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If you have any questions or comments regarding this publication, do not hesitate to contact us:

E-mail: satis@bilgipro.com

Tel: +90 (850) 226 60 44

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The first two letters of the literature are the type of document. The numbers that follow are the creation date of the document and the last letter is the version (e.g., PM.CC12.C is the version C of a product manual revised on the date 09/06/2020).

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TECHNICAL SPECIFICATIONS

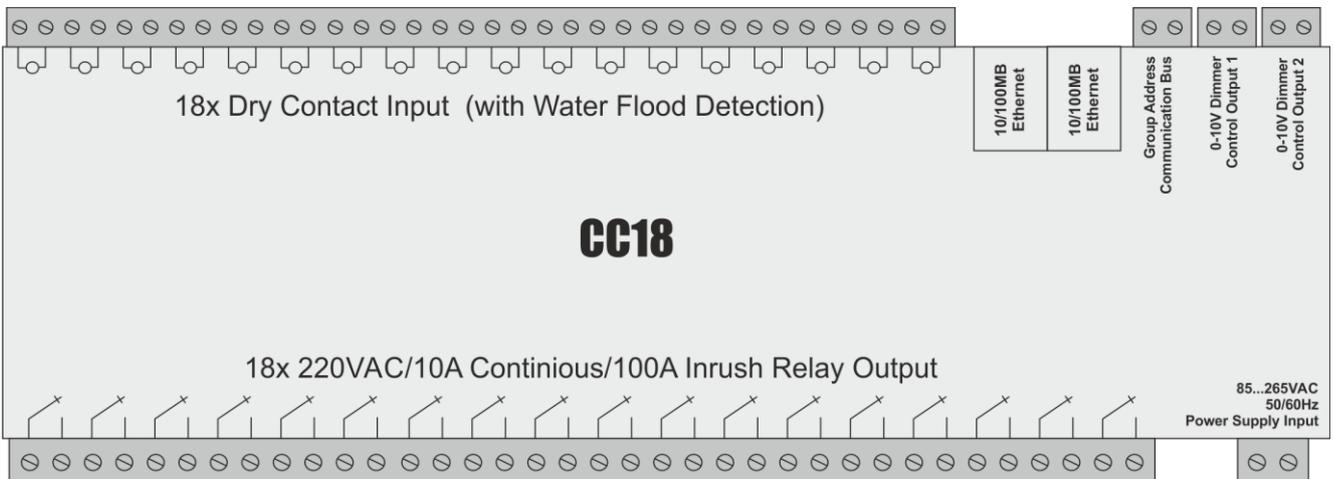
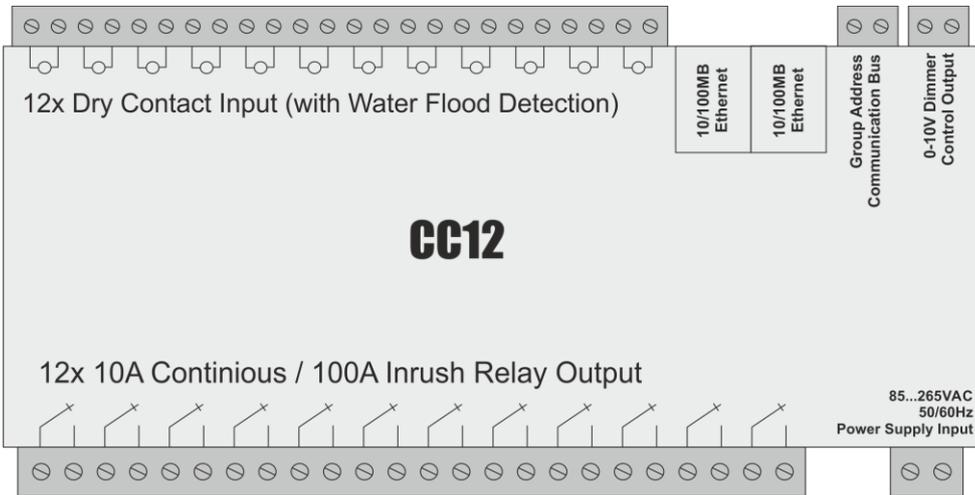
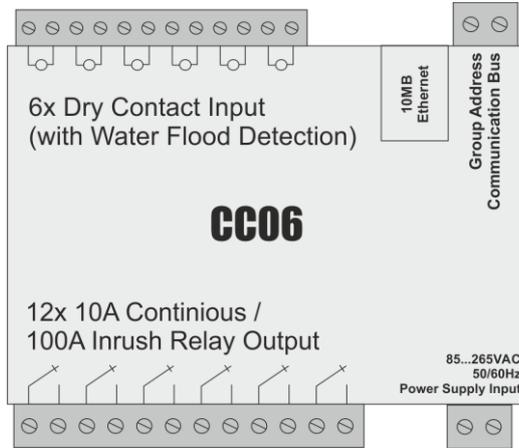
Device	CC06	CC12	CC18
Power Consumption	0.9W	0.9W	0.9W
Number of binary inputs (with water flood detection)	6	12	18
Input Cable Characteristics	Maximum cable capacitance: 5nF (100mt CAT5/6 Cable)		
Number of binary outputs	6	12	18
Power Supply	85-265VAC@50-60Hz		
Relay Contact Capacity	10A, Inrush type (Upto16A, Inrush current 100A)		
Ethernet Port	1x 10BaseT	2x 10/100BaseT	2x 10/100BaseT
LCD	2x8 Character	2x16 Character	2x20 Character
Terminal Type	16 Amper, 5.08mm pitch, Removable Socket Screws		
Type of protection	IP 20		
Ambient temperature range	-5°C...50 °C		
Mounting	DIN Rail		
Dimensions	105x91x58.5mm 6 DIN units	157x90x56 mm 9 DIN units	212x90x59mm 12 DIN units
Weight	300gr	400gr	500gr

Before using this module...

Relay life is depended on load types on related project on the field. Please make life analysis due to below maximum ratings.

Maximum Relay Switching Ratings	
Max.Inrush 800A@200µs, 165A@20ms	
Resistive Load (AC)	277VAC@16A = 4432W (50K cycles @60°C) 240VAC@ 5A = 1200W (6K cycles @50°C) (Tungsten) 277VAC@ 5A = 1200W (6K cycles @50°C) (Ballast) 1380W (max.inrush 3-5 times of steady current) (Motor)
Resistive Load (DC)	30VDC@ 5A = 150W
Capacitive Load	10A 140µF

BLOCK DIAGRAMS



FUNCTIONAL DESCRIPTION

CC06/CC12/CC18 is a multi versatile automation controller with 6/12/18 dry contact inputs with water flood detection ability and 6/12/18 relay outputs which can able to switch loads up to 230VAC/10A with 100A inrush current.

