

# Mini IP Cameras

RP Series



## Installation manual

How to connect the camera How to make the connection in the network



## Contents of this handbook

The range of cameras RP series is a range of mini-cameras for IP networking developed for use with NVRs.

This manual explains how to connect the camera, how to make the basic adjustments and how to configure the parameters for the network connection.



## Introduction

The RP series comprises IP network cameras with H.264 compression at full resolution **FULLHD 1080P 1920x1080** pixels.

These cameras "NUDE" that is not equipped with its recording capability on NAS and SD card nor video surveillance systems including software. They are developed to work with network video recorders NVR ONVIF ranging always provided in combination to handle the recording and remote access functions.

The units are connected to a LAN via RJ45 port as a computer or other network drives and images can be displayed on a PC using Internet Explorer browser. The power supply is possible with 12VDC adapters (not supplied). These cameras do not accept Power over Ethernet (POE) because the small size does not allow. The RP Series cameras fully support the ONVIF international protocol and are compatible with any IP recording software or network video recorder (NVR) multi-protocol capable of handling this standard.





## Technical data

See updated at tables: [http://www.dseitalia.it/dati\\_telecamere\\_ip.htm](http://www.dseitalia.it/dati_telecamere_ip.htm)



## Installation

### CONNECTIONS

All cameras series RP have 2 sun connections: a mains socket and a power plug 12VDC,



- NETWORK PORT RJ45 - RJ45 FEMALE connector to connect the LAN. To connect to a hub or network switch using a standard LAN cable. To directly connect a single PC using a crossover cable (crossover).
- 12VDC - plug that connect the power supply 220VAC / 12VDC (not included). Connect a 12VDC power supply by at least 1A (positive).

### GOAL SETTING

The models in this range are equipped with wide-angle fixed lens 3.6 mm. in the mini-lens version or pin-hole for concealment.

In these models, the lens is adjusted at the factory and normally should not be focused. If it requires recovery it is possible to sharpen the focus by turning the lens clockwise or counterclockwise. The mini-lens models have a retaining screw to lock the lens after the adjustment.



## Network Configuration

After providing power to the camera via a 12VDC power supply and after having connected to the network you are necessary to proceed to the configuration of the network parameters in order to be able to make the cameras accessible by computer. The cameras are supplied with **address 192.168.0.123 Factory**

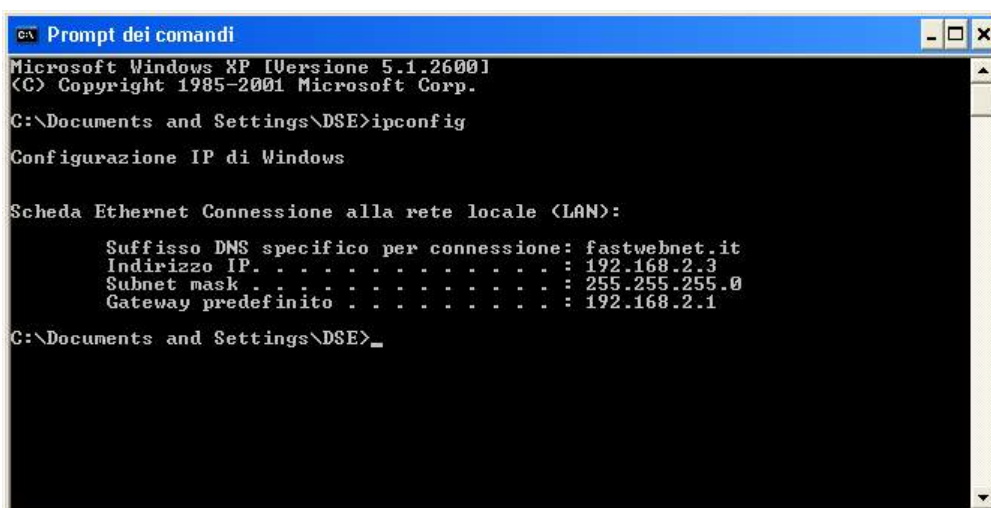
### SOFTWARE IPCSEARCH

The CD supplied with the camera includes a software for PC that contains the program **IPCSearch**. The function of this software is to detect the presence of the camera in the network, regardless of its address, and allow you to change the camera address in order to be consistent with your network. We recall that because the camera is visible from the other PCs on the network it is necessary that the first 3 address parts are the same as other network PC and is equal also the subnet mask. And 'advisable to connect a network camera at a time, and insert new ones after you have set earlier.

### PRELIMINARY CHECKS

Before you must obtain from your network some information about the management of the IP addresses used on your network. E 'need to know an IP address can be assigned to the camera that is not equal to any other device already present in the network. If you are uncertain about the operation of your network, you can use certain commands in DOS PROMPT.

On a network PC launched a DOS window available between the Windows accessory programs. Type IPCONFIG at the command prompt and press ENTER. They will see the TCP / IP parameters. The second line is the IP address assigned to your computer.





