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# APPROVAL REPORT

**Project No:** PR449519  
**Supplements Project No.:** None  
**Class:** 3010  
**Product Name:** S81-HS and S81-HS/C Scame Sistemi Panels for Local Protective and Agent Releasing and Automatic Sprinkler Release services  
**Product Type:** Fire Alarm Control Panels  
**Name of Listing Company:** Notifier  
**Address of Listing Company:** 12 Clintonville Road  
Northford, CT 06472-1653  
United States  
**Customer ID:** 1000003300-1  
**Customer website:** [www.notifier.com](http://www.notifier.com)

**Prepared by**

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Staff VP, Approvals Group Manager

James E. Marquedant

Vice President,  
Manager of Electrical Systems

**7 May 2019**

**Date of Approval**

FM Approvals  
1151 Boston-Providence Turnpike  
PO Box 9102  
Norwood, MA 02062

## 1 INTRODUCTION

1.1 SCAME SISTEMI SRL requested Approval of the apparatus listed in Section 1.4 for compliance with the standards listed in Section 1.3 as suitable for the listing categories described in Section 1.4.

1.2 This report may be freely reproduced only in its entirety and without modification.

### 1.3 Standards

#### 1.3.1 United States Standards

Title	Number	Issue Date
Fire Alarm Signaling Systems	3010	2018

### 1.4 Listing

The product will be listed in the Approval Guide, an on-line resource of FM Approvals, when the Private Labeler Agreements between Notifier and other companies have been executed. Below text is for reference purposes and does not constitute an actual listing:

#### 1.4.1 US Sample Listings

Fire Protection Electrical Signaling Signaling Systems (Fire) Local Protective Signaling Local Protective Signaling

Model S81-HS Fire Alarm Control Panel is an analog addressable modular industrial FACP with software 2.4.X

Basic System Components and Modules are:

S81-F3002-1	8 Circuit Initiating Circuit Card (2-Wire)
S81-F4001-1	1 Initiating Circuit Card 4-20mA (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.
S81-F4002-1	2 Initiating Circuit Card 4-20mA (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.
S81-F4003-1	8 Initiating Circuit Card 4-20mA (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.
S81-F5002-1	16 Relay Control Card
S81-T8007-2	16 Relay Control Card
S81-F5003-1	8 Notification Appliance Circuit, 250mA per channel, 2A maximum
S81-F6001-1	1 Zone extinguishing Card
S81-F7001-1	Loop Control Card – Hochiki America DCP Protocol
S81-F7006-1	Modbus Communication Card
S81-F7011-1	Safety Bus Communication Card
S81-F7012-1	Loop Control Card – System Sensor CLIP Protocol
S81-F7013-1	Loop Control Card – Apollo America XP95/Discovery Protocol
S81-T8004-1	I/O terminal Board
PU-A0009-1	Battery Charging Unit
PU-A0008-1	Power Supply Feeding Unit supports up to 120 AH batteries
S81-U1002-1	CPU Card
S81-U1006-1	Display Card
S81-E2003-1	2 Slots Rack
S81-E2002-1	Rack Controller
S81-E2001-2	13 Slots Rack
S81-T9001-1	Transient Suppression Board for use with F3002-1, F5003-1

S81-T9002-1	Transient Suppression Board
S81-T9003-1	Transient Suppression Board for use with F7001-1, F7006-1, F7011-1, F7012-1 and F7013-1, 1 channel, 500mA maximum
S81-T9004-1	Transient Suppression Board for use with F4003-1, 8 channel, 500mA maximum
S81-T9005-1	Transient Suppression Board for use with F4001-1, F4002-1, 2 channels, 2A maximum

Compatible SLC Devices are:

