

Panoramic Speed Dome

KEDACOM

Quick Start Guide

I. Preface

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact us.

The intention of writing this Guide is to ensure that user can use the product correctly to avoid danger or property loss. Please read this Guide carefully before using, and keep it properly for future reference. If the product cannot work normally or is damaged because the user does not follow the safety instructions, we shall not assume any responsibility. Your cooperation will be highly appreciated.

II. Safety Instruction

1. Power Supply

- During installing and using the device, please follow local electrical safety regulations strictly.
- Please use power supply in the safe voltage range of our product. Make sure if the power supply is correct before running the device.
- Please install an easy-to-use breaker during installation and wiring in case it is necessary to make an emergency break.
- Please prevent the power cord from being trampled or pressed especially the plug, socket and the connecting part led out from the device.
- Please connect cables of power, alarm, audio and RS-485 with the power off. Hot-line wiring is not allowed.

2. Working Environment

- Do not focus the camera lens on strong light such as the sun or incandescent lamp; otherwise the strong light will cause overexposure or light leak (not camera malfunction), which may shorten camera lifetime.
- Please transport, use and store the device within defined humidity and temperature ranges.
- Do not expose it in damp, dusty, extremely hot or cold places or places with intense electromagnetic radiation or with unstable lighting.
- Keep the camera away from water or any liquid to avoid damage to internal components.
- To avoid heat accumulation, please do not block the ventilation around the device.
- While shipping the camera, pack it in the factory packing or use materials with equivalent quality.
- When shipping, storing and installing the device, try to prevent it from damages caused by pressure, violent vibration and soaking.
- Please do not install the device on unstable bracket, wall or roof; otherwise it may damage people and the device.

Working Environment	
Power Supply	Power: DC 48 V \pm 10% Consumption: 120 W Max
Environment	Lightning protection, surge protection, and anti-interference
Elevation	2 km
Temperature	-40°C~+70°C
Humidity	10%~95% (non-condensing)

3. Daily Maintenance

- Do not touch the heat component of the device directly to avoid empyrosis.
- When the glass surface of the lens is contaminated by dust or grease, use cotton cloth or lens clean cloth to wipe it off. When it is hard to clean, dip some lens cleanser and wipe gently and rotate outward from the middle until it is clean. Never apply any organic solvent with ethanol or benzene to clean the lens and housing.
- Do not disassemble or repair the device in any way by yourself. We shall not assume any responsibility for problems caused by unauthorized operations.
- If the product does not work properly, please contact your dealer or the nearest service center.

4. Special Statement

- The product appearance is subject to the actual device and picture in this Guide is for reference only.
- Every effort has been made to ensure the accuracy and validity of this Guide. Any update of this Guide caused by version upgrade is subject to change without notice. This Guide is made for multiple models but due to limited space, it will not illustrate all models one by one. Please refer to it according to the actual products you are using.
- This device can be used after being activated through IPCSearch (download it from our website: <https://www.kedacom.com/cn/softtools/index.jhtml>). During activation please fill a valid email address for finding back the password. To ensure the safety of device on internet, it is strongly recommended that you set a strong password which is composed of at least 2 kinds of the following, digits, case-sensitive letters or specific symbols, and whose length ranges from 8 to 16 bits. Please modify the password periodically and once every 3 months is recommended. If the device is used in highly risky environment, suggest modifying the password monthly or weekly. Please keep your user name and password safe.
- For the latest files, please refer to the software package.

5. Warning

Hint

 If laser is enabled, please do not face the laser window closely to prevent damage to or even blindness of the eyes.

Signs



Note: When the device is working normally, please do not face the laser window closely.

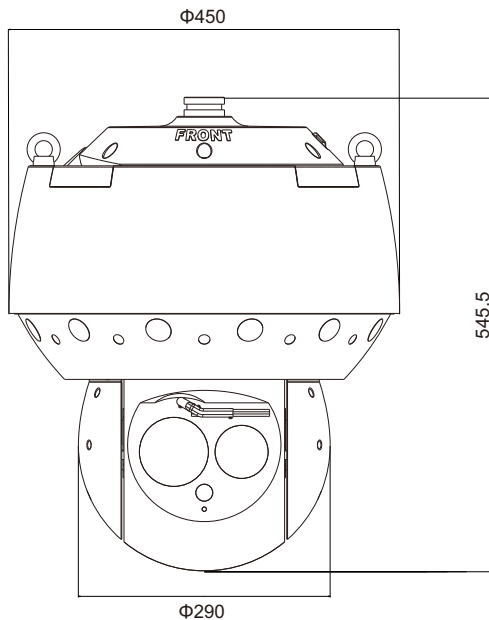
6. Placing the Power Adapter

Please read the following notes before and when placing the power adapter:

- The operator must be a professional or at least qualified to place the power adapter. In addition, the operator must have related electricity training. Please read this Guide before placing the power adapter.
- Do not place the power adapter in an environment with corrosive gases or liquids.
- Put a rain shield on the power adapter. The AC input or DC output wire must be put inside the rain shield to prevent the aging of the wire and water seepage.
- The AC input or DC output wire must be placed lower than the coil protector. Otherwise, the wire may fold down, leading to water seepage from the coil protector.
- If the device connected to the power adapter is installed in an open environment, you are advised to put the power adapter in a container with a drain to keep water out.

