



Explosion-Proof Network Bullet Camera

Quick Start Guide



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The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (<http://www.hikvision.com/>).

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Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized

European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU, the ATEX Directive 2014/34/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier

upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see:

www.recyclethis.info



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol,

which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your



supplier or to a designated collection point. For more information see: www.recyclethis.info

Intended use of the camera

ATEX:  II 2 G D Ex db op is IIC T6 Gb/Ex tb op is IIIC T80°C Db

IECEX: Ex db op is IIC T6 Gb/Ex tb op is IIIC T80°C Db

Hazardous Area Classification: Zone 1, Zone 2, Zone 21, Zone 22.

IP Degree: IP68 (1m, 1h)

Ex Standards:




IEC 60079-0: 2011 EN 60079-0: 2012

IEC 60079-1: 2014 EN 60079-1: 2014

IEC 60079-31: 2013 EN 60079-31: 2014

IEC 60079-28: 2015

Nameplate:

| | | |
|---|----------------------------|--|
| Explosion-Proof Bullet Camera | | CML 17ATEX1189X |
| Product Model: | |  II 2 G Ex db op is IIC T6 Gb |
| Protection Level: IP68 | Ta: -40°C ~ +60°C |  II 2 D Ex tb op is IIIC T80°C Db |
| Working Voltage: AC100-240V | Working Current: ≤1000mA | IECEX CML 17.0103X |
| Product No.: xxxxxxxxxxxx | Date of Production: xxxxxx | Ex db op is IIC T6 Gb |
| | | Ex tb op is IIIC T80°C Db |
| Hangzhou Hikvision Digital Technology Co., Ltd 555 Qianmo Road, Binjiang District, Hangzhou, China | |  0035 |
| | | WARNING: DO NOT OPEN WHEN EXPLOSIVE ATMOSPHERE IS PRESENT |



Special Conditions for Safe Use:

1. Ambient Temperature: -40°C to +60°C.
2. DO NOT OPEN WHEN ENERGIZED.
3. POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS.
4. When assembly, operation and maintenance, the operator must follow the requirements of the IEC 60079-14: latest version Explosive atmosphere- Part 14: Electrical installation design, selection and erection, beside of the manufacturer's operation instruction or its National equivalent.
5. Repair and overhaul shall comply with IEC 60079-19: latest version or its National equivalent.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Warning:

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Safety Instruction



These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into “Warnings” and “Cautions”

Warnings: Serious injury or death may occur if any of the warnings are neglected.



Cautions: Injury or equipment damage may occur if any of the cautions are neglected.

| | |
|---|---|
|  Warnings |  Cautions |
| Warnings Follow these safeguards to prevent serious injury or death. | Cautions Follow these precautions to prevent potential injury or material damage. |



Warnings

- **CAUTION: Hot parts!** Burned fingers when handling the parts.



Wait one-half hour after switching off before handling parts. This sticker is to indicate that the marked item can be hot and should not be touched without taking care. For device with this sticker, this device is intended for installation in a restricted access location, access can only be gained by service persons or by users who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken.

- **Grounding:**

The both internal and external earthing shall be connected reliably.

Ground wire cross-sectional area of not less than the phase connector cross-sectional area level, at least 4 mm².



- All the electrical operation should be strictly compliance with the electrical safety regulations, fire prevention regulations and other related regulations of the nation and region.
- Make sure that the power has been disconnected before you wire, install or disassemble the camera. Never wire, install or disassemble the camera in explosive environment.
- The power source should meet limited power source or PS2 requirements according to IEC 60950-1 or IEC 62368-1 standard.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- When the camera is installed on wall or ceiling, the device shall be firmly fixed.
- If smoke, odors or noise rise from the camera, turn off the power at once and unplug the power cable, and then contact the service center.
- If the camera does not work properly, contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



Cautions

- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.



- To ensure explosion-proof performance, do not damage explosion-proof surface.
- Do not touch sensor modules with fingers. If cleaning is necessary, use clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period, please replace the lens cap to protect the sensor from dirt.
- Do not aim the camera at the sun or extra bright places. Blooming or smearing may occur otherwise (which is not a malfunction), and affect the endurance of sensor at the same time.
- The sensor may be burned out by a laser beam, so when any laser equipment is in using, make sure that the surface of sensor will not be exposed to the laser beam.
- Do not place the camera in extremely hot, cold (the operating temperature shall be -40°C to $+60^{\circ}\text{C}$), dusty or damp locations, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for operating environment.
- To prevent accumulation of electrostatic charge, only damp cloth can be used during the cleaning.
- Keep the camera away from liquid while in use.
- While in delivery, the camera shall be packed in its original packing, or packing of the same texture.
- Regular part replacement: a few parts (e.g. electrolytic capacitor) of the equipment shall be replaced regularly according to their average enduring time. The average time varies because of differences between operating environment



and using history, so regular checking is recommended for all the users. Please contact with your dealer for more details.

- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions

ATTENTION: IL Y A RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UNE BATTERIE DE TYPE INCORRECT. METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS

- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to



disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



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1 Introduction

1.1 Overview

Explosion-proof network camera is a surveillance product capable of video/audio collecting, smart encoding and network transmitting. It adopts an embedded system and a high-performed hardware process platform to achieve good stability and reliability.

You can visit and configure your camera via web browser and client software.

Explosion-proof network camera adopts a stainless steel enclosure, receiving an IP68 rating for ingress protection.

Application Scenarios: oil industry, mine fields, chemical industry, port, grain processing industry, etc.

1.2 Model Description

This manual is applicable to the following models:

Table 1-1 Applicable Model List

| Model List | |
|---------------------|--------------------|
| DS-2XE6422FWD-IZHRS | DS-2XE6422FWD-IZHS |
| DS-2XE6452F-IZHRS | DS-2XE6452F-IZHS |



Explanation of model naming:

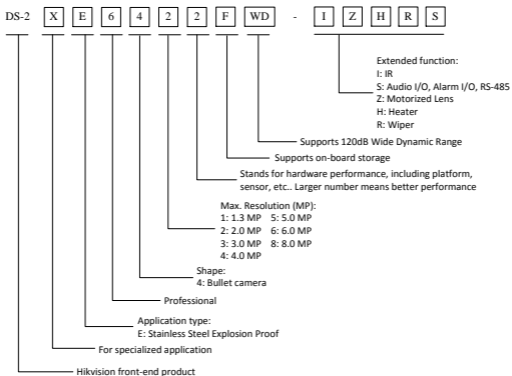


Figure 1-1 Model Explanation



2 Appearance Description

This camera series has two appearance types:

Type I: camera with IR and wiper

Type II: camera with IR

2.1 Type I Overview

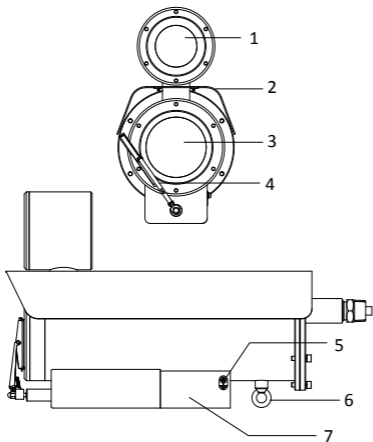


Figure 2-1 Overview of Type I Camera



Table 2-1 Description of Type I Camera

| No. | Description | No. | Description |
|-----|-------------------|-----|----------------------|
| 1 | IR | 5 | Grounding screw |
| 2 | Sun shield | 6 | Ring for safety rope |
| 3 | Transparent glass | 7 | Mounting base |
| 4 | Wiper | | |



2.2 Type II Overview

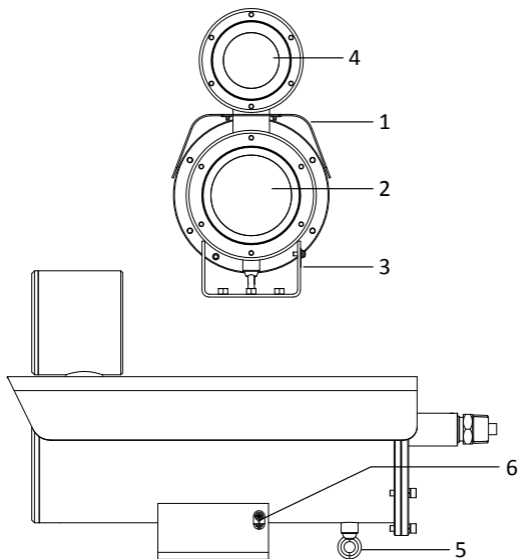


Figure 2-2 Overview of Type II Camera



Table 2-2 Description of Type II Camera

| No. | Description | No. | Description |
|-----|-------------------|-----|----------------------|
| 1 | Sun shield | 4 | IR |
| 2 | Transparent glass | 5 | Ring for safety rope |
| 3 | Mounting base | 6 | Grounding screw |

