



QS4

INTELLIGENT/CONVENTIONAL RELEASING CONTROL PANEL



P/N: See Chart

Standard Features

- One to four Signature loops – each with a capacity of 250 Intelligent devices (125 detectors and 125 modules) – PLUS up to 48 conventional circuits
- Compatible with two- and four-wire smoke detectors
- Combines the Signature intelligent releasing module with Signature multisensor detectors for reliable suppression
- Failsafe mode ensures uncompromised reliability
- Class A (Style 7) or Class B (Style 4) wiring options
- Capacity for eight remote annunciators
- Four built-in system relays
- Three methods of programming: QuickStart “auto-learn,” front panel and personal computer (PC)
- Supports optional barcode scanner for direct device data entry
- Two optional banks of 30 front panel switches with dual LEDs
- Up to 20 adjustable pre-alarm settings for Signature smoke detectors
- Large 14-line (224 character) backlit LCD display
- Four password levels, plus priority access keyswitch
- Message routing by event type or by individual message
- Alarm sensitivity by time of day or manual selection
- 1,000 event history buffer, plus alarm history counter
- 6 amp Power Supply, 4.75 amps available for external use
- Envoy graphics compatible
- Compare utility identifies system changes and simplifies testing

Overview

The QS4 QuickStart releasing control panel provides conventional and intelligent addressable circuits in a single intelligent control panel. Designed for easy setup and simple installation, QuickStart lives up to its name in every respect. QS4’s exclusive QuickStart auto-learn function, and the option of configuring the panel using convenient front panel programming or from a PC, makes short work of system setup. Devices come on-line in no time as well, thanks to QS4’s built-in barcode scanner port. A simple pass of the optional scanner is all it takes to store device information in the QuickStart database. The scanner can also be used for quick and easy text entry when assembling custom messages.

QS4’s setup routine is deceptively simple, considering this system’s robust features and broad capacity. Supporting up to 500 intelligent detectors and 500 intelligent modules, QS4 takes full advantage of Signature Series technology, which provides electronic addressing, automatic device mapping, environmental compensation, and true multisensor detection.

As a hybrid system, QS4 combines Signature Series support along with up to 48 conventional Class B or a combination of 40 Class A and Class B initiating circuits. Compatible with either two- or four-wire detectors, these circuits also provide built-in support for the MC family of conventional detectors.

QuickStart’s design leaves plenty of room for system expansion. Option cards snap onto QS4’s easily-accessible DIN mounting rails. These cards include auxiliary relays and additional system capacity. The QS4 also supports as many as eight remote annunciators and up to 60 programmable front panel switches with dual LEDs for system control and display.



Application

QuickStart is a total life safety solution that brings the power of big-system analog technology to small and mid-size applications. Thanks to its flexibility and simple setup and operation, QS4 is ideal for new installations in telecom facilities, computer rooms, controls rooms, art galleries, and record storage facilities.

The benefits brought by QS4 to retrofit applications underscores the true potential of this powerful system. As an intelligent panel, QS4 supports Signature Series devices, which can use existing wiring in most retrofit applications. As a conventional panel, QS4 supports compatible devices already installed at the site. And as a hybrid system, the QS4 supports new Signature Series devices, and existing conventional detectors – while leaving plenty of room for expansion. No need to tear a building apart to upgrade the life safety system: with QS4 you have the best of both worlds.

Which Quickstart Panel is right for you?	QS1	QS4
Signature Series devices supported	1 x 250	4 x 250
Conventional Class B circuits supported	0	3 x 16
Conventional Class A circuits supported	0	5 x 8
LCD display (lines x characters)	14 x 16	14 x 16
Optional Zone Switch/LEDs on front panel	1 x 30	2 x 30
Option card spaces	1	5 or 12
For more information, see Data Sheet...	DS1038	DS1037

CPU / LCD Display

The QS4 front panel display provides 14 lines by 16 characters of text detailing event, device, diagnostic, and programming information. Its large backlit LCD screen is easy to read and always provides at-a-glance indication of the system's state of operation. The CPU/Display Unit houses the CPU card and mounting space for two optional LED/Switch cards.

QS4 is as simple to operate as it is to set up. Its large 14-line backlit LCD display provides easy-to-understand details concerning up to 1,000 system events, while bright system status LEDs and large, tactile control buttons present the user with a clean, crystal clear interface. Four password levels limit control and information retrieval to authorized personnel. A priority access keyswitch gives Level 2 access, without a password, to management and emergency personnel.

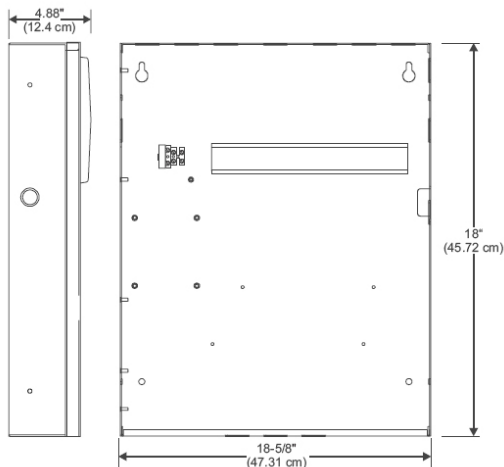


Specifications	
Control Panel	Standby Current: 199 mA
	Alarm Current: 235 mA
Remote Annunciator (Full control versions)	Standby Current: 154 mA
	Alarm Current: 166 mA
SBA Series	Standby Current: 70 mA
	Alarm Current: 90 mA
Operating Environment	Temperature: 32-120°F (0-49°C)
	Max. Humidity: 93% RH, non-condensing

