

## DESCRIPTION

Fireguard IQ600 is an Addressable Fire Alarm Control Panel designed for small to medium-scale facilities. It is ideally suited for both new and retrofit commercial, institutional, and industrial fire detection and notification applications. IQ600 is a state-of-the-art addressable fire control system that meets the requirements of UL864 10th.

It supports up to 4 Addressable Signaling Line Circuits of 252 addressable devices/points per loop. It also has a capacity of 2 to 10 Notification Appliance Circuits and 4+1 form C dry relay contacts (4 relays are used for Fire Department connection).

The IQ600 has a 7" LCD with 800 X 480 resolution, 6 auxiliary function keys, and 9 LED indicators making it a highly intuitive fire alarm user interface. It can be connected to 109 remote Panels and Annunciators via an external network to form a fire emergency detection and notification network system.



## FEATURES

- 8-line colored 7" LCD with 800X480 resolution
- 9 LED indicators, making it a highly intuitive fire alarm interface with 6 auxiliary function keys
- Up to 4 intelligent signaling line circuits (SLC), Class A or Class B. Supports 252 devices per loop
- Supports iQ600 series intelligent detectors, manual stations and modules
- Automatic addressing function allowing the panel to sequentially assign addresses
- Up to 10 notification appliances circuits (NAC), Class A or Class B
- Programmable via PC configuration software or Field programmable through front panel
- Modular design for custom system configurations
- Network support for up to 109 iQ600 series remote panels and annunciators
- Form C dry relay contacts dedicated for Alarm, Trouble, Supervisory and Monitor. One additional programmable relay
- Supports positive alarm sequence to avoid false alarms
- Configurable for Two Stage operation
- Supports RJ45 ab RS232 interface for third-party monitoring software
- Four-levels of password protection with field-programmable definitions enables the installer to determine which functions are accessible at each password level
- Two separate event history logs, including a 1000 alarm only history log and a 5000-events log for all other events

## SPECIFICATION

<b>Primary Supply</b>	<ul style="list-style-type: none"> <li>» 110 - VAC 50Hz/60Hz (3A)</li> <li>» 220 - 240 VAC 50Hz/60Hz (1.5A)</li> </ul>
<b>Back Battery</b>	<ul style="list-style-type: none"> <li>» Voltage: 24VDC, Two 12VDC in series</li> <li>» Type: Sealed lead acid</li> <li>» Charging capacity: 40Ah</li> <li>» Charging current: 3A max</li> <li>» Up to two 40Ah batteries can fit in the control panel enclosure</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>» Operating temperature: 32°F - 122°F (0°-50°C)</li> <li>» Relative humidity: Up to 93% @ 90°F (32°C)</li> <li>» To be installed in a normal dry indoor environment only</li> </ul>
<b>Addressable Devices loops</b>	1 loop, expandable to 4 loops, Class A and /or Class B, each loop supporting up to 252 devices addressees
<b>Notification Appliance Circuits (NAC)</b>	<ul style="list-style-type: none"> <li>» Up to 5 NOU cards supported (2 loop per card), total power available 8A</li> <li>» 2 Class A or 2 Class B circuits on each NOU</li> <li>» Maximum Current: 2A per NAC circuit</li> <li>» Alarm Voltage: 24 nominal</li> <li>» Bell code: Temporal</li> </ul>
<b>Relay Outputs</b>	<ul style="list-style-type: none"> <li>» One programmable relay</li> <li>» 4 non-programmable status relay. Status indicated are Alarm, Supervisory, Trouble, Monitor.</li> <li>» All relays are Form-C contacts</li> <li>» Contact Rating: 2A 30VDC</li> </ul>
<b>Power Outputs</b>	<p><b>Internal Power supply for:</b></p> <ul style="list-style-type: none"> <li>» AMI User interface/display;</li> <li>» ALUs Addressable Loop Circuits;</li> <li>» NOUs Notification Appliance Circuits;</li> <li>» XNUs External Network Circuits</li> <li>» ROUs Relay Outputs Circuits;</li> <li>» Non-Resettable 4/Resettable Auxiliary Power Outputs(configurable);</li> </ul> <p><b>Power Limited:</b></p> <ul style="list-style-type: none"> <li>» 24VDC 1.2 Amps</li> <li>» Output current: 500mA in normal standby, 1200mA in alarm.</li> </ul>
<b>Connections</b>	All terminals are rated for 18 to 12 AWG (0.82mm <sup>2</sup> to 3.31mm <sup>2</sup> )

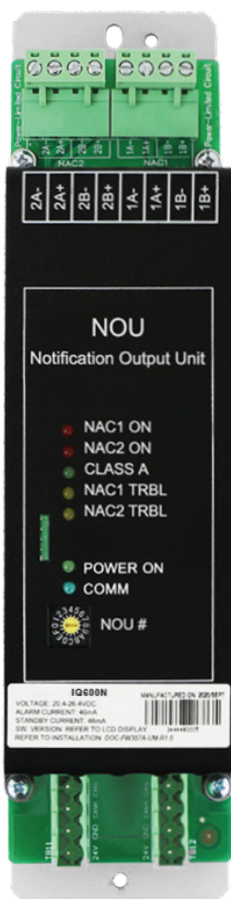
**SYSTEM CONFIGURATION**

The default iQ600 panel is equipped with AMI, PTU, PCU, ALU, NOU and ROU modules as a standard configuration. The modular design of the panel enables it to be configured as per the requirements, adding a network modules, expanding the detection and alarm capabilities or removing a configurable module of not required.

