

VIDEOCAMERA DI RETE

Manuale utente

PNM-9084RQZ/PNM-9085RQZ
PNM-9084RQZ1/PNM-9085RQZ1



Videocamera di rete

Manuale utente

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❖ Il progetto e le specifiche sono soggetti a modifiche senza preavviso.

❖ Il nome utente iniziale dell'amministratore è "admin" e la password deve essere impostata quando viene effettuato l'accesso per la prima volta.

Cambiare la propria password ogni tre mesi per proteggere efficacemente le informazioni personali e per evitare danni causati dal furto delle informazioni personali.

Tenere presente che la sicurezza e qualunque problema causato dalla cattiva amministrazione della password, sono responsabilità dell'utente.

ISTRUZIONI DI SICUREZZA IMPORTANTI

1. Leggere queste istruzioni.
2. Conservare queste istruzioni.
3. Rispettare tutti gli avvertimenti.
4. Seguire tutte le istruzioni.
5. Non utilizzare questo apparecchio vicino all'acqua.
6. Pulire l'area contaminata sulla superficie del prodotto con un panno soffice e asciutto o con uno straccio. (Non usare un detergente o prodotti cosmetici contenenti alcol, solventi o tensioattivi o costituenti di olii in quanto potrebbero deformare o danneggiare il prodotto).
7. Non bloccare nessuna apertura di ventilazione. Installare seguendo le istruzioni del fabbricante.
8. Non installare vicino a fonti di calore quali caloriferi, stufe o altri prodotti (compresi gli amplificatori) che possano produrre calore.
9. Non eludere il sistema di sicurezza della spina polarizzata o a terra. Una spina polarizzata è costituita da due spinotti, uno più grande dell'altro. Una spina con presa a terra ha due spinotti e un terzo per la presa a terra. Lo spinotto più grande o il terzo spinotto sono stati previsti per la vostra sicurezza. Se la spina fornita non entra nella presa, mettersi in contatto con l'elettricista per la sostituzione della presa obsoleta.
10. Proteggere il cavo dell'alimentazione per evitare che sia calpestato o schiacciato, facendo particolare attenzione alle spine, alle prese e al punto in cui i cavi escono dell'apparecchio.
11. Utilizzare solo connettori/accessori indicati dal fabbricante.
12. Utilizzare solo carrelli, supporti, treppiedi, staffe o tavoli consigliati dal produttore o venduti assieme all'apparecchio. Qualora si utilizzi un carrello, spostare il gruppo carrello/apparecchio con attenzione per evitare che si ribalti provocando incidenti.
13. Durante forti temporali o se non viene utilizzato per lunghi periodi di tempo, scollegare l'apparecchio dall'alimentazione elettrica.
14. Rivolgersi a personale specializzato per qualsiasi riparazione.
Le riparazioni sono richieste quando l'apparecchio viene in qualche modo danneggiato, ad esempio quando viene danneggiato il cavo di alimentazione o la spina, se è stato versato qualche liquido nell'apparecchio o vi sono caduti degli oggetti o se è stato esposto alla pioggia o all'umidità, se non funziona normalmente o se è caduto.
15. Questo prodotto deve essere fornito da un'unità alimentata a corrente segnata come "Classe 2" o "LPS" e tarata da 12 Vdc, 3,2 A o PoE(55 Vdc), 0,77 A. (PNM-9084RQZ)
16. Questo prodotto deve essere fornito da un'unità alimentata a corrente segnata come "Classe 2" o "LPS" e tarata da 12 Vdc, 3,5 A o PoE(55 Vdc), 0,82 A. (PNM-9085RQZ)
17. Non utilizzare l'alimentazione DC e l'iniettore HPoE contemporaneamente.
18. Questo prodotto richiede un'alimentazione che sia elettricamente isolata.
19. Se si applica una pressione eccessiva durante l'installazione del prodotto, la telecamera potrebbe danneggiarsi e funzionare male.
Se il prodotto è installato forzatamente utilizzando prodotti non conformi, il prodotto potrà danneggiarsi.
20. Non installare il prodotto in un luogo in cui sono presenti o potrebbero essere generate sostanze chimiche o miscele d'olio. Poiché gli oli commestibili come l'olio di soia possono danneggiare o deformare il prodotto, non installarlo nella cucina o vicino al tavolo della cucina.
Ciò potrebbe provocare danni al prodotto.
21. Durante l'installazione del prodotto, prestare attenzione a non far macchiare la superficie con la sostanza chimica. Alcuni solventi chimici come detersivi o adesivi potrebbero causare gravi danni alla superficie del prodotto.



22. Se il prodotto viene installato/smontato in una modalità che non è stata raccomandata, le funzioni/performance della produzione potrebbero non essere garantite.
Installare il prodotto facendo riferimento a "Installazione e collegamento" nel manuale utente.
23. L'installazione o l'utilizzo del prodotto in acqua può causare gravi danni allo stesso.
24. Questo modello deve essere montato in posizione orizzontale.
Se montata in posizione verticale, la telecamera potrebbe danneggiarsi a causa di un malfunzionamento.

AVVERTENZA

PER RIDURRE IL RISCHIO DI INCENDIO O DI SCOSSA ELETTRICA, NON ESPORRE L'APPARECCHIO A PIOGGIA O A UMIDITÀ. NON INSERIRE OGGETTI METALLICI ATTRAVERSO LE GRIGLIE DI VENTILAZIONE O ALTRE APERTURE DELL'APPARECCHIATURA.

Non schizzare o sgocciolare liquidi sull'apparecchio e non porre su di esso oggetti contenenti liquidi, come ad esempio vasi di fiori.

Per evitare lesioni personali, questo apparecchio deve essere fissato saldamente a una parete/al soffitto seguendo le istruzioni per l'installazione.

ATTENZIONE

	ATTENZIONE RISCHIO DISCOSSA ELETTRICA NON APRIRE	
ATTENZIONE : PER RIDURRE I RISCHI DI SCOSSA ELETTRICA. NON RIMUOVERE IL COPERCHIO (O IL PANNELLO POSTERIORE). ALL'INTERNO NON VI SONO PARTI CHE L'UTENTE POSSA RIPARARE. RIVOLGERSI A PERSONALE QUALIFICATO.		

SPIEGAZIONE DEI SIMBOLI GRAFICI



Il simbolo del fulmine con la freccia all'interno del triangolo avverte l'utente della presenza di una "tensione pericolosa" all'interno del prodotto, che può essere di intensità sufficiente per costituire un rischio di scossa elettrica alle persone.



Il simbolo del punto esclamativo all'interno del triangolo avverte l'utente della presenza di importanti istruzioni di funzionamento e manutenzione nella documentazione che accompagna il prodotto.

Prodotto di classe I

Un apparecchio di classe I viene connesso alla presa di RETE con una connessione di messa a terra di sicurezza.

Batteria

Le batterie(pacco batterie o batterie installate) non devono essere esposte a eccessivo calore, come luce del sole, fuoco o simili.

Scollegamento del dispositivo

Scollegare la spina di alimentazione dall'apparecchio, se difettoso. Quindi contattare il centro di assistenza più vicino.

Se l'apparecchio viene utilizzato al di fuori degli Stati Uniti, servirsi di cavi con codice HAR di un produttore riconosciuto.

ATTENZIONE

Rischio di esplosione se la batteria è sostituita con una batteria di tipo non corretto. Smaltire le batterie usate attenendosi alle istruzioni.

Queste istruzioni di manutenzione devono essere utilizzate esclusivamente da personale di assistenza qualificato.

Per ridurre il rischio di scosse elettriche non eseguire interventi di manutenzione diversi da quelli indicati nelle istruzioni per l'uso a meno di essere in possesso della qualifica adatta a tale scopo.

Utilizzare l'alimentazione in ingresso con una sola telecamera; gli altri dispositivi non devono essere collegati.

L'apparecchiatura informatica (ITE) deve essere collegata solo a reti PoE senza instradamento all'impianto esterno.

Leggere attentamente le seguenti precauzioni di sicurezza raccomandate.

- Non collocare l'apparecchio su superfici irregolari.
- Non installare su superfici esposte alla luce diretta del sole, vicino a fonti di calore o a zone di freddo intenso.
- Non collocare l'apparecchio vicino a materiali conduttivi.
- Non tentare di effettuare personalmente interventi di assistenza sull'apparecchio.
- Non collocare bicchieri d'acqua sul prodotto.
- Non installare vicino a sorgenti magnetiche.
- Non ostruire le aperture per la ventilazione.
- Non appoggiare oggetti pesanti sul prodotto.
- Usare guanti protettivi quando si installa o rimuove la telecamera.
L'elevata temperatura della superficie del dispositivo potrebbe causare ustioni.
- Non regolare o spostare la lente direttamente con le mani. Ciò potrebbe danneggiare la lente o comprometterne le prestazioni.
- L'aspettativa di vita del motore della lente è di 200 rotazioni.

Il manuale utente è una guida all'uso dei prodotti.

I simboli utilizzati nel manuale hanno i seguenti significati.

- Riferimento : Fornisce informazioni sull'uso del prodotto
- Avvertenza : Se vi è la possibilità di danni a persone o oggetti provocati dalla mancata osservanza delle istruzioni

✖ Per ragioni di sicurezza, leggere questo manuale prima di utilizzare il prodotto e conservarlo in un luogo sicuro.

