

TEST REPORT

**CTK Co., Ltd.**

(Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-shi
Gyeonggi-do KOREA, REPUBLIC OF
Tel: +82-31-339-9970
Fax: +82-31-624-9501

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1. Applicant

- Name : Hanwha Techwin Co., Ltd.
- Address : Hanwha Techwin R&D center, 6 Pangyo-ro 319Beon-gil,
Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
- Date of Receipt..... : 2017-10-26

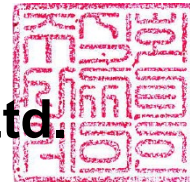
2. Manufacturer

- Name : Hanwha Techwin Co., Ltd.

3. Use of Report : Quality control**4. Test sample / Model..... : THERMAL CAMERA / TNO-4040T* (*N:NT/P:PAL)****5. Date(s) of test : 2017-12-21****6. Test Standard (Method) used .. : Requested Test Specification of Applicant****7. Testing Environment : Temperature : (25.0 ± 10.0) °C, Humidity : (50 ± 25) %R.H.
Air Pressure: (99.0 ± 2) kPa****8. Results : Reference test results**

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
This report shall not be reproduced except in full without the written approval of CTK

Approval	Tested by:	Technical Manager:
	MinGi Moon (Signature)	WonHyeon Choi (Signature)

CTK Co., Ltd.

2022-07-20

**CTK Co., Ltd.**

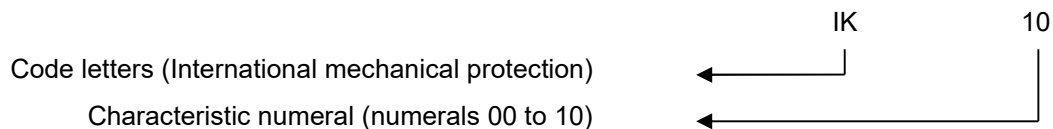
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1. Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)

1.1 Test standard: KS C IEC 62262: 2005

1.2 Arrangement of the IK code



1.3 Vertical Hammer

1.3.1 Test equipment

Equipment	Model	Manufacturer	Serial
Vertical Hammer	20J	Kingpo	TX028-1

1.3.2 Test condition

IK code	Impact Energy (J)	Equivalent mass (kg)	Drop height (mm ± 1%)	Application
00	Non-protected	-	-	☐
01	0.14	0.25	56	☐
02	0.20	0.25	80	☐
03	0.35	0.25	140	☐
04	0.50	0.25	200	☐
05	0.70	0.25	280	☐
06	1.00	0.25	400	☐
07	2.00	0.50	400	☐
08	5.00	1.70	300	☐
09	10.00	5.00	200	☐
10	20.00	5.00	400	☒

- Impact times: five times for each of the exposed surface. (Do not impact more than 3 times in the same spot)

1.3.3 Check Item

- Check the separation of the component.
- Check the visual damage of the product outside.

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1.3.5 Test Result

Characteristic numeral	Remark
IK 10	The enclosure is scratch

Manufacturer's name

Name and address of factory (ies)	1) HANWHA TECHWIN SECURITY VIETNAM CO.,LTD Lot O-2, Que Vo Industrial Zone extended area, Nam Son commune, Bac Ninh city, Bac Ninh province, Vietnam 2) D-TECH CO.,LTD. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, Korea(Suwon Industrial Complex)
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Model description

Basic Model	TNO-4040T* (*N:NT/P:PAL)
Series model	TNO-4030T, TNO-4050T, TNO-4030TR, TNO-4040TR, TNO-3050T TNO-L4030T, TNO-L4030TR
Model differences	Use of the same external shape and materials (case, finishing material, PCB, cable, etc.), differences in electronic parts inside the product.



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2. Attachment

2.1 Products





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2.2 Test photos





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2.3 Photos after test

[P1, P2]



[P3]