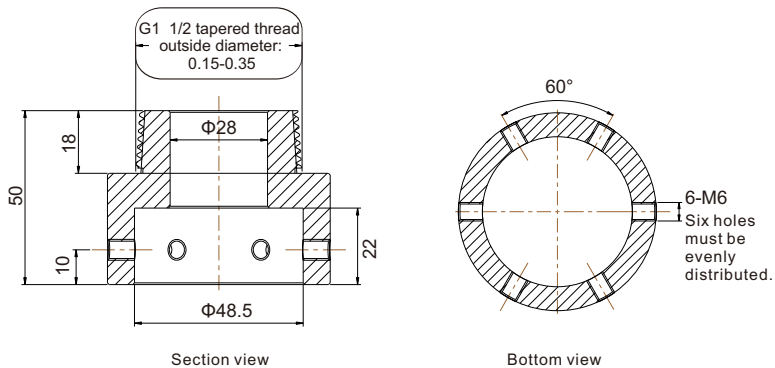
III. Appearance

Dimensions of the Camera

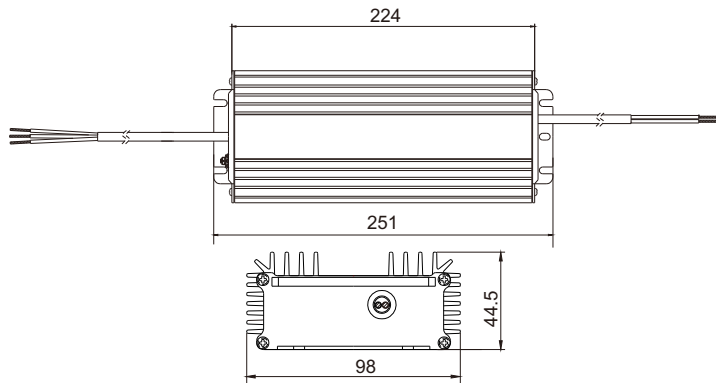


Unit: mm
Weight: 28 kg

Dimensions of the Stepping Ring

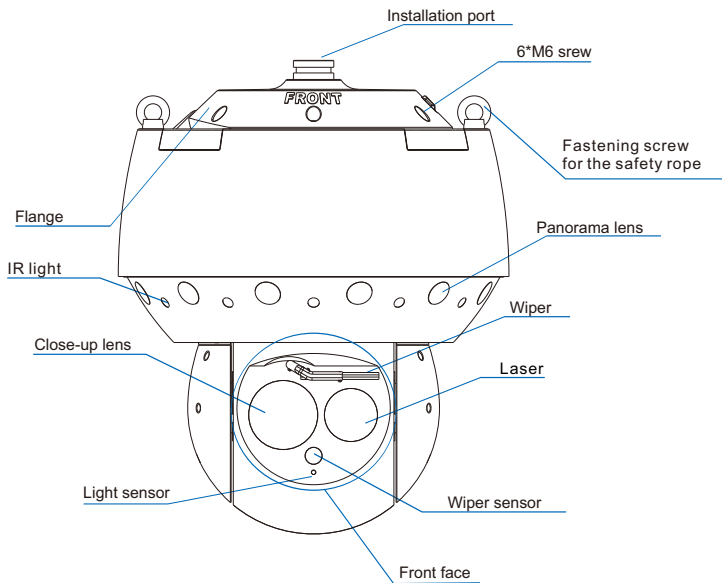


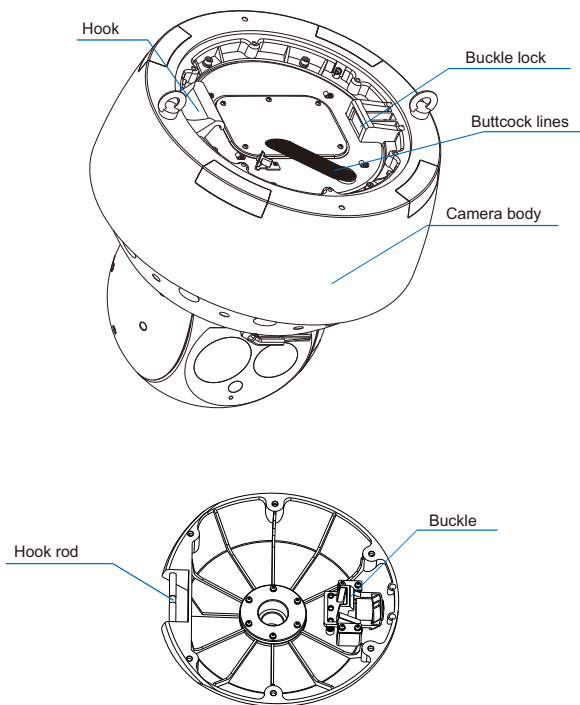
Dimensions of the Power Adapter



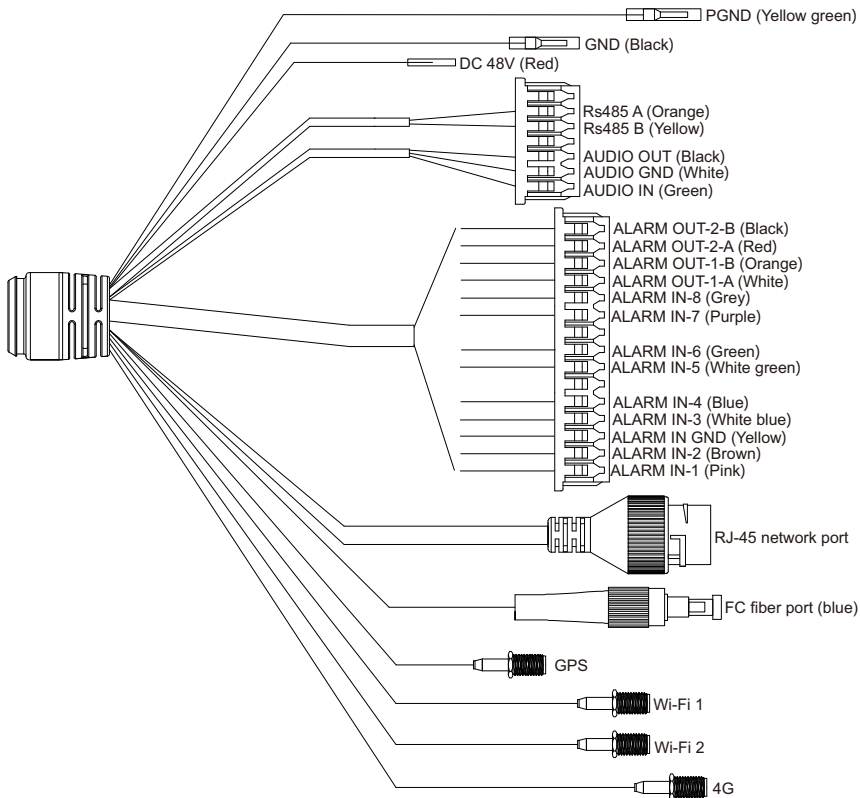
Unit: mm

Components





Buttcock Lines



Label	Color	Description	Group	No.
GND	B	Ground	-	-
PGND	YG	Protection ground	-	-
DC 48V	R	Power	-	-
RS485 A	O	RS-485 serial port A, used to communicate with third-party devices	Same Group	6
Rs485 B	Y	RS-485 serial port B, used to communicate with third-party devices		5
AUDIO OUT	B	Audio output		3
AUDIO GND	W	Audio ground		2
AUDIO IN	G	Audio input		1
ALARM OUT-2-B	B	Alarm output 2; the two terminals have no polarity.		15
ALARM OUT-2-A	R			14
ALARM OUT-1-B	O	Alarm output 1; the two terminals have no polarity.	13	
ALARM OUT-1-A	W		12	
ALARM IN-8	Gr	Alarm input 8	Same Group	11
ALARM IN-7	P	Alarm input 7		10
ALARM IN-6	G	Alarm input 6		8
ALARM IN-5	WG	Alarm input 5		7
ALARM IN-4	Bl	Alarm input 4		5
ALARM IN-3	WBl	Alarm input 3		4
ALARM IN GND	Y	Alarm input ground		3
ALARM IN-2	Br	Alarm input 2		2
ALARM IN-1	Pi	Alarm input 1		1
RJ-45 network port	-	RJ-45 network port, supporting 10/100/100 Mbps adaptive	-	-
FC fiber port	Bl	FC fiber port, supporting 10/100/100 Mbps adaptive	-	-
GPS	-	Used to connect to a GPS antenna	-	-
Wi-Fi 1	-	Used to connect to a Wi-Fi antenna	-	-
Wi-Fi 2	-	Used to connect to a Wi-Fi antenna	-	-
4G	-	Used to connect to a 4G antenna	-	-

The following table provides abbreviations for colors.