With unique web based user interface, device can be programmed as a PLC. All channels can logically be associated between each other and this feature gives opportunity to use device as industrial applications, building or multipurpose controller.

Device can be controlled and monitored by LAN/WAN devices over TCP/IP protocol. Status of inputs and outputs can be monitored as web services via status.xml over HTTP protocol. These features give opportunity to use device as building/home automation controller via a mobile phone or tablet PC or hotel management via reception desk.

Thanks to device has two separate 10/100MB ethernet communication port, ethernet line can be extended to near device to avoid second ethernet cable and extra switch port. (CC12 and CC18 only)

Device channels separately can be programmed as below functionalities:

- On/Off
 - Desired logical condition can be defined to trigger channel
 - Engaging Delay for waiting before starting reaction
 - Releasing Delay for waiting before ending reaction
 - Locking: Freeze status of channel via input or output states. When this condition is met related channel will stay at current position.
 - Authorization OFF: Master control for to activate/deactivate channel via input or output states. When this condition is met related channel will start as OFF (Not powered).
- Toggle
 - Desired logical condition can be defined to trigger channel
 - Edge Type: Starting action (Rising or Falling Edge of condition signal)
 - Power On State: State of channel after power-on, OFF / Previous(state of before power-off) / ON
 - Engaging Delay: Waiting duration as second before starting reaction
 - Releasing Delay: Waiting duration as second before ending reaction
 - Locking: Freeze status of channel via input or output states. When this condition is met related channel will stay at current position.
 - Authorization OFF: Master control for to activate/deactivate channel via input or output states. When this condition is met related channel will start as OFF (Not powered).
 - Authorization Previous: Master control for to activate/deactivate channel via input or output states. When this condition is met related channel will start as the state before power off.
 - Authorization ON: Master control for to activate/deactivate channel via input or output states. When this condition is met related channel will start as ON (Powered).

- **Timer**
 - Desired logical condition can be defined to trigger channel
 - Timer Duration: Duration as second for how long output will be stay in ON state.
 - Extension Limit: Setting for user can prolong duration while output already triggered and if yes how many times.
 - Pre Warning: Warns the user before output de-energized totally as 1 sn flicker on output. Duration as second sets when this warning will take place.
 - Locking: Freeze status of channel via input or output states. When this condition is met related channel will stay at current position.
 - Authorization OFF: Master control for to activate/deactivate channel via input or output states. When this condition is met related channel will start as OFF (Not powered).
- **Shutters**
 - Type: Allocate 2 Outputs for Up and Down Control or allocate 4 outputs for bridge connection type DC motor
 - Mode: 1 Button controls Up/Stop/Down/Stop sequence or 2 buttons for Up and Down
 - Up/Down Duration: How long up/down direction will be energized.
 - Group Addresses: Up/Down, Step/Stop group addresses can be assigned to control dimmer over communication bus instead of physical inputs.
 - Locking: Freeze status of channel via input or output states. When this condition is met related channel will stay at current position.
 - Authorization OFF: Master control for to activate/deactivate channel via input or output states. When this condition is met related channel will start as OFF.
- **0-10V Dimmer Control Port**
 - Mode: 1 Button controls Up/Stop/Down/Stop sequence or 2 buttons for Up and Down
 - Power realy can be assigned if 1-10V dimmer control module connected to system. In this case when dimmer value set to %10 then relay will be off automatically.
 - Whenever Up button double clicked dimmer level can be set to %100 if this option enabled.
 - Power On level of dimmer can be set to a specific value or to previous value.
 - Authorization: Master control for to activate/deactivate dimmer level via input or output states. When this condition is met dimmer value can be set. After this condition met, level of dimmer can be set to previous level or a specific value.
 - Locking: Freeze status of channel via input or output states. When this condition is met related channel will stay at current position.
 - Group Addresses: On/Off, Dimming, Value group addresses can be assign to control dimmer via communication bus instead of physical inputs.

PRODUCT DESCRIPTION

- Inputs: 6/12/18 dry contacts with water flood detection
- Outputs: 6/12/18 channel 10 Amper continuous, 100 Amper Inrush ON/OFF relay outputs
- Push button for navigation of menus
- 2x8 (CC06) / 2x16(CC12) / 2x20 (CC18) Dot-Matrix LCD screen for viewing the I/O and menus
- Power Supply Connection with Removable Screw Driver Terminals
- 1 port 10MB Ethernet RJ45 network connector (CC08)
- 2 port 10/100MB Ethernet RJ45 network connector (CC12/CC18)
- 0-10V Dimmer Control Output (Optional)
- 32mA Internal Communication Bus Power Supply (Optional)

USER INTERFACE

Module user interface has 2x16 characters LCD screen to monitor current status and networks settings. User interface has only one button for all menu operations. Long press to button corresponds to select currently option while short press to pass next menu. To enter menu items, long press must be applied to button firstly.

	<p>Main Screen show current status of inputs and outputs. If any input or output is activated, related channel number will be shown like left side image. First line shows the current status inputs while the bottom line shows the status of the outputs.</p> <p>Short Press: Every short press selects next output channel to be Toggled for Relay Test. Related channel will be showed as blinked cursor in LCD to show which current channel selected. After 12th channel selection or 15 seconds of timeout menu will return initial state.</p> <p>Long Press: If short press occurred and one of 1...12th channel selected, related channel will be toggled. If not "View Network Settings" will be shown. The numbers 10, 11 and 12 correspond to the letters A, B and C.</p>
	<p>If TCP mode set to IP Forwarding in this option will be shown and the connection string will be used by mobile application to connect module will be seen if long press on this menu.</p>
	<p>String length is 22 characters and will be similar to left picture.</p>
	<p>If long press will take place while this item showing on screen, below network configuration observation submenu will be entered. Every short press forward menu to next item, after 15 seconds timeout menu returns to initial state.</p>
	<p>Shows module's current IP address</p>
	<p>Shows module's current mask address</p>
	<p>Shows module's current gateway address</p>
	<p>Shows module's current DNS address</p>
	<p>Shows module's current DHCP Enabled or Disabled</p>
	<p>Shows module's current NETBIOS Name to access module in local networks by name. After this screen menu return to initial state.</p>