Non garantiamo la qualità dei prodotti di terzi (ad esempio, lenti o accessori) acquistati separatamente.

In determinati ambienti di installazione, potrebbero esserci interferenze nelle comunicazioni radio. Quando si verificano interferenze di onde elettromagnetiche tra il prodotto e il dispositivo di comunicazione radio, si raccomanda di mantenere una certa distanza tra i due o di cambiare la direzione dell'antenna ricevente.

AVISO

Per evitare danni oculari causati da sorgenti LED a infrarossi, non fissare la lampada accesa.

Solo per i seguenti modelli.

PNM-9084RQZ/PNM-9085RQZ

Gruppo di rischio 1
AVISO: Il prodotto emette radiazioni infrarosse. Non fissare la lampada accesa.
Prodotto testato secondo la norma IEC 62471

INTRODUZIONE

3

- 3 Istruzioni di sicurezza importanti
- 6 Specifiche PC Consigliate
- 6 Specifiche raccomandate per la scheda di memoria Micro SD/SDHC/SDXC
- 6 Accessori forniti
- 7 Accessori opzionali per l'installazione
- 8 Sguardo d'insieme

INSTALLAZIONE E COLLEGAMENTO

10

- 10 Installazione
- 16 Collegamento con altri dispositivi

COLLEGAMENTO RETE E IMPOSTAZIONE

19

- 19 Collegare la Videocamera Direttamente All'area Locale Della Rete
- 19 Collegamento della Videocamera Direttamente ad un Modem via Cavo/DSL DHCP
- 20 Utilizzo di Device manager
- 20 Ricerca automatica della telecamera
- 20 Configurazione dell'indirizzo IP
- 21 Registrazione manuale della telecamera
- 21 Configurazione automatica dell'IP
- 22 Impostazione dell'inoltro intervallo porte (mappatura della porte)
- 23 Collegamento alla videocamera da un PC locale condiviso
- 23 Collegamento alla videocamera da un PC remoto tramite Internet

VISUALIZZATORE WEB

24

- 24 Collegamento alla videocamera
- 25 Configurazione della password
- 25 Accesso
- 25 Configurazione di Camera Web Viewer

APPENDICE

26

- 26 Ricerca Degli Errori
- 27 Open Source Announcement

SPECIFICHE PC CONSIGLIATE

- CPU : Intel(R) Core(TM) i7 3.4 GHz o superiore
- RAM : 8G o superiore
- Browser consigliato: Chrome
- Browser supportati: Chrome, Safari, Firefox, MS Edge(chromium based)
- Sistema operativo supportato : Windows, Mac, Linux, Android, iOS, Chrome
- Ambiente di verifica
 - Windows 10: Google Chrome versione 80 o successiva, Firefox versione 72 o successiva, MS Edge versione 83 o successiva
 - Mac 10.13/14: Safari versione 11.0.1 o successiva

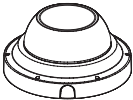
※ Le prestazioni di riproduzione video del web viewer dipendono dalle prestazioni della CPU e della GPU dell'utente.

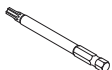
SPECIFICHE RACCOMANDATE PER LA SCHEDA DI MEMORIA MICRO SD/SDHC/SDXC

- Spazio consigliabile : Da 16GB a 256GB (Tipo MLC)
- Produttori consigliati : SanDisk, Transcend
- Tipologia di prodotto: Alta resistenza
- La compatibilità varia in base al produttore e alla tipologia della scheda.
- Si raccomanda di utilizzare una memory card di 16GB o superiore conforme alla specifica di classe UHS-3 (tipo MLC).

ACCESSORI FORNITI

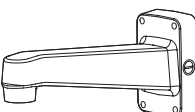
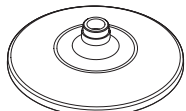
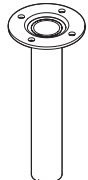
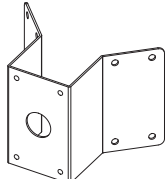
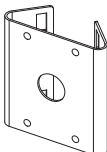
Verificare che nella confezione siano contenuti la videocamera e tutti gli accessori.
(In base al Paese di residenza, gli accessori potrebbero variare.)

Aspetto	Articolo	Quantità	Descrizione
	Videocamera	1	
	Guida Rapida (opzionale)	1	
	Sagoma	1	Guida all'installazione del prodotto
	Accensione morsettiera	1	Spina di alimentazione connessa
	Cavo di alimentazione	1	Utilizzato per collegare l'entrata della corrente
	Viti macchina	4	Viti utilizzate per il montaggio della telecamera sul supporto per il montaggio sospeso, cassetta degli attrezzi, ecc.
	Installatore cappuccio	1	Utilizzato per collegare il cavo RJ45

Aspetto	Articolo	Quantità	Descrizione
	Punta da trapano	1	Utilizzata per lo smontaggio del coperchio dome, il montaggio e l'installazione della telecamera.
	Fermacavo	1	Boccole di ricambio per cavi LAN o cavi di allarme e audio.
		1	
	Iniettore HPoE	1	Collega alimentazione e rete
	Cavo Audio/allarme	1	Utilizzato per collegare le entrate audio e per l'allarme

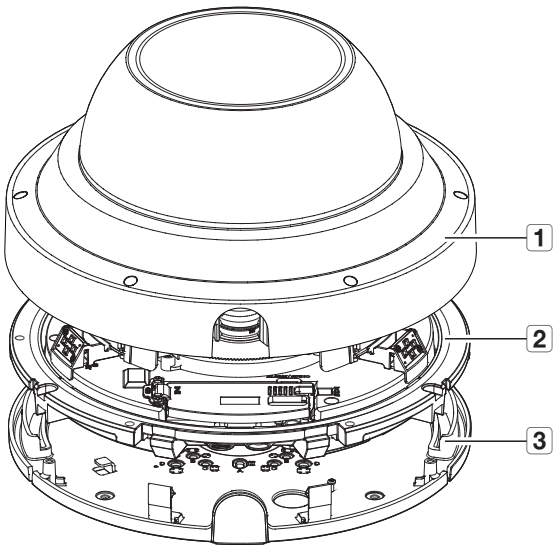
ACCESSORI OPZIONALI PER L'INSTALLAZIONE

È possibile acquistare gli opportuni accessori opzionali disponibili.

Tipo di prodotto	Montaggio a parete	
Nome del modello	SBP-390WMW2	
		
Tipo di prodotto	Montaggio sospeso	Montaggio a soffitto
Nome del modello	SBP-317HMW	SBP-300CMW
		
Tipo di prodotto	Montaggio ad angolo	Montaggio su un palo
Nome del modello	SBP-300KMW	SBP-300PMW
		

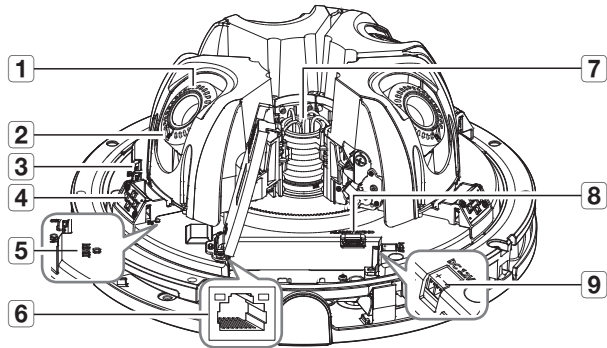
SGUARDO D'INSIEME

Aspetto



Voce	Descrizione
1 Coperchio per la sommità	Coperchio utilizzato per proteggere l'obiettivo e l'unità principale.
2 Corpo della videocamera	Parte del corpo dove la lente della telecamera e i terminali di collegamento sono inclusi.
3 Piastra di montaggio	Piastra che fissa la telecamera quando la si monta a soffitto o la si fissa ad un supporto venduto separatamente.

Components



Voce	Descrizione
1 Obiettivo	I 4 obiettivi della telecamera mostrano direzioni diverse.
2 Sensore di illuminazione	Rileva la luce in ingresso per controllare il LED a infrarossi.
3 Alloggiamento scheda di memoria Micro SD	Alloggiamento per la scheda di memoria Micro SD.
4 LED a infrarossi	Questi LED a infrarossi sono controllati dal sensore di illuminazione.
5 Tasto Reset	Il pulsante ripristina tutte le impostazioni della videocamera all'impostazione predefinita. Tenere premuto per circa 5 secondi per riavviare il sistema. I Se si resetta la videocamera, le impostazioni di rete vengono regolate in modo da poter abilitare il DHCP. Se nella rete non è presente nessun server DHCP, è necessario eseguire il programma Device manager per modificare le impostazioni di rete di base, come indirizzo IP, Subnet mask, Gateway, ecc. prima di potersi collegare alla rete.
6 Porta di connessione HPoE	Questo terminale collega l'alimentazione e la rete tramite iniettore HPoE o si collega alla rete tramite cavo ethernet.

