

1. FIRE PROTECTION EQUIPMENT

2. Certificate No: FM24US0144

3. Equipment: IQ Series

(Type Reference and Name) Fire Alarm Control Panel and Modules

4. Name of Listing Company: Fireguard Global Ltd

5. Address of Listing Company: Unit 11, Chancel Industrial Estate, Newhall St, Willenhall WV13 1NX, United Kingdom

6. The examination and test results are recorded in confidential report number:

PR469452 dated 27 August 2024

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

FM 3010:2021, FM 3210:2021, FM 3230:2020

- 8. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
- 9. Approval Guide Listing Category:

Local Protective Signaling, Fire
Alarm Signal Initiating Devices, Fire Detection, Heat-Actuated
Alarm Signal Initiating Devices, Smoke Detectors

Certificate issued by:

9.8. Marquerdiat

J.E. Marquedant

VP, Manager - Electrical Systems

27 August 2024

Date

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F 320 (Jul 24)





US Certificate of Conformity No: FM24US0144

10. Description of Equipment:

## 11. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

#### 12. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

#### 13. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
27 August 2024	Original Issue.

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US Certificate of Conformity No: FM24US0144



# **ANNEX**

## **IQ600**

## **Description of Equipment:**

The Model IQ600 is a digital signal processor based addressable fire control system is fully configurable with password protection.

Firmware/Software version:

Product/Module Description	Model Designation	Firmware Version	Software Version
FireWatcher Control Panel	IQ600	V1.1.0.0_0.0.26	V1.1.0.0_0.0.20
ALU, Addressable Loop Unit	IQ600L	V1.0.0.0_47.33.0	N/A
NOU, Notification Output Unit	IQ600N	V1.0.0.0_0.8.0	N/A
ROU, Relay Output Unit	IQ600R	V1.0.0.0_0.0.0	N/A
XNU, External Network Unit	IQ600E	V1.0.0.0_0.1.0	N/A
Addressable Input Module to monitor a Single Contact	IQ611M	R1.1	N/A
Addressable supervised output module provides one 24VDC output and one feedback input switch	IQ611MO	R1.0	N/A
Isolator module isolates the short point on the signaling line circuit (SLC)	IQ611MI	N/A	N/A
Relay Module	IQ611MR	N/A	N/A

#### **IQ600** supports:

- 4 Addressable Loop Circuits and 1,008 addressable devices/points
- 4 Notification Appliance Circuits
- 5 form C dry relay contacts.

The IQ600 has

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US Certificate of Conformity No: FM24US0144

- A 7" color LCD and a resolution of 800×480
- 6 auxiliary function keys
- 9 LED indicators for intuitive fire-alarm user interface.
- · All panels/annunciators are intended to function as a single system and share events/controls of each other. **IQ600 Specifications**:

Primary Supply	110 - 120 VAC 60Hz, 3.9A, or 220 - 240 VAC 50Hz, 2.0A
Secondary Power Supply	Two 12V in series lead-acid batteries Charging capacity: 40AH
Power Outputs	Internal power supply for: 24VDC, See below for max. current, AMI, ALU's and Addressable Loop Circuits, 4 max., NOU's and Notification Appliance Circuits, 5 max., XNU's, External Network Circuits, 1 max., ROU's
	1 auxiliary power supply: Non-Resettable/Resettable (configurable) Power Output, Power limited, 24VDC, Output current: 0.5A in standby, 1.2A in alarm, Power Factor: 0.35, Special application Compatible Annunciator Models: FW121 /FW122W/FW122R/FW123
Relays Output	One programmable relay, 4 non-programmable status relays, Status: Alarm, Supervisory, Trouble, Monitor, Form C Contact, Contact Rating: 2A 30VDC, Power Factor: 0.35
Notification Appliance Circuits	10 circuits max., 8A max., 2A per NAC circuit, 2 Class A or 2 Class B circuits on each NOU, Alarm Voltage: 24V nominal, Bell code: Temporal 3, Panel supports one regulated 24 VDC NAC, or up to 10 special application 24VDC NAC, Max line loss: 1.8 V.
Network Circuit	Class B, Max. 110 panels and/or remote annunciators, Communications

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US Certificate of Conformity No: FM24US0144

	protocol: CAN, Max. line capacitance = 0.05 uF, Max. line resistance = 25 Ohm.
Addressable Loop Circuits	0.4A max. (short): Class A/ Class B, 252 max.: [combination] detectors and modules, Output voltage range: 20.2V - 26.2V, 100mA max. in standby, 220mA max. in alarm, Max. line capacitance = 0.1 µF Max. line resistance = 10 0hm
Environmental	Operating temperature: 0 - 49°C (32 - 120°F) Relative humidity: Up to 93% @ 90°F (32°C) normal dry indoor environment only

## System Assemblies

Model	Description	Quantity
IQ600L	ALU (Addressable Loop Unit)	1 - 4
IQ600N	NOU (Notification Output Unit)	1-5
IQ600R	ROU (Relay Output Unit)	0-1
IQ600E	XNU (External Network Unit)	0-1
IQ611M	Addressable Input Module to monitor a Single Contact	0-1
IQ611MO	Addressable supervised output module provides one 24VDC output and one feedback input switch	0-1
IQ611MI	Isolator module isolates the short point on the signaling line circuit (SLC)	0-1
IQ611MR	Relay Module	0-1

Close

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US Certificate of Conformity No: FM24US0144



## **IQ651H**

## **Description of Equipment:**

Model IQ651H is an addressable heat sensor for indoor use with both fixed-temperature and rate-of-rise alarm configuration capability. The sensor includes a Microcontroller Unit (MCU) for self-diagnostic tests, and result analysis. The IQ651H uses one address on the Signaling Line Circuit (SLC) of the fire alarm control panel. The IQ651H is used with IQ651B Base.

#### **I651H SPECIFICATIONS:**

Nominal Voltage	24VDC
Voltage Range	17.6 to 28VDC
Standby Current	0.1mA
Alarm Current	1mA
Fixed Temperature Rating	135°F (57.2°C)
Rate-of-Rise Detection	15°F/min. (8.3°C/min.)
Installation Temperature	32°F to 100°F (0°C to 38°C)
Operating Humidity	0% to 93% RH
Mounting	IQ651B Base
Mounting Orientation	Ceiling only
RTI	Standard

## **IQ651S**

#### **Description of Equipment:**

Model IQ651S addressable Photo Smoke Detector with IQ651B Detector Base uses one address on the Signaling Line Circuit (SLC) of the IQ600 fire alarm control panel. The detector has a Micro Controller Unit [MCU] for comprehensive self-diagnostic tests and result analysis. The IQ651S detector is for conditioned indoor use. Firmware/Software version: R1.4

## **IQ651S SPECIFICATIONS:**

Nominal Voltage		24VDC
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Voltage Range	17.6 to 28VDC
Standby Current	0.14mA
Alarm Current	1mA
Smoke Sensitivity	1.6%/ft to 2.3%/ft
Operating Temperature	32°F to 100°F (0°C to 38°C)
Operating Humidity	0% to 93% RH
Mounting	IQ651B, IQ651BL Base
Mounting Orientation	ceiling, wall
Spacing	30 feet (9.1m)



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