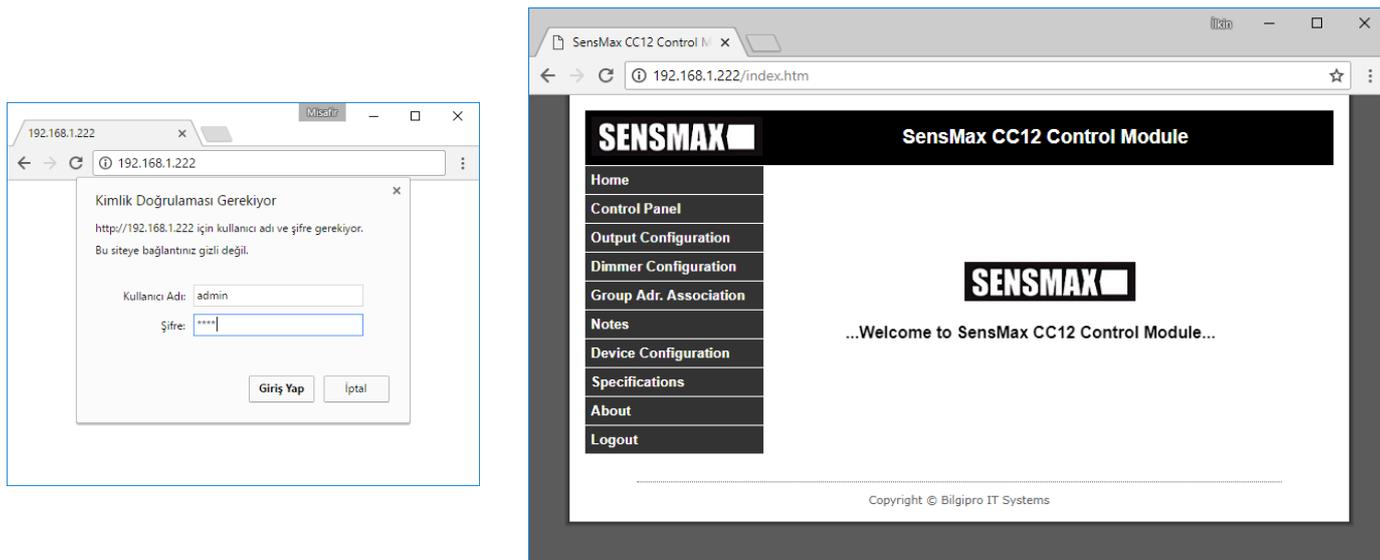
RESET NETW. SET. WITH DHCP ON	Resets module's setting to default with DHCP Enabled if long pressed
RESET NETW. SET. WITH DHCP OFF	Resets module's setting to default with DHCP Disabled if long pressed, module will use the IP that manually set by user previously
RESET PASSWORD	This option used for to reset web server password to default "pass". User name will stay as "admin". Long press need to enter this menu.
RESTART MODULE	Restarts modules if long pressed

WEB INTERFACE

Configuration of the device can be performed via internal web server user interface. When module energised and connected to a valid network, user interface can be accesible by writing IP address or Netbios name of module to Chrome browser. Other browsers will also work but because of some compatibilty issues and restrictions Chrome is recommended for sucessful operation.

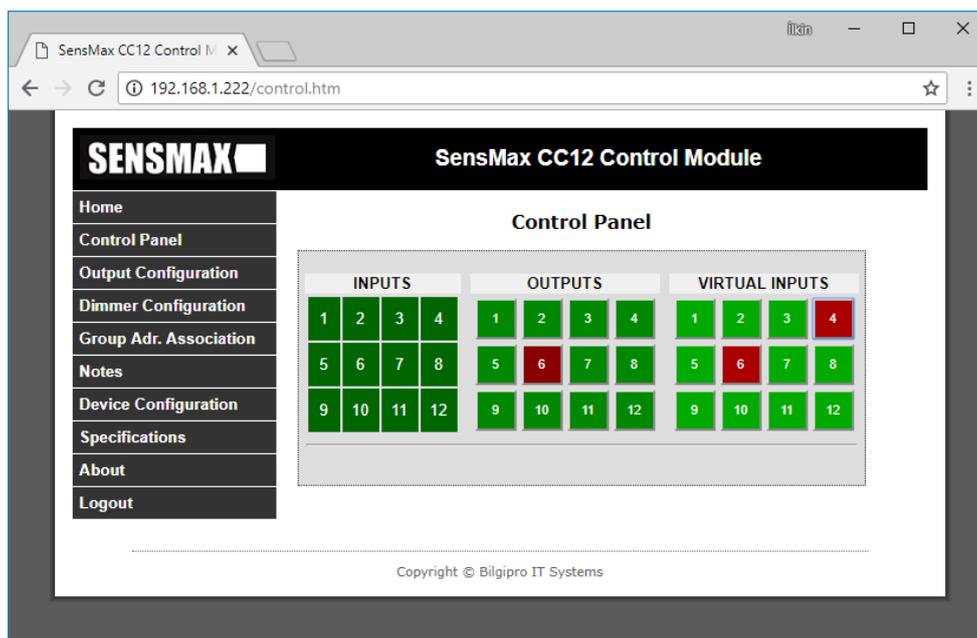
LOGIN DIALOG & HOME PAGE

When IP adress or NetBIOS name of module entered to browser, login dialog will be shown.
Default user name is: **admin** and password is: **pass**



After correct user name and password supplied homepage of module will be shown.

CONTROL PANEL



In this page Inputs can be observed. Green color means no input signal exist, red color means input signal not exist. Outputs and Virtual Inputs status can be observed while also this named areas can be clickable to toggle state of current channel.