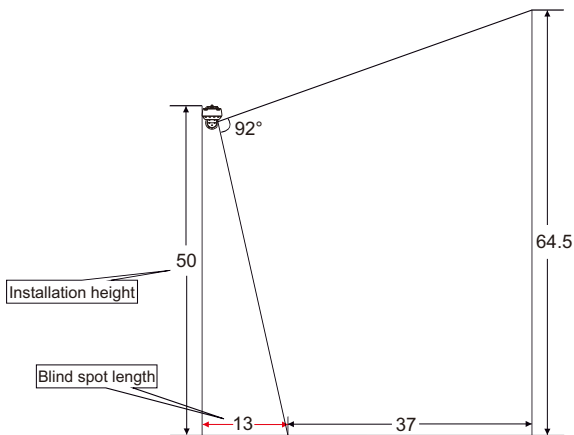
B	Black	Bl	Blue	Br	Brown
G	Green	Gr	Grey	O	Orange
P	Purple	Pi	Pink	R	Red
W	White	WG	White green	Wbl	White blue
Y	Yellow	YG	Yellow green	-	-

Note: One GPS antenna, two Wi-Fi antennas, and one 4G antenna come with the camera that has the GPS, Wi-Fi, and 4G functions. And they are installed to the camera at the factory.

IV. Installation

1. Blind Spot Length

As shown in the following figure, when the camera is installed 50 meters high, the blind spot length is 13 meters.



Unit: m

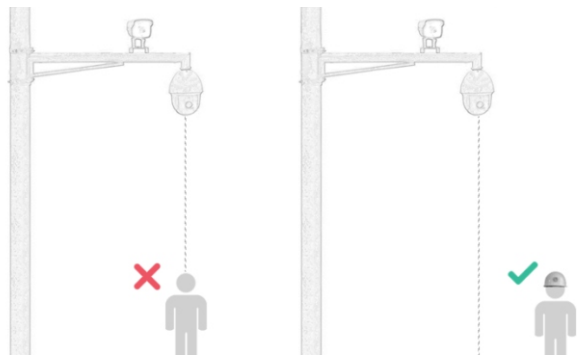
The following table provides the mapping between the installation height and blind spot length.

Installation Height	Blind Spot Length
100	25
70	18
50	13
40	10
30	8
20	5
10	3

Note: The preceding blind spot lengths are theoretical and are only for reference.

2. Installation Preparations

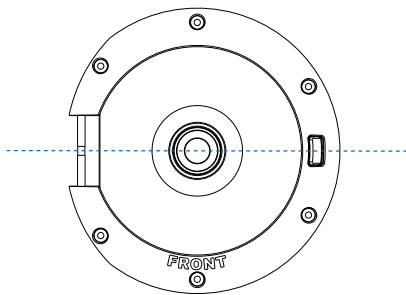
- Make sure there is sufficient space for installing the camera and its accessories and for the camera to rotate.
- Please make sure that the wall or surface for mounting the camera can bear weight as heavy as 8 times of the camera and its accessories and that the wall or surface must be stable enough as not to endanger the camera during windy days.
- If the camera is to be installed at an intersection, the recommended installation height is at least 6 meters; if in a big area, 10-15 meters; if at a high-altitude watchtower, 50 meters.
- If the camera is to be installed on a roof, the recommended horizontal distance between the camera and wall is 1.5 meters.
- If the camera is to be installed on roads without height limitations, you are advised to install the camera at least 5 meters high.
- You are advised to install the 360-degree camera on a tall tower or pole with no blocks in view around it.
- Clear away blocks standing before the lens(es).
- If you want to use your own bracket, ensure that the bracket has internal threads and it is waterproof.
- Please ensure that installation personnel are strong enough to lift the camera up.
- A safety rope must be hooked to the camera to prevent the camera from falling down.
- Installation personnel are prohibited from moving within 2 meters below the camera during construction and must wear protective clothing, footwear, and hard hats.



3. Installation Steps

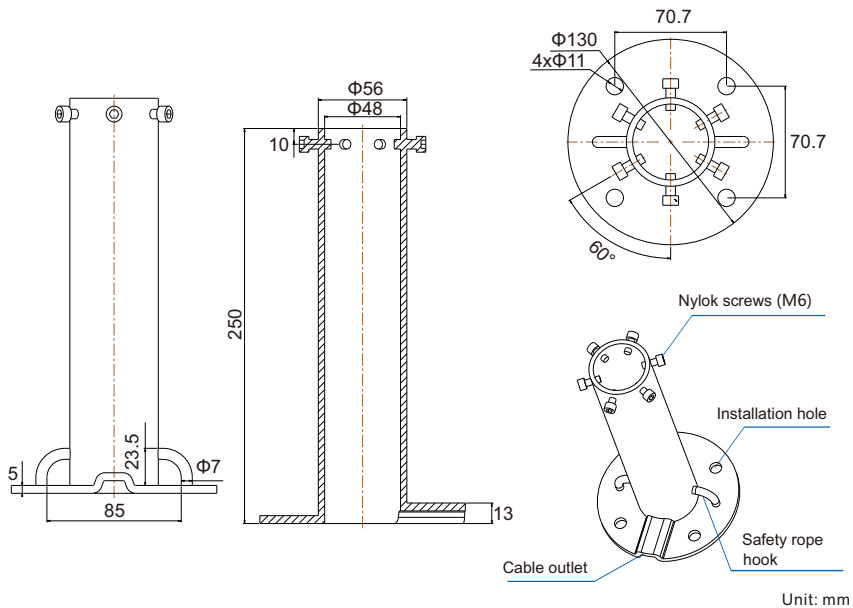
Attention:

- 1) The bracket is optional.
- 2) The camera has the 360- and 180-degree variations, among which the former has 12 panorama lenses and the later 6 panorama lenses. For the 360-degree variation, the 12 panorama lenses are divided evenly by the following dot line. For the 180-degree variation, the 6 panorama lenses are located on the side with the FRONT label, as shown in the following figure.



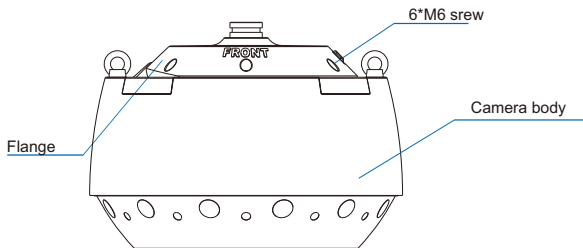
Hanging

The following is the dimensions of the hanging bracket.

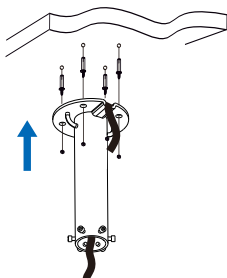


Steps

- 1) Remove the six M6 screws from the flange to uninstall the flange from the camera body.

