

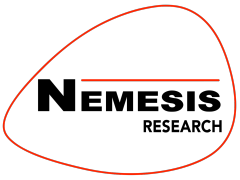
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OSCA-I016

16-Way OSC General Purpose Input Output Interface

USER GUIDE



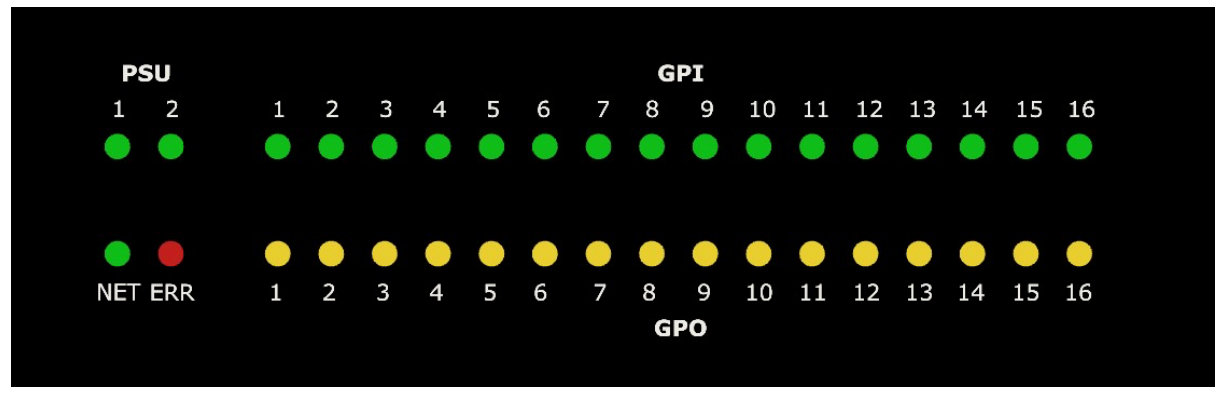
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Overview

The OSCA-I016 is a next generation multiple command destination show control solution featuring OSC Network input, with 16 isolated inputs and 16 relay outputs.

Front Panel

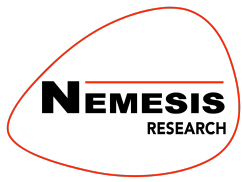


- GPI 1 -16** - Indicate the current status of each general-purpose input.
- GPO 1 -16** - Indicate the current status of each general-purpose output.
- PSU 1-2** - Indicate the current status of each dual redundant PSU.
- NET** - Indicate the current status of the network connection.
- ERR** - Indicate an error status due to PSU failure or network not connected.

Rear Panel Connections



- GPI 1 -8, 9-16** - 9 Pin Female D-Sub for input connections. See Pin Outs section for details.
- GPI01 -4, 5-8, 9-12, 13-16** - 15 Pin Female D-Sub for output connections. See Pin Outs section for details.
- PSU** - 110-230V AC powerCON input
- NETWORK** - etherCON RJ45 for network connection



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Network Settings

Default IP settings

IP Address	192.168.1.253
Subnet Mask	255.255.255.0
Gateway	192.168.1.1
DNS Main	192.168.1.1
DNS Backup	192.168.1.1
Network Device Name	OSCA-I016
OSC Listen Port	53500

In order to change settings navigate to the device's IP address (default: 192.168.1.253) on the network using a web browser or use its network name (default: OSCA-I016) and navigate to the "Network page"

In order for changes to take effect press save and then restart (Please note if you have changed IP address or device name the page may not refresh, and you will need to open a new tab in your browser with the new user settings).

Destination Settings

On the Destinations page, you can specify and name destinations (a maximum of 5 when in advanced mode and 2 when in a preset) which will be stored in the device's memory. Please specify the IP address and OSC listen to port of the receiving device(s).