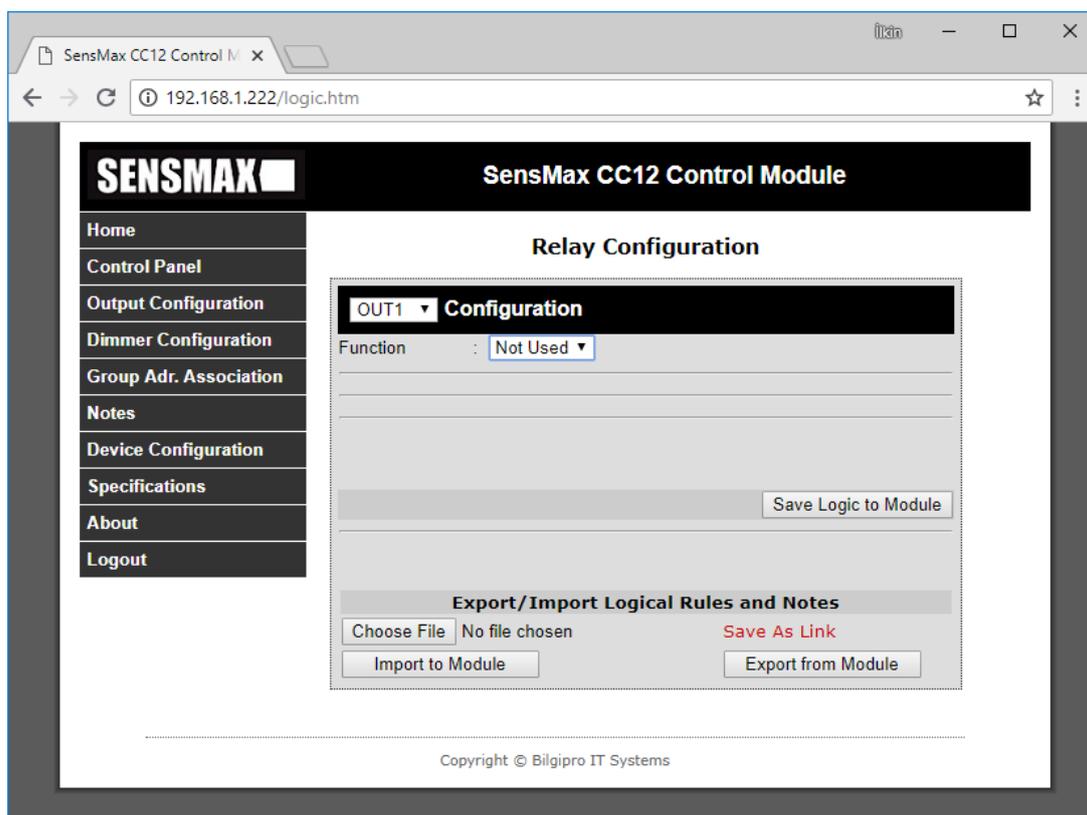
LOGICAL CONFIGURATION

Every channel can be programmed as On/Off, Toggle, Timer and Shutter.

“Logical Configuration” page allows to change function of related channel. Channel can be selected at top of the page by a pull-down list menu. If related output will not be assigned to any logical operation or it will be used by another application via network/internet, in these cases it can be set as “Not Used” like shown in below picture. After changing settings, “Save To Module” button must be clicked to write new configuration to device’s permanent memory.

“Export from Module” button can be clicked to download current logical configuration from device. Downloaded file can be renamed due to current project and can be used as backup file or to copy the configuration to another device easily.

To import previously saved configuration, previously saved file can be selected from “File Select” button and “Import to Module” button will upload new logical configuration to module.



On/Off

When this function selected, related relay of device will On when below conditions realised.

“Control Type” can be Input, Output, Virtual Input or Logic Rule. If first three option selected also cansequitive logic can be added as AND or OR rule as following to this logic rule.

When “Logic Rule” is selected, more complex logical rules can be defined to get necessary condition for output become ON or OFF.

Available Logical Rule Operators

Equal	=
Not Equal	!=
Not	!
AND	&
OR	
Parantesis	()

Examples

```
IN2 != IN4
(IN1 != 1) & ((IN2 = 0) | VIN5 != OUT2)
OUT4 = 1
```

“Engaging Delay” can be used to give start delay as second after condition met. Zero value means immediatly start. Duration can be set 0 to 65535 seconds.

“Releasing Delay” can be used to give stop delay as second after condition met. Zero value means immediatly start. Duration can be set 0 to 65535 seconds.

“Locking” can be used for freezing current state of output via selected input or output states.

“Authorization OFF” can be used as master control to activate/deactivate output via input or output states. When this condition is met related channel can start to execute logical result and will start as power off state.

Below example “On/Off” function configuration means:

Output 1 will be activated when “Input 1” is TRUE AND “Outputs Status 5” is FALSE. After this logic provided relay will open after “5” seconds because of Engaging Delay set as “5”.

To Change status “Virtual Input 1” must be FALSE

To Activate channel “Virtual Input 2” must be FALSE

The screenshot shows a web browser window with the URL `192.168.1.222/logic.htm`. The page title is "SensMax CC12 Control Module". On the left is a navigation menu with items: Home, Control Panel, Logical Configuration (selected), Notes, Network Configuration, Specifications, About, and Logout. The main content area is titled "Logical Configuration" and contains a "Configuration" section for "OUT1".

Configuration

Function : On/Off

Control Type : Input IN1 1=Active,0=Deactive

Consecutive Logic : AND

Control Type : Output Status OUT5 1=Deactive,0=Active

Engaging Delay(s) : 5 Releasing Delay(s) : 0

Locking : Virtual Input VIN1 1=Active,0=Deactive

Authoriz.(OFF) : Virtual Input VIN2 1=Deactive,0=Active

Save Logic to Module

Export/Import Logical Rules and Notes

Dosya Seç Dosya seçilmedi Save As Link

Import to Module Export from Module

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In case of Control Type selected as "Logical Rule" below line will allow to write more complex logical statements.

Toggle

This function can be used for when every met of condition will change the status of related output. It is generally used for push button controlled lamp control. For home automation, because of user also want to change status of lamp over internet, control button must be push button style because of many sources can control same resource.

“Edge Type” selects Rising or Falling edge of logic result will trigger and toggle the output.

“Power On State” option is useful for the status of output after power-on. “Off” will start status as power off, “On” as power on and previous last state of channel before electricity gone.

“Engaging Delay” can be used to give start delay as second after condition met. Zero value means immediately change. Duration can be set 0 to 65535 seconds.

“Releasing Delay” can be used to give stop delay as second after condition met. Zero value means immediately change. Duration can be set 0 to 65535 seconds.

“Authorization OFF” can be used as master control to activate/deactivate output via input or output states. When this condition is met related channel can start to execute logical result and will start as power off state.

“Authorization Previous” can be used as master control to activate/deactivate output via input or output states. When this condition is met related channel can start to execute logical result and will start as previous power state.

“Authorization ON” can be used as master control to activate/deactivate output via input or output states. When this condition is met related channel can start to execute logical result and will start as power on state.

The screenshot shows a web browser window with the URL 192.168.1.222/logic.htm. The page title is "SensMax CC12 Control Module". On the left is a navigation menu with items: Home, Control Panel, Logical Configuration (selected), Notes, Network Configuration, Specifications, About, and Logout. The main content area is titled "Logical Configuration" and shows the configuration for "OUT1".

OUT1 Configuration

- Function: Toggle
- Edge Type: Rising Edge
- Power On State: Off
- Control Type: Input
- IN1: IN1
- 1=Active, 0=Deactive
- Consecutive Logic: Not Used
- Engaging Delay(s): 0
- Releasing Delay(s): 0
- Locking: Virtual Input
- VIN1: VIN1
- 1=Active, 0=Deactive
- Authoriz.(OFF): Virtual Input
- VIN2: VIN2
- 1=Deactive, 0=Active
- Authoriz.(Previous): Virtual Input
- VIN3: VIN3
- 1=Active, 0=Deactive
- Authoriz.(ON): Virtual Input
- VIN4: VIN4
- 1=Active, 0=Deactive

Buttons: Save Logic to Module

Export/Import Logical Rules and Notes

Dosya Seç | Dosya seçilmedi | Save As Link

Buttons: Import to Module | Export from Module

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Timer

This function can be used when stair light-type control needed. When the defined condition is met timer will be triggered for defined period and output will stay on position.