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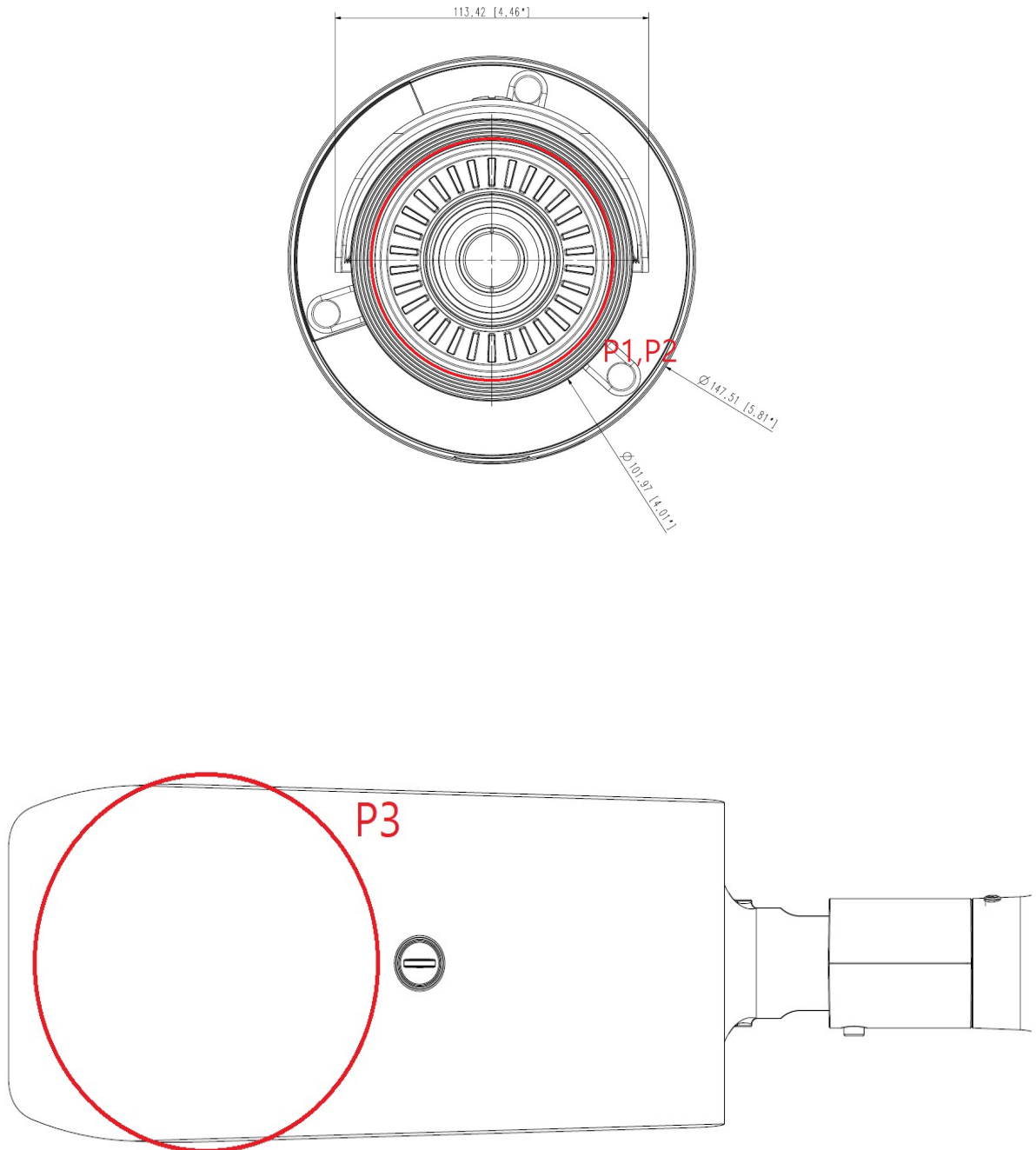
[P4, P5]



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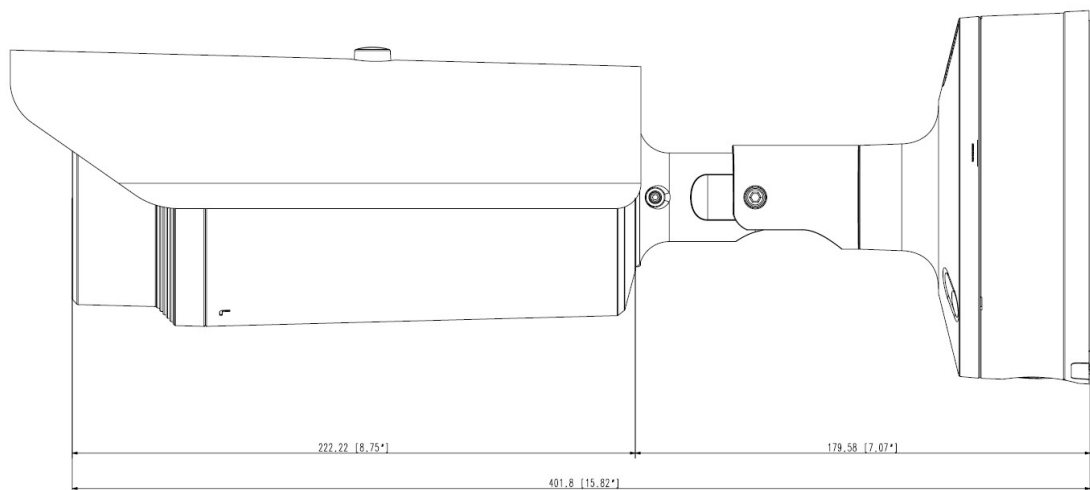
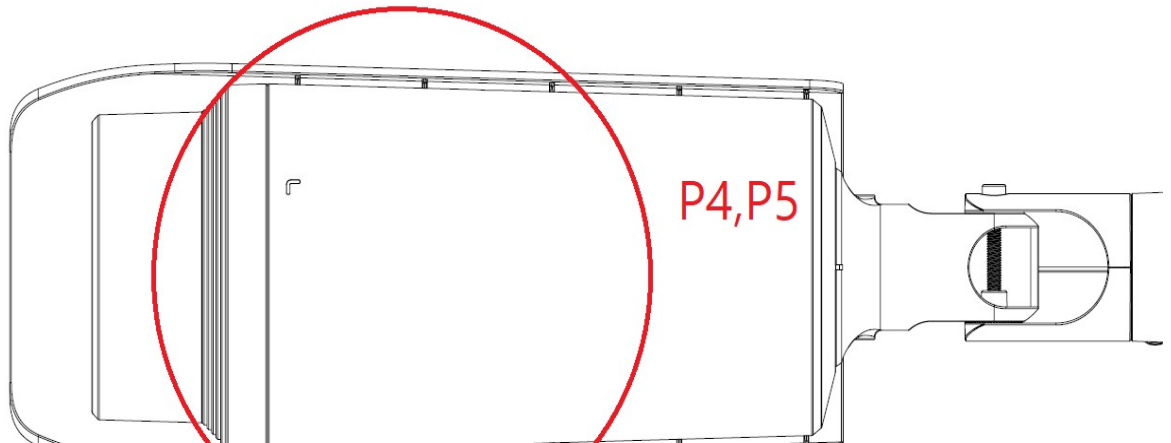
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2.4 Enclosure Dimensions or Impact point (Unit: mm)

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