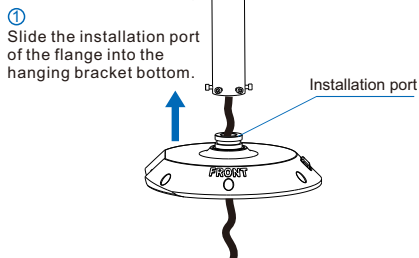


- 2) Make four 60mm-depth holes on the ceiling according to the installation holes on the hanging bracket and insert plastic screw anchors (M8) into the holes.
- 3) Lead cables from the cable outlet and through the hanging bracket and reserve enough long cables to ensure that these cables can connect to the camera cables inside the camera body.
- 4) Fasten the hanging bracket to the ceiling with hex nuts.



- ① Drill holes and insert plastic screw anchors into the holes.
- ② Lead cables from the cable outlet and through the hanging bracket.
- ③ Fasten the hanging bracket to the ceiling.

- 5) Slide the installation port of the flange into the hanging bracket bottom and fasten the flange to the hanging bracket using the six M6 Nylok screws.

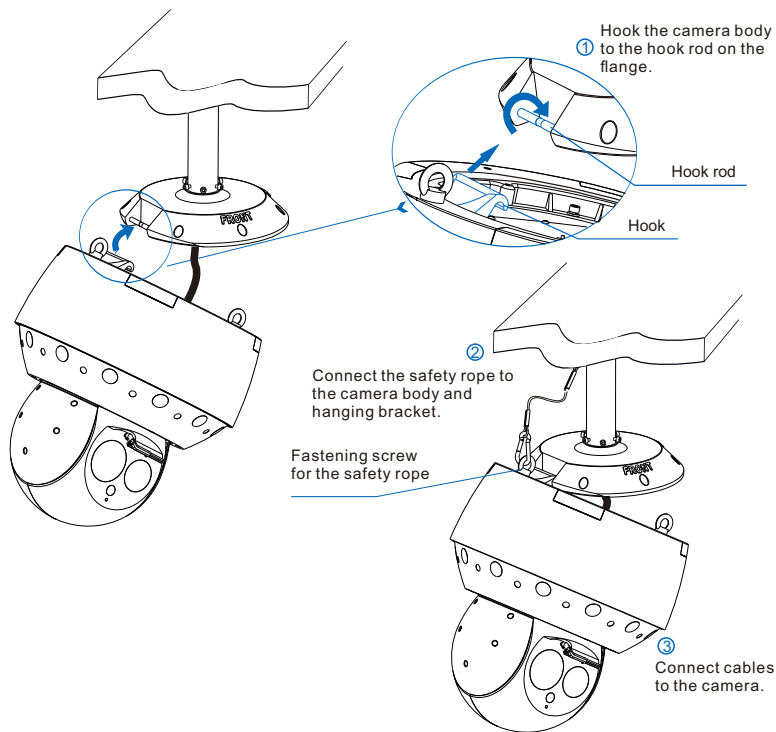


- ② Fasten the flange to the hanging bracket using the six M6 Nylok screws.
-

Attention:

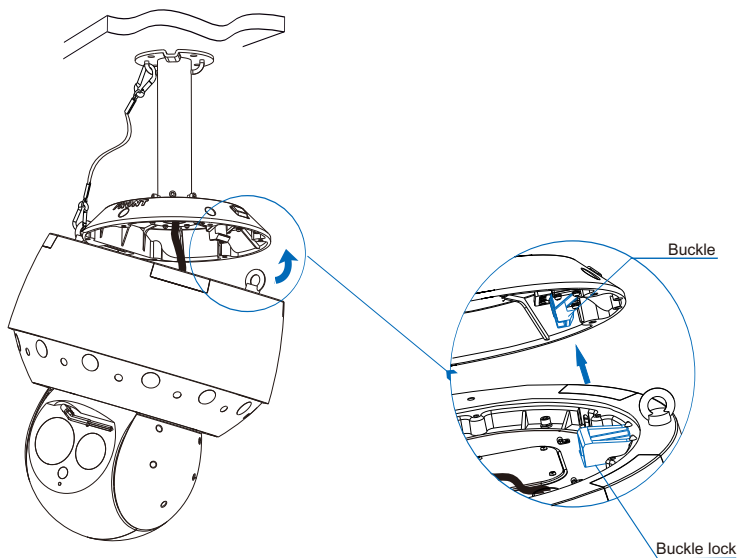
- 1) To prevent the camera from shaking, make sure the screws are tight.
- 2) During installation, ensure that the side with the FRONT label must face the surveillance area.

- 6) Hook the camera body to the hook rod on the flange, and connect one end of the safety rope to the fastening screw on the camera body and the other end to the safety rope hook on the hanging bracket.



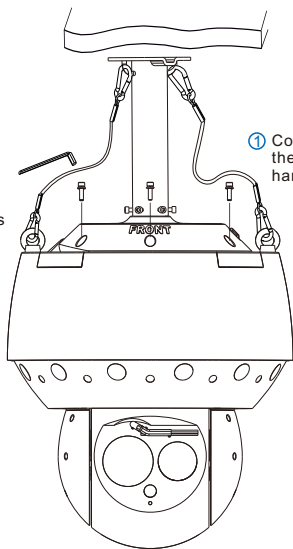
Attention: When connecting the buttock lines, make waterproof treatment to it. For details, please refer to the Appendix.

7) Lift the camera body up to buckle the camera body to the flange.



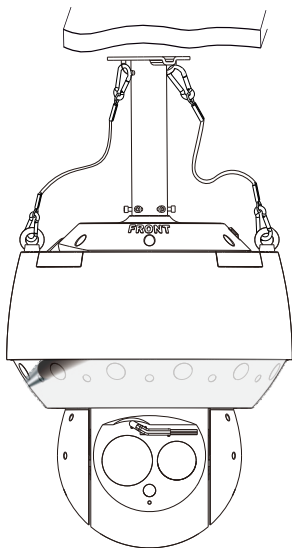
- 8) Connect one end of the safety rope to the fastening screw on the camera body and the other end to the safety rope hook on the hanging bracket. Install the six M6 screws back to the flange to fasten the camera body to the flange.

- ② Install the six M6 screws back to the flange to fasten the camera body to the flange.



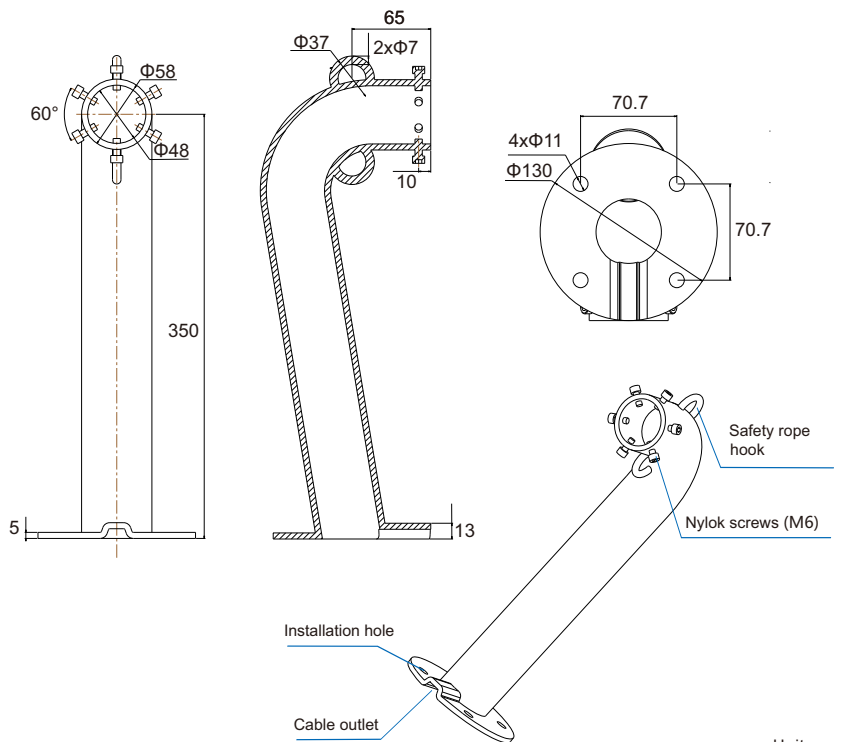
- ① Connect the safety rope to the camera body and hanging bracket.

