



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX KSCP 21.0028X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2021-08-27
Applicant: **KEVIS Inc**
Building B1307 IT-Velly, 17, Gosan-ro 148beon-gil,
Gunpop-si, Gyeonggi-do
Korea, Republic of
Equipment: **TNO-****ER Network Camera**
Optional accessory:
Type of Protection: **flameproof enclosure "db"; optical radiation "op is"; dust ignition protection by enclosure "tb"**
Marking: Ex db op is IIC T6 Gb
Ex tb op is IIIC T85°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Sang He Kim

Position:

President of the Board

Signature:
(for printed version)

Date:

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 www.iecex.com or use of this QR Code.



Certificate issued by:

KSC POLAND Sp. z o.o.
Chorzowska 150 Street
Katowice 40-101
Poland





IECEX Certificate of Conformity

Certificate No.: **IECEX KSCP 21.0028X**

Page 2 of 3

Date of issue: 2021-08-27

Issue No: 0

Manufacturer: **KEVIS Inc**
Building B1307 IT-Velly, 17, Gosan-ro 148beon-gil,
Gunpop-si, Gyeonggi-do
Korea, Republic of

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[PL/KSCP/ExTR21.0028/00](#)

Quality Assessment Report:

[PL/KSCP/QAR21.0011/00](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX KSCP 21.0028X**

Page 3 of 3

Date of issue: 2021-08-27

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

TNO-****ER Network Camera is made of electropolished - stainless steel with ASTM 316L for body and SUS 316L for front cover/body with minimal thickness of 3.4 mm. It consists of a cylindrical body with front flange closed by cover fixed by eight M6x1.0 cap screws, inside of which a camera/lens and are installed the cooling DC fan and resistive type heater that turns on at temperature below 5 °C and turns off at 15 °C above. The front flange is installed with IR LED/lens and contains cylindrical shaft with rolling element bearing/oil seal of wiper. The cameras tempered glass windows are cemented into the window frame using silicone epoxy is mechanically fixed by threaded retaining rings. The cables entry are made through one ¾”(4) NPT threaded holes located on the back of the body for the fitting of a suitably certified cable gland.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The screws used for the assembly of the various parts of explosion-proof enclosures must have a yield stress of at least 450MPa.
- The dimensions of flameproof joints are different from the values specified in the tables of the IEC 60079-1 standard. The flameproof joints are not intended to be repaired.
- The cable entry should be made through the “Ex d” and “Ex t” certified cable entry device which provides ingress protection level of IP6X according to IEC 60079-31.
- Service temperature at cable entry point and/or cable branching point may reach 76°C.

Annex:

[IECEX_KSCP_21.00028X_Addendum.pdf](#)

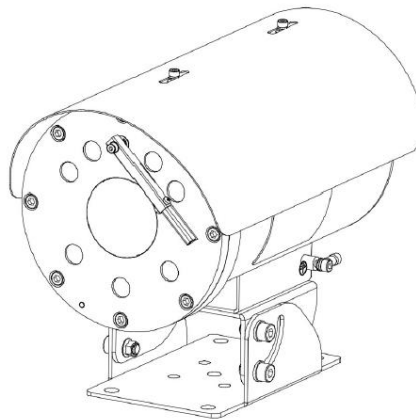


Addendum to IECEx Certificate

Reference Number.....:	IECEx KSCP 21.0028X
Issue.....:	Issue 0

Description

TNO-****ER Network Camera is made of electropolished - stainless steel with ASTM 316L for body and SUS 316L for front cover/body with minimal thickness of 3.4 mm. It consists of a cylindrical body with front flange closed by cover fixed by eight M6x1.0 cap screws, inside of which a camera/lens and are installed the cooling DC fan and resistive type heater that turns on at temperature below 5 °C and turns off at 15 °C above. The front flange is installed with IR LED/lens and contains cylindrical shaft with rolling element bearing/oil seal of wiper. The cameras tempered glass windows are cemented into the window frame using silicone epoxy is mechanically fixed by threaded retaining rings. The cables entry are made through one 3/4”(4) NPT threaded holes located on the back of the body for the fitting of a suitably certified cable gland.



TNO-****ER Network Camera, marking explanation below:

TNO – abbcER			
Item	Description	Explanation	Remark
a	6,7,8,9	Resolution 6: 2 Mega Pixel 7: 3~5 Mega Pixel 8: 6 Mega Pixel 9: 8 Mega Pixel	⊗ Them maximum power consumption of all combined models is 45 W or less.
bb	12, 15, 20, 23, 25, 30, 32, 37, 40, 55	Optical Zoom 12 : x12 15 : x15 20 : x20 23 : x23 25 : x25 30 : x30 32 : x32 37 : x37 40 : x40 55 : x55	

Reference No.:	IECEx KSCP 21.0028X	Issue 0
	KSC POLAND Sp. z o.o.	Page 1 / 2

c	0~9	Version	※ Display version for classification when electronic partial changes occur . (Report to electronic certification company in order of revision.)
---	-----	---------	--

Product will be marked as follows:

Item	Detail
Manufacturer's name or Registered trade mark	KEVIS CO., LTD.
Address	Building B1307 IT-Velly, 17, Gosan-ro 148beon-gil, Gunpo, Gyeonggi-do, Republic of Korea
Type identification	TNO-****ER
Serial No and date of manufacturer	
IECEX Certificate number	IECEX KSCP 21.0028X
Code	Ex db op is IIC T6 Gb, Ex tb op is IIIC T85°C Db IP67
Ambient	- 40 °C ≤ Ta ≤ + 60 °C (IR OFF) - 40 °C ≤ Ta ≤ + 55 °C (IR ON)
Rating	24 VAC / Max. 45 W, 1.9 A, 50/60 Hz,
Cable entry	NPT 3/4" -14
Warnings	– DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

Routine testing:

- i. Each unit enclosure shall be subjected to a routine overpressure test in accordance with IEC 60079-1, clause 16. The test pressure of Camera Housing is 3824 kPa; test shall be applied for at least 10 seconds.
There shall be no permanent deformation or damage to the enclosure or leakage through the enclosure walls, cemented or welded joints.

Reference No.:	IECEX KSCP 21.0028X	Issue 0
	KSC POLAND Sp. z o.o.	Page 2 / 2