The panel is design with 8 slots for the configurable modules. All configurable modules are designed in the same dimensions and each module occupies one slot in the panel.

Model	Description	Configurable	Qty	Standby	Alarm
IQ600AMI	AMI- Advance Machine Interface	X	1	143 mA	146 mA
IQ600PST	PST- Power-supply Transformer Unit	X	1	NA	NA
IQ600PCU	PCU- Power-supply Charger Unit	X	1	65 mA	65 mA
IQ600L	ALU- Addressable Loop Unit	✓	1-4	27 mA	27 mA
IQ600N	NOU- Notification Output Unit	✓	1-5	36 mA	54 mA
IQ600R	ROU- Relay Output Unit	✓	0-1	35 mA	35 mA
IQ600E	XNU- External Network Unit - Class B	✓	0-1	27 mA	27 mA

*Each configurable module is assigned a physical address using rotary switch in the module*


**IQ600L**

**IQ600N**

**IQ600R**

**IQ600E**

## SYSTEM WIRING

### Addressable Device Loop

The IQ600 panel supports up to 4 ALU modules, each module provides one signaling line circuits (SLC) with a capacity of 252 devices addresses. The loop is supervised for opens, shorts and grounds.

Circuit Specification	IQ600L
Loops	One Class B or A loop, supporting 252 IQ600 series addressable devices
Circuits Current	0.4 A max
Output Voltage Current	20.2V ~ 26.2V
Standby Current	100 mA max
Alarm Current	220 mA max
Circuit Impedance	10Ω, 0.1 μF, max
Isolators	50 max

### Notification Appliance Circuits

The IQ600 panel support up to 5 NOU modules, each module provides 2 notification appliance circuits (NAC). Each circuits is supervised.

Circuit Specification	IQ600L
Circuits	2 Class B or 2 Class A
Alarm Voltage	24 VDC nominal
Circuits Current	2.0 A max per circuits
EOLR	10 KΩ
Bell Code	ANSI Temporal

*\*\*Voltage drop calculations are required to determine the number of notification appliance per circuit.*

### Relay Outputs

The IQ600 panel provides 4 non-programmable relays to connect monitoring panel in addition to one programmable relay for special applications.

Relay Specification	IQ600R
Relay 1	Alarm
Relay 2	Supervisory
Relay 3	Trouble
Relay 4	Monitor
Relay 5	Special Application
Contact Rating	30 VDC at 2 A
Type	Form C contact

### External Network Circuit

The panel can connect to up to 109 panels and/or remote annunciators via XNU modules.

Circuit Specification	IQ600E
Circuits	Class B
Communication Protocol	CAN
Circuit Impedance	25Ω, 0.05 μF, max

*\*\*The number of remote annunciators powered by a single panel is limited by the auxiliary power output current rating.*

### Auxiliary Power Output

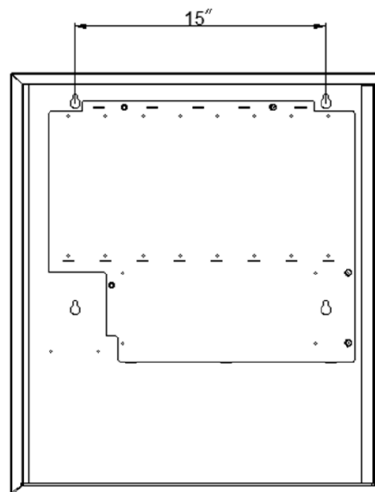
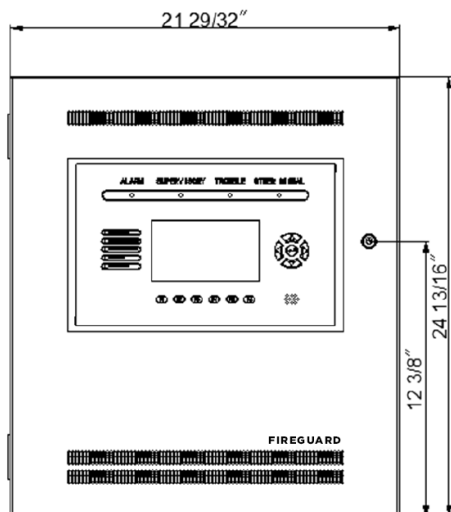
The IQ600 panel provides one auxiliary power output from the PCU module that can be used for powering remote annunciator and I/O modules.

Circuit Specification	
Circuits Voltage	24 VDC
Standby Current	500 mA max
Alarm Current	1200 mA max
Power Factor	0.35
Configuration	Non-Resettable/Resettable



**DIMENSION AND MOUNTING**

The IQ600 Panel is suitable for surface mounting and semi-flush mounting installation. Please refer to the installation manual for detailed installation instructions.


**Surface**

**Semi-Flush**
**CATALOG NUMBER TO ORDER**

Model	Description
IQ600	Expandable Addressable Panel (AMI, PTU, PCU, ALU, NOU and ROU Enclosure, Internal & External door with English silkscreen)
IQ600AMI	AMI- Advance Machine Interface
IQ600PST	PST- Power-supply Transformer Unit
IQ600PCU	PCU- Power-supply Charger Unit
IQ600L	ALU- Addressable Loop Unit
IQ600N	NOU- Notification Output Unit
IQ600R	ROU- Relay Output Unit
IQ600E	XNU- External Network Unit - Class B
IQPK	Panel Key