9) Tear off the plastic film on the panorama lenses, and power on the camera.



Wall Mounting

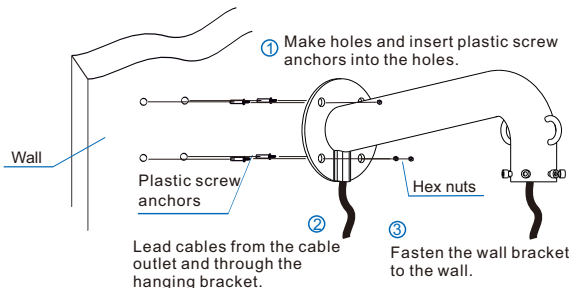
The following is the dimensions of the wall bracket.



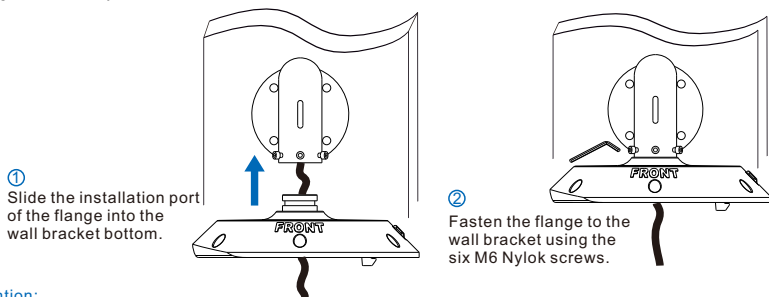
Unit: mm

Steps

- 1) Remove the six M6 screws from the flange to uninstall the flange from the camera body.
- 2) Make four 60mm-depth holes in the wall according to the installation holes on the wall bracket and insert plastic screw anchors (M8) into the holes.
- 3) Lead cables from the cable outlet and through the wall bracket and reserve enough long cables to ensure that these cables can connect to the camera cables inside the camera body.
- 4) Fasten the wall bracket to the wall with hex nuts.



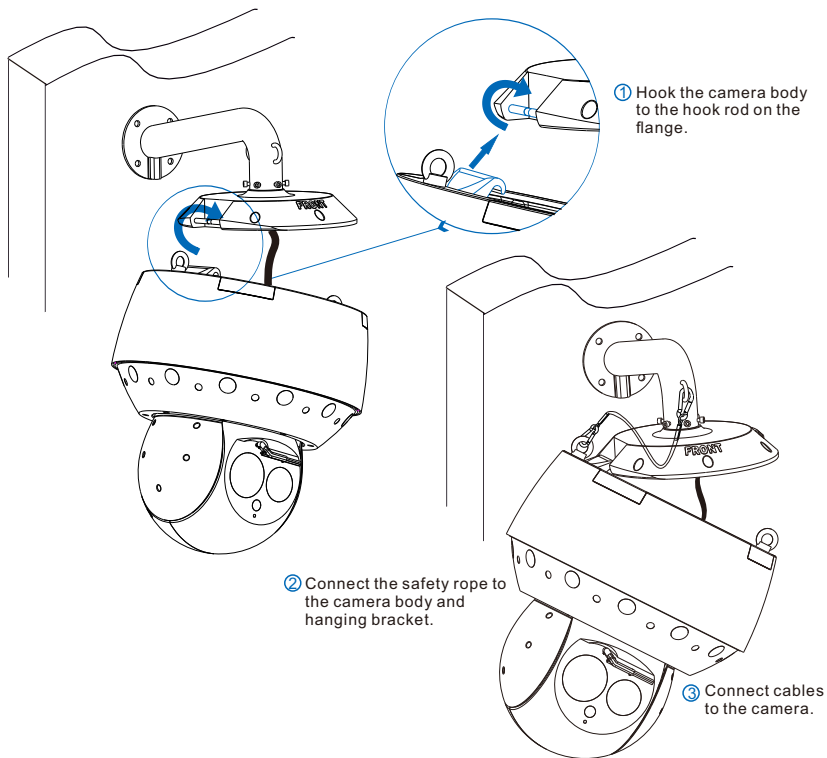
- 5) Slide the installation port of the flange into the wall bracket bottom and fasten the flange to the wall bracket using the six M6 Nylok screws.



Attention:

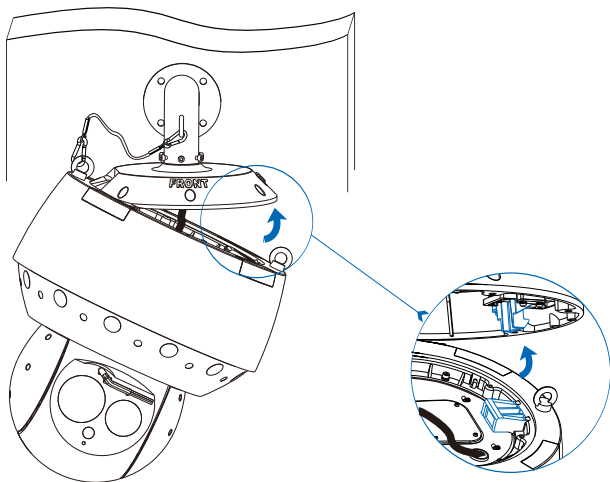
- 1) To prevent the camera from shaking, make sure the screws are tight.
- 2) During installation, ensure that the side with the FRONT label must face the surveillance area.

- 6) Hook the camera body to the hook rod on the flange, and connect one end of the safety rope to the fastening screw on the camera body and the other end to the safety rope hook on the wall bracket.

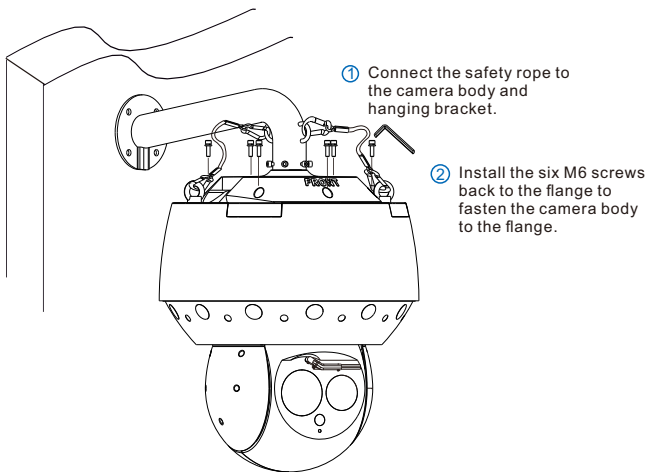


Attention: When connecting the buttcock lines, make waterproof treatment to it. For details, please refer to the Appendix.