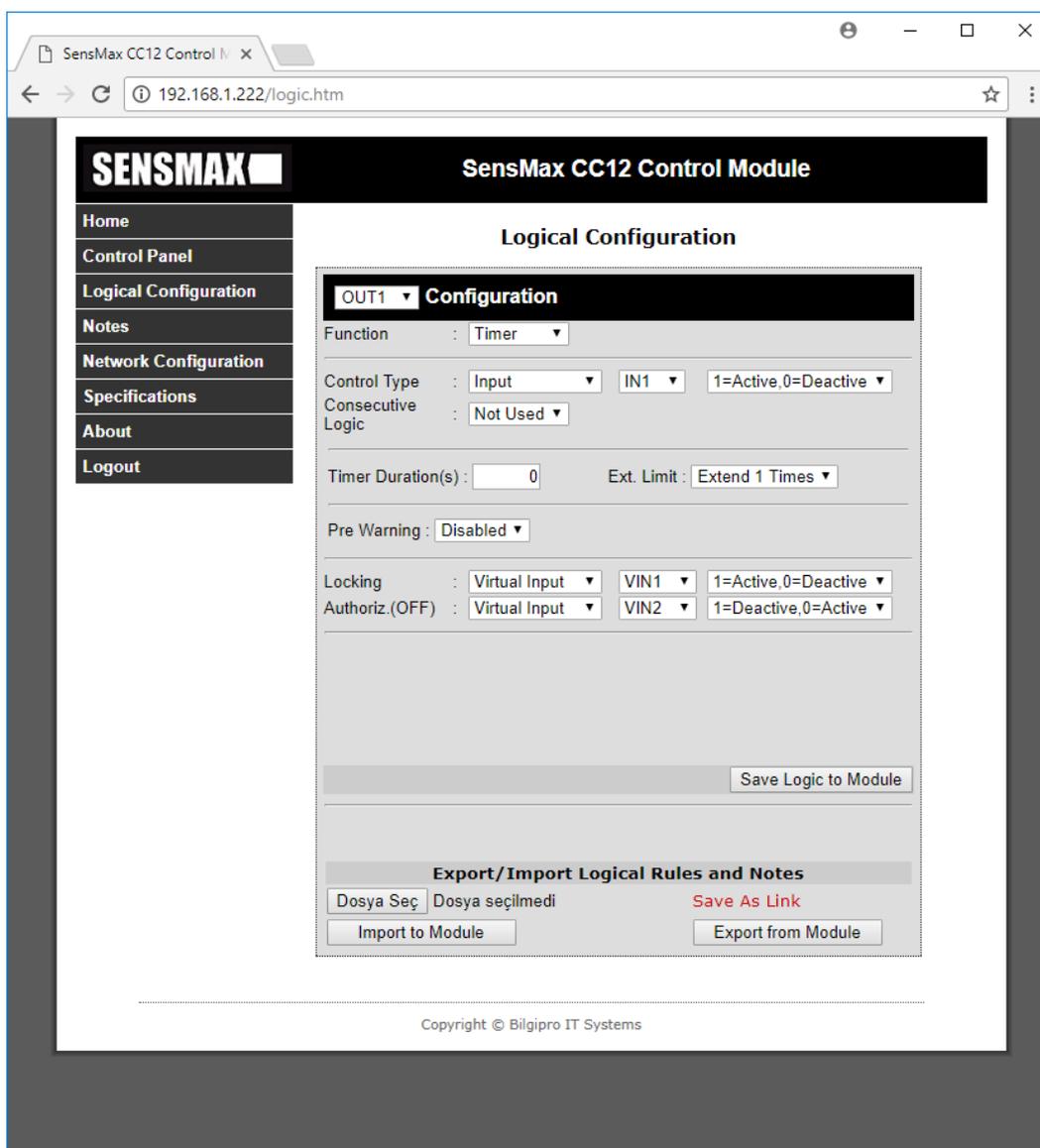
“Control Type” can be input or output status or logical expression.

“Timer Duration” can be set as second for how long output will stay as power on state as second. Duration can be set up to 65535 seconds.

“Extension Limit” used for how many times user can extend duration while timer already triggered. When disabled any condition during timer on will be discarded and output will be open as timer duration and will be closed for second trigger.

“Pre Warning” can be set if user wanted to be warned near to timer will close. This will help to user to indicate that output will power off soon and timer must be re-triggered to extent duration. When set duration reached, for 1sn output will be power off and on to give a sign user who would still walk in stairs.

“Authorization OFF” can be used as master control to activate/deactivate output via input or output states. When this condition is met related channel can start to execute logical result and will start as power off state.



Shutter

Shutter function can be used for door and window control applications.

“Shutter Type” allocates sequential 2 or 4 relays to achieve desired functionality. In “2 Outputs” mode 2 sequential relay reserved for Up and Down control motors. In “4 Outputs” mode 4 relay will be allocated to achieve “Bridge” type connection for single wind DC motors. In this situation, for “Up Direction” Output 1 and Output 4 will be opened or closed at same time for UP direction while Output 2 and Output 3 will be opened or closed at same time for DOWN direction.

“Control Mode” selects how many buttons will be used for UP/DOWN direction control. When single button selected, UP/Stop/Down/Stop sequence will be executed on every trigger of button. If shutter already in stop state next press to button will be Up or Down command according to previous state.

While Up/Down output energized and want to change to other direction, current output(s) will be closed immediately and after 1sn inter-wait duration reverse direction output will be energized.

“Up/Down Duration” defines how long related output will be energized during Up/Down period. Duration can be set up to 65535 second.

<500ms button presses evaluate as short press and energies UP/DOWN direction 1sn for step control. On long button press will be energized output(s) as defined duration.

“Authorization OFF” can be used as master control to activate/deactivate output via input or output states. When this condition is met, related channel can start to execute logical result and will start as power off state.

The screenshot displays the SensMax CC12 Control Module web interface. The browser address bar shows the URL 192.168.1.222/logic.htm. The page title is "SensMax CC12 Control Module". A left-hand navigation menu includes: Home, Control Panel, Output Configuration, Dimmer Configuration, Group Adr. Association, Notes, Device Configuration, Specifications, About, and Logout. The main content area is titled "Relay Configuration" and shows the configuration for "OUT1".

OUT1 Configuration

- Function : Shutter
- Shutter Type : 2 Outputs
- Control Mode : 2 Buttons
- Up Button : -
- Down Button : -
- Up/Down Group Adr.: 2/20
- Step/Stop Group Adr.: 2/2/1
- Up Duration(s): 30
- Down Duration(s): 30
- Locking : -
- Authoriz. (OFF) : Input
- IN1
- 1=Active, 0=Deactive

Buttons: Save Logic to Module

Export/Import Logical Rules and Notes

- Choose File | No file chosen
- Save As Link
- Import to Module
- Export from Module

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Dimmer

Dimmer function can be useful if a 0/1-10V dimming control module connected to device's 0-10V port. Dimmable LED or normal lights can be dim via selected button or group addresses.

Buttons can be 1 or 2. When 1 button selected, every press of selected button will cause sequentially:

Dim Up – STOP- Dim Down – STOP.