Hochiki America Smoke and Heat Detectors

<b>Part Number</b>	<b>Description</b>
ALG-V	Photoelectric Smoke Sensor
ALN-V	
ATG-EA	Heat Sensor
ATJ-EA	Multi Heat Sensor
ACA-V, ACC-V	Analog Multi-Criteria Sensor
DH98-A, DH98AR	Analog Duct Detector
DH99-A, DH99AR	
DCP-AMS, DCP-AMS-KL, DCP-AMS-LP, DCP-AMS-KL-LP	Manual Pull Station
DCP-CZM	Conventional Zone Module
DCP-DIMM	Dual Input Monitor Module
DCP-FRCMA, DCP-FRCMA-I	Fast Response Contact Module
DCP-FRCME-M, DCP-FRCME-P	
DCP-R2ML, DCP-R2ML-I, DCP-R2MH, DCP-R2MH-I	Dual Relay Module
DCP-SOM, DCP-SOM-R	Supervised Output Module
DCP-SOM-A, DCP-SOM-AI	Class-A Supervised Output Module
DCP-SCI	Short Circuit Isolator

System Sensor Smoke and Heat Detectors

<b>Part Number</b>	<b>Description</b>
M500M	1 x Input Monitor Module (Class A/B)
FMM-1	1 x Input Monitor Module (Class A/B)
M501M	1 x Mini Input Monitor Module (Class B)
FMM-101	1 x Mini Input Monitor Module (Class B)
M500DM	2 x Input Monitor Module (Class B)
FDM-1	2 x Input Monitor Module (Class B)
IM-10	10 x Input Monitor Module (Class A/B)
XP10-M	10 x Input Monitor Module (Class A/B)
HON-12LX	Intelligent Pull Station
NBG-12LX	Intelligent Pull Station
M502M	1 x Zone Input Module (Class A/B)
FZM-1	1 x Zone Input Module (Class A/B)
CZ-6	6 x Zone Input Module (Class A/B)
XP6-MA	6 x Zone Input Module (Class A/B)
M500R	1 x Output Relay Module (2 SPDT contact)
FRM-1	1 x Output Relay Module (2 SPDT contact)
CR-6	6 x Output Relay Module (1 SPDT contact)
XP6-R	6 x Output Relay Module (1 SPDT contact)
M500S	1 x Supervised Output Control Module
FCM-1	1 x Supervised Output Control Module
SC-6	6 x Supervised Output Control Module
XP6-C	6 x Supervised Output Control Module
2251B	Photoelectric Smoke Sensor
2351B-IV	
FSP-951-IV	

2251BR 2351BR-IV FSP-951R-IV	Photoelectric Smoke Sensor (Duct version)
2251TB 2351TB-IV FSP-951T-IV	
2251TMB FAPT-851 2251-COPTIR	
5251B 5351B-IV FST-951-IV	Fixed Temperature Thermal Detector
5251H 5351H-IV FST-951H-IV	
5251RB 5351RB-IV FST-951R-IV	
ISO-6 M500X	6 x Fault Isolator Module 1 x Fault Isolator Module6 x
B200SR B200S-WH	Sounder Base Sounder Base
BEAM200 7351 FSV-951R	Addressable Beam Smoke Detector High Sensitivity Smoke Detector High-Sensitivity Smoke Detector

Apollo Smoke and Heat Detectors

<b>Part Number</b>	<b>Description</b>
55000-650	Photo-Electric Smoke Detector
55000-550	Ionization Smoke Detector
55000-450	Heat Detector
55000-886	Multi sensor Detector
56000-005	Dual action pull station
55000-765	Mini Monitor Module
	Mini Priority Monitor Module
55000-805	Switch Monitor Module
55000-806	Priority Switch Monitor Module
55000-820	Switch Monitor Input Output Module
55000-831	Mini Switch Monitor Module
55000-830	Mini Priority Switch Monitor Module
55000-790	Dual Priority Switch Monitor Module
55000-859	120VAC I/O Module
55000-863	Relay Output Module
55000-825	Sounder Control Module
55000-041	Open area sounder (red)
55000-042	Open area sounder (white)
45681-525	Sounder beacon base (amber)
45681-526	Sounder beacon base (red)
45681-518	Open Area Sounder Base
58000-011	Open Area Sounder/Beacon

The Safety Bus system carries fire detection as well as the extinguishing and sprinkler release functions on a single bus. The system consists of one or two control boards (F7011-1 Communication Card) inserted in in the S81-HS series control panel and a number (up to 64) addressable field modules. Communication between the control board and the addressable safety bus modules is based on CAN (Controller Area Network)

protocol. Power to the safety bus addressable modules and the input and output devices supported by them must come from an FM Approved 24 Volts regulated power supply.

