



# EX-PD24

# Installation manual





#### Preserve this manual as a reference for future needs.

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Although considerable care has been taken to ensure a correct and suitably comprehensive description of all relevant product components, this manual may nonetheless contain errors and inaccuracies. We invite you to offer your suggestions and comments by email via <a href="mailto:info@tkhsecurity.com">info@tkhsecurity.com</a> Your feedback will help us to further improve our documentation.

#### How to contact us

If you have any comments or queries concerning any aspect related to the product, do not hesitate to contact:

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The Netherlands.



Used electrical, electronic and stainless steel products should not be mixed with general waste. For proper treatment, recovery and recycling of old products, take them to applicable collection points, in accordance with your national legislation and the Directives 2011/65/EU and 2012/19/EU.

By disposing of these products correctly, you help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. For more information about collection and recycling of old products, contact your local municipality or your waste disposal service. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

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## **Description**

The EX PD24 unit is a compact stainless steel PTZ dome camera specifically designed for Hazardous Area applications. The design of the unit ensures the best protection from external agents along with easy installation and maintenance. EX PD24 camera's are equipped with 2MP camera with 20x optical zoom

The EX PD24 Series have been designed and certified to the ATEX Directive 2014/34/EU to the following:

- (x) II 2 G Ex db IIC T6 Gb Tamb= -40°C to +60°C
- (Ex) II 2 D Ex tb IIIC T85°C Db Tamb= -40°C to +60°C

This product is designed for use with flammable gases and vapours covered by apparatus groups IIA, IIB and IIC with temperature classes T1 to T6 (environmental temperature up to 60°C), with flammable dust covered by apparatus groups IIIA, IIIB and IIIC with temperature T=85°C. The surface temperature class of the device was determined only with ambient air temperature, without taking into consideration direct sunlight. The IP rating of the unit is IP66 and IP68.

This product must only be installed by suitably trained personnel in accordance with the relevant code of practice (e.g., EN60079-14). These instructions are intended for their sole use.

## Before you continue

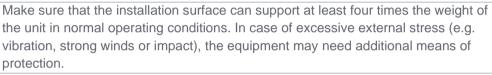
Prior to installation and operation, carefully read all instructions in this manual and heed all warnings.

Unpack this equipment and handle it carefully. If the package appears to be damaged, notify the shipper immediately.

Use the original packaging to transport the unit. Disconnect power supply before moving it. In case of returning the equipment, the original packaging must be used.

Any change performed on the unit that is not previously approved by the manufacturer will void both the certification and the warranty.

This equipment has been designed to fit in harsh environments requiring little or no maintenance. Suggested inspection interval is 6 months, but extremely harsh environments may require more frequent inspection and maintenance checks. On each inspection check the O-ring seals and the eventual window wiper blade integrity. Replace them if necessary.



Clean the surface of product with a damp cotton cloth.

To maintain the IP rating of the unit, adequate cable glands must be used. The unit must be tightly closed when operating.

Open only the covers pointed out in this installation manual. Other covers should be open only by the manufacturer.

For security reasons, install the unit out of the reach of children.

For security reasons, do not install the unit in the proximity of water containers and never push objects or pour liquids into the unit. The unit can be safely used in damp environments or outdoors, as long as the glands or connectors are properly sealed.

After the installation of the unit, the desiccant bag must be placed inside the unit, assuring it won't be damaged by rotating and moving parts

All the electrical connections should be realized in a non-explosive atmosphere. Before performing any operation, turn off the power. The installation of the unit can be performed only by qualified personnel in accordance with the relevant code of practice (e.g., EN60079-14) and with all the relevant local and national standards including but not limited to the use of special pipes, tapes, sealants, cables and glands.



When leaving the unit unused for long periods, disconnect supply cables.

Ensure that the unit case is properly earthed, connecting all the earth ground studs. Earth cable should be about 10mm longer than the other cables on the connector, in such way that it won't be accidentally disconnected if the cable is stretched or pulled.



The camera must be installed so that the risk of impact on the dome is low.