If 2 buttons mode selected;

if Up button pressed short will energise dimmer, if presses long will increase level of light.

if Down button pressed short will cut energy of dimmer, if presses long will decrease level of light.

If Power relay selected, when dimmer level zero than this relay will be energised to supply dimmer balast otherwise de-energise the system.

If double click option selected, when Up button double clicked, level of light will be %100 percent quickly.

Power-On state of dimmer can be set as previous or a specific value.

Authorization will be source of dimmer run logic. If this logic not fulfilled dimmer will go zero level. Otherwise dimmer will be enabled to level change. After behaviour can be set for what will be level of dimmer after authorisation return back as previous value or a specific value.

Locking will freeze dimmer control. If dimmer open, it will freeze at this state. It is useful for child-lock or duration and important event in lighting area.

Dimmer also can be controlled by On/Off, Dimmin and Value group address.

The screenshot shows the 'Dimmer Configuration' page in a web browser. The browser address bar shows '192.168.1.222/dimmer.htm'. The page has a black header with the 'SENSMAX' logo and 'SensMax CC12 Control Module'. A sidebar on the left contains a menu with items: Home, Control Panel, Output Configuration, Dimmer Configuration, Group Adr. Association, Notes, Device Configuration, Specifications, About, and Logout. The main content area is titled 'Dimmer Configuration' and contains the following settings:

- Control Mode: 2 Buttons
- Up Button: IN1 / VIN1
- Down Button: IN2 / VIN2
- Power Relay: OUT2
- Ramp (sec): 10
- Min. Level: 10
- Double Click Set Level to %100
- Power On State: Previous Level
- Authorization: Input, IN5, 1=Deact, 0=Active
- After Behaviour: Value(%), 75
- Locking: -
- Group Adresses: On/Off, Dimming, Value
- Save Dimmer button

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GROUP ADDRESS ASSOCIATIONS

Module's each input status, output, output status and virtual input can be associated with a group addresses to send and receive information from other devices on the bus. Group address support 3 level addressing and can be between 0/0/0 to 15/7/255. Blank text means no association.

Thanks to group address communication bus, several CC/06/CC12/CC18 modules can be communicated between each other to achieve more complex projects whenever more inputs and outputs channels needed.

Input Status

When related associated input channel changed, last status of input will be sent to bus as switch data type.

Output

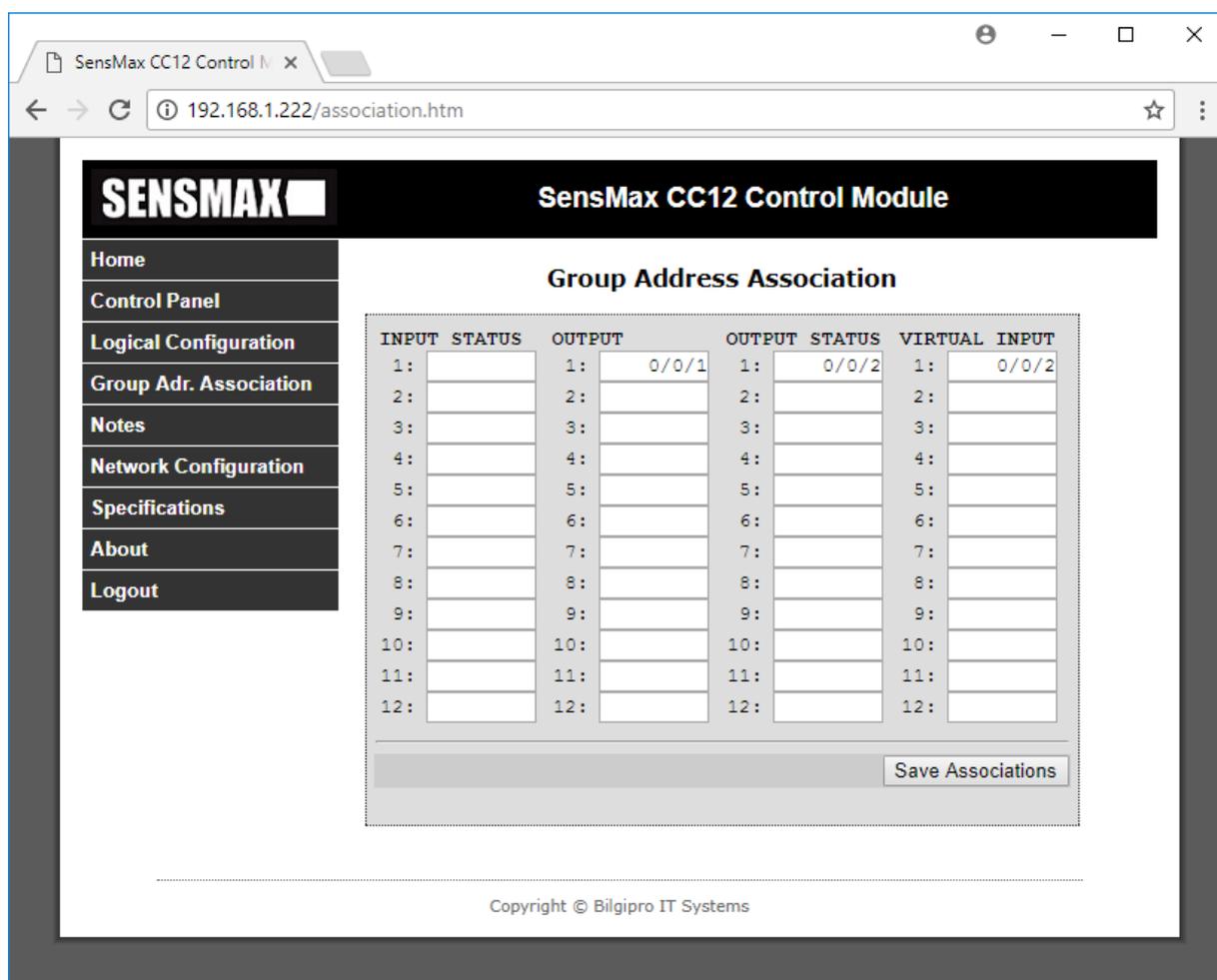
When any device on bus send to associated group address in switch data type, related output will change its state if already not in this state.

Output Status

When related output is changed by result of logic result, bus telegram or TCP socket, changed output status will be sent to associated group address as switch data type.

Virtual Input

When any device on bus send data to associated group address in switch data type, related virtual input will change its state if already not in this state.



NOTES

For saving useful information about used channels can be used “Notes” section to preserve notes. This information holds on module’s memory for later uses.

