA20Wd43C1203	2 4VAC, 2 0W, Cool white	T4

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 TÜV Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH,

Product code description:

**THT-2LA 20W d 5 I W 1203**



## 15.2 Description

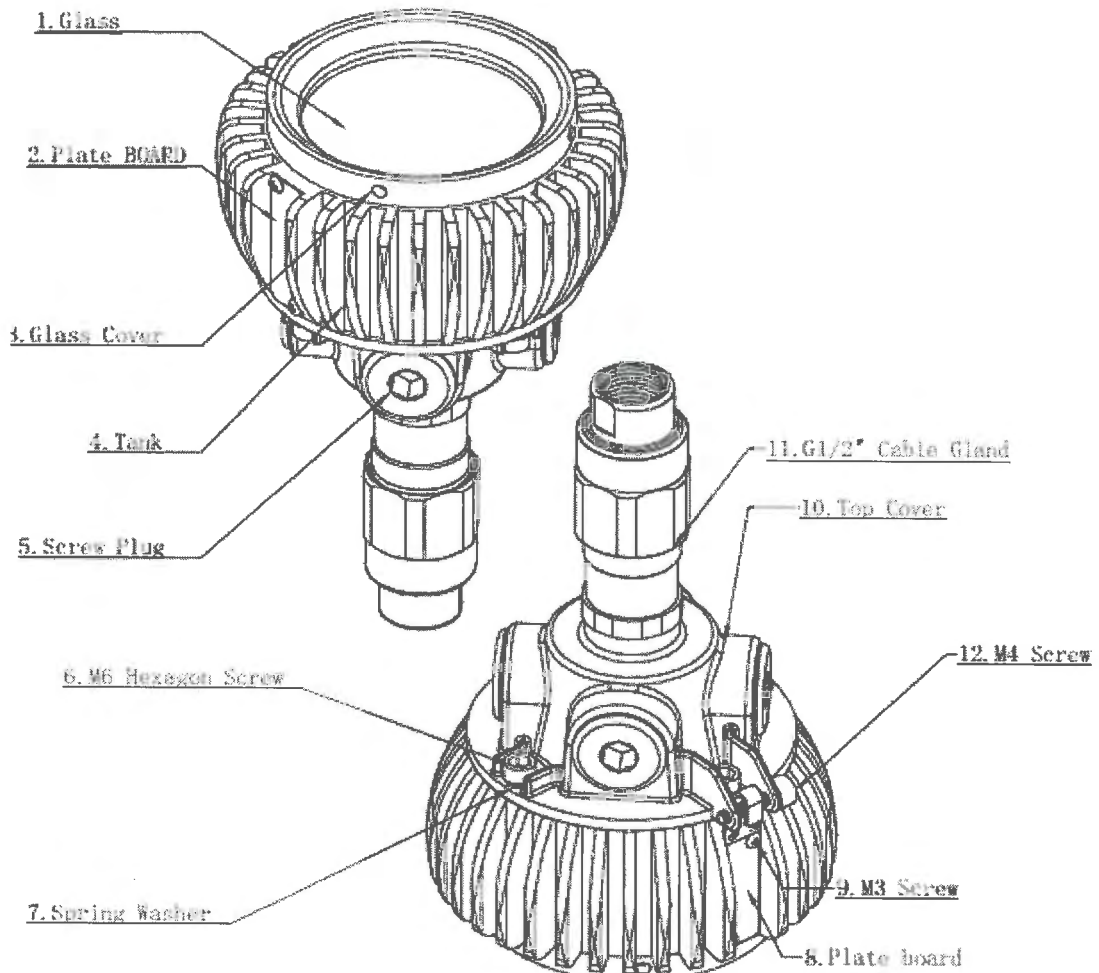
The lamp is Universal Explosion Proof LED Lighting type THT-2LA20Wd\*\*\*1203. This product is designed according to the European standard structure of the EN 60079-0, EN 60079-1, EN 60079-31. The suitable hazard zone is zone 1, zone 2, zone 21 and zone 22.

The enclosure of lamp is made by aluminum alloy with a coating and the nameplate is made by stainless steel.

The method of lamp installation includes bracket fixed, pendant, stanchion 90°/25° and hanging.

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The external earthing of enclosure is considered.



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### 15.3 Technical Data

Rated voltage	110 VAC	(THT-2LA20Wd*1*1203)
	220 VAC	(THT-2LA20Wd*2*1203)
	24 VAC	(THT-2LA20Wd*3*1203)
Rated power	20 W	
Ambient temperature range	$-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$	
Temperature class	T4	(THT-2LA20Wd4*C1203)
	T5	(THT-2LA20Wd5*W1203)

ITEM	SPENERAL INFORMATION	EXPLANATION
1	Temperature Rating	$-20^{\circ}\text{C} \sim +40^{\circ}\text{C}$
2	Humidity Rating	65%RH~100%RH
3	Environment	Hazardous , Chemical corrosive, Salty, Dusty
4	Hazardous area Classification	Zone 1 · Zone 2 · Zone 21 · Zone 22
5	Certification Marking	II 2 G Ex d II B+H2 T5...T4 Gb II 2 D Ex tb III C T105°C Db
6	Classification of IPXX	IP64
7	Voltage Rating	<input type="checkbox"/> 24Vac <input type="checkbox"/> 110Vac <input type="checkbox"/> 220Vac
8	Frequency	50/60Hz
9	Lighting Rating	20W
10	Equipment Material	ADC12 · AL6063-T5
11	Luminaire Lifetime	30,000hrs
12	Power Factor	>0.9
13	Cable Gland	<input type="checkbox"/> G 1/2" / (a)

#### (a). Cable Specification

	Tube	Cable
1	ID:Ø8.0 · L=25.6mm	OD: Ø7.0~ Ø8.0
2	ID:Ø10.0 · L=25.6mm	OD: Ø9.0~ Ø10.0
3	ID:Ø12.0 · L=25.6mm	OD: Ø11.0~ Ø12.0

For more information, please see the user manual and drawings.

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(16) Test Report No.

557/Ex 462.00/13

(17) Special Conditions for safe use / Remarks for safe usage:

1. When G1/2' cable gland is installed, the rest unused holes shall be blocked by screw plug which comply with the requirements of standards EN 60079-1 and EN 60079-31.
2. The power cable will be installed by end user, and the end user can use the cable in the user manual only.
3. The end user must install earthing wire according to user manual before use.

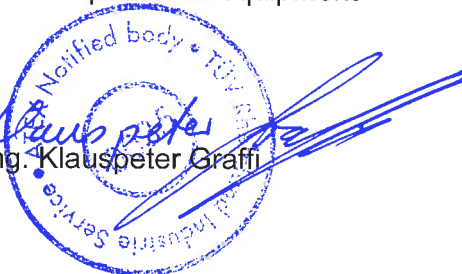
(18) Basic Safety and Health Requirements

Fulfilled by the afore mentioned standards.

TÜV Rheinland Certification Body  
for explosion protected equipment

Cologne, 13<sup>th</sup> December 2013

  
Dipl.-Ing. Klaus Peter Graff



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