### Install the unit

Make sure that the installation surface can support at least four times the weight of the unit in normal operating conditions. In case of excessive external stress (vibration, strong winds or impact, for example), the equipment may need additional means of protection.

Proper stainless-steel hardware (grade A4 or 316) should be carefully chosen to fasten the unit to the surfaces. Proper tools should be used during the installation, in accordance to environmental requirements.



Dome covers should be opened only by the manufacturer.

Electrical connections (such as plugs and cords) must be protected from potential hazardous environmental factors (e.g. foot traffic, hitting objects).

Pointing the camera at the sun may damage it.

Complete the installation performing the camera connection referring to the manual of the camera.

Carefully check the supply voltage marked on the label. An incorrect power supply voltage may damage the unit. Do not overload the terminal connection, as it may cause a fire or electrical shock hazard.

To protect the installation for overcurrent, install a delayed fuse T (Time delay) of at least 4 A or fuse of 10 A max. Or equivalent resettable devices such as magnetothermal fuses. These ratings include inrush current for startup or temporary overload. It must be very quickly recognizable and readily accessible.

For connection to the 24Vac use a multipolar cable having minimum 3x1,5 mm<sup>2</sup> (15 AWG). The mains cable must be protected.



An all-pole mains switch with an opening distance between the contacts at least 3 mm in each pole must be incorporated in the electrical installation.

Make sure that the unit case is properly earthed. The Protective Earth (PE) connection is included in the 3p or 5p power connector. The minimum wire size is 2.5 mm<sup>2</sup> copper stranded wire.

Fasten all the cables inside the housing with cables ties or other fixing means to avoid the electrical contact with surrounding parts in case cables get loose.

Do not connect the unit to a supply circuit unless the installation is completed

To maintain the certification requirements and the IP rating of the unit, adequate certified cable glands must be used. Each unused cable gland hole must be closed using a proper plug suitable for the housing marking.



Check the proper position of the O-ring seals in their groove

Keep the unit tightly closed when operating.

Disconnect the equipment from the supply circuit and wait at least five minutes before opening.



The dome shall be cleaned with clear water or with a clean damp, cotton

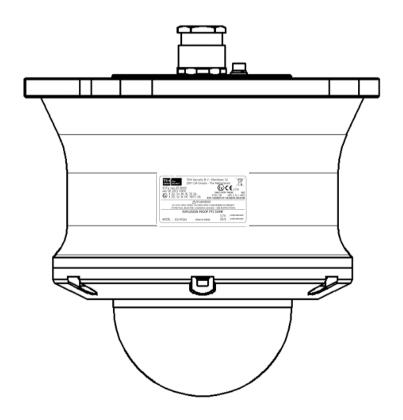
## Specific conditions of use

- > Potential electrostatic charging hazard see instructions.
- > The dimensions of flameproof joints are different than listed in the IEC 60079-1. All information about flame paths dimensions of the equipment enclosure shall be obtained from the manufacturer.
- > The screws used for the assembly of the various parts of explosion-proof enclosures must have a yield stress of at least 640 MPa.
- > The service temperature at entry point and branching points are 75 °C.
- > This camera shall only be installed in locations with a low risk of mechanical impact.
- > This camera shall be installed with the bubble facing up- or downward.

# Marking (label)

Every camera shall be labeled with a marking plate similar as the one shown below:





# **Camera installation**

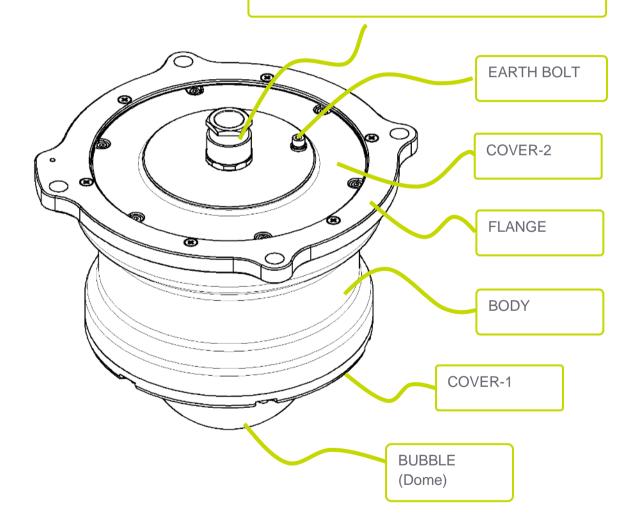
#### **Installation instruction**

CABLE GLAND

Cable entry thread: M25 x 1.5

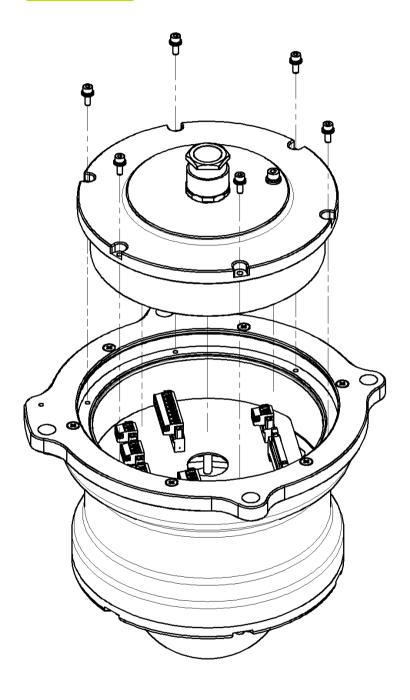
Cable Size M25 : 13~20 mm

\* USE OF EXPLOSION-PROOF CERTIFIED PRODUCTS

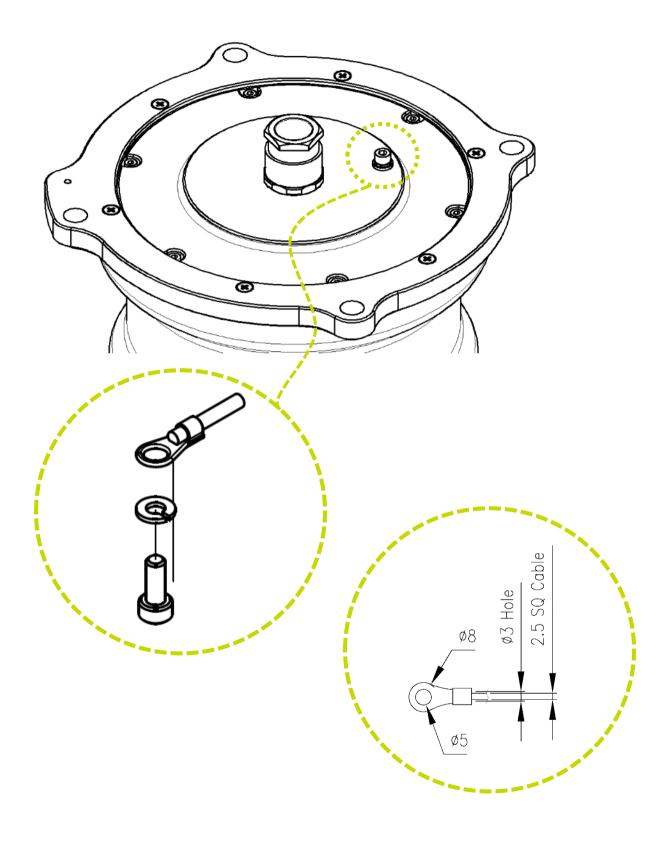


### **Assembly**

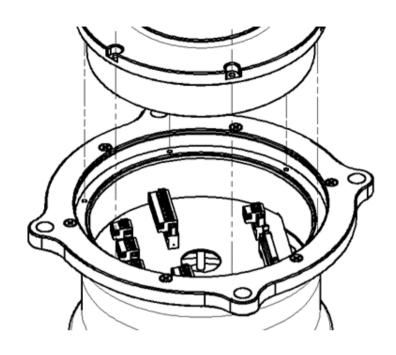
Follow the instructions in the instruction video on how to open and close the camera: Download link: <a href="Instruction video">Instruction video</a>