Safety Bus Communication Circuits (SB Modules)

<b>Part Number</b>	<b>Description</b>
SB-AIM	8 Supervised 4-20mA Inputs Module (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.
SB-SIM	8 Supervised Conventional Inputs Module
SB-SIM/GM	8 Supervised Conventional Inputs with Ground Monitoring Module
SB-NCM	8 Supervised NAC Circuits Module
SB-SCM	8 Supervised Solenoid Circuits Module, 500mA maximum
SB-ECM	Extinguishing/Release Module, 500mA maximum (8 solenoid circuits)

Electrical Signaling Automatic Releases for Extinguishing Systems and Other Fire Protection Equipment

Model S81-HS Release is an analog addressable modular industrial control with software 2.4.X utilizing one or two F7011-1 communication cards to communicate with the SB-SCM and SB-ECM Modules output circuits which are rated 24Vdc, 500mA. The releasing input circuits are located on the F7001-1, F7012-1 or F7013-1 I/O cards and are Class A, supervised. The S81-HS is provided with the releasing circuits for agent release which will actuate a 24Vdc control head or initiator-based releasing devices. The standby battery capacity up to 120AH to supply the required 24 hours of standby. (See complete S81-HS system description under LOCAL PROTECTIVE SIGNALING)

Automatic Sprinkler Systems Automatic Releases for Preaction and Deluge Sprinkler Systems

Model S81-HS Release is an analog addressable modular industrial control with software 2.4.X utilizing one or two F7011-1 communication cards to communicate with the SB-SCM and SB-ECM Modules output circuits which are rated 24Vdc, 500mA. The releasing input circuits are located on the F7001-1, F7012-1 or F7013-1 I/O cards and are Class A, supervised. The S81-HS is provided with the releasing circuits for agent release which will actuate a 24Vdc control head or initiator-based releasing devices. The standby battery capacity up to 120AH to supply the required 90 hours of standby.

Control Panel Group 1: The S81-HS System is compatible with Solenoid Groups Rated 12W and below (See complete S81-HS system description under LOCAL PROTECTIVE SIGNALING)

Fire Protection Electrical Signaling Signaling Systems (Fire) Local Protective Signaling Local Protective Signaling

Model S81-HS/C Fire Alarm Control Panel is an analog addressable (compact) modular industrial FACP with software 2.4.X

Basic System Components and Modules are:

S81-F3002-1	8 Circuit Initiating Circuit Card (2-Wire)
S81-F4001-1	1 Initiating Circuit Card 4-20mA (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.
S81-F4002-1	2 Initiating Circuit Card 4-20mA (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.
S81-F4003-1	8 Initiating Circuit Card 4-20mA (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.

S81-F5002-1	16 Relay Control Card
S81-T8007-2	16 Relay Control Card
S81-F5003-1	8 Notification Appliance Circuit
S81-F6001-1	1 Zone extinguishing Card
S81-F7001-1	Loop Control Card – Hochiki America DCP Protocol
S81-F7006-1	Modbus Communication Card
S81-F7011-1	Safety Bus Communication Card
S81-F7012-1	Loop Control Card – System Sensor CLIP Protocol
S81-F7013-1	Loop Control Card – Apollo America XP95/Discovery Protocol
S81-T8004-1	I/O terminal Board
PU-A0004-1	Battery Charging Unit supports up to 65 AH batteries
SDR-240	Power Supply Feeding Unit
DR-RDN20	Redundancy Module for SDR-240
S81-U1002-1	CPU Card
S81-U1006-1	Display Card
S81-E2002-1	Rack Controller
S81-E2004-1	11 Slots Rack
S81-T9001-1	Transient Suppression Board for use with F3002-1, F5003-1
S81-T9002-1	Transient Suppression Board
S81-T9003-1	Transient Suppression Board for use with F7001-1, F7006-1, F7011-1, F7012-1 and F7013-1, 1 channel, 500mA maximum
S81-T9004-1	Transient Suppression Board for use with F4003-1, 8 channel, 500mA maximum
S81-T9005-1	Transient Suppression Board for use with F4001-1, F4002-1, 2 channels, 500mA maximum