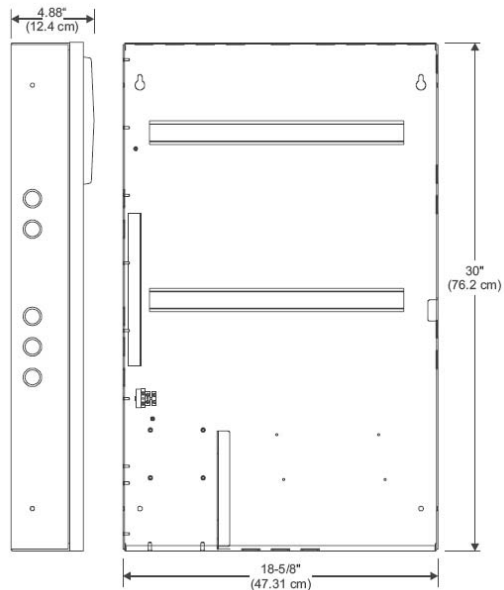
Failsafe Mode

If the CPU loses communication with other circuit cards, the power supply card continues to monitor the system for any alarm events. If an alarm occurs on any device or circuit during a communications failure, the power supply activates all alarm outputs and instructs the dialer to transmit a default alarm message to the monitoring station.

Cabinet Dimensions



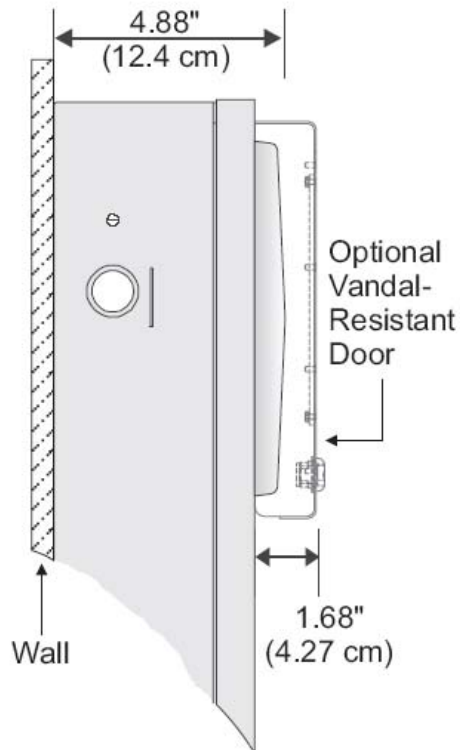
5-Option Cabinet
MIR-QS4-5-R-1 (red)



12-Option Cabinet
QS4-12-R-1 (red)
MIR-QS4-12-G-1

Cabinet Surface Mounting

12 and 5-Option Cabinets





Remote Annunciators

QS4 supports up to eight remote annunciators, which provide mirrored annunciation of front panel messages and status indicators. Two models are available: The QSA Series, and the SRA Series.

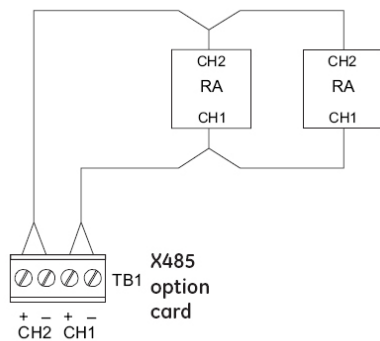
QSA Series

QuickStart's Class A serial remote annunciator bus requires an X485 (RS485) card and UART port at the control panel. Each remote annunciator requires only a UART port. Class B wiring does not require an X485 card at the control panel. Remote annunciators are available in both analog and conventional versions and with wallboxes for surface mounting. Models are available with one or two annunciator option spaces, each with 30 dedicated switches and LEDs. See the Ordering Table for more information.

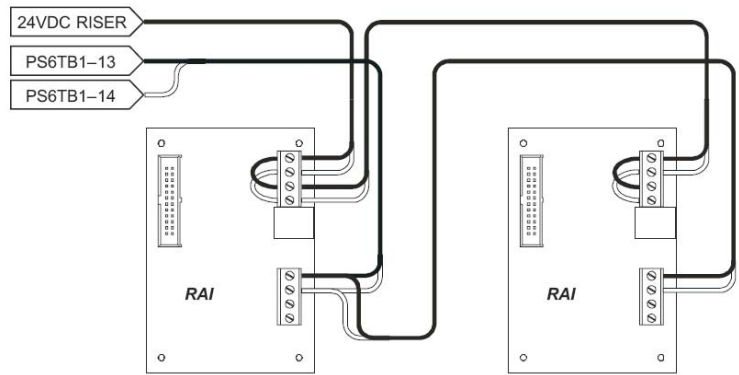


QS4-CPU-2 Annunciator
w/ QSA-2-S Enclosure

Class A Wiring



Class B Wiring



Model	Height	Width	Depth
QSA-1-S	7.6" (19.46 cm)	14.25" (36.20 cm)	2.9" (7.3 cm)
QSA-2-S	7.6" (19.46 cm)	18.56" (47.14 cm)	2.9" (7.3 cm)