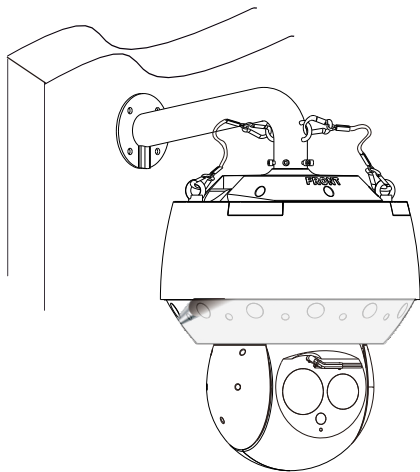
7) Lift the camera body up to buckle the camera body to the flange.



- 8) Connect one end of the safety rope to the fastening screw on the camera body and the other end to the safety rope hook on the wall bracket. Install the six M6 screws back to the flange to fasten the camera body to the flange.

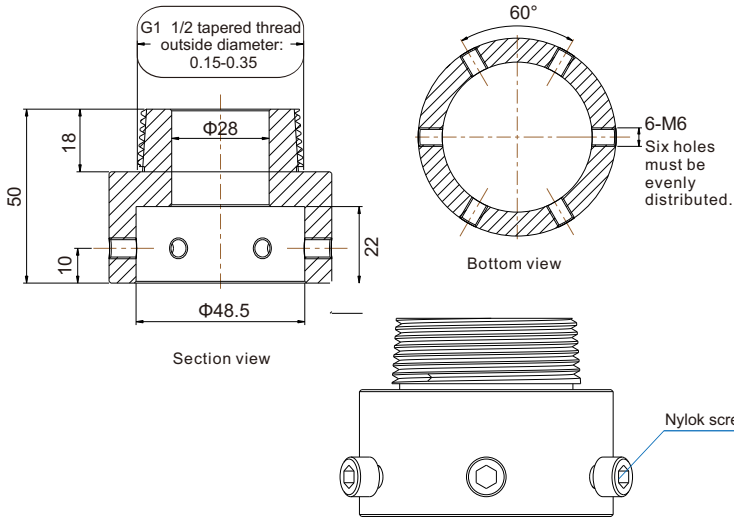


9) Tear off the plastic film on the panorama lenses, and power on the camera.



Stepping Ring

The following is the dimensions of the stepping ring.

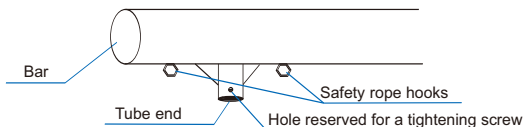


Apply this installation method if you are about to use your own bracket with internal threads. Note that your bracket must be waterproof and have safety rope hooks and a hole reserved for a tightening screw.

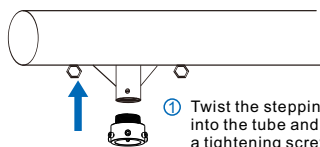
The following description assumes that a bar with an internally threaded tube welded on is used.

Steps

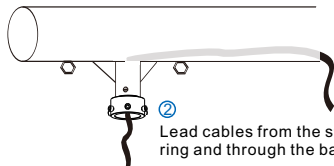
- 1) Prepare a bar with an internally threaded tube welded on, and make a hole 8-10 mm above the tube end.



- 2) Twist the stepping ring into the tube and tighten a tightening screw into the hole.
- 3) Lead cables from the stepping ring and through the bar and reserve enough long cables to ensure that these cables can connect to the camera cables inside the camera body.

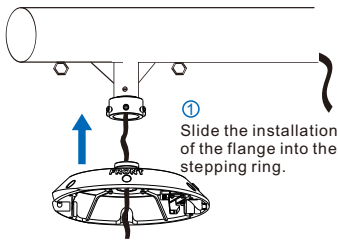


- ① Twist the stepping ring into the tube and tighten a tightening screw into the hole.

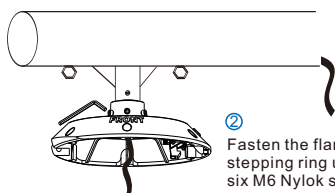


- ② Lead cables from the stepping ring and through the bar.

- 4) Remove the six M6 screws from the flange to uninstall the flange from the camera body.
- 5) Slide the installation port of the flange into the stepping ring and fasten the flange to the stepping ring using the six M6 Nylok screws.



- ① Slide the installation port of the flange into the stepping ring.

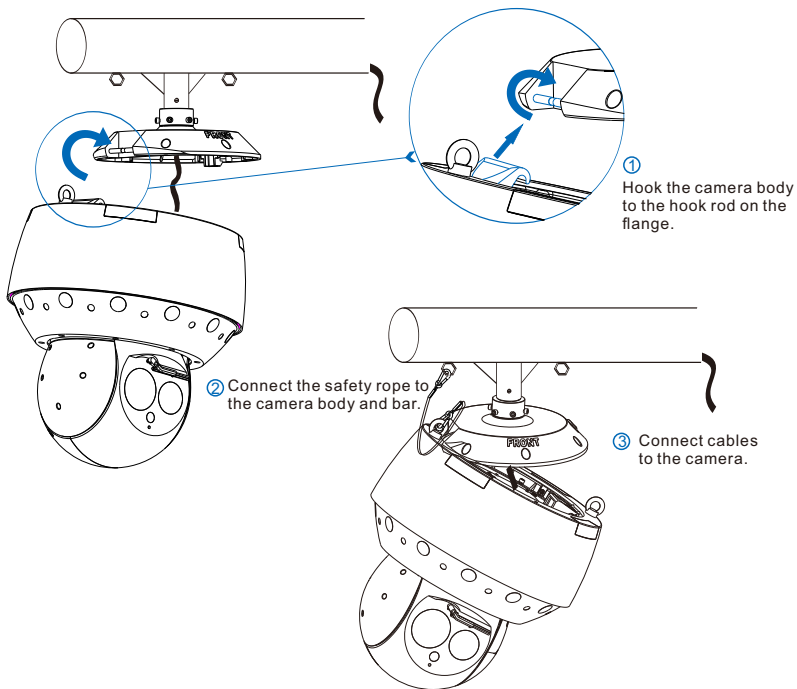


- ② Fasten the flange to the stepping ring using the six M6 Nylok screws.