2.3 Cable Description

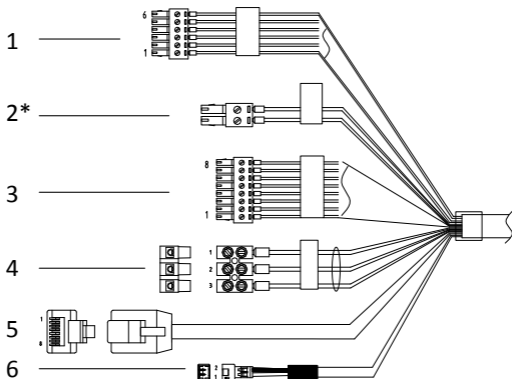


Figure 2-3 Overview of Cables



Table 2-3 Description of Cables

| No. | Description |
|-----|---------------------------------|
| 1 | Audio output/output |
| 2* | RS-485 |
| 3 | Alarm input and output |
| 4 | Power cord (100 VAC to 240 VAC) |
| 5 | RJ45 Ethernet interface |
| 6 | Video out (CVBS) |

Note:

The item marked with "*" is not supported by certain models.



3 Installation

Before you start:

- Make sure the device in the package is in good condition and all the assembly parts are included.
- The standard power supply is 100 VAC to 240 VAC, or PoE (802.3at), please make sure your power supply matches with your camera.
- Make sure all the related equipment is power-off during the installation.
- Check the specification of the products for the installation environment.
- Make sure that the wall is strong enough to withstand four times the weight of the camera and the bracket.

For the camera that supports IR, you are required to pay attention to the following precautions to prevent IR reflection:

- Make sure that there is no reflective surface too close to the camera lens. The IR light from the camera may reflect back into the lens causing reflection.

Note

There is no wall mounting bracket included in the package. You have to prepare a wall mounting bracket if you choose this mounting type. The shown bracket below is only for demonstration.

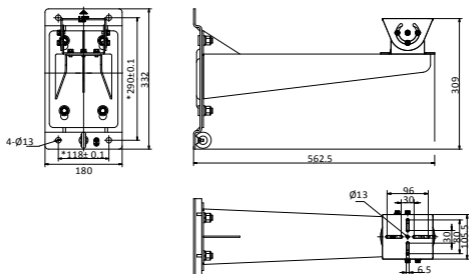


Figure 3-1 Dimension of Wall Mounting Bracket Type I (mm)

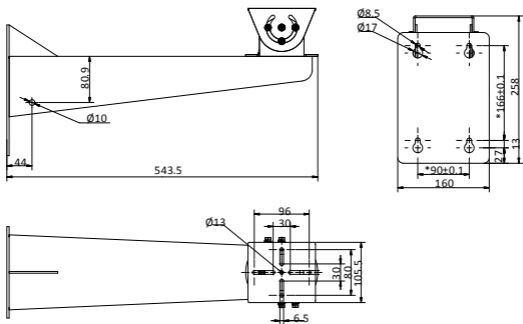


Figure 3-2 Dimension of Wall Mounting Bracket Type II (mm)



3.1 Wall Mounting with Bracket Type I

Note:

The camera series shares similar mounting steps. We take type I camera as example.

Steps:

1. Disassemble the PT joint.
2. Install the pedestal of the PT joint to the mounting base of the camera with four M6 × 16 screws.

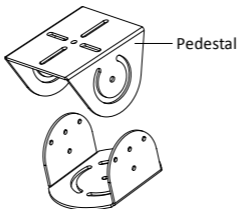


Figure 3-3 PT Joint

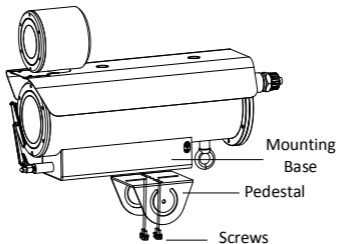


Figure 3-4 Install the Pedestal to Camera

3. Install the PT joint to the wall mounting bracket with four M6 × 16 screws.

Note:

Adjust the panning position of the PT joint to desired angle when installing.

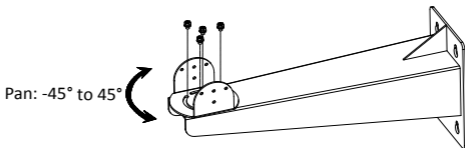


Figure 3-5 Screw the PT Joint to Wall Mounting Bracket

4. Align the screw holes on pedestal with those on PT joint. Fix the camera to the bracket.



Note:

Adjust the tilting position of the camera to desired angle when installing. Use at least three M6 × 16 screws. on each side of the PT joint to secure the camera.

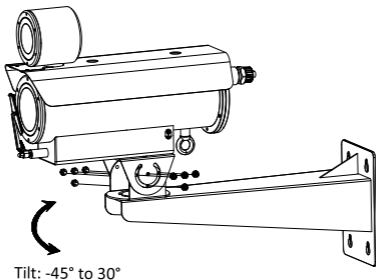


Figure 3-6 Remove the Pedestal

5. Install the mounting base of the wall mounting bracket.
 - 1). Mark the screw holes on desired mounting place on wall according to the dimension of the mounting base.