Voce	Descrizione	
7 Cavi	Colore - CH 1: Rosso CH 2: Verde CH 3: Blu CH 4: Nero	
8 Ingresso per il cavo dell'audio e di allarme	ARM-IN	Utilizzato per collegare il sensore in entrata di allarme oppure il sensore esterno Giorno/notte.
	ARM-OUT	È utilizzata per collegare il segnale di uscita allarme.
	GND	Porte standard per collegare i segnali d'allarme in entrata/uscita.
	MIC	Per il collegamento a un microfono.
	SPEAKER	Per il collegamento agli altoparlanti.
9 Porta di alimentazione	Ingresso per il blocco del terminale di alimentazione.	

INSTALLAZIONE

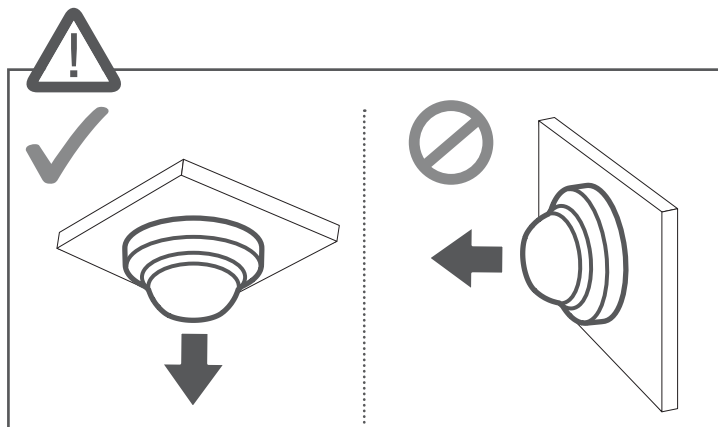


- La presente telecamera è impermeabile e conforme alla classe di protezione IP66, ma la presa collegata al cavo esterno non lo è. Si consiglia di installare il prodotto sotto il bordo delle grondaie per evitare che il cavo risulti esposto esternamente.

Precauzioni prima dell'installazione

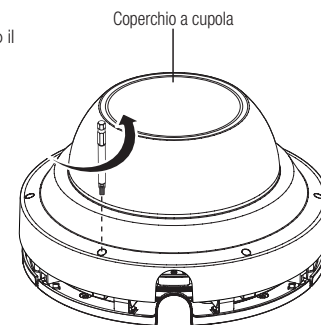
Prima di installare la videocamera, assicurarsi di aver letto le seguenti istruzioni:

- Selezionare un sito per l'installazione che sia in grado di supportare almeno 5 volte il peso della telecamera.
- I cavi bloccati o spelati possono danneggiare il prodotto o provocare incendi.
- Per motivi di sicurezza, allontanare tutte le persone dal luogo di installazione. E, se necessario, disporre le proprie cose lontano dal sito.
- Se il prodotto viene installato con una forza eccessiva, potrebbe causare danni alla telecamera a causa di un malfunzionamento. Forzare l'assemblaggio utilizzando strumenti non conformi potrebbe danneggiare il prodotto.



Smontaggio

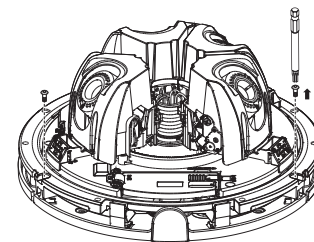
1. Rimuovere il coperchio dome allentando il bullone di fissaggio. Ciò può essere effettuato girando in senso antiorario utilizzando il perno di centraggio in dotazione.



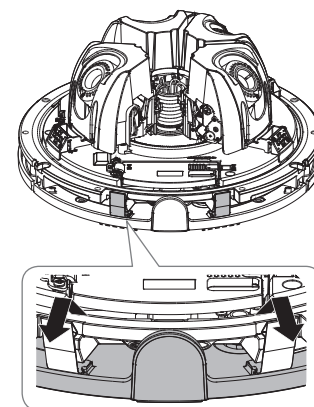
2. Allentare la vite di dissaggio del corpo della telecamera.



- Non regolare o spostare la lente direttamente con le mani. Ciò potrebbe danneggiare la lente o comprometterne le prestazioni.

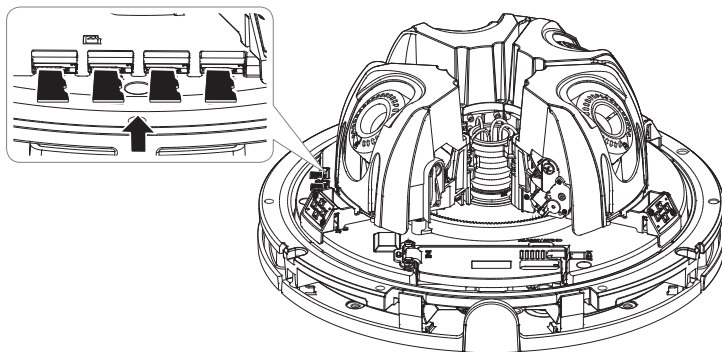


3. Rimuovere il corpo della telecamera e la piastra di montaggio tirando la molla della piastra, come mostrato in figura.



Inserimento di una scheda di memoria Micro SD

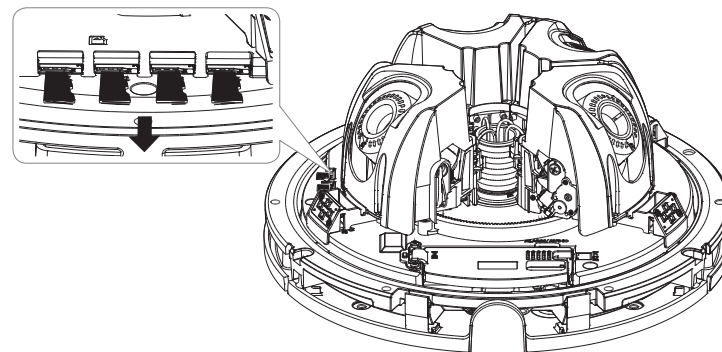
1. Rimuovere il coperchio dome della telecamera.
2. Inserire la scheda Micro SD nel verso della freccia raffigurata nell'immagine.



- Scollegare il cavo di alimentazione dalla videocamera prima di inserire la scheda di memoria Micro SD.
- Non inserirlo forzando nella direzione opposta. Potrebbe danneggiare la scheda di memoria Micro SD e il prodotto.
- Quando piove e si ha un alto livello di umidità, non è consigliabile inserire o estrarre una scheda Micro SD.
- Lo smontaggio del coperchio del prodotto deve completarsi entro 5 minuti, altrimenti si potrebbe causare la condensazione interna.
- Se il LED IR della telecamera blocca lo slot Micro SD, accedere al visualizzatore web e spostare l'obiettivo per non bloccare lo slot.

Rimozione di una scheda di memoria Micro SD

Premere delicatamente sulla fine esposta della scheda di memoria come mostrato nel diagramma per espellere la scheda di memoria dallo slot.

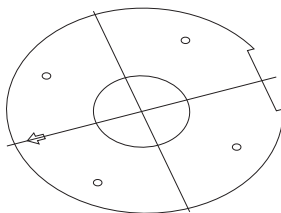


- È necessario utilizzare una scheda SD diversa per il salvataggio di ciascun canale.
- Si noti che se si spinge e si rilascia con decisione la scheda di memoria Micro SD quando viene espulsa, la stessa potrebbe fuoriuscire.
- Prima di rimuovere la scheda di memoria Micro SD, in **<Impostazioni (⚙)>** **<Evento>** **<Memorizz.>**, impostare il dispositivo su **<Off>**, premere il pulsante **[Applica]** e spegnere la telecamera.
- Se si spegne la telecamera o si rimuove la scheda di memoria Micro SD che contiene i dati del prodotto, i dati potrebbero andare persi o danneggiati.

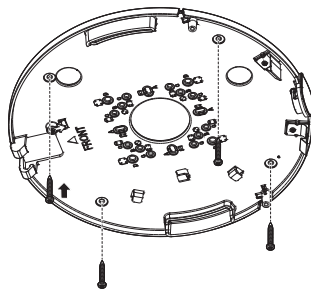
Installazione (piastra di montaggio)

[Installazione diretta a soffitto]

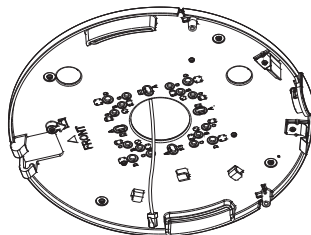
1-1. Attaccare il modello per l'installazione sulla superficie desiderata e praticare i fori per le viti e i cavi.



1-2. Fissare la piastra di montaggio utilizzando le viti appropriate.



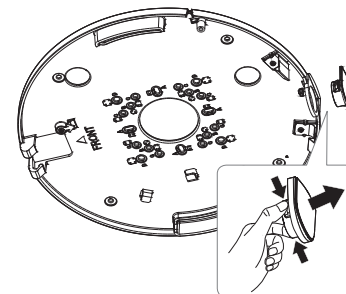
1-3. Estrarre i cavi necessari tra i cavi di alimentazione / LAN / audio e allarme attraverso il foro sulla piastra di montaggio.



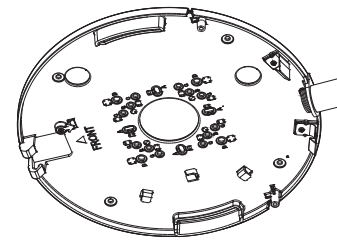
[Installazione tramite tubo]

2-1. Attaccare il modello per l'installazione e praticare i fori per le viti e i cavi.