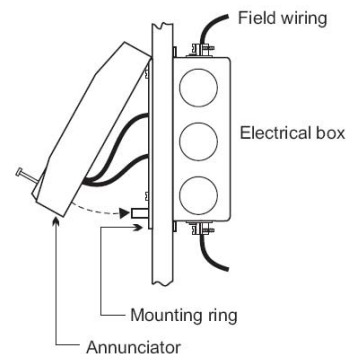
SRA Series

QuickStart SRA Remote Annunciators are stand-alone units that can be powered by the control panel or by an approved power supply. Annunciators support Class A or Class B connection to the system RS-485 data line, but do not provide ground fault isolation. SRA Annunciators are available in single or multiple loop models.

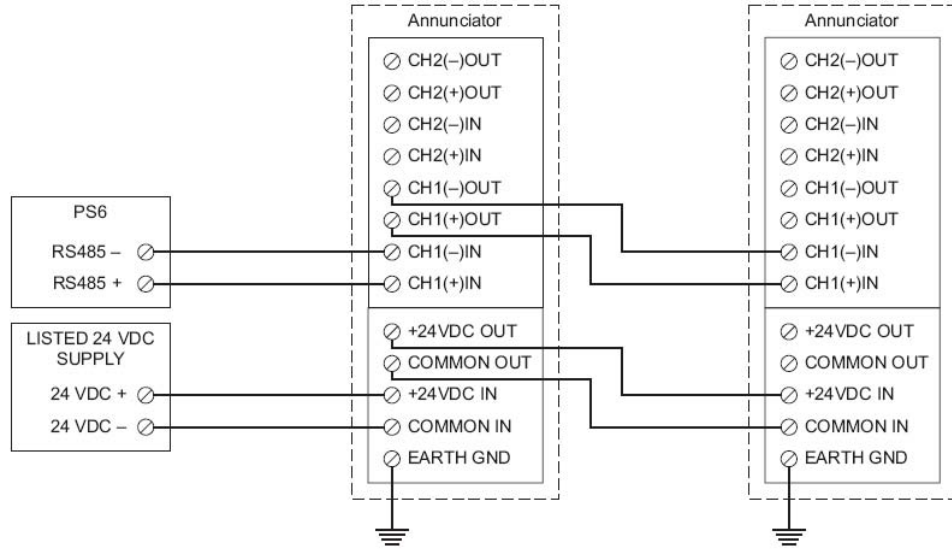
SRA Series Annunciators include an RJ-12 modular jack to allow system database downloads from a laptop computer. Connection requires a programming cable (model number PROGCABLE-1, ordered separately). Annunciators are mounted to North American 2-gang or 4-inch square electrical boxes.



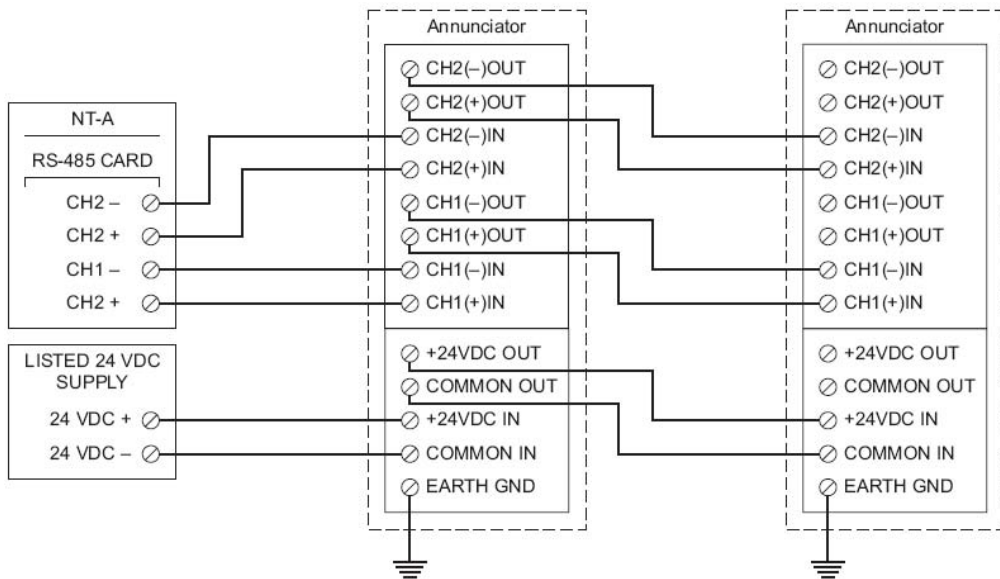
Mounting



Class B Wiring



Class A Wiring



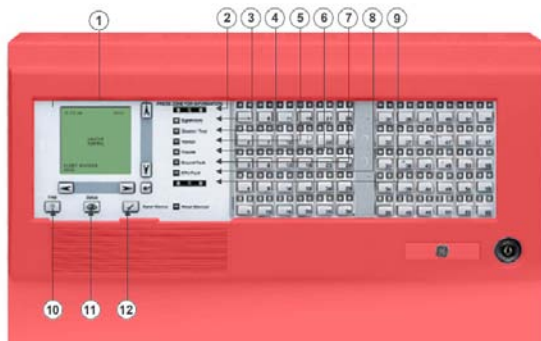
XGD Graphics Driver Card

The XGD Graphics Driver Card is an interface device that connects a QuickStart annunciator to an Envoy Graphic Annunciator. The XGD provides the electronics required to support 24 LEDs and 12 switches on the Envoy display panel. Multiple XGD cards can be chained together in one graphic annunciator cabinet to control larger displays. The QuickStart SRA Series annunciators can support a maximum of six XGD cards.