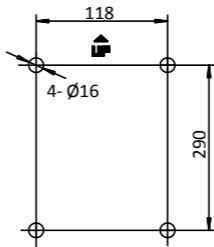


Figure 3-7 Mounting Base Dimension of the Bracket Type I (mm)

- 2). Drill 4 screw holes for expansion bolts with a $\Phi 16$ mm drill.
- 3). Insert the expansion bolts (M12 \times 120) and fix the mounting base at the direction indicated by the "UP" mark.

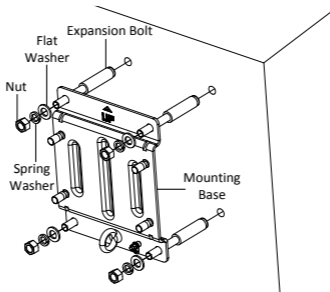


Figure 3-8 Install the Mounting Base of the Bracket



6. Fix the wall mounting bracket, together with the camera, to the mounting base of the bracket.
 - 1). Use safety rope to hook the camera and the mounting base of the bracket.
 - 2). Hang the bracket to the bolts on the mounting base. Secure the bracket with nuts, spring washers and flat washers.

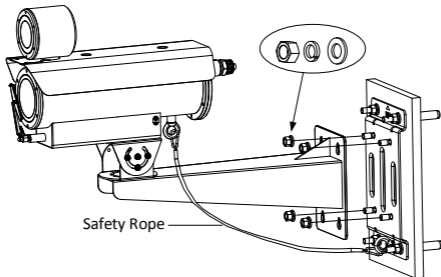


Figure 3-9 Fix the Wall Mounting Bracket to Mounting Base

3.2 Wall Mounting with Bracket Type II

Note:

The camera series shares similar mounting steps. We take type I camera as example.

Steps:

1. Disassemble the PT joint.



2. Install the pedestal of the PT joint to the mounting base of the camera with four M6 × 16 screws.

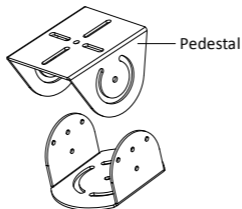


Figure 3-10 PT Joint

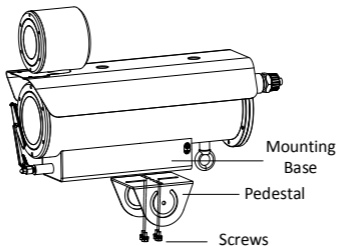


Figure 3-11 Install the Pedestal to Camera

3. Install the PT joint to the wall mounting bracket with four M6 × 16 screws.

Note:



Adjust the panning position of the PT joint to desired angle when installing.

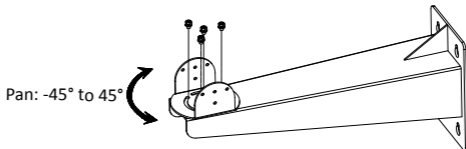


Figure 3-12 Screw the PT Joint to Wall Mounting Bracket

4. Fix the wall mounting bracket to wall with expansion bolts (M8 × 100).

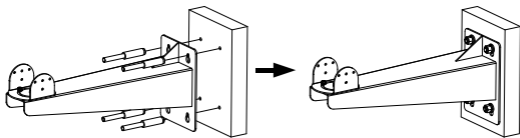


Figure 3-13 Install Bracket to Wall

5. Fix the camera to the bracket.
 - 1). Use safety rope to hook the camera and the bracket.
 - 2). Align the screw holes on pedestal with those on PT joint. Fix the camera to the bracket.

Note:

Adjust the tilting position of the camera to desired angle when installing. Use at least three M6 × 16 screws. on each side of the PT joint to secure the camera.

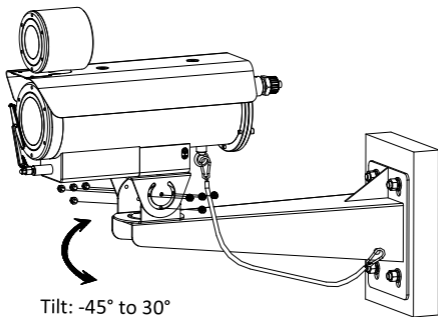


Figure 3-14 Install Camera to Bracket



4 Activate and Access Network Camera

Scan the QR code to get *Activate and Access Network Camera*. Note that mobile data charges may apply if Wi-Fi is unavailable.