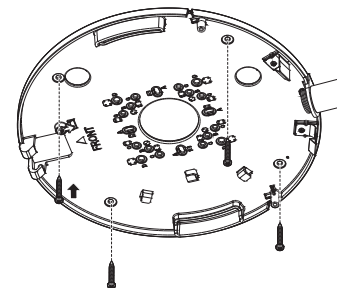
2-2. Fissare la piastra di montaggio utilizzando le viti appropriate.



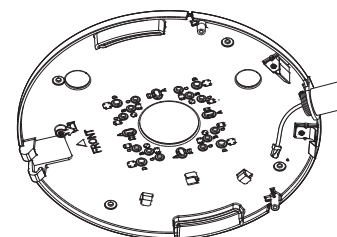
2-3. Posizionare il tubo sulla piastra di montaggio.



2-4. Fissare la piastra di montaggio utilizzando le viti appropriate.



2-5. Estrarre i cavi necessari tra i cavi di alimentazione / LAN / audio e allarme attraverso il tubo.

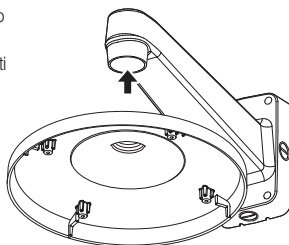


[Collegamento all'adattatore non compreso nella confezione]

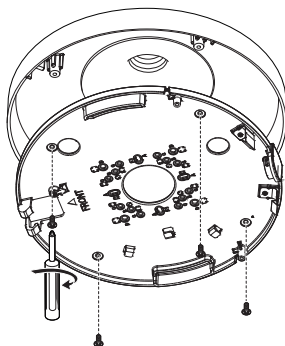
Scegliere e acquistare una delle seguenti opzioni necessarie (non comprese nel pacchetto) a seconda delle possibilità del sito di installazione o a seconda dell'utilità.

3-1. Installare il supporto per la sospensione all'adattatore del supporto a parete.

- Gli adattatori per supporto a parete e i supporti per la sospensione sono venduti separatamente.

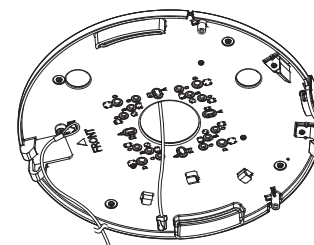


3-2. Collegare la piastra di montaggio e il supporto sospeso.



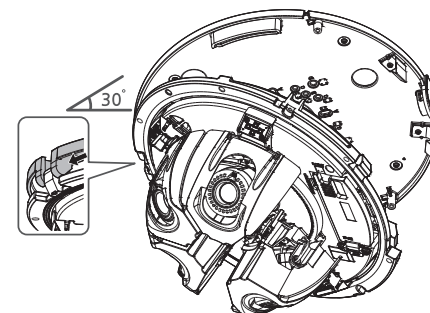
Installazione (corpo della telecamera e coperchio a cupola)

1. Collegare il cavo di sicurezza.



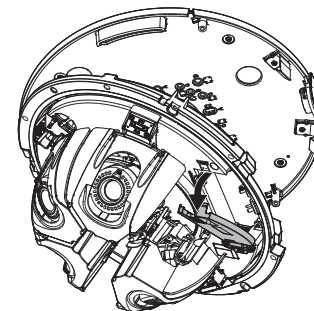
2. Montare il corpo della telecamera sulla piastra di supporto.

- Montarlo adattandolo alle cerniere come indicato nell'immagine.

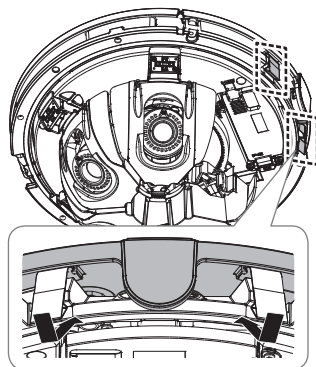


3. Aprire il copricavi sul corpo macchina.

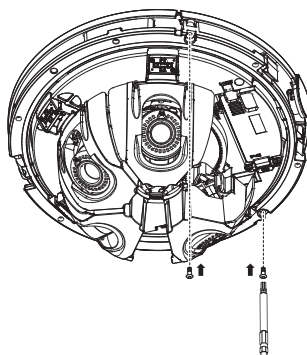
4. Collegare i terminali all'interno della telecamera con i cavi necessari, quindi chiudere il copricavi.



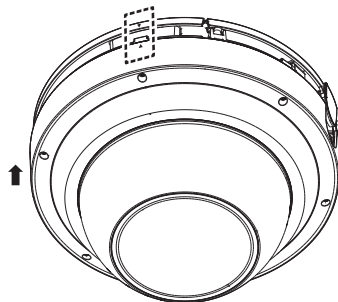
5. Premere la molla a balestra finché non si incastra in posizione come mostrato in figura.



6. Utilizzando le viti di fissaggio sul corpo della telecamera, fissare quest'ultimo alla piastra di montaggio.



7. Montare il coperchio dome.
- Allineare le frecce durante il montaggio del coperchio dome.
 - Per evitare problemi di impermeabilità, avvitare a fondo le viti di fissaggio con la punta del trapano.



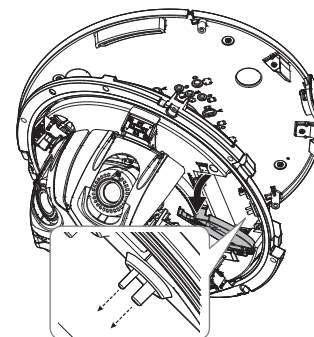
Collegare il cavo di alimentazione impermeabile e il cavo LAN



- Utilizzare un fermacavo appropriato per collegare il cavo della LAN.
 - Telecamera standard: Utilizzare un cavo con un diametro pari a Ø5~6.5.
 - Componenti forniti: Utilizzare un cavo con un diametro pari a Ø7~8.5.

[Metodo 1. Installazione cavi di alimentazione/LAN]

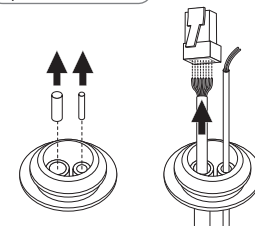
1. Estrarre le parti estruse della boccola da utilizzare, come mostrato in figura.



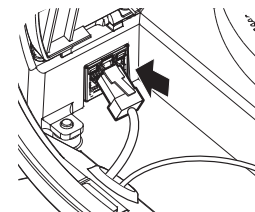
2. Passare il cavo LAN nel foro grande nella boccola.

3. Rimuovere la guaina con un tranciacavi, poi allineare i cavi.

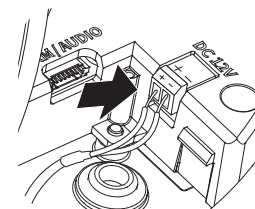
4. Collegare il cavo LAN con il connettore della LAN e inserirlo nello strumento della LAN.



5. Collegare il cavo finito alla porta HPoE.

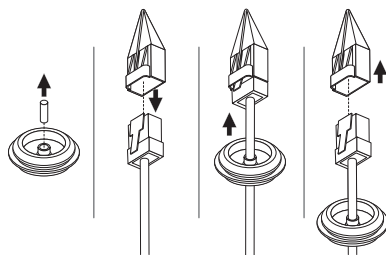


6. Inserire il cavo di alimentazione nel foro piccolo della boccola e collegarlo alla morsettieria in dotazione.

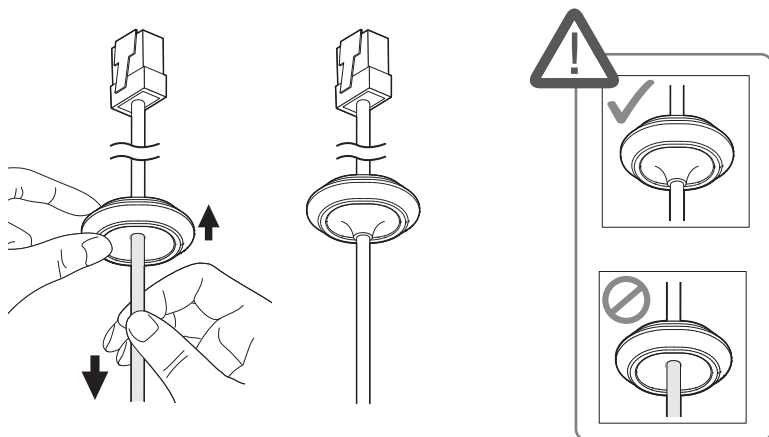


[Metodo 2. Installazione del cavo LAN (usando l'iniettore HPoE)]

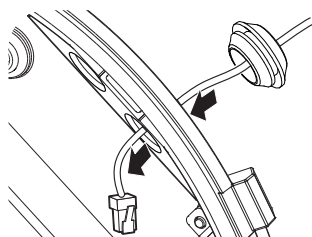
1. Estrarre la parte estrusa della boccola a 1 foro in dotazione.
2. Utilizzare l'installatore del tappo per passare attraverso il cavo LAN.