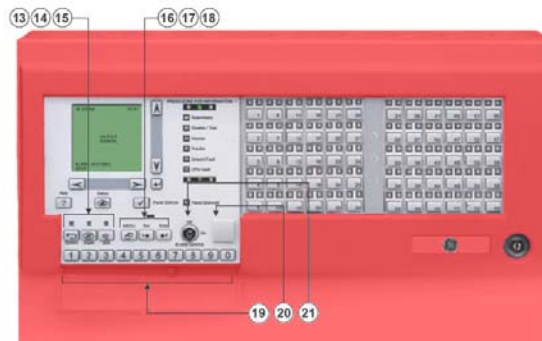
Operation

Indicators



1. **Text display and controls:** Displays system messages, status information, and programming menus. Arrow buttons move the display cursor.
2. **Alarm LED:** Indicates a fire or life threatening emergency.
3. **Supervisory LED:** Indicates an off-normal condition with the fire suppression system or related equipment.
4. **Disable/Test LED:** Indicates part of the system is disabled or being tested. Disabled components also signal a system trouble.
5. **Monitor LED:** Indicates the operation of an ancillary system function (door closures, fan pressure switches).
6. **Trouble LED:** Indicates an off-normal condition or wiring fault that compromises the integrity of the system.
7. **Ground Fault LED:** Indicates a ground fault in the system wiring. Ground faults also signal a system trouble.
8. **CPU Fail LED:** Indicates an unexpected reboot or failure with the microprocessor. CPU failures also signal a system trouble.
9. **Power LED:** Indicates the panel has power.
10. **Help button:** Provides additional information about the device selected on the display.
11. **Status button:** Displays the Status Menu from which you can identify active or disabled points in the system.
12. **Panel Silence/Acknowledge button and LED:** Acknowledges all events posted in the display queues and turns off the panel buzzer. The panel silenced LED indicates that off normal events have been acknowledged.

