



## INPUT/OUTPUT CONTROLLER

# Model NQ-E7010

### DESCRIPTION

The NQ-E7010 Input/Output Controller appliance provides eight dry contact closure inputs to monitor events/triggers from third-party systems/devices such as Fire Alarms, Lockdown buttons, and sensors. It provides eight open-collector type relay driver outputs to initiate actions such as clock correction (e.g., generating sync pulses) on third-party systems and devices. The outputs can also be configured via the C4000 system software to respond to contact closure inputs from the same I/O Controller or others associated with the C4000 system.

### FEATURES

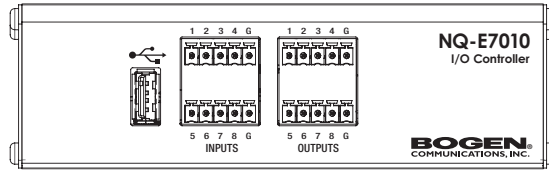
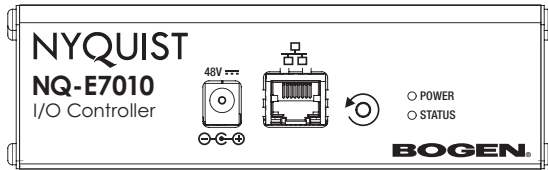
- 10/100 Ethernet
- PoE Class-3 (IEEE 802.3af compliant)  
- Optional 48 VDC 15W power supply
- 8 x dry contact closure inputs (with 1 ground per 4 inputs)
- 8 x relay driver outputs (500mA max per ground sink)
- USB 2.0 host port, Type A connector (future use)
- May be Wall- or Shelf-mounted: 5.6" W x 5.4" D x 1.7" H  
(2" H with rubber feet installed)
- Weight 1.95 lb. / 0.885kg

### A & E SPECIFICATIONS

The Nyquist I/O Controller (NQ-E7010) accepts eight dry contact closure inputs and provide eight open-collector outputs to drive relays. It is a PoE Class-4, IEEE 802.3af compliant device with optional 48VDC 15W power supply if no PoE port is available. The eight dry contact closure inputs can be used with fire alarm override relays and other types of external event triggers (e.g., Lockdown Buttons, etc.). The eight open-collector relay driver outputs are for use in applications such as clock correction (sync pulse), response to contact closure inputs, etc. The NQ-E7010 is equipped with two RGB full spectrum LED power and status indicators to convey the various states of the device (e.g., powered-on, registered, updating, etc.). The Nyquist NQ-E7010 I/O Controller shall be equipped with a USB 2.0 host port, Type-A connector for future feature capabilities. The Nyquist NQ-E7010 I/O Controller shall include support for wall- or shelf-mounting. An optional rack-mounting bracket is also available. Systems that don't provide these features are not considered equal.



The **C4000 Series** is built upon Bogen's award-winning Nyquist software-based IP communications platform, which provides users with unparalleled flexibility and scalability, whatever their application.



## TECHNICAL SPECIFICATIONS

| <b>NQ-E7010</b>                    |   |
|------------------------------------|---|
| <b>External DC Power</b>           | 48 - 56VDC .3A (5.5mm x 2.1mm Barrel Jack)  |
| <b>DC Input Range</b>              | 15-Watt 48V to 56V  |
| <b>PoE (Power over Ethernet)</b>   | IEEE 802.3af standard, Class 4 device (RJ45)  |
| <b>Input Connectors</b>            | Two 5-pin 3.5mm Phoenix Plugs/Headers;<br>Eight (8) dry contact closure inputs with one (1) ground per every 4 inputs;<br>Each input is a ground activated signal (i.e., short the ground and input pin to activate; do not apply voltage)<br><br>*Use 2-conductor unshielded cable of the appropriate gauge wire.<br>Tie Ground leads together for each 5-pin input header used.   |
| <b>Output Connectors</b>           | Two 5-pin 3.5mm Phoenix Plugs/Headers;<br>Eight (8) open-collector relay driver outputs with one (1) ground per every 4 outputs;<br>Each driver is 'Normally Open' and can only sink current (i.e., it provides no voltage);<br>Each relay driver output is rated at 50 VDC / 0.5 Amps<br><br>*Use 2-conductor unshielded cable of the appropriate gauge wire. Tie Ground leads together for each 5-pin input header used. Connect ground to relay power supply ground. |
| <b>USB Connector</b>               | USB 2.0 Type A 500mA<br>*Use USB 2.0 cable  |
| <b>Indicators</b>                  | Power & Status LEDs (front) / Network LEDs (front)  |
| <b>Operating Temperature Range</b> | -15 C to +40 C  |
| <b>Protection</b>                  | ESD, RF, DC, Thermal, Short Circuit)  |
| <b>Networking</b>                  | Cat5 or better 10/100 network connectivity to Bogen's Nyquist network<br>*Use Cat5 or better  |
| <b>Certifications</b>              | CE and FCC Part 15b Class A; ICES-003, Issue 6: 2016; EN 55032:2012; EN 55035:2017  |
| <b>Product Weight</b>              | 1.95 lb. / 0.885 kg   |
| <b>Physical Dimensions</b>         | 5.6" W x 1.7" H x 5.4" D<br>(Depth includes Phoenix connectors; width is without rack mount brackets attached; height excludes rubber mounting feet)  |

\* Cabling Recommendation(s)

### Limited Warranty, Exclusion of Certain Damages

The **NQ-E7010** is warranted to be free from defects in materials and workmanship for five (5) years from the date of sale to the original purchaser. Any part of the product covered by this warranty that, with normal installation and use, becomes defective (as confirmed by Bogen upon inspection) during the warranty period will be repaired or replaced by Bogen, at Bogen's option, with new or refurbished product, provided the product is shipped insured and prepaid to: Bogen Factory Service Department: 4570 Shelby Air Drive, Suite 11, Memphis, TN 38118, USA. Repaired or replacement product(s) will be returned to you freight prepaid. This warranty does not extend to any of our products that have been subjected to abuse, misuse, improper storage, neglect, accident, improper installation or have been modified or repaired or altered in any manner whatsoever, or where the serial number or date code has been removed or defaced.

THE FOREGOING LIMITED WARRANTY IS BOGEN'S SOLE AND EXCLUSIVE WARRANTY AND THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY. BOGEN MAKES NO OTHER WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED AND EXCLUDED TO THE MAXIMUM EXTENT ALLOWABLE BY LAW. Bogen's liability arising out of the manufacture, sale or supplying of products or their use or disposition, whether based upon warranty, contract, tort or otherwise, shall be limited to the price of the product. IN NO EVENT SHALL BOGEN BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF DATA OR LOSS OF USE DAMAGES) ARISING OUT OF THE MANUFACTURE, SALE OR SUPPLYING OF PRODUCTS, EVEN IF BOGEN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSSES. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Products that are out of warranty will also be repaired by Bogen Factory Service Department -- same address as above or call 201-934-8500, at owner's expense. Returned products which do not qualify for warranty service, may be repaired or replaced at Bogen's option with a previously repaired or refurbished items. The parts and labor involved in these repairs are warranted for 90 days when repaired by the Bogen Factory Service Department. All parts and labor charges as well as shipping charges will be at the owner's expense.

All returns require a Return Authorization number. For most efficient warranty or repair service, please include a description of the failure.

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