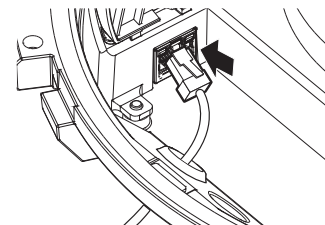
3. Per una protezione impermeabile, tirare il cavo verso il basso attraverso il passacavo, come mostrato nella figura sottostante.



4. Montare la boccola sul corpo della telecamera.

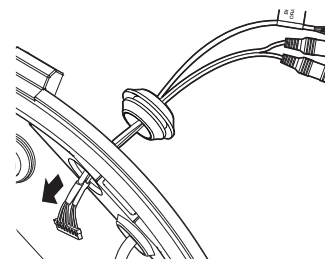


5. Collegare il cavo LAN alla porta HPoE.

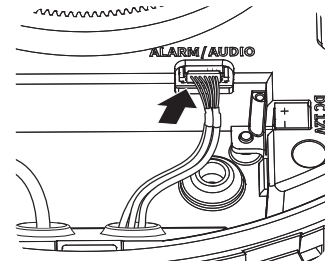


Installazione di cavi audio e allarme

1. Montare la boccola dei cavi audio e allarme in dotazione sul corpo della telecamera.



2. Collegare il cavo audio e allarme al terminale ALLARME/AUDIO.

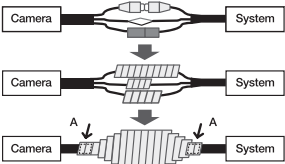


Installazione all'esterno

Quando si installa il prodotto all'esterno dell'edificio, impermeabilizzarlo con nastro impermeabilizzante in gomma butilica (acquistabile nei negozi), in modo da evitare perdite d'acqua dallo spazio del cavo collegato all'esterno.

- 1. Collegare i cavi di alimentazione, I/O, AUDIO e LAN.
- 2. Avvolgere la guaina del cavo nero (Area A) e l'area di collegamento del cavo con nastro impermeabilizzante (in gomma butilica), in modo da sovrapporre più di metà del nastro in gomma butilica.

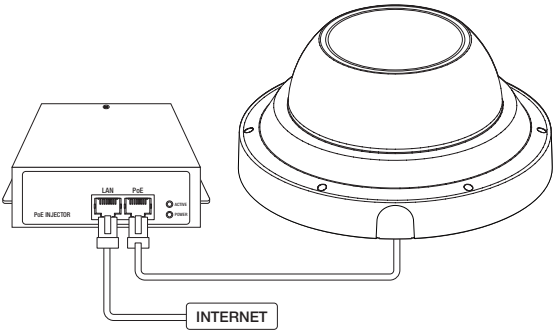
- Se la guaina del cavo non è impermeabilizzata correttamente, può causare direttamente perdite. Accertarsi di proteggere il cavo con uno strato spesso di nastro.
- Il nastro butilico impermeabilizzante è in gomma butilica ed è in grado di allungarsi al doppio della lunghezza normale.



COLLEGAMENTO CON ALTRI DISPOSITIVI

Alimentazione e funzioni di rete

Collegare il dispositivo HPoE con il terminale HPoE della telecamera.



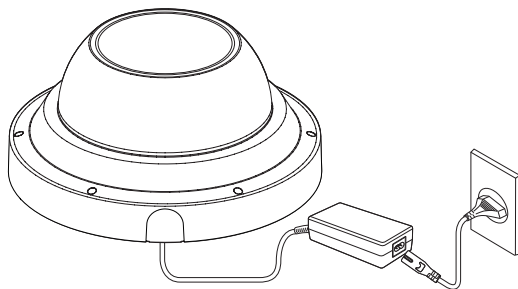
- Connettere e utilizzare un router abilitato per HPoE.
- Utilizzare un dispositivo HPoE conforme allo standard IEEE802.3bt (PSE TIPO 3 o 4).
- Se ci si collega utilizzando un router abilitato HPoE, non è necessario un cavo di alimentazione separato per accenderlo.

Caratteristiche tecniche del cavo di rete

Unità	Contenuti	Osservazione
Connettore	RJ45 (10/100/1000BASE-T)	
Ethernet	10/100/1000BASE-T	Per il funzionamento con 1000BASE-T, è necessario utilizzare un cablaggio Categoria 6 o superiore per l'hub Giga.
Cavo	Categoria 6	
Distanza massima	100M	Resistenza DC ≤ 0.188 Ω/m
HPoE	HPoE	

Alimentazione

Utilizzare un cacciavite per collegare ciascun terminale (+, -) del cavo di alimentazione alla relativa porta della videocamera.



- Si consiglia un adattatore con CC 12V 4A o superiore.
- Raccomandiamo di utilizzare iniettori HPoE per alimentare l'unità.
- Non utilizzare l'alimentazione DC e l'iniettore HPoE contemporaneamente.
- Fare attenzione a non invertire la polarità quando si collega il cavo di alimentazione.
- Se si intende collegare un dispositivo esterno, questo deve essere spento prima di procedere.

Specifica del cavo di alimentazione

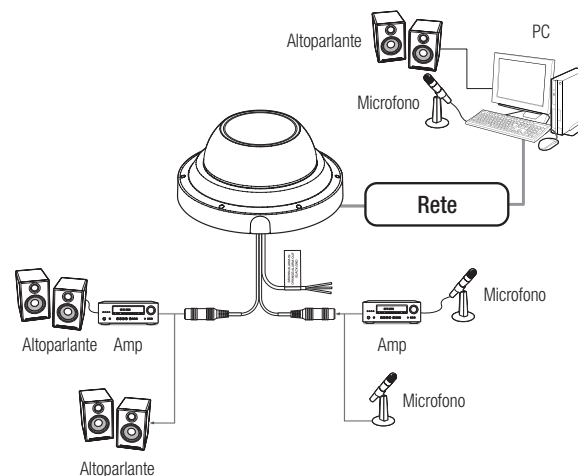
Imbocco CC 12V:

Tipo allarme (AWG)	#14	#16
Lunghezza del cavo (Max.)	14m	9m

Collegamento Ethernet

Collegare il cavo Ethernet alla rete locale o a Internet.

Collegare all'ingresso/uscita audio



1. Collegare la porta AUDIO IN della telecamera al microfono o alla porta LINE OUT dell'amplificatore a cui è collegato il microfono.
2. Collegare la porta AUDIO OUT della telecamera al diffusore o alla porta LINE IN dell'amplificatore a cui il diffusore è collegato.
3. Controllare le specifiche per l'ingresso audio.

• Audio Codec

- Ingresso audio : G.711 PCM (Bit rate: 64 kbps / Frequenza di campionamento: 8 kHz), G.726 ADPCM (Bit rate: 16 Kbps, 24 Kbps, 32 Kbps, 40 Kbps / Frequenza di campionamento: 8 kHz), AAC (Bit rate: 48 Kbps / Frequenza di campionamento: 16 kHz)
- Uscita audio : G.711 PCM (Bit Rate: 64 kbps / Frequenza di campionamento: 8 kHz)

• Audio duplex

- **Ingresso audio** : Selezionabile (ingresso microfono/linea), Tensione supportata: 2,5 V CC (4 mA), Impedenza d'ingresso: 2K Ohm

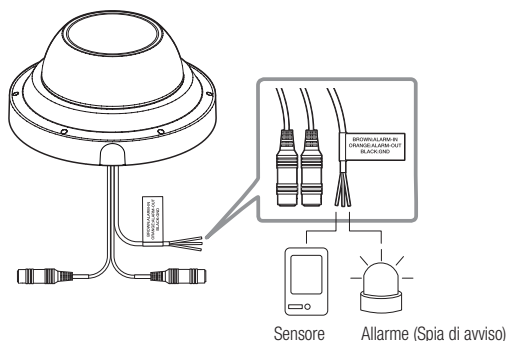
- **Audio out** : Linea in uscita (3,5mm Mono jack), Livello uscita max: 1Vrms

- **Impedenza linea di uscita** : 600Ω

- Nel caso in cui si acceda al visualizzatore Web e si selezioni un microfono esterno come sorgente di ingresso audio in **<Video & Audio>** - **<Impostazioni audio>**, si raccomandano le seguenti specifiche:
 - Intervallo di frequenze: 40-16.000 Hz
 - Impedenza: 1.500 Ω
 - Sensibilità: -40±3 dB (7,1-14,1 mV)

Collegamento alla porta I/O

Collegare il cavo di allarme I/O alla porta corrispondente della scatola d'ingresso.



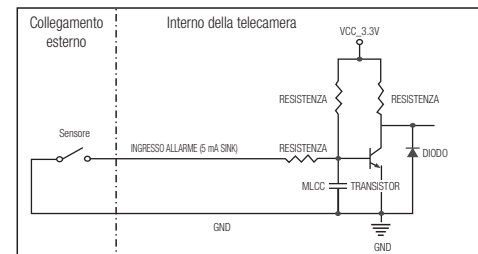
- ALARM-IN : Utilizzato per collegare il sensore in entrata di allarme oppure il sensore esterno Giorno/notte.
- ALARM-OUT : È utilizzata per collegare il segnale di uscita allarme.
- GND : Porta comune per il segnale di allarme in entrata/uscita.