Compatible SLC Devices are:

Hochiki America Smoke and Heat Detectors

<b>Part Number</b>	<b>Description</b>
ALG-V	Photoelectric Smoke Sensor
ALN-V	
ATG-EA	Heat Sensor
ATJ-EA	Multi Heat Sensor
ACA-V, ACC-V	Analog Multi-Criteria Sensor
DH98-A, DH98AR	Analog Duct Detector
DH99-A, DH99AR	
DCP-AMS, DCP-AMS-KL, DCP-AMS-LP, DCP-AMS-KL-LP	Manual Pull Station
DCP-CZM	Conventional Zone Module
DCP-DIMM	Dual Input Monitor Module
DCP-FRCMA, DCP-FRCMA-I	Fast Response Contact Module
DCP-FRCME-M, DCP-FRCME-P	
DCP-R2ML, DCP-R2ML-I, DCP-R2MH, DCP-R2MH-I	Dual Relay Module
DCP-SOM, DCP-SOM-R	Supervised Output Module
DCP-SOM-A, DCP-SOM-AI	Class-A Supervised Output Module
DCP-SCI	Short Circuit Isolator

System Sensor Smoke and Heat Detectors

Part Number	Description
M500M	1 x Input Monitor Module (Class A/B)
FMM-1	1 x Input Monitor Module (Class A/B)
M501M	1 x Mini Input Monitor Module (Class B)
FMM-101	1 x Mini Input Monitor Module (Class B)
M500DM	2 x Input Monitor Module (Class B)

FDM-1	2 x Input Monitor Module (Class B)
IM-10	10 x Input Monitor Module (Class A/B)
XP10-M	10 x Input Monitor Module (Class A/B)
HON-12LX	Intelligent Pull Station
NBG-12LX	Intelligent Pull Station
M502M	1 x Zone Input Module (Class A/B)
FZM-1	1 x Zone Input Module (Class A/B)
CZ-6	6 x Zone Input Module (Class A/B)
XP6-MA	6 x Zone Input Module (Class A/B)
M500R	1 x Output Relay Module (2 SPDT contact)
FRM-1	1 x Output Relay Module (2 SPDT contact)
CR-6	6 x Output Relay Module (1 SPDT contact)
XP6-R	6 x Output Relay Module (1 SPDT contact)
M500S	1 x Supervised Output Control Module
FCM-1	1 x Supervised Output Control Module
SC-6	6 x Supervised Output Control Module
XP6-C	6 x Supervised Output Control Module
2251B 2351B-IV	Photoelectric Smoke Sensor
FSP-951-IV	Photoelectric Smoke Sensor
2251BR 2351BR-IV	Photoelectric Smoke Sensor (Duct version)
FSP-951R-IV	Photoelectric Smoke Sensor (Duct version)
2251TB 2351TB-IV	Photoelectric Smoke Sensor with Thermal
FSP-951T-IV	Photoelectric Smoke Sensor with Thermal
2251TMB	Acclimate Intelligent multi-sensor detector
FAPT-851	Acclimate Intelligent multi-sensor detector
2251-COPTIR	Advanced Multi-Criteria Detector
5251B 5351B-IV	Fixed Temperature Thermal Detector
FST-951-IV	Fixed Temperature Thermal Detector
5251H 5351H-IV	Fixed High Temperature Thermal Detector
FST-951H-IV	Fixed High Temperature Thermal Detector
5251RB 5351RB-IV	Intelligent rate of rise thermal detector
FST-951R-IV	Intelligent rate of rise thermal detector
ISO-6	6 x Fault Isolator Module
M500X	1 x Fault Isolator Module 6 x
B200SR	Sounder Base
B200S-WH	Sounder Base
BEAM200	Addressable Beam Smoke Detector
7351	High Sensitivity Smoke Detector
FSV-951R	High-Sensitivity Smoke Detector

Apollo Smoke and Heat Detectors

<b>Part Number</b>	<b>Description</b>
55000-650	Photo-Electric Smoke Detector
55000-550	Ionization Smoke Detector
55000-450	Heat Detector
55000-886	Multi sensor Detector
56000-005	Dual action pull station
55000-765	Mini Monitor Module
	Mini Priority Monitor Module
55000-805	Switch Monitor Module
55000-806	Priority Switch Monitor Module
55000-820	Switch Monitor Input Output Module

