

**UNITED KINGDOM CONFORMITY ASSESSMENT
UK TYPE EXAMINATION CERTIFICATE**

**Product Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

Type Examination Certificate Number: **ExVeritas 21UKEX0805X** Issue: **0**

Product: Camera Enclosures and Pan and Tilt Units
(See description for full product list)

Manufacturer: TKH Security B.V.

Address: Meridiaan 32,
2801 DA, Gouda, The Netherlands

This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

ExVeritas Limited Approved Body number 2585, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0: 2018
EN 60079-31: 2014**

EN 60079-1: 2014

EN 60079-28: 2015

Except in respect of those requirements listed at section 16 of the schedule to this certificate.

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.

This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the equipment shall include the following:

 II 2 G Ex db op pr IIC T6 Gb $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$
II 2 D Ex tb IIIC T85°C Db $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$

See also additional coding in equipment description section of the certificate.



No. 8613

On behalf of ExVeritas



S Clarke CEng MSc FIET
Managing Director

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The status of this certificate can be verified at www.exveritas.com

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13 Description of Product

The equipment consists of camera enclosure which can be supplied with a pan and tilt unit with terminal enclosure all of which are constructed from 316L stainless steel. The camera enclosure has the option of either toughened float glass or IR germanium windows. The IR models are supplied either with or without a fixed window guard. Models designed for use without the fixed guard are identified by the use of an -SW in the model number. The two window types are cemented into the window frame end caps using a silicone based cement. The pan and tilt unit can be fitted with either a single or dual camera enclosures. The camera enclosure can be either fitted to the pan and tilt unit or standalone. The camera enclosure has the option to have an anti-condensation heater and/or wiper motor fitted. The terminal enclosure has the option for either a hollow shaft with a cable fed through or a slip-ring unit to transfer power to the pan and tilt unit. The mounted cameras can use fibre optical connections; the fibre optical cables internal and external to the camera housing are protected to 'op pr' requirements.

Models

EX FIXED-XY	Standalone camera housing
EX FIXED WW-XY	Standalone camera housing with wiper
EX FIXED IR-XY	Standalone camera housing with IR germanium window
EX FIXED IRS-XY	Standalone camera housing with IR sapphire window
EX FIXED IR-SW-XY	Standalone camera housing with IR germanium window without front guard
EX FIXED P-Y	Pan & Tilt camera housing
EX FIXED WWP-Y	Pan & Tilt camera housing with wiper
EX FIXED IRP-Y	Pan & Tilt camera housing with IR germanium window
EX FIXED IRSP-Y	Pan & Tilt camera housing with IR sapphire window
EX FIXED IRP-SW-Y	Pan & Tilt camera housing with IR germanium window without front guard
EX PT	Pan & Tilt unit
EX PTZ	PTZ Camera station with one integrated camera housing
EX PTZ D	PTZ Camera station with two integrated camera housings
EX PTZ H	PTZ Hybrid Camera station with one integrated camera housing and one mounting bracket

-XY are two variable characters which refer to the cable entry (X) and to the length of the camera housing (Y) where:
X can be A (for M25), B (for M20), C (for rear flange with up to four M25 entries) or D (for rear flange with up to four M20 entries).
Y can be S (for 250mm), L (for 500mm), M (for 375mm), N (for 320mm) or O (for 430mm).

The enclosure meets IP66/67

All models can also be used in an increased upper ambient of +75°C for gas group IIB only with the coding becoming:

$$\begin{aligned} & \text{II 2 G Ex db op pr IIB T5 Gb } -40^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C} \\ & \text{II 2 D Ex tb IIIC T100}^{\circ}\text{C Db } -40^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C} \end{aligned}$$

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The camera station can also be provided with an IR spotlight which consists of an IR unit housed within the Ex d camera unit. The IR Spotlight has the following input parameters:

Max input voltage = 240 Vac 50/60 Hz

Max input power = 25 W


The following models with IR unit are available:

EX FIXED LED-XY:	Standalone camera housing for IR Spotlight
EX FIXED WW LED-XY:	Standalone camera housing with wiper for IR Spotlight
EX FIXED P LED-Y:	Pan & Tilt camera housing for IR Spotlight
EX FIXED WWP LED-Y:	Pan & Tilt camera housing with wiper for IR Spotlight

-XY are two variable characters which refer to the cable entry (X) and to the length of the camera housing (Y) where:

X can be A (for M25), B (for M20), C (for rear flange with up to four M25 entries) or D (for rear flange with up to four M20 entries).
Y can be S (for 250mm), L (for 500mm), M (for 375mm), N (for 320mm) or O (for 430mm).

The coding for the camera units with IR spotlight are as follows:

	II 2 G Ex db op is op pr IIC T5 Gb $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$
	II 2 D Ex tb op is IIIC T100°C Db $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$
	II 2 G Ex db op is op pr IIB T4 Gb $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$
	II 2 D Ex tb op is IIIC T135°C Db $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R3089/A/3	2021/06/03	0	Initial issue of the Prime Certificate

14.2 Compliance Drawings:

Issue 0

Title:	Drawing No.:	Rev. Level:	Date:
Related Certificate	ExVeritas 21UKEX0803X	Issue 0	2021/06/03
SCHEDULED DRAWING EX MARKING PLATE TKH SPOTLIGHT - (UKCA)	SD00065	00	02/04/2021
SCHEDULED DRAWING EX MARKING PLATE TKH - (UKCA)	SD00066	00	02/04/2021
Minimum requirements for installation manuals of hazardous area products	-	20210503	2021/05/03
Minimum requirements for installation manuals of hazardous area products with spotlight	-	20210503	2021/05/03

Certificate: **ExVeritas 21UKEX0805X**

Issue **0**

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15 Specific Conditions of Use

15.1 Special Conditions for Safe Use

1. When a fibre optical cable is used on the equipment it shall be suitably protected against mechanical damage external to the equipment (wire armoured cable, fitted in conduit, within a cable tray etc).
2. The camera must be installed so that the risk of impact with the glass window is low.
3. Fasteners used for the assembly shall be M5-0.8 x 12 Grade A4-70

15.2 Routine tests

1. The manufacturer must carry out routine pressure tests to a value no less than 24.8 Bar on each camera and pan and tilt housing post production to ensure the equipment's capability to withstand overpressure

15.3 Special conditions for manufacture

1. The power dissipated within the camera housing shall not exceed 25W. The power dissipated within the pan and tilt unit shall not exceed 70W.
2. The cross-sectional area occupied by the internal equipment within the camera housing shall not exceed 60% of the available area.

16 Essential Health and Safety Requirements (Regulations Schedule 1)

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1

The manufacturer shall inform the ExVeritas of any modifications to the design of the product described by this schedule.