Accessory for additional camera

323021

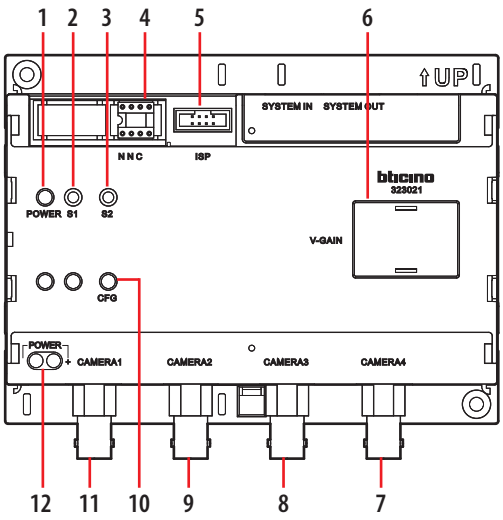
Description

Interface that allows you to integrate an additional camera to the system. The image from the camera can be displayed by all the system internal units. The additional camera accessory increases the system security level allowing you to monitor public area (e.g. garden, swimming pool, parking for 4 additional cameras max. per accessory). Compatible with 12 V coaxial camera.

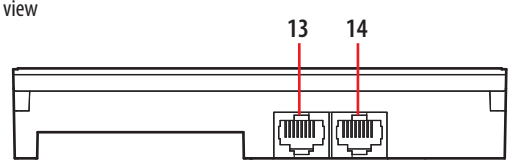
Technical data

Power supply	30 Vdc
Current stand-by	<30 mA
Current work	< 140 mA
Stand-by power consumption	< 0.5 W
Operating power consumption	< 45 W

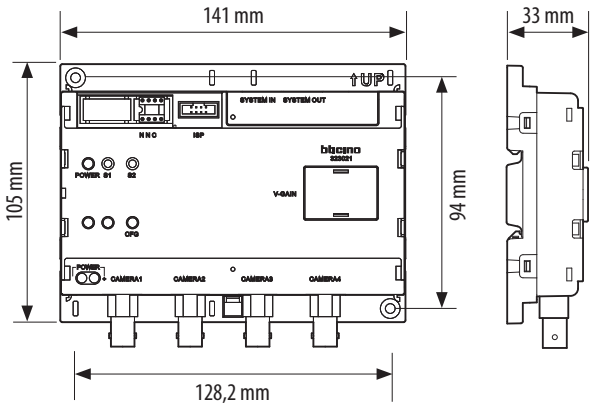
Front view



Top view



Dimensional data



Legend

1. Power LED
2. S1 configurator keys
3. S2 configurator keys
4. Resistance configurator
5. ISP interface
6. Video gain
7. Camera 4
8. Camera 3
9. Camera 2
10. CFG LED
11. Camera 1
12. To connect the additional 30 Vdc power supply
13. System IN
14. System OUT

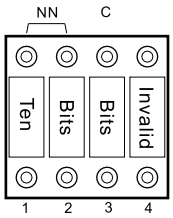
Configuration

We have four methods to configure:
Default profile: it has 3 bits, which are 0 1 4;
Resistor configuration: highest priority, when the resistor is plugging in the configuration bit, pushbutton/computer configuration is not allowed;
Pushbutton configuration: secondary priority, configuration method as follows;
Computer configuration: configure via computer software.

Software configuration process:
Power on the MCU to check the resistor configuration. If there is a resistor, erase the configuration data in EEPROM, set the configuration flag bit as physical flag, then judge the effective value of the configuration resistor. If the configuration is correct, the indicator goes out, otherwise it flickers.
If there is no resistor in the configuration bits, the MCU will read the configuration flag bit data in EEPROM and judge whether it is a virtual configuration flag or not (pushbutton configuration or R8232 configuration): if it is a virtual configuration flag, it then reads theconfiguration bits, if it is not, that means no virtual configuration data is saved in EEPROM, and the configuration bit flag is set as default profile. If there is an error while reading the configuration bis data in EEPROM, then erase the configuration bit data and set the configuration bit flag as default profile.
If the configuration bit flag is thedefault profile, then use the default configuration data.

1. Resistor configuration

There are 4 configuration bits on HW, but in fact, only three of them are valid, the last bit is reserved andtemporarily invalid; bits 1-2 mean the first channel correspondence host address , third bit means the number of valid channels, which could be 1-4.
For instance, NNC configuration bits are configured as 0 2 2 which means that only the first two camera channels are valid, and their camera host channel addresses are 02 03.