■ Se si collegano dispositivi che superano la tensione e la corrente specificate (es. luce lampeggiante e sirena) mediante il metodo a collettore aperto, potrebbero verificarsi malfunzionamenti.
Fare riferimento al **"Schema di collegamento dell'uscita allarme"** quando si collegano dispositivi che superano il voltaggio e le attuali caratteristiche tecniche.

Collegamento del sensore esterno

Collegare un trefolo di ogni linea di segnale (2 trefoli) dei sensori alla porta **[ALARM IN]** e l'altro trefolo alla porta **[GND]**.

Schema di collegamento dell'ingresso allarme



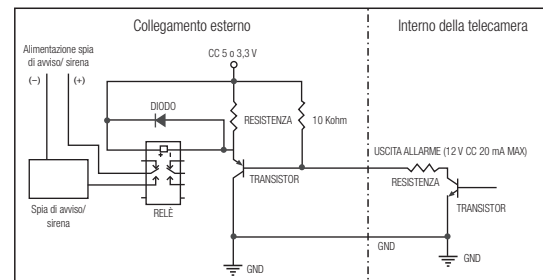
Per collegare l'uscita allarme

Se si collegano dispositivi che superano la tensione e la corrente specificate (es. luce lampeggiante e sirena) mediante il metodo a collettore aperto, potrebbero verificarsi malfunzionamenti.

Per collegare dispositivi che superano la tensione e la corrente specificate, vedere lo schema di collegamento dell'uscita allarme illustrato di seguito.

■ Il metodo N.C. (Normal Close) non è compatibile.

Schema di collegamento dell'uscita allarme

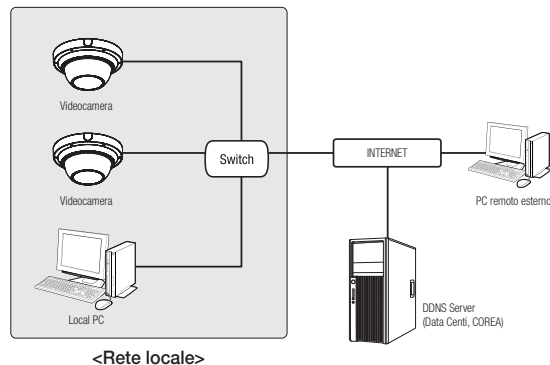


E' possibile impostare le impostazioni di rete secondo le configurazioni di rete.

COLEGARE LA VIDEOCAMERA DIRETTAMENTE ALL'AREA LOCALE DELLA RETE

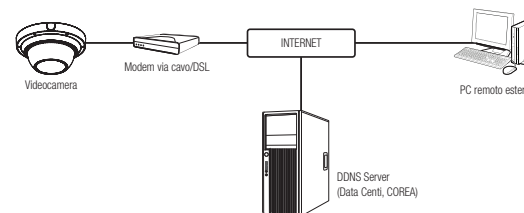
Collegare la videocamera da un PC locale nella LAN

1. Lanciare un browser internet sul PC locale.
2. Inserire un indirizzo IP della fotocamera nella barra dell'indirizzo del browser.



- Un PC remoto in un internet esterno fuori dalla rete LAN può non essere in grado di collegarsi alla fotocamera installata nell'intranet se l'inoltro della porta non è correttamente impostato o c'è un firewall. In questo caso, per risolvere il problema, contattare l'amministratore di rete.
- Per impostazione predefinita, l'indirizzo IP viene assegnato automaticamente dal server DHCP. In assenza di un server DHCP disponibile, l'indirizzo IP è impostato su 192.168.1.100. Per modificare l'indirizzo IP, utilizzare il Device manager. Per ulteriori dettagli sull'utilizzo di Device manager, fare riferimento a "Utilizzo di Device manager". (Pagina 20)

COLLEGAMENTO DELLA VIDEOCAMERA DIRETTAMENTE AD UN MODEM VIA CAVO/DSL DHCP



1. Collegare il PC utente direttamente alla rete della telecamera.
2. Eseguire il Device manager e modificare l'indirizzo IP della telecamera in modo da poter utilizzare il browser web sul desktop per connettersi a Internet.
3. Utilizzare il browser Internet per collegarsi al visualizzatore Web.
4. Passare alla pagina [Configurazione].
5. Passare a [Rete] – [DDNS] e configurare le impostazioni DDNS.
6. Andare a [Basic] – [IP & Porta], e impostare il tipo di IP su [DHCP].
7. Collegare la videocamera rimossa dal PC direttamente al modem.
8. Riavviare la videocamera.

- Per informazioni su come impostare il DDNS fare riferimento alla guida online di Web Viewer.
- Per informazioni su come impostare il formato IP fare riferimento alla guida online di Web Viewer.

UTILIZZO DI DEVICE MANAGER

- Il programma Device manager può essere scaricato dal menu <Support> – <Online Tool> sul sito web di Hanwha Vision (<https://www.HanwhaVision.com>).
- È possibile trovare ulteriori istruzioni sul Device manager nel menu <Guida> nella pagina principale.

RICERCA AUTOMATICA DELLA TELECAMERA

Se una telecamera è collegata alla stessa rete del PC in cui è installato Device manager, è possibile trovare la telecamera di rete utilizzando la funzione di ricerca.

- Fare clic su <Ricerca> nella pagina principale di Device manager.
- Selezionare la telecamera dall'elenco.
 - Controllare l'indirizzo MAC sull'adesivo attaccato alla telecamera.

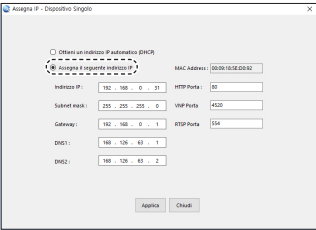
CONFIGURAZIONE DELL'INDIRIZZO IP

Se si desidera modificare le impostazioni di rete della telecamera, il simbolo <Login OK> deve essere visualizzato su <Stato>. Fare clic su <Autenticazione> nella pagina principale per accedere.

Configurazione dell'IP statico

Inserire e configurare manualmente le informazioni relative all'indirizzo IP e alla porta.

- Dall'elenco, fare clic sulla telecamera di cui si desidera modificare l'impostazione IP.
- Fare clic su <IP assegnare> nella pagina principale di Device manager.
- Selezionare <Assegna il seguente indirizzo IP>.
 - Le informazioni IP della telecamera verranno visualizzate come precedentemente impostato.
- Compilare le categorie relative a IP e porta.



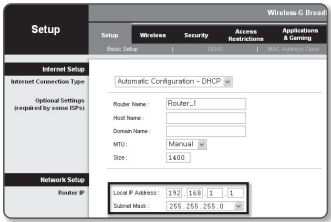
Se non si usa un router a banda larga

Chiedere al gestore di rete il valore impostato di <Indirizzo IP>, <Subnet mask> e <Gateway>.

- HTTP Porta : È utilizzata per accedere alla videocamera utilizzando il browser Internet (impostazione predefinita: 80).
- RTSP Porta : Una porta che controlla lo streaming in tempo reale. Il valore iniziale è 554.

Se si utilizza un router a banda larga

- IP Address : Inserire un indirizzo compreso nell'intervallo di IP fornito dal router a banda larga.
Es) 192.168.1.2~254, 192.168.0.2~254, 192.168.XXX.2~254
- Subnet Mask : La <Subnet Mask> del router a banda larga sarà la <Subnet Mask> della videocamera.
- Gateway : Il <Local IP Address> del router a banda larga sarà il <Gateway> della videocamera.



- Le impostazioni possono differire a seconda del modello di router a banda larga collegato. Per ulteriori informazioni, consultare il manuale utente del router.
- Per ulteriori informazioni sul port forwarding del router a banda larga, vedere "Impostazione dell'inoltro intervallo porte (mappatura della porta)". (Pagina 22)

Se al router a banda larga sono collegate più videocamere

Configurare separatamente le impostazioni relative all'IP e le impostazioni relative alla porta.

Es)

	Categoria	Videoc #1	Videoc #2
Impostazioni correlate dell'IP	Indirizzo IP	192.168.1.100	192.168.1.101
	Subnet Mask	255.255.255.0	255.255.255.0
	Gateway	192.168.1.1	192.168.1.1
Impostazioni correlate della porta	HTTP Porta	8080	8081
	RTSP Porta	554	555

- Se per <HTTP Port> è stato impostato un valore diverso da 80, è necessario inserire il numero di <Port> nella barra degli indirizzi del browser Internet prima di poter accedere alla videocamera.
Es) `http://Indirizzo IP : HTTP Port`
`http://192.168.1.100:8080`

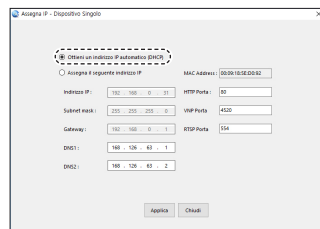
- Fare clic sul pulsante [Applica].
- Se viene visualizzato il messaggio di successo, fare clic su [OK].