Attention:

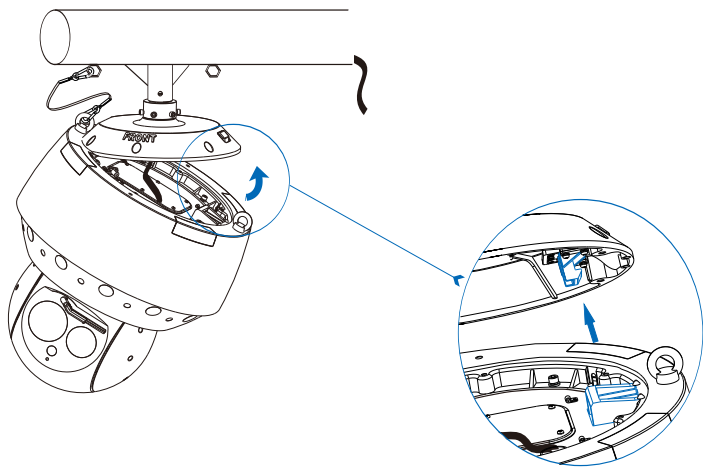
- 1) To prevent the camera from shaking, make sure the screws are tight.
- 2) During installation, ensure that the side with the FRONT label must face the surveillance area.

- 6) Hook the camera body to the hook rod on the flange, and connect one end of the safety rope to the fastening screw on the camera body and the other end to the safety rope hook on the bar.



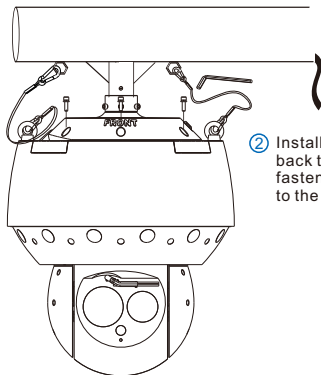
Attention: When connecting the buttock lines, make waterproof treatment to it. For details, please refer to the Appendix.

7) Lift the camera body up to buckle the camera body to the flange.



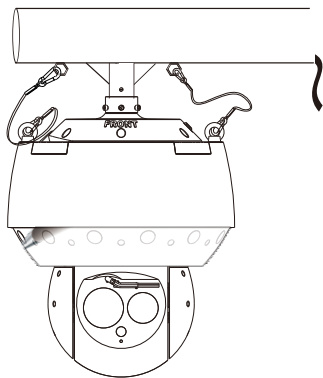
- 8) Connect one end of the safety rope to the fastening screw on the camera body and the other end to the safety rope hook on the bar. Install the six M6 screws back to the flange to fasten the camera body to the flange.

- ① Connect the safety rope to the camera body and bar.



- ② Install the six M6 screws back to the flange to fasten the camera body to the flange.

9) Tear off the plastic film on the panorama lenses, and power on the camera.



V. Log in to the IPC Web

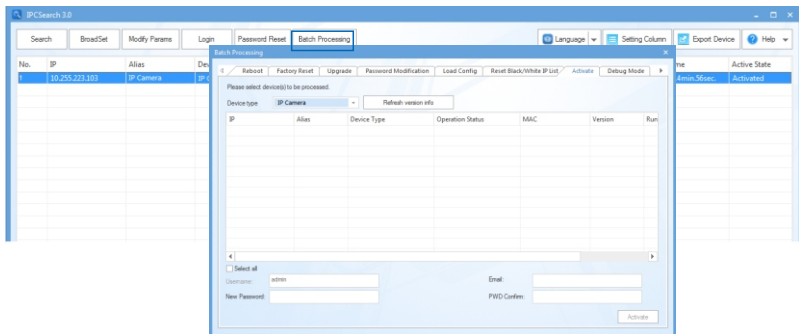
1. Minimum Requirements

- Processor: Intel® Core™ i5-7500 or other processors with the same or better performance
- Graphics card: Intel® HD Graphics 630 or other cards with the same or better performance
- RAM memory: 8 GB or greater
- Operating system: Windows 7 or later
- Browser: recommended: IE kernel browsers (without IE kernel browsers, some functions may fail.)
- Webpage add-on: hard decoded add-on
- DirectX: 9.0c

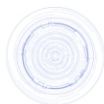
2. Activation

When using the camera for the first time, run the IPCSearch, which will search cameras in a LAN automatically and display a list of camera IP addresses, gateways and etc. If the network provides the DHCP service, the DHCP server will assign an IP address to the camera automatically.

- Batch activation: Select the camera in the IPCSearch and click **"Batch Processing"**. In the pop-up window, enter the admin user's password and the email address for re-enabling the default password. Click **"Activate"** and wait for camera rebooting.
- One-by-one activation: Right-click the camera and choose **"Activate"**. In the pop-up window, enter a username, password, and email address for re-enabling the default password. Click **"Activate"** and wait for camera rebooting.
- Activation on the IPC Web: Change your computer's IP address to enable it to be on the same network segment as the camera. Open an IE kernel browser and enter a valid IP address of the camera. In the displayed dialog box, enter the admin user's password and email address. Click **Activate**.



Login



admin

admin

Weak Strong

Please choose a password with 8-16 characters. Your password must also contain two or more combinations of upper and lowercase letters, numbers, and symbols.

admin

admin

When admin's password gets lost, find it back through this email. Make sure the email address is safe and valid.

Active

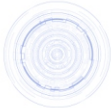
3. Change the Camera IP Address

On the IPCSearch, select the camera and click "**Modify Params**" to configure network parameters. To assign the camera a static IP address, check "**Custom device address (Close DHCP)**" and configure the parameters below. Before the changes can take effect, you must enter the password of the admin account. After this, the camera will reboot.

4. Access the Camera through the IPC Web

- 1) On the IPCSearch, select the camera and click **Login**, or double-click the camera; and enter a username and password.

Login



admin

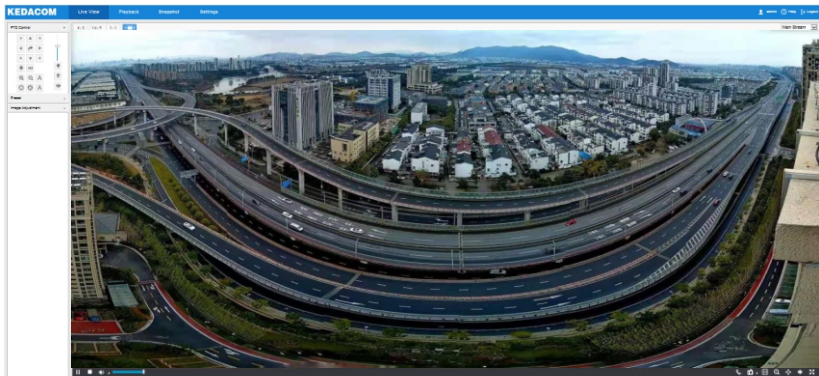
admin

Login

2) After login, download and install the plug-in. Close your browser during the installation.

3) Re-log in to the IPC Web. After this, you can view videos.

Note: Options on the IPC Web vary according to the camera model. For details about the IPC Web, see the help guide provided on the IPC Web.



Waterproofing for Buttcock Lines

After buttcock lines are connected, provide waterproofing for these lines according to the following steps. The following pictures are for reference only.

- 1) Connect the buttcock lines to relevant wires, make insulation protection over all wires, and bind them with insulating tape.



- 2) Select a start point for waterproof tape.