In the above example the address of the PC on which you are working is 192.168.2.3 and the subnet mask used is the classic 255.255.255.0. The camera can therefore assign an address chosen by the 192.168.2.XXX type, where XXX stands for a number between 0 and 255. E '

**important choose an address that is not already used by other devices of network.** To verify that the chosen address is free, try to make a PING from the same DOS window by typing PING followed by a space and by the IP you wish to assign to the camera. If there is no device responds to that address, you will receive 4 REQUEST TIME OUT as in the following example:

A screenshot of a Windows XP command prompt window. The title bar reads 'C:\WINDOWS\system32\cmd.exe'. The window content shows the following text:

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\AMD>ping 192.168.1.6

Pinging 192.168.1.6 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.6:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Documents and Settings\AMD>
```

All cameras support the automatic IP address assignment from a DHCP server. However, this mode is not recommended because in the event of power failure or restart of the equipment it is possible that the cameras IP address change necessitating a reconfiguration of the NVR.

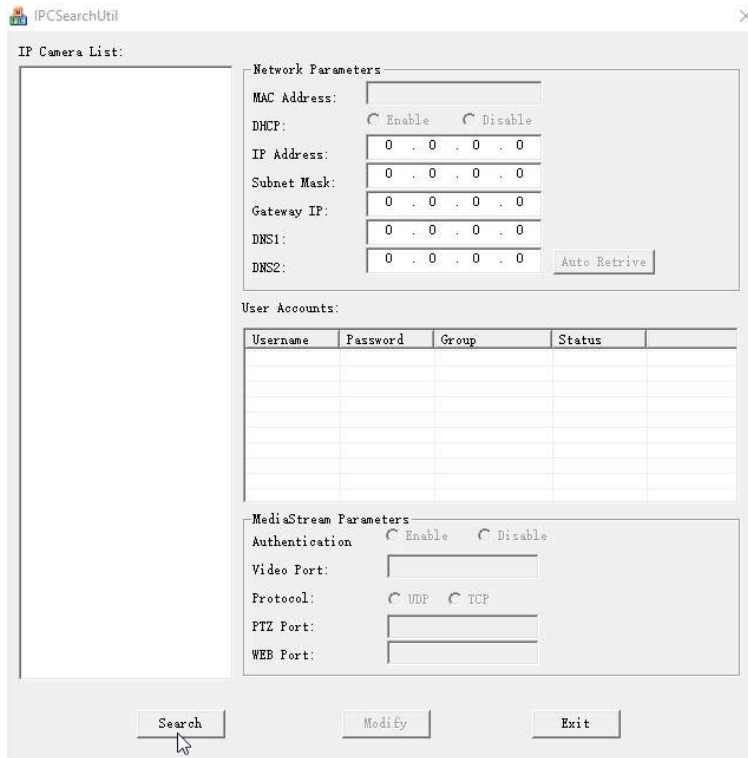
### IPCSEARCH OF USE TO ASSIGN IP ADDRESS

All RP Series cameras are preset with the IP address by default: 192.168.0.123 After connecting the camera must change the camera address to assign one consistent with its own network (first 3 parts of the address common to all devices Network). Proceed as follows:

1. Insert the CD into a PC player and explore the content. You will find the program called UC2 you will need to install on your PC. There are 3 installation files for Windows 32 and 64 bit. Double click on the icon and you will install the UC program. The UC program lets you manage computer cameras and contains a utility to configure



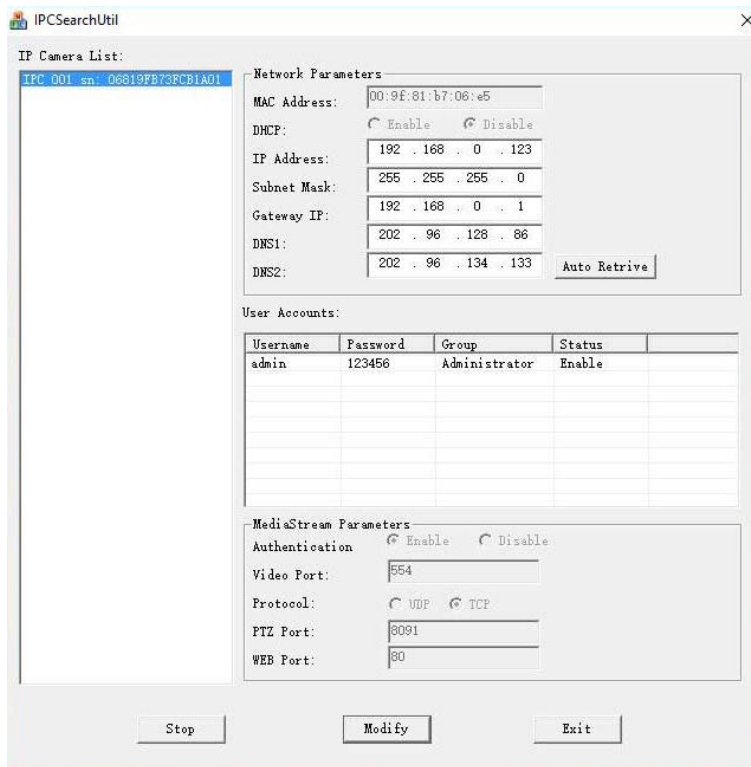
cameras. Search in the Start menu, in the UC folder and launches the program IPCSEARCH



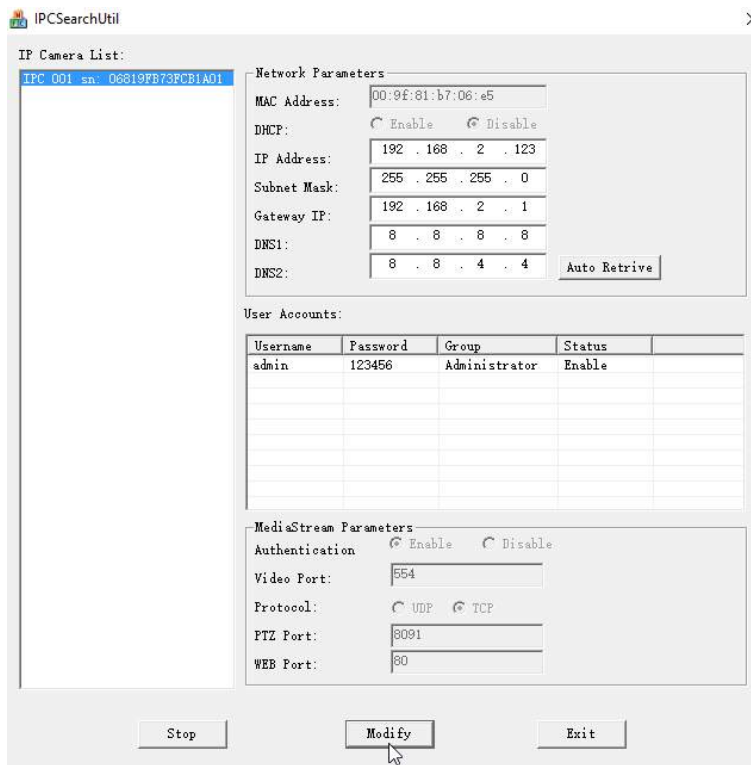
2. Click on the SEARCH button. The program will start to search for the IP camera series RP present in the network. Wait to complete the search. IPCSEARCH is able to detect even cameras with different address class from that of the PC on which you are working.

3. When the search will see the list of detected cameras. If the camera is not It was detected check the functionality of network links. In CAMERA LIST IP column shows the IP address of the camera current. Click on the camera and you will see appear in the right section all other network parameters.





4. Of particular relevance are of the IP address (IP ADDRESS) which must have the same class of the network (the first three groups of equal numbers) and the SUBNETMASK which must be the same as that used by the network (typically 255.255.255.0). You can edit the network parameters as desired by writing in the boxes. In this example we set up a typical configuration of a network that uses the class 192.168.2.xxx



5. Press MODIFY for transferring the pattern into the camera. Wait until,



pressing the SEARCH button, the camera is not detected with the new address.



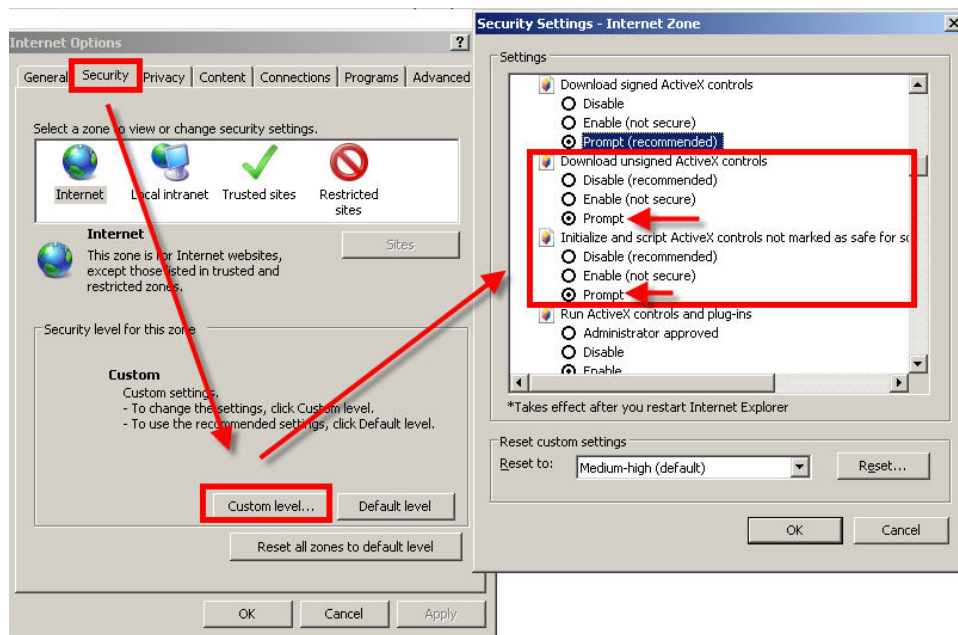