Configurazione dell'IP dinamico

Ricevere l'indirizzo IP da DHCP

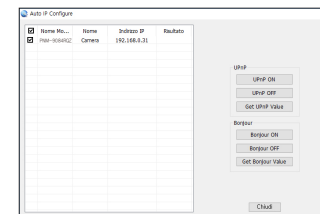
- Esempio di ambiente dell'IP dinamico
 - Se al router a banda larga a cui sono collegate le videocamere è assegnato un indirizzo IP da parte del server DHCP
 - Se si collega la videocamera direttamente al modem usando i protocolli DHCP
 - Se gli IP sono assegnati dal server DHCP interno tramite LAN

1. Dall'elenco, fare clic sulla telecamera di cui si desidera modificare l'impostazione IP.
2. Fare clic su **<IP assegnare>** nella pagina principale di Device manager.
3. Selezionare **<Ottieni un indirizzo IP automatico (DHCP)>**.
4. Fare clic sul pulsante **[Applica]**.
5. Se viene visualizzato il messaggio di successo, fare clic su **[OK]**.



CONFIGURAZIONE AUTOMATICA DELL'IP

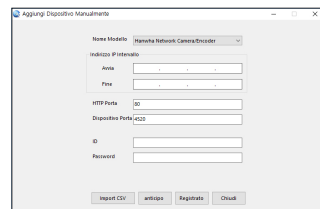
1. Dall'elenco, fare clic sulla telecamera di cui si desidera configurare automaticamente l'IP.
2. Fare clic su **<+>** nella pagina principale di Device manager.
 - Appare il menu Impostazione apparecchiatura.
3. Nel menu, fare clic su **<Auto IP Configure (Configurare IP automatico)>**.
4. Fare clic sul pulsante **[Chiudi]**.



REGISTRAZIONE MANUALE DELLA TELECAMERA

Se non è possibile trovare la telecamera utilizzando la funzione di ricerca, la telecamera può essere registrata a distanza inserendo manualmente le informazioni IP, se la telecamera è collegata a una rete esterna.

1. Fare clic su **<Indirizzo>** – **<Aggiungi Dispositivo Manualmente>** nella pagina principale di Device manager.
2. Inserire l'intervallo di indirizzi IP che si ricerca.
3. Selezionare il **<Nome Modello>** della telecamera registrata e inserire la porta HTTP, l'ID e la password.
4. Fare clic sul pulsante **[Registrato]**.
5. Controllare che la telecamera sia registrata.
 - Controllare l'indirizzo MAC sull'adesivo attaccato alla telecamera.

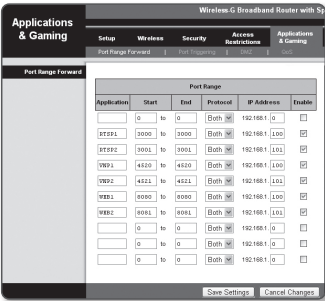


IMPOSTAZIONE DELL'INOLTRO INTERVALLO PORTE (MAPPAT URA DELLA PORTE)

Se è stato installato un router a banda larga a cui è collegata una videocamera, impostare l'inoltro intervallo porte sul router a banda larga in modo che un PC remoto possa accedere alla videocamera in esso.

Inoltro intervallo porte manuale

- 1. Dal menu di configurazione del router a banda larga, selezionare <Applications & Gaming> - <Port Range Forward>.
- Per impostare l'inoltro intervallo porte per un router a banda larga di terzi, consultare il Manuale utente del router a banda larga in questione.
- 2. Selezionare <TCP> e <UDP Port> per ogni videocamera collegata al router a banda larga.
- Il numero di ogni porta da configurare al Router IP deve essere impostato in base al numero della porta designata in <Configurazione> - <Basic> - <IP & Porta> nel visualizzatore web della telecamera.
- 3. A operazione ultimata, fare clic su [Save Settings].
- Le impostazioni vengono salvate.

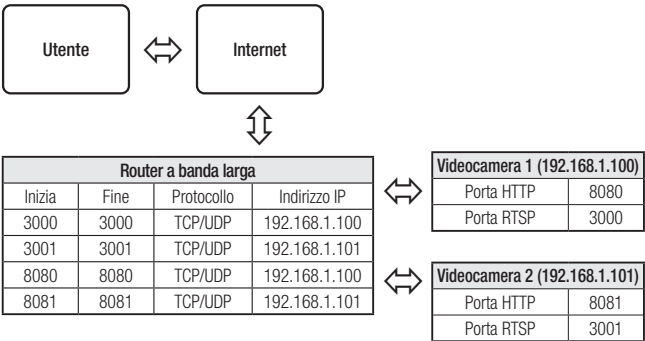


- L'impostazione di inoltro della porta è un esempio di impostazione del router IP CISCO.
- Le impostazioni possono differire a seconda del modello di router a banda larga collegato.
- Per ulteriori informazioni, consultare il manuale utente del router.

Impostazione del port range forwarding per più videocamere di rete

- È possibile impostare una regola di inoltro della porta sul router a banda larga, dalla relativa pagina Web di configurazione.
- L'utente potrà cambiare ogni porta utilizzando la schermata di configurazione della telecamera.

Quando la videocamera 1 e la videocamera 2 sono collegate a un router :



- L'inoltro della Porta può essere effettuato senza un'ulteriore configurazione del router se questo supporta la funzione UPnP (Universal Plug and Play).
- Dopo aver collegato la telecamera di rete, selezionare la casella di spunta dal menu <Connessione rapida> in <DDNS> in "Impostazioni -> Rete -> DDNS".

COLLEGAMENTO ALLA VIDEOCAMERA DA UN PC LOCALE CONDIVISO

1. Eseguiare Device manager.
Vengono ricercate le videocamere collegate e ne viene visualizzata una lista.
2. Fare doppio clic sulla videocamera a cui accedere.
Il browser Internet viene avviato e si collega alla videocamera.



- È anche possibile accedere alla videocamera digitando l'indirizzo IP della videocamera trovata nella barra degli indirizzi del browser Internet.

COLLEGAMENTO ALLA VIDEOCAMERA DA UN PC REMOTO TRAMITE INTERNET

Su un computer remoto che non si trova nella rete del Router a banda larga, il cluster non è consentito. Gli utenti possono accedere alle telecamere all'interno della rete di un Router a banda larga utilizzando l'URL DDNS della telecamera.

1. Prima di accedere alla videocamera nella rete del router a banda larga, bisogna aver impostato l'inoltro intervallo porte per il router a banda larga.
2. Dal PC remoto, avviare il browser Internet e digitare l'indirizzo URL DDNS della videocamera o l'indirizzo IP del router a banda larga nella barra degli indirizzi.
Es) <http://ddns.hanwha-security.com/ID>

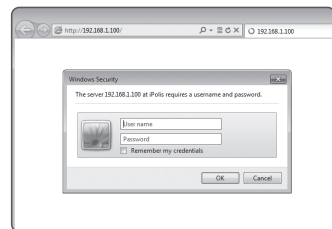


- Per utilizzare il DDNS, iscriversi alla homepage del DDNS (<http://ddns.hanwha-security.com>) e registrare il prodotto su [Il mio DDNS]>[Registrazione prodotto].

COLLEGAMENTO ALLA VIDEOCAMERA

Caso normale

1. Avviare il browser Internet.
2. Digitare l'indirizzo IP della videocamera nella barra degli indirizzi.
Es) • Indirizzo IP (IPv4) : 192.168.1.100 →
http://192.168.1.100
- Si apre la finestra di dialogo di accesso.
• Indirizzo IP (IPv6) : 2001:230:abcd:ffff:0000:0000:ffff:1111
→ http://[2001:230:abcd:ffff:0000:0000:ffff:1111]
- Si apre la finestra di dialogo di accesso.



Se la porta HTTP è diversa da 80

1. Avviare il browser Internet.
2. Digitare l'indirizzo IP e il numero di porta HTTP della videocamera nella barra degli indirizzi.
Es) Indirizzo IP : 192.168.1.100:numero porta HTTP(8080)
→ http://192.168.1.100:8080 - Si apre la finestra di dialogo di accesso.

Utilizzo dell'URL

1. Avviare il browser Internet.
2. Digitare l'URL DDNS della videocamera nella barra degli indirizzi.
Es) Indirizzo URL : http://ddns.hanwha-security.com/ID
- Si apre la finestra di dialogo di accesso.



La connessione di rete è disabilitata in un ambiente di connessione di rete che funziona soltanto tramite la LAN.

Connessione tramite UPnP

1. Avviare il sistema operativo oppure il sistema client a supporto del protocollo UPnP.
2. Fare clic sul nome della telecamera per avviare la ricerca.
Nel sistema operativo di Windows, fare clic sul nome della telecamera che appare nei risultati della ricerca nel menu della rete.
- Viene visualizzata la finestra per l'accesso.

Connessione tramite Bonjour

1. Avviare il sistema operativo oppure il sistema client a supporto del protocollo di Bonjour.
2. Fare clic sul nome della telecamera per avviare la ricerca.
Nel sistema operativo di Macintosh, fare clic sul nome della telecamera che appare nei risultati della ricerca nella finestra di Bonjour di Safari.
- Viene visualizzata la finestra per l'accesso.

Per controllare l'indirizzo DDNS

Se la fotocamera è collegata direttamente a un modem via cavo o DSL basato su DHCP, l'indirizzo IP cambierà ogni volta che viene effettuato un tentativo di connettersi all'ISP (la società a cui si è abbonati). In questo caso, l'utente non viene informato che l'indirizzo IP è cambiato dal DDNS.