55000-831	Mini Switch Monitor Module
55000-830	Mini Priority Switch Monitor Module
55000-750	Line Isolator
55000-790	Dual Priority Switch Monitor Module
55000-859	120VAC I/O Module
55000-863	Relay Output Module
55000-825	Sounder Control Module
55000-041	Open area sounder (red)
55000-042	Open area sounder (white)
45681-525	Sounder beacon base (amber)
45681-526	Sounder beacon base (red)
45681-518	Open Area Sounder Base
58000-011	Open Area Sounder/Beacon

The Safety Bus system carries fire detection as well as the extinguishing and sprinkler release functions on a single bus. The system consists of one or two control boards (F7011-1 Communication Card) inserted in in the S81-HS series control panel and a number (up to 64) addressable field modules. Communication between the control board and the addressable safety bus modules is based on CAN (Controller Area Network) protocol. Power to the safety bus addressable modules and the input and output devices supported by them must come from an FM Approved 24 Volts regulated power supply.

#### Safety Bus Communication Circuits (SB Modules)

<b>Part Number</b>	<b>Description</b>
SB-AIM	8 Supervised 4-20mA Inputs Module (Class B) – Supports 4-20mA Gas Detectors, and 4-20mA transmitters.
SB-SIM	8 Supervised Conventional Inputs Module
SB-SIM/GM	8 Supervised Conventional Inputs with Ground Monitoring Module
SB-NCM	8 Supervised NAC Circuits Module
SB-SCM	8 Supervised Solenoid Circuits Module, 500mA maximum
SB-ECM	Extinguishing/Release Module, 500mA maximum (8 solenoid circuits)

#### Electrical Signaling Automatic Releases for Extinguishing Systems and Other Fire Protection Equipment

Model S81-HS/C Release is an analog addressable modular industrial control with software 2.4.X utilizing one or two F7011-1 communication cards to communicate with the SB-SCM and SB-ECM Module output circuits which are rated 24Vdc, 500mA. The releasing input circuits are located on the F7001-1, F7012-1 or F7013-1 I/O cards and are Class A, supervised. The S81-HS/C is provided with the releasing circuits for agent release which will actuate a 24Vdc control head or initiator-based releasing devices. The standby battery capacity up to 120 AH to supply the required 24 hours of standby. (See complete S81-HS/C system description under LOCAL PROTECTIVE SIGNALING)

#### Automatic Sprinkler Systems Automatic Releases for Preaction and Deluge Sprinkler Systems

Model S81-HS/C Release is an analog addressable modular industrial control with software 2.4.X utilizing one or two F7011-1 communication cards to communicate with the SB-SCM and SB-ECM Modules output circuits which are rated 24Vdc, 500mA. The releasing input circuits are located on the F7001-1, F7012-1 or F7013-1 I/O cards and are Class A, supervised. The S81-HS/C is provided with the releasing circuits for agent release which will actuate a 24Vdc control head or initiator-based releasing devices. The standby battery capacity up to 120AH to supply the required 90 hours of standby.



Control Panel Group 1: The S81-HS/C System is compatible with Solenoid Groups Rated 12W and below (See complete S81-HS/C system description under LOCAL PROTECTIVE SIGNALING)

☒ Automatic Sprinkler Systems ☒ Sprinkler Systems ☒ Release Control Panel Compatibility

Group 1

**SCAME SISTEMI SRL**  
**Via Lombardia 5**  
**20010 Arluno, Milano**  
**Italy**

S81-HS, S81-HS/C Releases (The SB-SCM and SB-ECM Modules output circuits only)

## 2 DESCRIPTION

The S81-HS and S81-HS/C Fire Panels are modular control panels for medium to large facilities in industrial, commercial or public building applications for Local Protective and Agent Releasing and Automatic Sprinkler Release services.