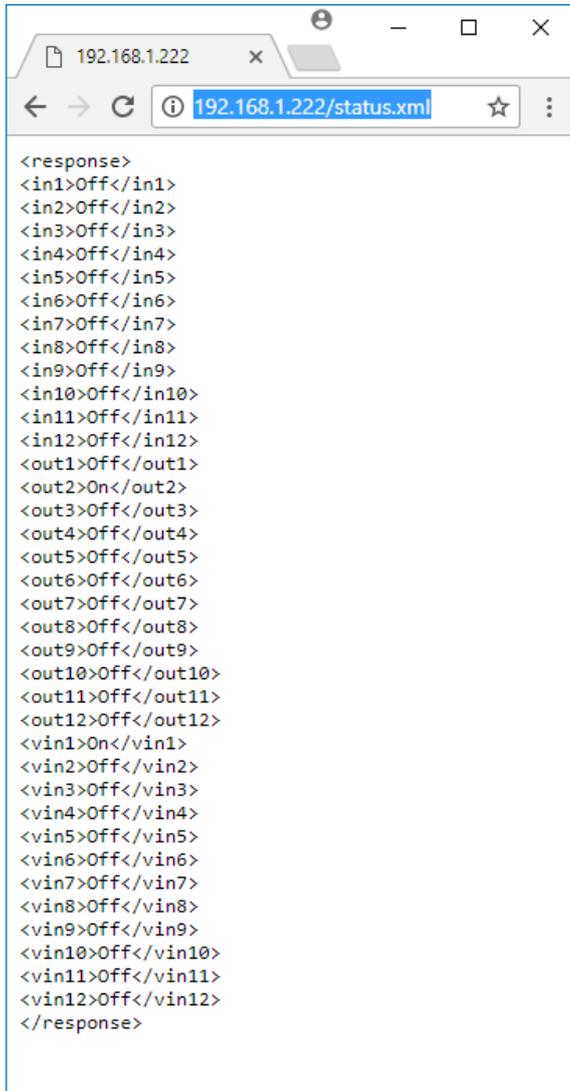
The screenshot shows a web browser window with the URL `192.168.1.222/notes.htm`. The page title is "SensMax CC12 Control Module". On the left, there is a navigation menu with the following items: Home, Control Panel, Logical Rules, Notes (highlighted), Network Configuration, Specifications, About, and Logout. The main content area is titled "Notes" and contains two columns: "INPUTS" and "OUTPUTS".

INPUTS	OUTPUTS
1: Kitchen Button	1: Kitchen Lamp
2: Living Room Button 1	2: Living Room Lamp
3: Living Room Button 2	3: Living Room Shutter UP
4: Living Room Shutter Button	4: Living Room Shutter UP
5: <input type="text"/>	5: <input type="text"/>
6: <input type="text"/>	6: <input type="text"/>
7: <input type="text"/>	7: <input type="text"/>
8: <input type="text"/>	8: <input type="text"/>
9: <input type="text"/>	9: <input type="text"/>
10: <input type="text"/>	10: <input type="text"/>
11: <input type="text"/>	11: <input type="text"/>
12: <input type="text"/>	12: <input type="text"/>

At the bottom right of the table area, there is a "Save Notes" button. Below the table, the copyright notice "Copyright © Bilgipro IT Systems" is displayed.

WEB SERVICES

Module also supply all current information in xml format. 3rd Party Applications can use this services to observe module.



The screenshot shows a web browser window with the address bar displaying `192.168.1.222/status.xml`. The main content area displays the following XML response:

```
<response>
<in1>Off</in1>
<in2>Off</in2>
<in3>Off</in3>
<in4>Off</in4>
<in5>Off</in5>
<in6>Off</in6>
<in7>Off</in7>
<in8>Off</in8>
<in9>Off</in9>
<in10>Off</in10>
<in11>Off</in11>
<in12>Off</in12>
<out1>Off</out1>
<out2>On</out2>
<out3>Off</out3>
<out4>Off</out4>
<out5>Off</out5>
<out6>Off</out6>
<out7>Off</out7>
<out8>Off</out8>
<out9>Off</out9>
<out10>Off</out10>
<out11>Off</out11>
<out12>Off</out12>
<vin1>On</vin1>
<vin2>Off</vin2>
<vin3>Off</vin3>
<vin4>Off</vin4>
<vin5>Off</vin5>
<vin6>Off</vin6>
<vin7>Off</vin7>
<vin8>Off</vin8>
<vin9>Off</vin9>
<vin10>Off</vin10>
<vin11>Off</vin11>
<vin12>Off</vin12>
</response>
```

DEVICE CONFIGURATION

Admin Configuration

In this menu default configuration for web password can be changed.

Network Configuration

Device IP, Gateway Address, Subnet Mask and DNS Adress can be set under Device Network Setting.

Input Configuration

Device inputs can be configuration normally open or normally close for each input seperatly.

TCP Configuration

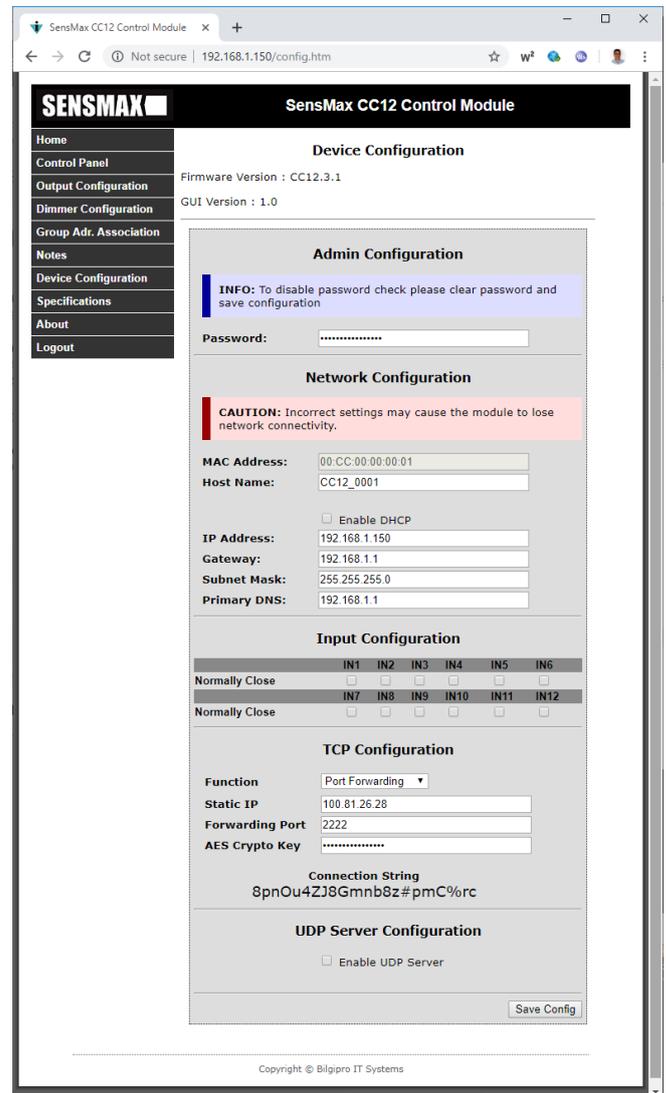
Device supports 4 different TCP Connection at a time.