- 3) Provide waterproofing for buttcock lines with waterproof tape.



Appendix: DC 48 V Wire Diameter VS. Transmission Distance

The recommended max transmission distance when the wire diameter is certain and the AC24V voltage loss rate is less than 10%

(For AC24V powered devices, the maximum allowed voltage loss rate is 10%. All the wires in the following table are cooper wires, whose electrical resistivity is $\rho = 0.0175\Omega \cdot \text{mm}^2/\text{m}$)

Distance m (feet) Power W	Diameter mm 0.8 (20AWG)	1.0(18AWG)	1.25(16AWG)	2.0(12AWG)
5	122 (401)	194 (636)	307 (1008)	781 (2562)
10	61 (201)	97 (318)	154 (504)	391 (1281)
15	41 (134)	65 (212)	102 (336)	260 (854)
20	31 (100)	48 (159)	77 (252)	195 (641)
25	24 (80)	39 (127)	61 (202)	156 (512)
30	20 (67)	32 (106)	51 (168)	130 (427)
35	17 (57)	28 (91)	44 (144)	112 (366)
40	15 (50)	24 (79)	38 (126)	98 (320)
45	14 (45)	22 (71)	34 (112)	87 (285)
50	12 (40)	19 (64)	31 (101)	78 (256)
55	11 (36)	18 (58)	28 (92)	71 (233)
60	10 (33)	16 (53)	26 (84)	65 (214)
65	9 (31)	15 (49)	24 (78)	60 (197)
70	9 (29)	14 (45)	22 (72)	56 (183)
75	8 (27)	13 (42)	20 (67)	52 (171)
80	8 (25)	12 (40)	19 (63)	49 (160)
85	7 (23)	11 (37)	18 (59)	46 (151)
90	7 (22)	11 (35)	17 (56)	43 (142)
95	6 (21)	10 (33)	16 (53)	41 (135)
100	6 (20)	10 (32)	15 (50)	39 (128)

[Note]: The requirements of diameter apply to single, solid and round cooper wire. The AWG value of multi-stranded wires depends on the total CSA (Cross Sectional Area) of all wires.

Kedacom Two (2) Year Limited Hardware Warranty

WHAT IS COVERED BY THIS WARRANTY?

Kedacom warrants the Kedacom-branded hardware product and accessories contained in the original packaging (hereinafter referred to as "Kedacom Product") against defects in materials and workmanship when used normally in accordance with Kedacom's published guidelines for a period of TWO (2) YEARS from the date of original retail purchase in areas other than mainland China by the end-user purchaser (hereinafter referred to as "Warranty Period"). For the Kedacom Product purchased in mainland China, see the simplified Chinese version of this warranty for details. Kedacom's published guidelines include but are not limited to information contained in technical specifications, user guides, and service communications. The preceding applies unless otherwise agreed in the contract.

WHAT IS NOT COVERED BY THIS WARRANTY?

This warranty does not apply to any non-Kedacom branded hardware products or any software, even if packaged or sold with Kedacom hardware. Manufacturers, suppliers, or publishers, other than Kedacom, may provide their own warranties to you but Kedacom, in so far as permitted by law, provides their products "AS IS". Software distributed by Kedacom with or without the Kedacom brand (including, but not limited to system software) is not covered by this warranty. Please refer to the licensing agreement accompanying the software for details of your rights with respect to its use. Kedacom does not warrant that the operation of the Kedacom Product will be uninterrupted or error-free. Kedacom is not responsible for damage arising from failures to follow instructions relating to the Kedacom Product's use.

This warranty does not apply: (a) to consumable parts, such as batteries, unless failure has occurred due to a defect in materials or workmanship; (b) to cosmetic damage, including but not limited to scratches, dents, and broken plastic on ports; (c) to damage caused by use with another product; (d) to damage caused by acts outside the control of Kedacom, including without limitation acts of God, accidents, abuse, misuse, fire, storms, earthquakes, flood, or other external cause; (e) to damage caused by exposure of the product to heat, bright light, sun, liquids, sand, or other contaminants; (f) to damage caused by operating the Kedacom Product outside Kedacom's published guidelines; (g) to damage caused by service (including upgrades and expansions) performed by anyone other than a representative of Kedacom, Kedacom employee, or authorized Kedacom agent; (h) to an Kedacom Product that has been modified to alter functionality or capability without the written permission of Kedacom; (i) to defects caused by normal wear and tear or otherwise due to the normal aging of the Kedacom Product, or (j) if any serial number has been removed or defaced from the Kedacom Product.

YOUR RESPONSIBILITIES

If your Kedacom product is capable of storing data and other information, you should make periodic backup copies of the information contained on the storage media to protect the contents and as a precaution against possible operational failures.

Before receiving warranty service, Kedacom or its authorized agents may require that you furnish proof of purchase details, respond to questions designed to assist with diagnosing potential issues, and follow Kedacom's procedures for obtaining warranty service. Before submitting your Kedacom Product for warranty service, you should maintain a separate backup copy of the contents of its storage media, remove all personal information that you want to protect, and disable all security passwords.

During warranty service, it is possible that the contents of the Kedacom product's storage media will be lost, replaced or reformatted. In such an event, Kedacom and its authorized agents are not responsible for any loss of data or other information contained on the storage media or any other part of the Kedacom product serviced.

Following warranty service, your Kedacom Product or a replacement product will be returned to you as your Kedacom Product was configured when originally purchased, subject to applicable updates. You will be responsible for reinstalling all other data and information. Recovery and installation of other data and information are not covered under this warranty.

WHAT WILL KEDACOM DO IF THE WARRANTY IS BREACHED?

If during the Warranty Period, you submit a valid claim to Kedacom or an authorized Kedacom agent, Kedacom will, at its option, (i) repair the Kedacom Product using new or previously used parts that are equivalent to new in performance and reliability, or (ii) exchange the Kedacom Product for a refund of your purchase price.

A Kedacom replacement part or product, including a user-installable Kedacom part that has been installed in accordance with instructions provided by Kedacom, assumes the remaining warranty of the Kedacom Product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is replaced or a refund provided, any replacement item becomes your property and the replaced or refunded item becomes Kedacom's property.

Kedacom reserves the right to refund the purchase price as its exclusive warranty remedy.

HOW TO OBTAIN WARRANTY SERVICE?

To seek warranty service, please contact a local authorized Kedacom agent. When contacting the agent via telephone, other charges may apply depending on your location.

User Information

Complete the form below and keep for ready reference.

User Name:	
Address:	Postal Code:
Tel:	Mobile:
Fax:	E-Mail:
Product Name:	Product Model:
Date of Purchase:	

KEDACOM

Suzhou Keda Technology Co.,Ltd.

China: 131, Jinshan Road, New District, Suzhou 215011, P.R.China Tel: +86-512-6841-8188 Fax: +86-512-6841-2699 Http: //www.kedacom.com

Singapore: 627A Ajunied Road, #09-07, BizTech Centre, Singapore 389842 Tel: +65-6842-5700 Fax: +65-6842-5900 Email: info@kedacom.com

05.03.801001 (V2.1) 20200728