The S81-HS and S81-HS/C Panels combine complete built-in Fire Alarm Control Panel equipment such as Initiating Device Circuit (conventional device) Notification Appliance Circuits (NACs), Signaling Line Circuits (SLCs), Releasing Circuit, Relays Circuits, Aux power Output. Due to 4-20mA input channel cards the S81-HS Panel is also suited to collect alarms from any 4-20mA transducer such as, for instance, pressure and flow transmitters. The system is supplied in a self-standing steel cabinet having a swivel chassis, and a transparent door. The operator's interface is made up by a graphic LCD, 14 signaling LEDs and a 23 keys keyboard. The Panel is field programmable using a laptop with the possibility of Off-site pre-programming.

Alternate construction, the S81-HS/C, is a compact version of S81-HS full size panel. It features the same characteristics and functional performance but with the following main differences:

1. Smaller enclosure: 27.56 x 19.69 x 9.84 inches (700 x 500 x 250mm)
2. Main panel components (Display, CPUs, Rack controller and default I/O card), while being the same as for the full size panel, are rearranged to fit inside the smaller enclosure.
3. Maximum number of I/O cards: 8
4. Smaller power supply units: 10A single or redundant (Single power supply cannot exceed 10A in alarm).

The Safety Bus system carries fire detection as well as the extinguishing and sprinkler release functions on a single bus. The system consists of one or two control boards (F7011-1 Communication Card) inserted in in the S81-HS series control panel and a number (up to 64) addressable field modules. Communication between the control board and the addressable safety bus modules is based on CAN (Controller Area Network) protocol. Power to the safety bus addressable modules and the input and output devices supported by them must come from an FM Approved 24 Volts regulated power supply.

### **3 EXAMINATIONS AND TESTS**

#### **3.1 US Examination**

Samples were submitted for examination and testing. The samples were considered to be representative of the product line and were examined, tested, and compared to the manufacturer's drawings. All data is on file at FM Approvals along with other documents and correspondence applicable to this program.

All testing and analysis considered appropriate was conducted and verified to be in compliance with the Standards defined in Section 1.3.

### **4 MARKING**

- 4.1** Product intended for use in Canada shall be provided with caution and warning labels in both English and French.

### **5 REMARKS**

- 5.1** Extreme care should be taken with the installation of this equipment. The latest edition of the manufacturer's instruction manual must be followed completely, and any problems should be resolved by consultation with the factory or the authorized representative.
- 5.2** All installation wiring shall be in accordance with the appropriate national electrical code.
- 5.3** An Approval examination of equipment such as this can only evaluate typical configurations. Although those components identified in this report have been tested, it is beyond the scope of such an examination to test all possible configurations. It is therefore necessary, that those responsible for the setup and acceptance of specific installations take special care to verify that the equipment, including programmable functions, is configured to operate properly for the required performance of that installation.
- 5.4** Tampering and replacement with non-factory components may adversely affect the safe use of the system.
- 5.5** The products(s) discussed in this report were certified by FM Approvals under a Type 5 Certification System as identified in ISO/IEC 17067.

### **6 SURVEILLANCE AUDIT**

The design and manufacturing facilities at the following location(s) shall be visited on a routine basis. The facility processes and quality control procedures in place have been determined to be satisfactory to manufacture product identical to that tested and Approved. An FM Approved Products/Specification-Tested Revision Request Form shall be submitted to FM Approvals for requesting to manufacture product at any additional or alternate manufacturing facilities which are not listed below.