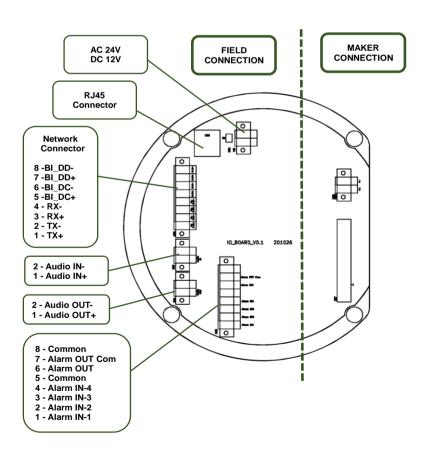


### **Grounding / Earthing**



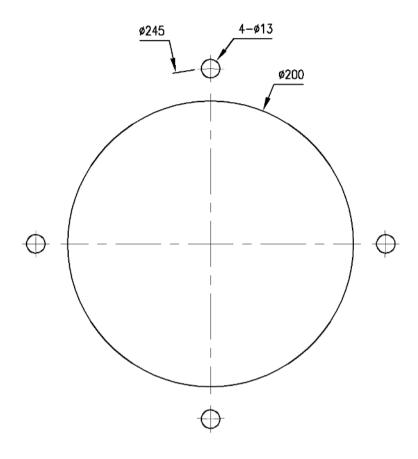
#### Internal wiring diagram



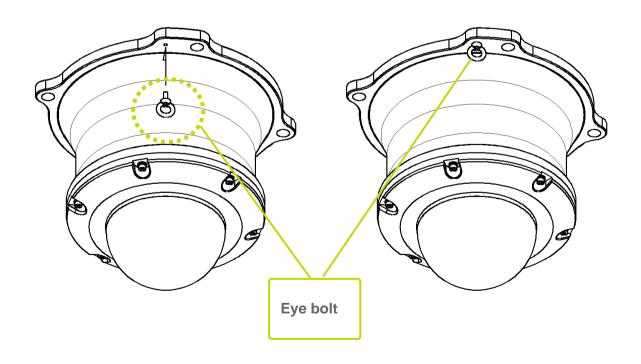


<sup>\*</sup> For the network cable connection, a user can choose either Network Connector wiring or RJ45 connector option depend on the cable wiring preferences.

### **Drill template**

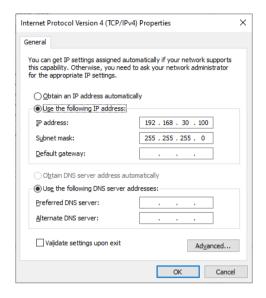


### Safety hook



# **Getting started**

To be able to find the camera, make sure your computers network card is set to the proper network settings:



The default IP address of the camera is 192.168.30.220. By typing this address in your browser, you also get access to the web interface of the camera. The recommended browsers are Internet Explorer, Safari, Firefox, Opera and Google Chrome, but to have full access Internet Explorer is recommended.

The default username and password are:

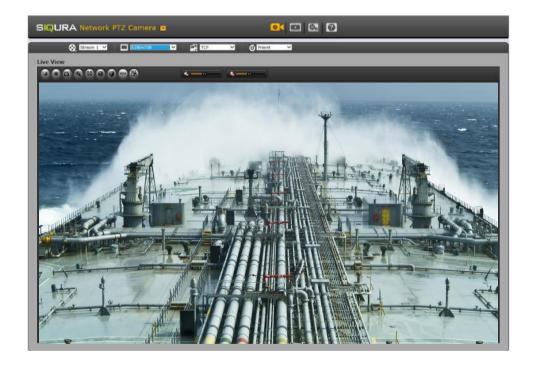


NOTE: Please, change the default password as soon as possible with a strong password (more than 6 characters, containing capitals, lower case, numbers and special characters)

#### Access from a browser

- 1. Start a browser (Internet Explorer).
- 2. Enter the given IP address or host name of the network camera in the Location/Address field of your browser.
  You can see a starting page. Click Live View, Playback, or Setup to enter web page.
- 3. The network cameras Live View page appears in your browser.







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