Controls

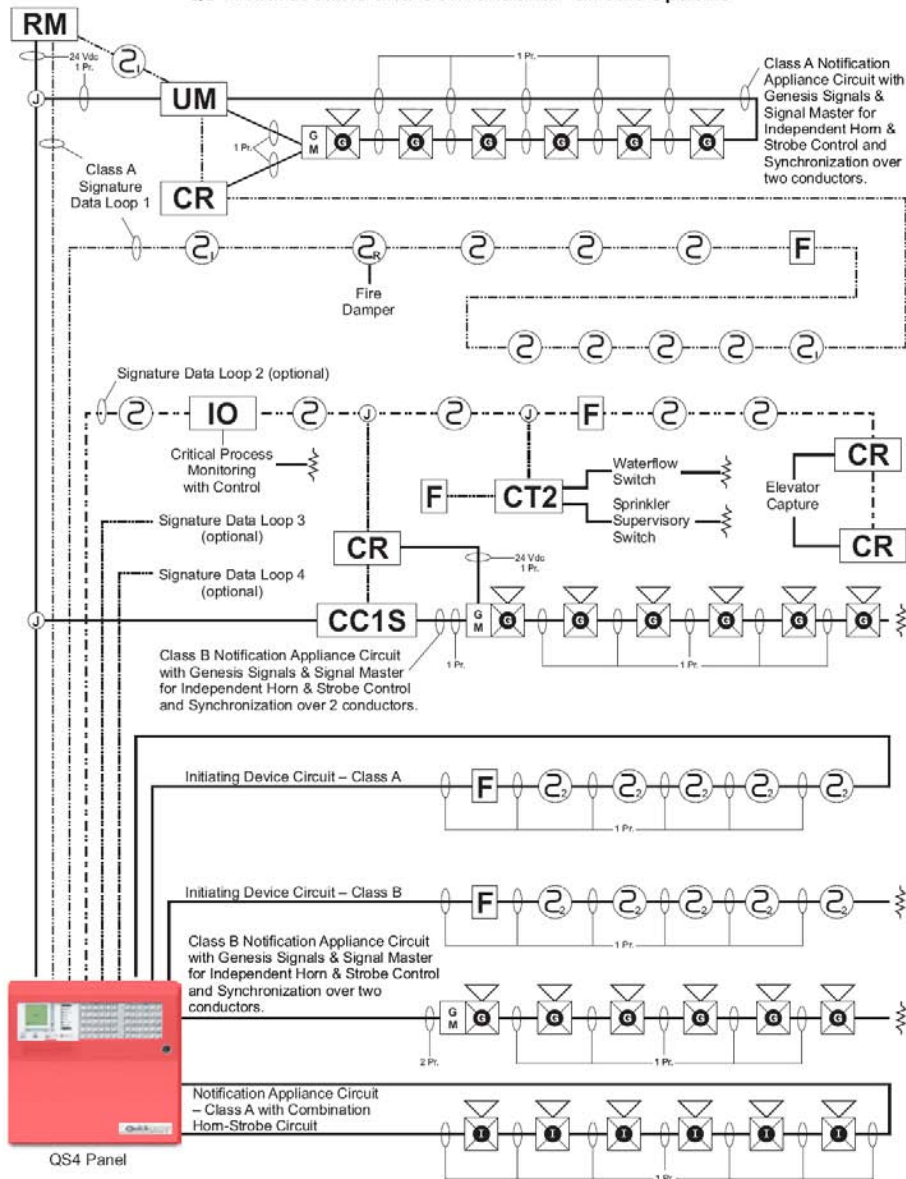


13. **Reset button:** Allows devices or zones in alarm or trouble to restore to their standby condition. The LED indicates that the panel is resetting.
14. **Alarm Silence button:** Turns active notification appliances off depending on panel programming. Pressing Alarm Silence a second time turns them back on. The LED indicates that the panel is in alarm and operating with notification appliances turned off.
15. **Drill button:** Activates notification appliances depending on panel programming but does not place the panel in alarm. The LED indicates that the panel is in Drill Mode.
16. **Menu button:** Displays the operator menus.
17. **Delete button:** Returns to the previous menu or backspaces the cursor.
18. **Enter button:** Press the Enter button to accept information or continue to the next item.
19. **Numeric keypad:** Numbered buttons for entering values and making menu selections.
20. **Barcode scanner jack:** Input for optional barcode scanner.
21. **Priority Access keyswitch:** Enables control functions reserved for access level 2 and above without requiring a password.



Typical Wiring

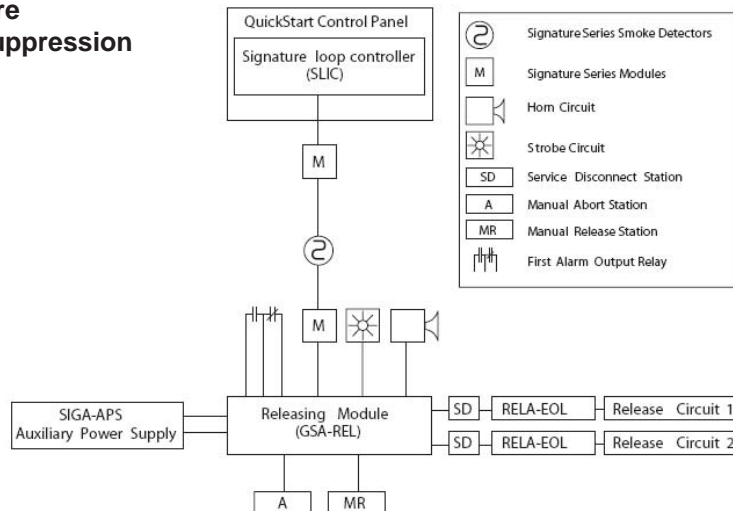
QS4 Addressable and Conventional Circuit Options



LEGEND

- Enhanced Integrity Horn-Strobe
- Genesis Horn-Strobe
- Genesis Signal Master
- Smoke Detector
- 2-Wire Smoke Detector
- Smoke Detector with Relay Base
- Smoke Detector with Isolator Base
- Manual Pull Station
- Junction Box
- End-of-Line Resistor
- Programmable I/O Module
- Universal I/O Module
- Dual Circuit Input Module
- Control Relay Module
- Signal Module
- Signal Module (synchronization)
- Riser Monitor Module

Fire Suppression



More wiring suggestions can be found in the QS4 Technical Reference Manual, P/N 3100741



Standard Components and Option Cards

All QS4 panels come standard with a CPU/Display Unit, and a PS6 Power Supply (see ordering information for details).

QuickStart option cards provide a wide range of features and extra system capacity. Thanks to the convenient Quick-Lok mounting system, option cards snap onto the DIN mounting rails easily and securely. Wallboxes are available in two sizes with room for either five or 12 single-space option cards. Both sizes of wallbox feature easily-accessible mounting rails and plenty of room for cabling.



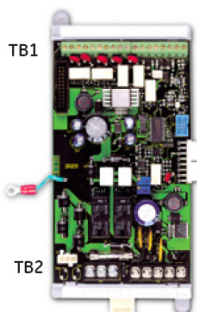
12-option card cabinet with option cards and batteries included.

PS6 Power Supply Card

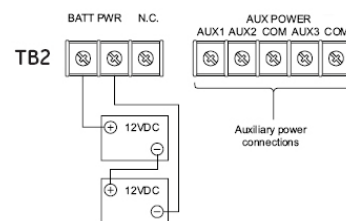
Standard Component

Description

The PS6 provides primary DC power to all the circuit cards installed in the cabinet. There are four 24 VDC power output circuits – three for powering auxiliary applications, and one for powering four-wire smoke detectors – and a charging circuit for standby batteries. The PS6 also provides common alarm, supervisory, and trouble relays, as well as a fourth relay that is user programmable.



Wiring



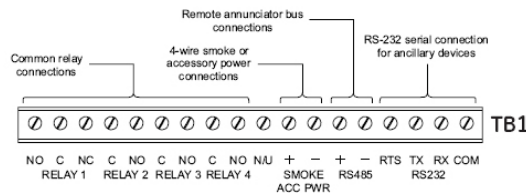
Relay 1: Form C. Contacts change position when the control panel processes an alarm signal and remain changed until all active alarm inputs restore and the control panel resets.