**Design**  
SCAME SISTEMI SRL  
Via Lombardia 5  
20010 Arluno, Milano  
Italy

**Manufacturing**  
SCAME SISTEMI SRL  
Via Lombardia 5  
20010 Arluno, Milano  
Italy

## **7 MANUFACTURER'S RESPONSIBILITIES**

- 7.1** Documentation that is applicable to this approval is on file at FM Approvals and listed in the Documentation File, Section 8, of this report. No changes of any nature shall be made unless notice of the proposed change has been given and written authorization obtained from FM Approvals. The FM Approved Products/Specification-Tested Revision Request Form shall be forwarded to FM Approvals as notice of proposed changes.
- 7.2** The Manufacturer is responsible for control of the product marking and installation / operation / maintenance instructions for the System.
- 7.3** The manufacturer shall provide installation / operation / maintenance instructions with each system.
- 7.4** The system shall be dielectric tested on 100% of production. The insulation between accessible conductive parts and the power supply input connections shall withstand for one minute, with no insulation breakdown, the application of 1000 Vac [1400 V dc] with respect to the protective ground. Alternatively, a test potential of 1200 Vac [1700 V dc] may be applied for at least one second. **WARNING:** The dielectric test required may present a hazard of injury to personnel and/or property and should only be performed under controlled conditions, and by persons knowledgeable of the potential hazards of such testing to minimize the likelihood of shock and/or fire.
- 7.5** In accordance with the Master Agreement, the manufacturer shall make full and immediate disclosure to FM Approvals of all information concerning any defect in, or potential hazard of, the product or service manufactured or provided by the Customer which is Approved by, or being examined by, FM Approvals. The manufacturer shall make all necessary arrangements for the investigation of complaints / anomalies applicable to this approval and shall keep records of all complaints / anomalies including actions taken.

## **8 DOCUMENTATION**

See attached blueprint report.

## **9 CONCLUSION**

The equipment described in section 1.4.1 and 2 meets FM Approvals requirements. Since a duly signed Master Agreement is on file for this manufacturer, Approval is effective the date of this report.

**PROJECT DATA RECORD:** PR449519

**ATTACHMENT:** Blueprint Report

# Blueprint Report

Notifier (1000003300)