Input Settings

Each input can send up to four messages (Command), with each one sent to one of five destinations. (to send the same command to both destinations send identical command to each location)

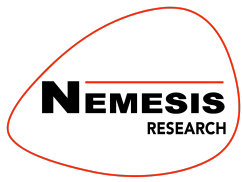
The device comes with three pre-sets built-in with predefined commands for CSC and Qlab and OSCA-04.

All commands in these pre-sets will be sent to Destination 1 and 2 (if specified on the destinations page)

Qlab Preset

Button	Function	Command
1	Go	/go
2	Stop	/panic
3	Previous	/playhead/previous
4	Next	/playhead/next
5	Not used	

When using this pre-set it may be necessary to configure QLab to allow OSC connection access without a passcode.



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CSC Preset

Button	Function	Message (Command)
1	Go	/cuelist/go
2	Stop	/cuelist/stop
3	Previous	/cuelist/prev
4	Next	/cuelist/next
5	Not used	

OSCA-04 Preset

Button	Function	Address	Integer Argument
1	Relay 1 ON	/relay/1	1
2	Relay 2 ON	/relay/2	1
3	Relay 3 ON	/relay/3	1
4	Relay 4 ON	/relay/4	1
5	All relays OFF	/relay/?	0

Advanced Mode – Inputs

By putting the device into advanced mode and navigating to the buttons menu the user can specify custom messages (Commands) for each of your buttons. The OSCA can send up to two arguments with each command. OSCA will automatically determine the format of the argument based on the value. For example, 1 will be sent as an integer, 1.00 as a float and one as a string. OSCA will also automatically read the entered OSC command (String) and determine what is the address and argument(s). For further information please see <http://www.nemesis-research.com/opensoundcontrol>

A debounce time can be set per input in milliseconds. This is the time after the button is released before it can be pressed again (the default is set to 250ms).

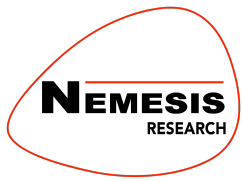
OSCA has a maximum length for the command which is 192 characters.

You can then select which destination you would like this command to be sent to. Each input can send up to two commands, with each command being sent to one destination (To send the same Command to 2 destinations send identical commands to each receiving device).

Output Settings

You can manually toggle the 16 outputs using the toggle switches on the outputs setting page. This will also update if the output state is changed via OSC.

To turn outputs on and off send the following messages to the device via OSC (make sure the transmitting device's send port matches the device's listen port and is sending to the correct IP address).



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Address	Integer Argument	Action
/output/01	1	Output 1 On
/output/02	0	Output 2 Off

You can also use wildcards to address multiple outputs:

Address	Integer Argument	Action
/output/[1-3]	1	Output 1,2,3 On
/output/[1,4]	0	Output 1,4 off

n.b. OSC address wildcards are ASCII character based and not numeric, and so for example /output/[1-16] is not valid. OSCA will respond to single and double digit output numbers /output/01 is the same as /output/1

You can also pulse an output for a duration between 100 and 3000ms:

Address	Integer Argument	Action
/output/[1-3]	500	Output 1,2,3 On for 500ms

Firmware Update

If connected to the internet you can use the Firmware update page to install the latest firmware from the Nemesis server.

Additional Information

Incoming OSC

OSCA will react to incoming OSC messages on the port specified.

e.g., /input/1 Will send the commands specified by input 1 as if input 1 had been activated.

Power

OSCA can be powered by 90 – 260 VAC 50 – 60 Hz 12W.

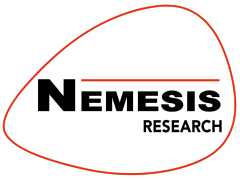
Factory Reset

Press the recessed real panel button at power on to reset the network settings to default. Please then power cycle the unit for the changes to take effect.

Pin Outs

GPO: 15 Pin Female D-Sub. Outputs 1-4, 5-8, 9-12, 13-16 Normally Open, Normally Closed and Common connections available. Switching rated to 1A. Also provides external 5V power, rated to 0.2A.