## with browser access

Once properly set the network parameters, you can make the first access to the camera using the IE browser.

You can not use to access other browsers if not using the plug-in IETab which will be described later.

### ENABLE PERFORMANCE OF ACTIVEX

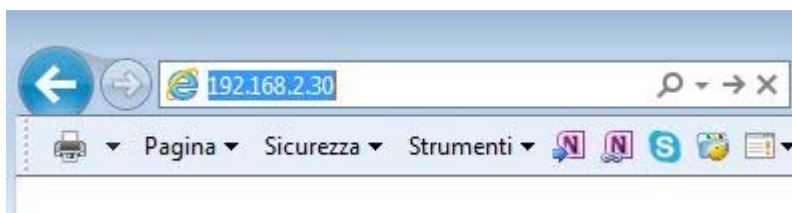
Internet Explorer has security settings that may prevent the installation of the ActiveX component. Before making the connections necessary to enable the execution of ActiveX not marked as safe. In Internet Explorer, select TOOLS / INTERNET OPTIONS



In the folder PROTECTION choose the area of interest (Internet or local network) and click CUSTOM LEVEL. Enable all items for the download and execution of ActiveX especially those NOT marked as safe. E 'can set the items either ENABLE or ASK FOR CONFIRMATION. Finally, save and restart the browser.

### ACCESS WITH INTERNET EXPLORER

To access the camera using Internet Explorer, type in the address box, the IP address that you assigned. In the example below we perform a link on the internal network to the camera with IP address 192.168.2.30.



It is not necessary to specify the connection port since the cameras use factory port 80 which is the one usually used by browsers.

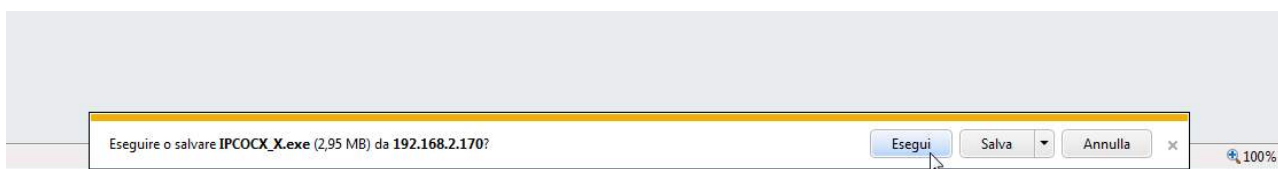
If for any reason you change the port to call by allowing it to IP address HTTP port then it will be necessary to specify in the browser on the camera settings. In this example we are calling the 192.168.2.30 IP on port 85.