Una volta registrato un dispositivo con IP dinamico nel server DDNS, è possibile controllare facilmente l'IP cambiato quando si prova ad accedere al dispositivo.

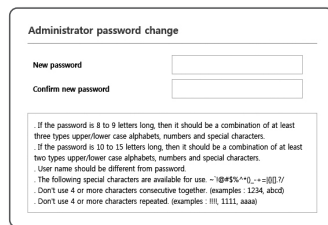
Per registrare il dispositivo sul server <DDNS>, visitare il sito <http://ddns.hanwha-security.com> e, per prima cosa, registrare il dispositivo. Quindi impostare <Rete> - <DDNS> del visualizzatore Web su <DDNS> e inserire il <ID prodotto> precedentemente utilizzato per la registrazione del DDNS.

CONFIGURAZIONE DELLA PASSWORD

Quando si effettua l'accesso al prodotto per la prima volta, è necessario registrare la password di accesso.



- Per una nuova password da 8 a 9 cifre, è necessario usare almeno 3 dei seguenti elementi: lettere maiuscole/minuscole, numeri e caratteri speciali. Per una password da 10 a 15 cifre, è necessario utilizzare almeno 2 degli elementi precedentemente elencati.
 - Caratteri speciali permessi: ~!@#\$%^&*()_-=+|{}[]?/
- Per ottenere un maggiore livello di sicurezza, non è raccomandabile usare ripetutamente gli stessi caratteri oppure lettere consecutive nella tastiera.
- Se la password è stata smarrita, è possibile premere il pulsante **[RESET]** per ripristinare il prodotto. Di conseguenza, non è consigliabile usare un promemoria per ricordare la propria password o memorizzarla semplicemente.



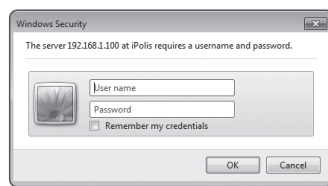
ACCESSO

Ogni volta che si accede alla telecamera, appare la finestra di login. Inserire l'ID utente e la password per accedere alla telecamera.

1. Inserire **"admin"** nella casella **<User name>**.
L'ID dell'amministratore, **"admin"**, è fisso e non può essere cambiato.
2. Immettere la password nel campo di inserimento per la **<Password>**.
3. Fare clic su **[OK]**.
Se l'accesso è avvenuto correttamente, appare la schermata Live Viewer.



- Quando si esegue l'accesso al visualizzatore del web della telecamera, è consigliabile, per motivi di sicurezza, indicare se i dati dell'immagine sono crittografati o no.
- Se si attiva l'opzione **"Remember my credentials"** dopo aver completato l'inserimento, dalla volta successiva l'accesso avviene automaticamente, senza la richiesta di inserire le informazioni di accesso.
- La qualità video sarà al massimo se la dimensione dello schermo è al 100%. Riducendo il formato si rischia di tagliare l'immagine sui bordi.



CONFIGURAZIONE DI CAMERA WEB VIEWER

1. Fare clic sull'icona **[Impostazioni (⚙)]**.
2. Verrà visualizzata la finestra delle impostazioni.
3. È possibile configurare le impostazioni per le informazioni di base della videocamera, video, audio, rete, eventi, analisi e sistema sulla rete.
4. Fare clic su **<Aiuto (?)>** per visualizzare le descrizioni dettagliate di ciascuna funzione.

RICERCA DEGLI ERRORI

PROBLEMA	SOLUZIONE
Non viene visualizzato alcun video quando si accede al visualizzatore del web senza plug-in su Safari via HTTPS.	- Sulla finestra a comparsa per l'autenticazione, che appare quando si accede per la prima volta al https, fare clic su "Visualizza certificato di autenticazione" e selezionare la casella di selezione "Autorizza sempre quando ci si collega all'IP del visualizzatore del web designato". - Se anche dopo aver selezionato "Successivo" il visualizzatore del web non riproduce il video, premere il tasto Command + Q per uscire dal Browser di Safari. Poi, eseguire nuovamente l'accesso e ripetere la procedura elencata qui sopra.
Non è possibile accedere alla videocamera da un browser web.	- Controllare che le impostazioni di rete della videocamera siano appropriate. - Controllare che i cavi di rete siano stati collegati correttamente. - Se si connette usando DHCP, verificare che la videocamera sia capace di acquisire gli indirizzi IP senza problemi. - Se la videocamera è collegata ad un router a banda larga, verificare che la portadi inoltra sia configurata.
Il visualizzatore si è scollegato durante il monitoraggio.	- I visualizzatori collegati si disconnettono dopo il cambiamento alla videocamera o configurazioni di rete. - Controllare i collegamenti di rete.
La telecamera collegata alla rete non viene rilevata nel programma Device manager.	Spegnere le impostazioni di firewall sul PC e poi cercare ancora la videocamera.

PROBLEMA	SOLUZIONE
Le immagini si sovrappongono.	Controllare se due o più videocamere siano impostate su un singolo indirizzo multicast invece di diversi indirizzi. Se un singolo indirizzo è usato per videocamere multiple, le immagini possono sovrapporsi.
Nessuna immagine appare.	- Se il metodo di trasmissione è impostato a multicast, controllare se c'è un router che supporta multicast nella videocamera LAN collegata. - Verificare se il modulo dell'obiettivo funziona regolarmente.
<Rilevazione del movimento> in <Analytics> è impostato su <Attiva>, ma non ricevo notifiche e-mail neanche quando si verifica un evento di analisi.	- Verificare le impostazioni nella sequenza indicata in basso: A. Verificare le impostazioni di <Data e ora>. B. <Rilevazione del movimento> deve essere impostato su <Attiva>. C. Verificare che l'opzione <E-mail> nel menu <Imp. evento> sia selezionata.
Impossibile registrare sulla scheda di memoria Micro SD.	Verificare che la scheda di memoria non sia difettosa.
La scheda di memoria Micro SD è inserita, ma la videocamera non funziona correttamente.	- Verificare che la scheda di memoria sia inserita nella direzione corretta. Il funzionamento delle schede di memoria formattate da altri dispositivi non è garantito su questa videocamera - Riformattare la scheda di memoria nel menu <Configurazione> → <Evento> → <Memorizz.>.

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Component Name	License	URL
Base Kernel	GPL 2.0	
Busybox	GPL 2.0	http://www.busybox.net/downloads/snapshots
iproute2-4.3.0	GPL 2.0	
iptables-1.4.21	GPL 2.0	http://ftp.netfilter.org/pub/iptables
ethtool-4.2	GPL 2.0	
mtdd-1.5.2	GPL 2.0	ftp://ftp.infradead.org/pub/mtdd-utils
mi-diag-2.11	GPL 2.0	
rp-pppoe-3.11	GPL 2.0	http://www.roaringpenguin.com/pppoe/
wpa_supplicant-2.5	GPL 2.0	
bash-4.3.30	GPL 3.0	
zerocoinf	GPL 2.0	

LGPL SW

Component Name	License	URL
glibc	LGPL 2.0	
inetutils	LGPL 3.0	
neon-0.29.6	LGPL 2.0	http://www.webdav.org/neon/

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lighttpd is a secure, fast, compliant, and very flexible webserver that has been optimized for high-performance environments. It has a very low memory footprint compared to other webservers and takes care of opload. Its advanced feature-set (FastCGI, CGI, Auth, Output-Compression, URL-Rewriting and many more) make lighttpd the perfect webserver-software for every server that suffers load problems. Simple Network Management Protocol (SNMP) is an Internetstandard protocol for managing devices on IP networks. It is used mostly in network management systems to monitor the devices attached to the network for conditions that need administrative attention. Net-SNMP is a suite of applications used to implement SNMP v1, SNMP v2c and SNMP v3 using both IPv4 and IPv6. For more additional information, send email to help.cctv@hanwha.com.

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- Version 1.1

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It appears that the arithmetic coding option of the JPEG spec is covered by patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic coding cannot legally be used without obtaining one or more licenses. For this reason, support for arithmetic coding has been removed from the free JPEG software. (Since arithmetic coding provides only a marginal gain over the unpatented Huffman mode, it is unlikely that very many implementations will support it.) So far as we are aware, there are no patent restrictions on the remaining code.

The IJG distribution formerly included code to read and write GIF files. To avoid entanglement with the Unisys LZW patent, GIF reading support has been removed altogether, and the GIF writer has been simplified to produce "uncompressed GIFs". This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

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established by T-Engine Forum
on January 23, 2004
revised on June 17, 2004
revised on December 21, 2006
revised on March 24, 2009

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Ipert performance test

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://www.ietf.org/rfc/rfc1950.txt> (zlib format), [rfc1951.txt](http://www.ietf.org/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](http://www.ietf.org/rfc/rfc1952.txt) (gzip format).



La tutela dell'ambiente è molto importante per Hanwha Vision, che ne tiene conto in ogni fase della fabbricazione dei suoi prodotti ed è alla ricerca costante di nuove soluzioni per fornire al cliente prodotti sempre più rispettosi dell'ambiente.

Il marchio Eco rappresenta la dedizione di Hanwha Vision nel creare prodotti nel rispetto dell'ambiente e indica che il prodotto soddisfa la Direttiva EU RoHS.



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