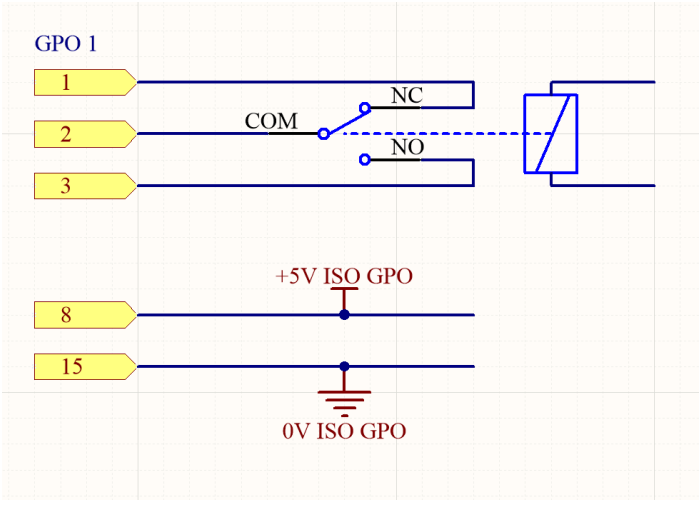
Option	Function
1	RLY1 NC
2	RLY1 COM
3	RLY1 NO
4	RLY2 NC
5	RLY2 COM
6	RLY2 NO
7	NC
8	5V 200mA
9	RLY3 NC



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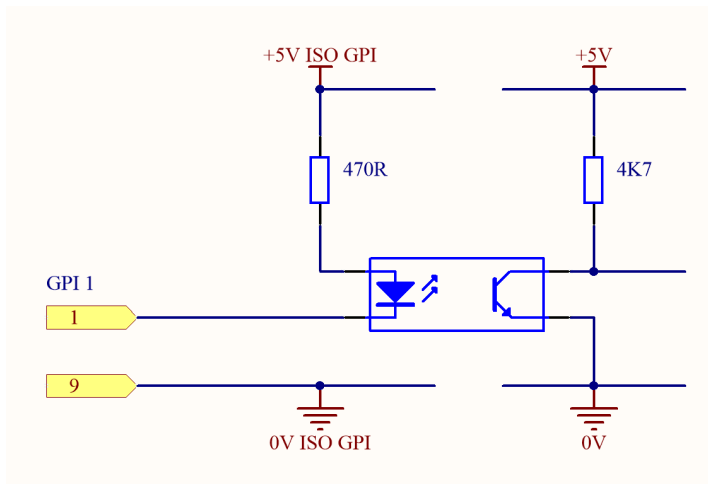
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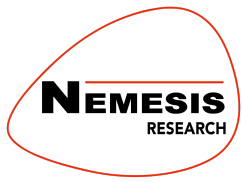
10	RLY3 COM
11	RLY3 NO
12	RLY4 NC
13	RLY4 COM
14	RLY4 NO
15	GND



GPI: 9 Pin Female D-Sub. Inputs 1- 8 and 9-16: Closed contact to GND, opto-isolated input.

Option	Function
1	Input 1
2	Input 2
3	Input 3
4	Input 4
5	Input 5
6	Input 6
7	Input 7
8	Input 8
9	GND





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EU declaration of conformity (CE symbol)

This declaration applies to
- OSCA-IO-16 XX:XX:XX:XX:XX:XX
manufactured by Nemesis Audio



All products of type OSCA-IO-16 are included, provided they correspond to the original technical version and have not been subject to any later design or electromechanical modifications.

We herewith declare that said products are in conformity with the provisions of the respective EC directives including all applicable amendments.

A detailed declaration is available on request and can be ordered from Nemesis Audio.

WEEE Declaration (Disposal)

Electrical and electronic equipment must be disposed of separately from normal waste at the end of its operational lifetime.

Please dispose of this product according to the respective national regulations or contractual agreements. If there are any further questions concerning the disposal of this product please contact Nemesis Audio.

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