### INSTALLING ACTIVEX

In order to make sure that the IP RK Series cameras are displayed on the browser you must install the ActiveX components. On first access you make, the camera will detect the absence of these components and show the installation message. If the warning appears

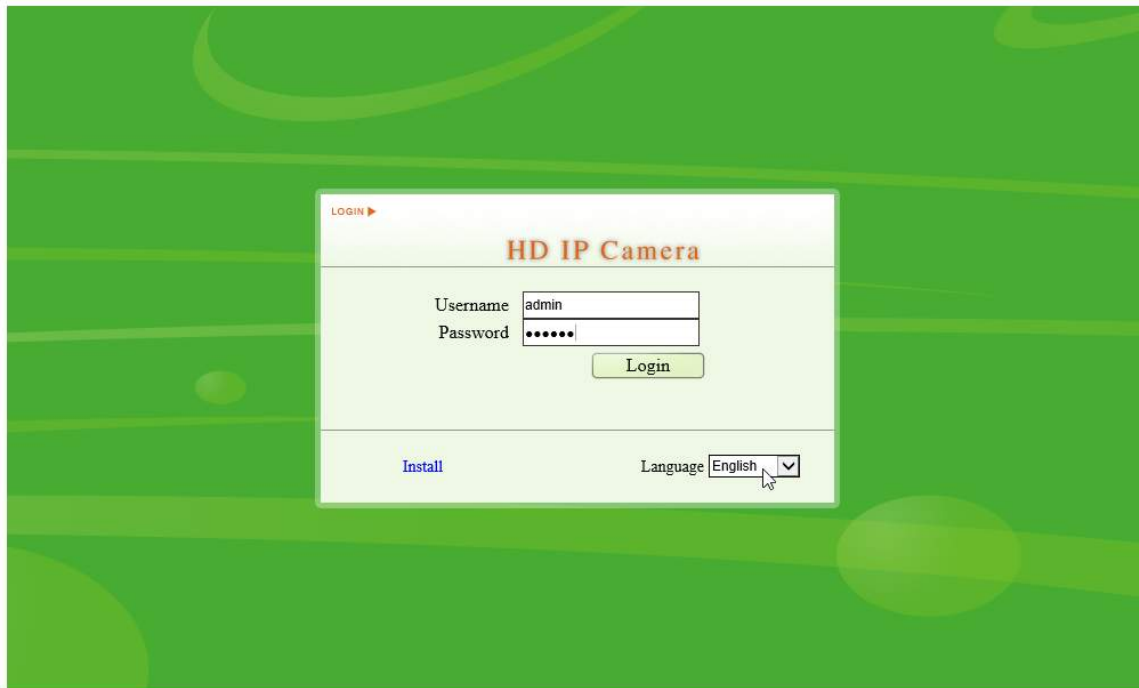
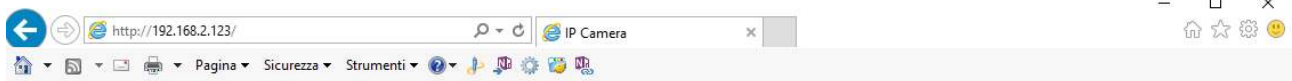
Click on DOWNLOAD to download the activeX components.



You can both run the program directly by choosing RUN to save the file on your local PC and then install it manually. Once the program is installed restart the browser and then restore the connection.

### LOG-IN

If the connection to the camera has good end it presents the log-in window. Firstly you must choose the ENGLISH language from the dropdown menu.

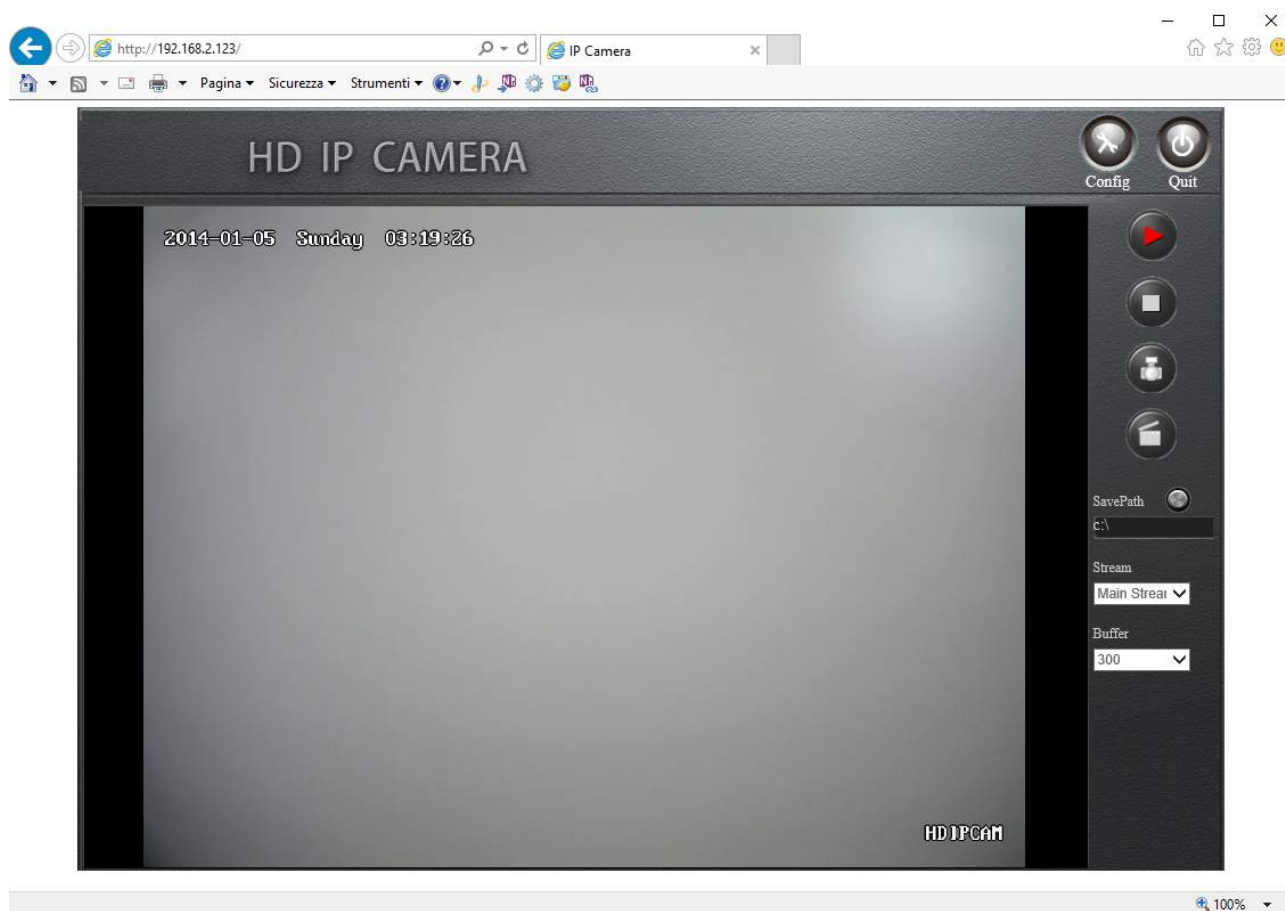


The data of the cameras RP Series factory passwords are:

**USERNAME: admin PASSWORD:**

**123456**

The access to the camera control mask.



The commands shown in the window are described in detail in the configuration manual.

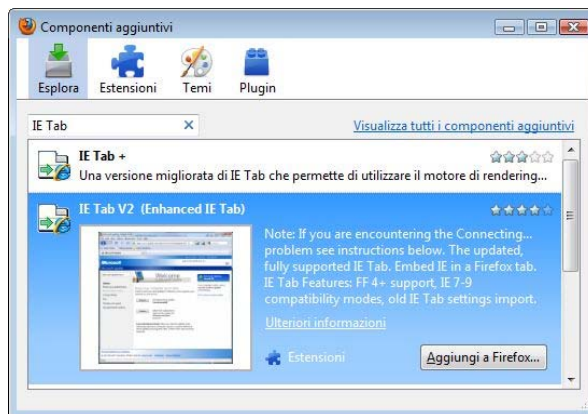
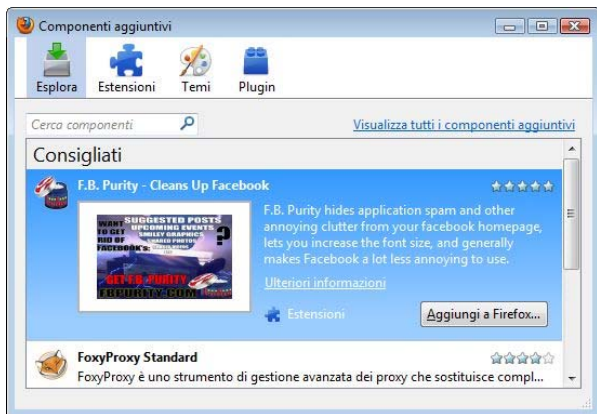
### ACCESS TO OTHER BROWSER

Although IE is the reference browser for remote connection you can use other browsers such as Firefox or Google Chrome using a free add-on called IE Tab V2.



The installation is performed by accessing the browser add-ons management and looking into the search box: IE Tab

Following the example with Firefox



This plugin, once installed lets you press a button to recreate in Firefox or Chrome an Internet Explorer window.

## Connecting player RTSP

The cameras support RTSP protocol factory is set to use port

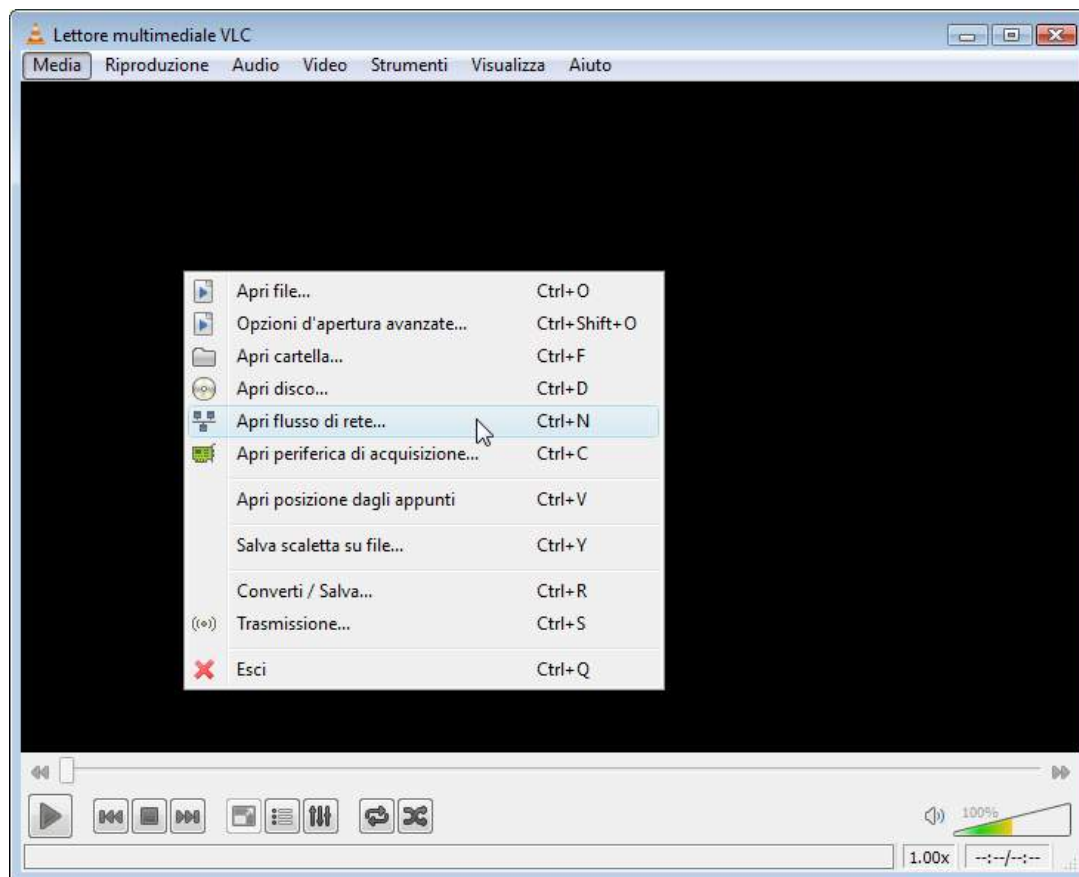
554. E 'can connect to the camera using any RTSP player such as VLC.