Resistor configuration

2. Pushbutton configuration method

1) Enter the configuration state: press input pushbutton S2 for 2 seconds in stand-by mode, CFG indicator flashes , enter the configuration state (if there is a configuration resistor on the configurator, then it is impossible to enter the configuration state).
2) Enter the configuration number (select a bit on the configurator): press S2 to count, every press will add 1 to the configuration bit number (it is 1, with no press), meanwhile, the CFG indicator flashes once briefly.
3) Confirm the configuration bit number: press S1, the CFG indicator flashes twice and then flashes and enters theconfiguration value state.
4) Enter the configuration bit value: press S2, default is 0, every press will add 1 to the configuration value, meanwhile, the CFG indicator flashes twice briefly.
5) Confirm the configuration bit value: press S1, meanwhile, the CFG indicator flashes twice briefly, and twice long, the configuration value of the configuration bit setting is finished.
6) Setup the next: if you need to setup another configuration bit value, press 82, the CFG indicator flashes three times, then proceed as (2) described.
7) Finish the configuration: press S1 to exit the configuration state.

If the configuration failed, the CFG indicator will flicker and prohibit pushbutton operation. Now plug in the nine-zero (1-9) configuration resistor and power on again to clear all the pushbutton configuration value. Then unplug the resistor and power on again, reset as described the above steps. During operation, if there is no pushbutton operation in 10s, the system will exit the configuration state automatically and the CFG indicator goes out.

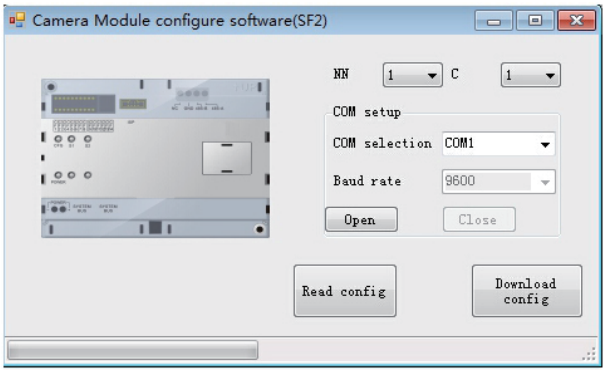
Pushbutton configuration query method

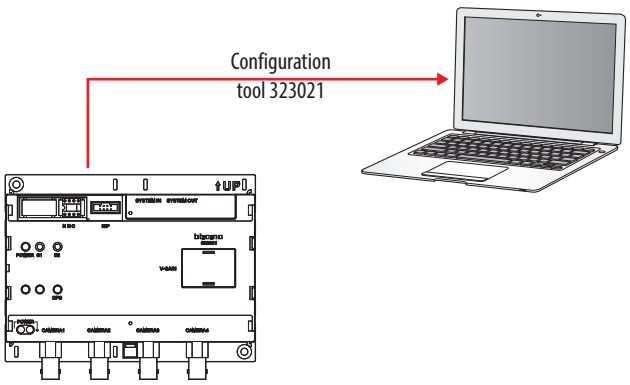
1) Enter the configuration query state: press S1 for 2s in stand-by, CFG flashes, enter the configuration query state.
2) Enter the configuration number (select a bit on the configurator): press S2 to count, every press will add 1 to the configuration bit number (it is 1, with no press), meanwhile, the CFG indicator flashes once briefly.
3) Read the configuration value: press S 1, the CFG indicator will flashes the number of times in accordance with the value (for example, if the result is 0, then no flash; if it is 1, flash once, if it is 2, flash twice, etc.), enter next step.
4) CFG indicator goes out, exit the configuration query state.
During operation, if no pushbutton is pressed within 10s, the system will exit the configuration query state automatically.

3. Computer configuration

Open computer configuration software SF2, enter the Camera module configuration interface (main interface > tool > Camera module), computer 232 serial port connects to the ISP port or V Camera module (the Camera module does not need a configuration resistor), press the OPEN pushbutton (which is under the "serial ports" settings), "serial ports opened successfully" will be displayed, then operate as follow:
a) NN set as2, C (unit) set as 2: Press "Download config", if downloaded correctly, it will display "Download successful" ; if there is an error, then it will display "Download fault".
b) If the configuration is downloaded successfully, then switch the Camera module off and on again, press "Read config".
Terminal software will correct NN as 02, C to 2 (if the downloaded value cannot measure up, there might be an error in EEPROM chip reading).

This method also can read the "pushbutton" or "resistor" value, which can verify wheter the correspondence value is right or not.





Wiring diagram