Relay 2: Form A. Contacts change position when the panel processes a supervisory signal and remains changed until all active supervisory inputs restore.

Relay 3: Form A. Contacts change position when the panel loses power or processes a trouble signal and remains changed until power returns or the trouble clears.

Relay 4: Form A. Relay closes and opens according to panel programming.

Smoke/Accessory Power: Jumper setting determines if the 24 VDC is constant or resettable.



Specifications	
Main supply circuit	AC input: 115 VAC, 60 Hertz*
	DC input: 24 VDC batteries
Battery charging circuit	Charge current: 2 amps
	Charge capacity: 40 amp hours (UL) 30 amp hours (ULC)
Smoke/Accessory power output circuit	Voltage: 24 VDC, regulated Current: 250 mA Wire size: 18 to 12 AWG (0.75 to 2.5 mm ²)
Auxiliary power output circuits	Quantity: 3
	Voltage: 24 VDC full wave rectified Current: 1.5 amps each
Common alarm relay	Style: Form C
	Contact rating: 1 amp Wire size: 18 to 12 AWG (0.75 to 2.5 mm ²)
Trouble, Supervisory and programmable relays	Style: Form A (N/O)
	Contact rating: 1 amp Wire size: 18 to 12 AWG (0.75 to 2.5 mm ²)
Operating Environment	Temperature: 32 - 120°F (0 - 49°C)
	Max. Humidity: 93% RH, non-condensing
Current requirements	Standby current: 72 mA Alarm current: 96 mA

* 220 VAC, 50 Hertz models available. See Ordering Information



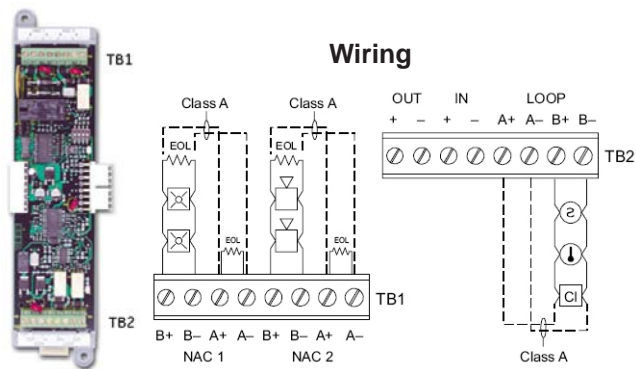
SLIC Signature Loop Intelligent Controller

Option Card

Description

The SLIC provides one Class A or Class B data circuit (loop) for connecting Signature Series detectors and modules. The SLIC also provides two programmable Class A or Class B notification appliance circuits (NACs) for connecting polarized 24 VDC notification appliances such as horns and strobes. QS4 supports four SLIC.

Signaling Line Circuit and NACs are supervised and power-limited.



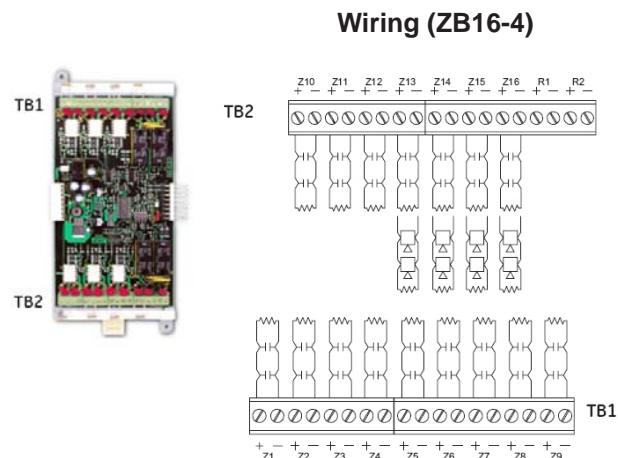
Specifications	
Signaling line circuit	Configuration: Class B (Style 4) or Class A (Style 7)
	Capacity: 125 Signature detectors 125 Signature modules
	Wire size: 18 to 12 AWG (0.75 to 2.5 mm ²)
	Circuit resistance: 65 ohms Circuit capacitance: 0.3 μf
Notification appliance circuits #1 and #2	Configuration: Class B or Class A
	Output voltage: 24 VDC, nominal
	Output current: 2.0 A at 24 VDC for #1 and 0.8 A at 24 VDC for #2
NAC power input circuit	Wire size: 18 to 12 AWG (0.75 to 2.5 mm ²)
	End of line resistor: 10 kOhms, ½ W
Operating environment	Voltage: 24 VDC, nominal
	Wire size: 18 to 12 AWG (0.75 to 2.5 mm ²)
Current requirements	Temperature: 32 - 120°F (0 - 49°C)
	Max. Humidity: 93% RH, non-condensing
Card spaces	Standby current: 33 mA
	Alarm current: 57 mA (Both NACs on)
	Requires one card space.