Class No 3010

Original Project I.D. 449519

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>	<u>Electronic Drawing</u>
AL01-0501 SB-AIM	R003	CPR-UL-FM SB-AIM	449519	Yes (jpeg)
AL01-0501 SB-ECM	R003	CPR-UL-FM SB-ECM	449519	Yes (jpeg)
AL01-0501 SB-NCM	R003	CPR-UL-FM SB-NCM	449519	Yes (jpeg)
AL01-0501 SB-SCM	R003	CPR-UL-FM SB-SCM	449519	Yes (jpeg)
AL01-0501 SB-SIM-GM	R003	CPR-UL-FM SB-SIM-GM	449519	Yes (jpeg)
AL01-0501 SB-SIM	R003	CPR-UL-FM SB-SIM	449519	Yes (jpeg)
LS10139-05HI-E	C	H-S81-HS & S81-HS/C Industrial Fire Panels	449519	Yes (pdf)
LS10139-251XL-E	A	Addendum to the Industrial Fire Panel for Factory Mutual Applications	449519	Yes (pdf)
LS10177-000HI-E	B	H-S81-HS Safety Bus	449519	Yes (pdf)
LS10183-000HI-E	B	H-S81-HS PPU Label	449519	Yes (pdf)
PU-A0004-1	R4	CARICABATTERIE 2/4A	449519	Yes (pdf)
PU-A0008-1	R4	ALIMENTATORE 25V-20A	449519	Yes (pdf)
PU-A0009-1	R3	CARICABATTERIE 2/4/6A HOT SWAP	449519	Yes (pdf)
S81-E2001-2	R3	BUS 14 SLOT CON CONNETTORI DIN 41618	449519	Yes (pdf)
S81-E2002-1	R5	S81-E2002-1 CONTROLLORE DI RACK	449519	Yes (pdf)
S81-E2003-1	R3	SCHEDA BUS A 2 SLOT	449519	Yes (pdf)
S81-E2004-1	R0	BUS 11 SLOT CON CON MORSETTIERE	449519	Yes (pdf)
S81-F3002-1	R5	SCHEDA DI RIVELAZIONE A OTTO CANALI	449519	Yes (pdf)
S81-F4001-1	R2	SCHEDA A UNO/DUE INGRESSI ANALOGICO 4-20mA	449519	Yes (pdf)
S81-F4002-1	R2	SCHEDA A UNO/DUE INGRESSI ANALOGICO 4-20mA	449519	Yes (pdf)
S81-F4003-1	R2	SCHEDA A OTTO CANALI ANALOGICI 4-20mA	449519	Yes (pdf)
S81-F5001-1	R5	SCHEDA A 8 USCITE CONTROLLATE DA 500mA	449519	Yes (pdf)
S81-F5002-1	R3	SCHEDA A 16 USCITE OPEN COLLECTOR	449519	Yes (pdf)
S81-F5003-1	R3	SCHEDA A 8 USCITE CONTROLLATE DA 500mA	449519	Yes (pdf)
S81-F5004-1	R2	SCI-EDE A 4 USCITE CONTROLLATE DA 2A PER SOLENOIDI	449519	Yes (pdf)
S81-F6001-1	R3	SCHEDA DI ESTINZIONE	449519	Yes (pdf)
S81-F7001-1	R0	SCHEDA DI CONTROLLO PROTOCOLLI HOCHIKI SCAME	449519	Yes (pdf)
S81-F7006-1	R3	SCHEDA LOGICA / S81-F7006-1 MODBUS RTU / S81-F7008-1 CONTROLLO	449519	Yes (pdf)
S81-F7011-1	R1	SAFETY PROTOCOL LOOP CONTROL	449519	Yes (pdf)
S81-F7012-1	R4	SCHEDA LOOP PROTOCOLLO CLIP NOTIFIER/SYSTEM SENSOR	449519	Yes (pdf)
S81-F7013-1	R4	SCHEDA DI CONTROLLO PROTOCOLLO APOLLO	449519	Yes (pdf)
S81-T8004-1	R1	SCHEDA DI TERMINAZIONE PER I/O DI DEFAULT	449519	Yes (pdf)
S81-T8007-2	R1	SCHEDA A 16 RELE' 4A-24Vac/dc	449519	Yes (pdf)
S81-T9001-1	R0	TERMINAZIONE PER SCHEDE S81-F3002, S81-F5001, S81-F5003	449519	Yes (pdf)
S81-T9002-1	R0	TERMINAZIONE PER SCHEDE S81-F5004	449519	Yes (pdf)
S81-T9003-1	R0	TERMINAZIONE PER SCHEDE S81-F7001	449519	Yes (pdf)
S81-T9004-1	R0	TERMINAZIONE PER SCHEDE S81-F4001, S81-F4002, S81-F4003	449519	Yes (pdf)
S81-T9005-1	R0	TERMINAZIONE PER SCHEDE S81-F4001, S81-F4002	449519	Yes (pdf)
S81-U1002-1	R1	SCHEDA CPU HOT SWAP	449519	Yes (pdf)
S81-U1006-1	R2	SCHEDA DISPLAY	449519	Yes (pdf)
SB SIM 06-15-00001	R003	Honeywell Label CPR-UL-FM SB-SIM-GM	449519	Yes (jpeg)
SB SIM-GM 06-15-00001	R003	Honeywell Label CPR-UL-FM SB-SIM	449519	Yes (jpeg)
SB-AIM 06-15-00001	R003	Honeywell Label CPR-UL-FM SB-AIM	449519	Yes (jpeg)
SB-AIM	R1	SB-AIM-1 card	449519	Yes (pdf)
SB-ECM 06-15-00001	R003	Honeywell Label CPR-UL-FM SB-ECM	449519	Yes (jpeg)
SB-ECM	R1	Extinguish Module (Input Channels) SB-SIM-1 / Module 8 x Supervised Input	449519	Yes (pdf)
SB-NCM 06-15-00001	R003	Honeywell Label CPR-UL-FM SB-NCM	449519	Yes (jpeg)
SB-NCM	R0	SB-NCM-1 Card	449519	Yes (pdf)
SB-SCM 06-15-00001	R003	Honeywell Label CPR-UL-FM SB-SCM	449519	Yes (jpeg)
SB-SCM	R1	SB-SCM-1 Card	449519	Yes (pdf)
SB-SIM-GM	R1	Extinguish Module (Input Channels) SB-SIM-1 / Module 8 x Supervised Input	449519	Yes (pdf)
SB-SIM	R1	Extinguish Module (Input Channels) / SB-SIM-1 Module 8 x Supervised Input	449519	Yes (pdf)
ST-061-EN-R1.0.009	1.0.009	PROGRAMMABLE SYSTEM S81-HS UL Listing Document	449519	Yes (pdf)
ST-187-EN	V0R0	Safety Bus Modules Installation and User Manual	449519	Yes (pdf)
UL Label S81-HS	B	S81-HS PPU Label	449519	Yes (pdf)