- Client: In this mode device starts connection to a remote server using IP, port and interval parameters.
- Server: while also have TCP Server upto 4 simultaneous connections. If this option enabled, device will send periodically status data to given IP/Hostname if TCP server started by remote node at specified port. After connection established, on any change in status will be send immediatly.
- TCP Forwarding: This option similar to TCP Server but also creates a proper connection string using given static IP address and port number.
- Cloud: Will support soon but it will have periodical fee due to maintenance cost.

UDP Server Configuration

Internal UDP server can enabled/disable via this option.

Whenever configuration save config button is pressed module will restart if needed.



MOBILE APPLICATION

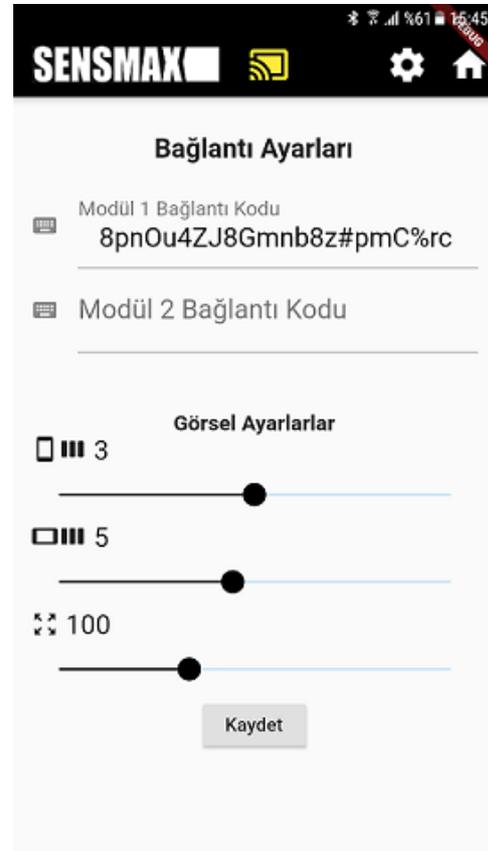
Android Market Name: "Sensmax Evim"

Application can connect 2 different modules at same time. You need to setup each module as TCP Port Forwarding and the connection string created by module must be entered in application setup menu.

If DHCP enabled in Network Configuration, mobile application will only try to connect to module using WAN IP address. If module has static IP, application will try to connect module by local IP address firstly due to faster and free connection. If application installed device(phone, tablet) not in local network, application will try to connect to module by using WAN static IP address.

If module2 not used, connection string can be left empty.

In visual settings user can select how many cards will be both landscape and portraid positions separately. Also by scale factor, card sizes can be changed.



SOCKET PROGRAMMING

TCP SERVER

Device also can be monitored and controlled by TCP protocol via 2222 port upto

Below command sets show to access device.

CMD_GET_VERSION = 220

Send:

220, 0

Receive:

220, 8, "C", "C" , "1" , "2" , "\.", "1" , "\.", "1"

CMD_READ_ALL = 221

Send:

221, 0

Receive:

221, 12,

0, 0, INPUTS_MSB, INPUTS_LSB,

0, 0, OUTPUTS_MSB, OUTPUTS_LSB,

0, 0, VIRTUAL_INPUTS_MSB, VIRTUAL_INPUTS_LSB

TCP CLIENT

When remote connection established to set IP and port, above communication telegrams will also be valid. Additionally below telegram will send periodically at a specified interval set by user.

Receive:

128, 128, 129,

MACADR(MSB), MACADD, MACADR, MACADR, MACADR(LSB),

0, 0, 0, 0, 0, 0, //Reserved

MODULE TYPE (CC08=8, CC12=9, CC18=10),

0, 0, //Reserved

0, 0, INPUTS_MSB, INPUTS_LSB,

0, 0, OUTPUTS_MSB, OUTPUTS_LSB,

0, 0, VIRTUAL_INPUTS_MSB, VIRTUAL_INPUTS_LSB

HTTP COMMANDS

Toggle

http://admin:pass@192.168.1.222/relay.cgi?relay=0

Toggle Output 1

http://admin:pass@192.168.1.222/relay.cgi?relay=5

Toggle Output 6

http://admin:pass@192.168.1.222/relay.cgi?relay=;

Toggle Output 11

http://admin:pass@192.168.1.222/relay.cgi?relay=:

Toggle Output 12

http://admin:pass@192.168.1.222/relay.cgi?relay=b

Toggle Virtual Input 2

Note: Index values are in order of ASCII table character set and starts from "0" for outputs and "a" for virtual inputs.

On/Off

http://admin:pass@192.168.1.222/ out.cgi? index =0;value=1

Output 1 On

http://admin:pass@192.168.1.222/ out.cgi? index =0;value=0

Output 1 Off

http://admin:pass@192.168.1.222/ out.cgi? index =c;value=1

Virtual Input 3 On

GROUP ADDRESS COMPATIBLE BUS SPECIFICATION

SensBus is 2 wire communication medium to communicate other devices. This bus can be used to communicate other CC06/CC12/CC18 modules, dimmer, thermostat, sensor modules, etc.

Bus voltage level can be 29...30V range. Communication speed is 9600baud.

Communication take place by 3-level group addresses.

This communication bus needs Power Supply to supply modules on the bus. Modules can be ordered internal 32mA power supply option for small range projects that are using only several bus modules that total current don't exceeds 32mA.

ORDERING INFORMATION

CC12	-E0 -E1 -E2	-L0 -L1	-D0 -D1	-B0 -B1	-P0 -P1
	E0: No Ethernet E1: 1 port 10MB E2: 2 ports 100MB	L0: No LCD L1: 2x16 LCD	D0: No 0..10V Dimmer Output D1: 0..10V Dimmer Output	B0: No Bus Port B1: Bus Port	P0: No Internal 30V/32mA Power Supply P1: Internal 30V/32mA Power Supply

Example: **CC12-E2-L1-D1-B1-P0**

CONTACT INFORMATION

THE BİLGİPRO WEB SITE

Bilgipro IoT Systems provides documentation support via our WWW site bilgipro.com. This web site is used as a means to make files and information easily available to customers. Accessible by using your favourite Internet browser, the web site contains the following information:

- Overview of Bilgipro IoT Systems company and values.
- Information about our products and projects.
- Product Support: Data sheets, product manuals, application descriptions, latest software releases and archived software.

UROPE, Turkey**Bilgipro IoT Systems**

Orta Mh. Yalnız Selvi Cd.
Uptwins Block B 18th Floor
Kartal / İstanbul

+90 (850) 226 60 44

bilgipro.com