ZA8-2, ZB16-4 Zone Cards

Option Cards

Description

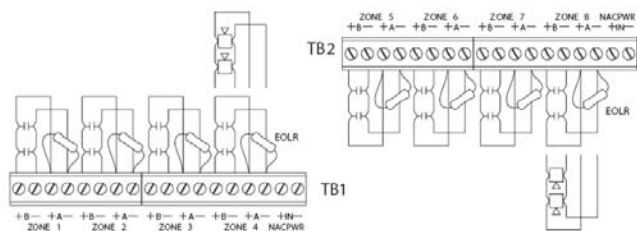
The **ZB16-4 Zone Card** provides sixteen circuits for connecting Class B conventional input and output zones. Twelve circuits are dedicated initiating device circuits (IDCs) for connecting 2-wire smoke detectors and dry-contact initiating devices. Four circuits can be configured as either IDCs or as notification appliance circuits (NACs) for connecting polarized 24 VDC notification appliances such as horns or strobes.





The **ZA8-2 Zone Card** provides eight circuits for connecting Class A conventional input and output zones. Six circuits are dedicated initiating device circuits (IDCs) for connecting 2-wire smoke detectors and dry-contact initiating devices. The remaining two circuits can be configured as either IDCs or as notification appliance circuits (NACs) for connecting polarized 24 VDC notification appliances such as horns or strobes.

Wiring (ZA8-2)



Specifications	ZB16-4	ZA8-2
Initiating device circuits		
Quantity	12 to 16	6 to 8
Wiring configuration	Class B	Class A
Detector voltage	19.9 – 24.0 VDC, max ripple 400 mV	
End of line resistor	4.7 kOhms, 0.5 W	
Short circuit current	31 mA, max.	
Resistance	50 ohms, max.	
Capacitance	100 µF, max.	
NAC power input circuit		
Voltage	24 VDC	
Wire size	18 to 12 AWG (0.75 to 2.5 mm ²)	
Notification appliance circuits		
Quantity	1 to 4	1 or 2
Wiring configuration	Class B	Class A
End of line resistor	10 kOhms, 0.5 W	
Output voltage	24 VDC, nominal	
Output current	2.0 A, 24 VDC	
Wire size	18 to 12 AWG (0.75 to 2.5 mm ²)	
Operating environment		
Temperature	32 - 120°F (0 - 49°C)	
Max. Humidity	93% RH, non-condensing	
Current requirements		
Standby	117 mA	73 mA
Alarm	152 mA	116 mA
Maximum cards in panel	Three (48 zones)	Five (40 zones)
	40 zones maximum when both ZB16-4 and ZA8-2 cards installed.	
Card Spaces	Requires two card spaces.	



SL30, SL30-1, SL20L5S, SL30L LED/Switch Cards

Option Cards

Description

The SL30 and SL30-1 provide thirty circuits for zone annunciation. Each circuit comprises two LEDs and a push button switch. The **SL30** push button switches are numbered from 1 to 30 and the SL30-1 push button switches are numbered from 31 to 60. The **SL20L5S** provides 20 circuits for point annunciation and five circuits for custom control functions. The **SL30L** provides 30 circuits for point annunciation. SL20L5S and SL30L circuits are labeled using inserts provided with the cards.



Specifications

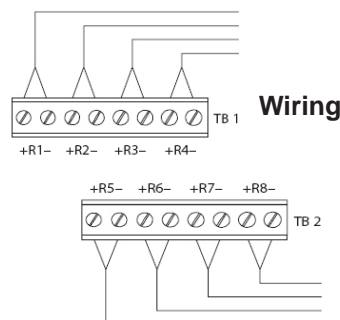
Operating environment	Temperature: 32 - 120°F (0 - 49°C) Max. Humidity: 93% RH, non-condensing
Current requirements	Standby: 1 mA Alarm: 0.75 mA per active LED

ZR8 Relay Card

Option Card

Description

The ZR8 provides eight dry-contact relays that can be independently configured as Form A or Form B relays. It occupies one card space on the chassis rail.



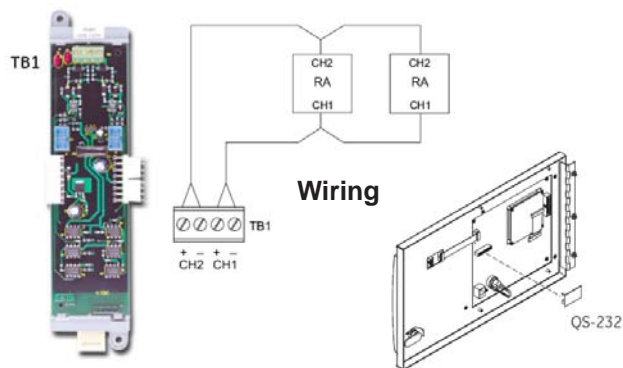
Specifications

Output relays	Style: Form A (N/O) or Form B (N/C) (jumper configurable) Contact rating: 1 amp @ 30 VDC resistive Wire size: 18 to 12 AWG (0.75 to 2.5 mm ²)
Operating environment	Temperature: 32 - 120°F (0 - 49°C) Max. Humidity: 93% RH, non-condensing
Current requirements	Standby: 11 mA Alarm: add 18 mA per active relay
Card spaces	Requires one card space.



Description

The NT-A, which includes the X485/RS-485 card and QS-232/UART port, provides one Class A serial remote annunciator bus for connecting remote annunciator panels. Control panels require the X485 card and QS-232 port, which also serves as a laptop or printer port. The X485 occupies one card space on the chassis rail. The QS-232 port plugs into the panel CPU.