The address to call must have the following syntax: RTSP: // IP: PORT / 0

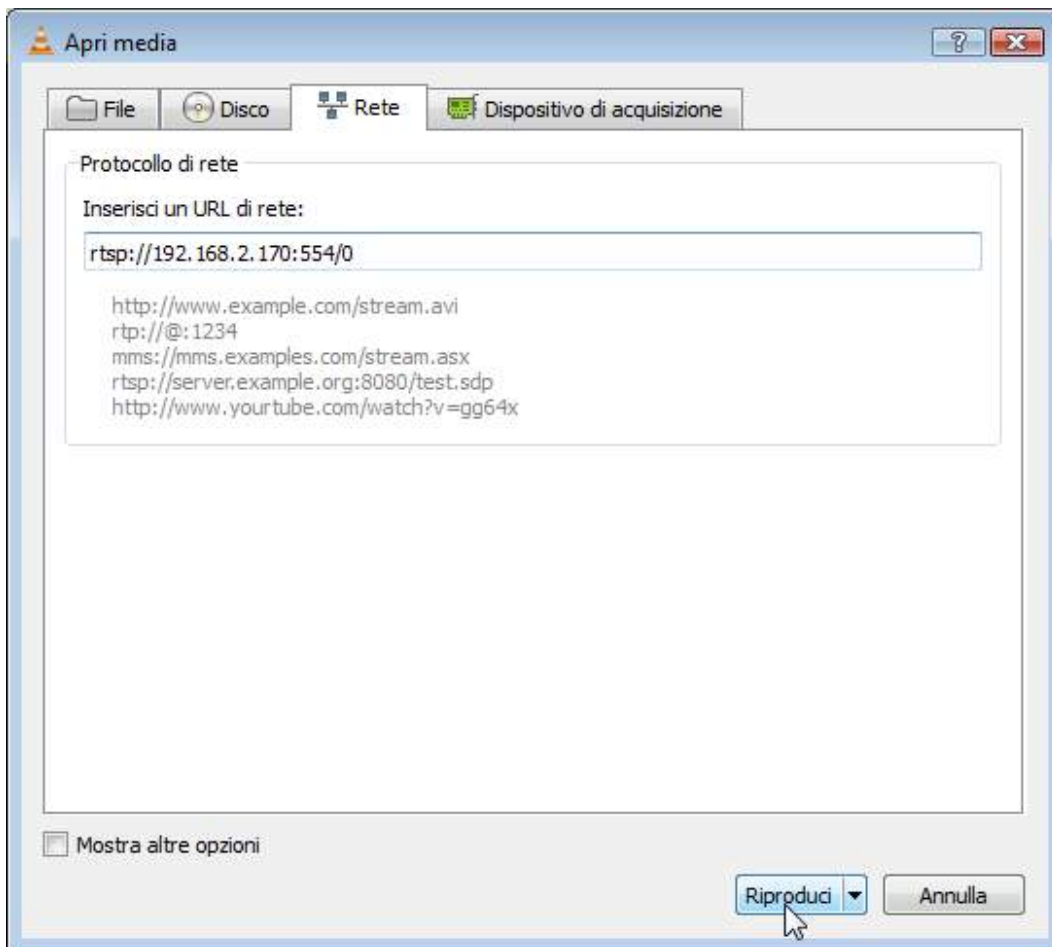
Here's an example:

rtsp: //192.168.2.33: 554/0

Below such as operate eg with the VLC player:









## Login with ONVIF NVR

The RP series IP cameras are cameras provided "NAKED", that is not able to independently record to SD card or NAS.

There are also accompanied by recording programs on a PC.

These cameras must be connected to a network video recorders or external recording software.



To do this you use the ONVIF standard that these cameras fully support. To connect cameras to NVR or software ONVIF refer to the recording equipment manuals. As a rule, NVR recognize the communication parameters to communicate with the cameras automatically.

In case it is necessary the manual insertion is known that the RP Series cameras incorporate **port 80** to dialogue with NVR on onvif protocol. In any way, the NVR is as a rule already able to automatically propose the correct port after detecting the camera.

### CAUTION

When loading a camera on a RP NVR is good NOT KEEP NEVER credentials (username and password) proposals from NVR, even though seem correct, but always manually override both.

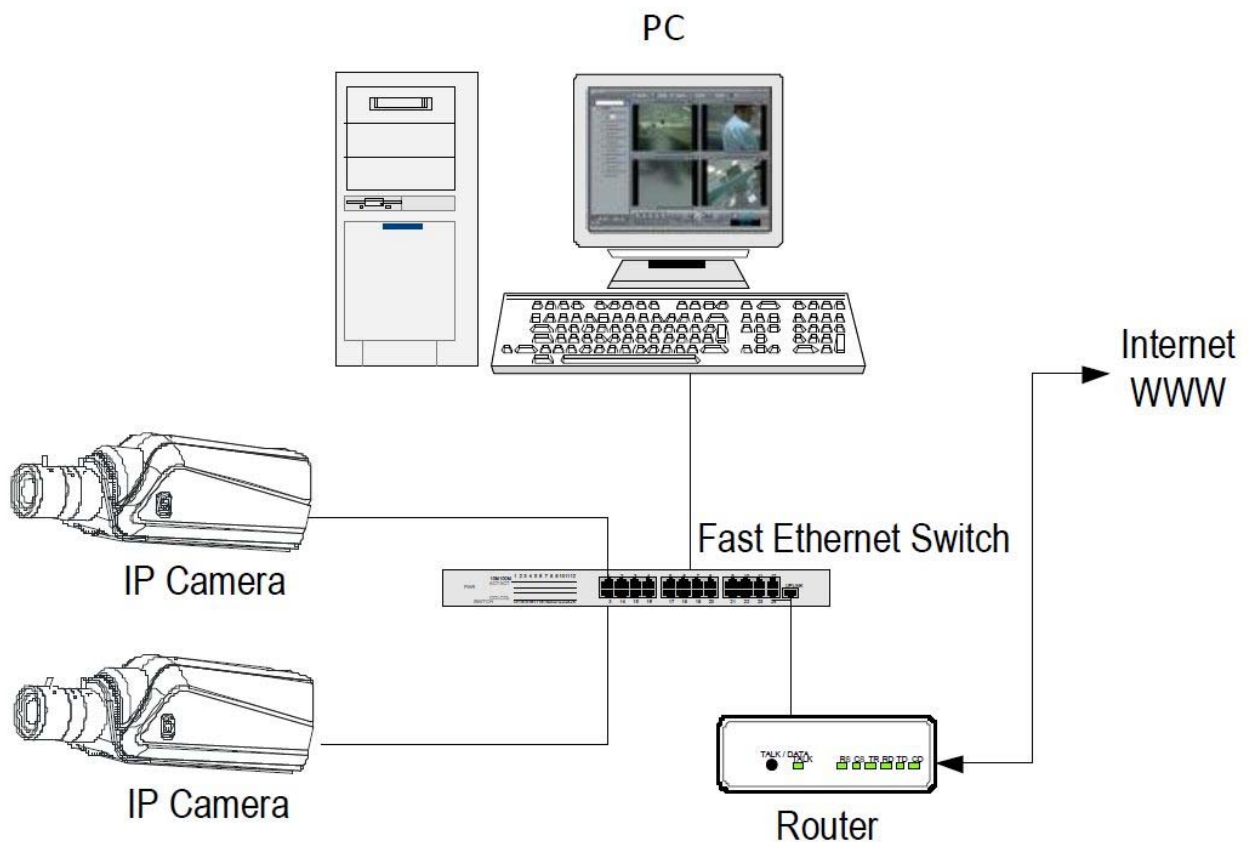


# from web access router

The link to "Naked" cameras over the Internet as a rule is not made by calling individual cameras but making the NVR connection. For this type of connection is necessary to refer to the manual of NVR. E', however, can also connect to the web directly to the cameras with the Internet Explorer browser. To do this you need to make a configuration inside the router following the directions in this chapter where we explain the mapping of the communication ports. Recall that it is possible to avoid this configuration using the P2P connection that is explained in the next chapter.

## MAPPING WITH WEB ACCESS DOORS ROUTER

An installation of IP cameras is often placed inside a LAN connected to the Internet via a router as in the following scheme



If we use for viewing the cameras internal PC to the network, the addresses of the cameras (usually the 192.168.XXX.XXX type) are directly accessible. If we wish to connect via the Internet using a PC placed elsewhere, the addresses



internal network will not be reached directly, because the only IP address visible from the web will be what our router will be by its WAN side that is towards the outside world of the Internet.

This address is assigned by the provider (ISP). And 'advisable to get from the provider a fixed address each time you connect. If there is a chance you need to use DDNS services (see configuration manual).

It is not sufficient, however, type in the browser the IP address of the WAN side Router to connect to the cameras. The router acts as a filter and drops every external call that a call from within the network is not paid before. In order to connect the cameras it is therefore necessary to insert inside the router ports of directing instructions which, depending on the router manufacturers are called NAT, PORT FORWARDING, PORT MAPPING etc.

In practice, access the router configuration and insert instructions so that this direct calls coming from outside, to the inside IP address of the cameras. Obviously the directing is only performed for the communication ports that are used by the cameras and that will be detailed below.

The communication ports used by the RK Series cameras are as follows:

- **HTTP PORT:** Default 80. The cameras use this port to communicate with browsers like IE. Browsers such as Internet Explorer use the factory port 80 for communication. For example, if we type in the bar

browser address:

http://212.12.34.201 will be called the IP address 212.12.34.201 on port 80. If in the configuration of the camera is set to a different HTTP port (eg. 81, 82, etc.) it needs to be clarified in the browser which port to use for the named after pointing the address with ":" to separate it. If, for example. http://212.12.34.201:81 we type will be called the IP address 212.12.34.201 port 81.

- **PORT RTSP:** By default 554. E 'used by the camera to send the RTSP video clients such as VLC, Real Player etc ..

**If behind the router counts more than one camera and you want to reach them individually from the outside you must be assigned to each of them a different http port. For example 80,81,82 doors etc.**

**In the NAT router settings you will have the direction of each door towards the inside address of the own camera.**

Note that many routers require that each directing NAT is also combined with a rule in the firewall section that determines the opening of the affected port. Consult your router's manual for details on how to program the port mapping



# UC Client Program

The UC program provided on the CD along with the camera allows you to view and record the cameras directly from Windows PC. On the CD you can find the installation file for 64bit and 32bit.