Specifications	
Wire size	18 to 12 AWG (0.75 to 2.5 mm ²) twisted pair (6 twists per foot minimum)
Circuit resistance	100 ohms
Circuit capacitance	0.4 μF
Operating environment	Temperature: 32 - 120°F (0 - 49°C) Max. Humidity: 93% RH, non-condensing
Current requirements	Standby: 60 mA Alarm: 60 mA
Card spaces	Requires one card for the NT-A



Ordering Information

Model	P/N	Description	Ship Wt. lb (kg)
Basic Package - Enclosure, Power Supply, CPU and Display, 115v transformer...			
MIR-QS4-5-R-1	18824	Intelligent/Conventional System. Five option card spaces. Red. 115 VAC	17.0 (7.7)
MIR-QS4-5-G-2	99503	Intelligent/Conventional System. Five option card spaces. Grey. 230 VAC	17.0 (7.7)
MIR-QS4-12-R-1	18823	Intelligent/Conventional System. 12 option card spaces. Red. 115 VAC. QS-Cable12 required.	30.0 (13.6)
MIR-QS4-12-G-2	99278	Intelligent/Conventional System. 12 option card spaces. Grey. 230 VAC. QS-Cable12 required.	30.0 (13.6)
Enclosure Accessories			
QS-2-VR-R	18825	Vandal-resistant cabinet door, red	3.0 (1.4)
QS-CABLE12	18840	Expansion Cable for 12-option card cabinets	0.5 (0.2)
TRIM-5R	18827	Red flush mount trim ring for MIR-QS4-5-R-1.	5.0 (2.3)
TRIM-12R	18826	Red flush mount trim ring for MIR-QS4-12-R-1.	8.0 (3.6)
Initiating/Notification Circuit Option Cards			
SLIC	18835	Signature Loop Intelligent Controller. Supports one SLC of up to 250 devices. Card includes one Class A or two Class B NACs.	1.0 (0.5)
ZB16-4	18833	Conventional Zone Card. 16 Class B circuits, four convertible to Class B NAC's. Requires 2 card spaces.	2.0 (0.9)
ZA8-2	18834	Conventional Zone Card. Eight Class A circuits, two convertible to Class A NAC's. Requires 2 card spaces.	2.0 (0.9)
Other Option Cards			
ZR8	18832	Relay Card. 8 programmable Form A contacts.	1.0 (0.5)
Display Options			
SL30	18970	Annunciator module. Numbered 1 to 30. Two LEDs and one switch per zone.	1.0 (0.5)
SL30-1	18971	Annunciator module. Numbered 31 to 60. Two LEDs and one switch per zone.	1.0 (0.5)
SL20L5S	18973	Annunciator module. 20 circuits for point or zone annunciation, 5 circuits for custom functions. Circuits labeled with insert card.	1.0 (0.5)
SL30L	18972	Annunciator module. Circuits labeled with insert card.	1.0 (0.5)
NT-A	18974	RS-485 option card. Required for Class A remote annunciation. Includes UART card.	1.0 (0.5)
QS-232	18975	UART option card. Plugs into CPU. Required for PC Programming / printer port. Included in NT-A package.	1.0 (0.5)
Remote Annunciator CPUs			
MIR-QS4-CPU-1	18830	Intelligent/Conventional CPU/Display. One annunciator option space. Order backbox below.	4.0 (1.8)
QS4-CPU-2	18831	Intelligent/Conventional CPU/Display. Two annunciator option spaces. Order backbox below.	4.0 (1.8)
MIR-SRA4	18829	Intelligent/Conventional CPU/Display with integrated LCD and control switches. 4" square box mount.	4.0 (1.8)



Model	P/N	Description	Ship Wt. lb (kg)
Remote Annunciator Cabinets (c/w Interface Assembly; Require CPU/Display)...			
QSA-1-S	18976	Surface Annunciator Cabinet. Holds one SL30.	4.0 (1.8)
QSA-2-S	18977	Surface Annunciator Cabinet. Holds two SL30s.	5.0 (2.3)
QSA-1-S-VR	18978	Surface Annunciator Cabinet. Vandal resistant. Holds one SL30.	4.0 (1.8)
QSA-2-S-VR	18979	Surface Annunciator Cabinet. Vandal resistant. Holds two SL30s.	5.0 (2.3)

Programming Tools

MIR-QS-CU	18836	QuickStart Panel Configuration Utility.	1.0 (0.5)
QS-SCAN	18838	QuickStart scanner w/ programming guide.	2.0 (0.9)
Progable-1	18837	Scanner port upload/download cable.	1.0 (0.5)

Display Options

MIR-PRT/S	18980	SystemPrinter - Desktop Style	14.0 (6.4)
BC-1R	18839	Battery Cabinet. Holds two 40 Ah or two 24 Ah batteries.	50.0 (22.7)
MFC-A	18690	MultiFunction Cabinet.	7.0 (3.2)
IOP3A	18981	RS-232 Isolator Module.	3.0 (1.4)
MIRBPS6A	18982	6.5 Amp Booster Power Supply, 110 V	13.0 (5.9)
MIRBPS10A	18844	10 Amp Booster Power Supply, 110 V	13.0 (5.9)

Spare Parts

n/a	99802	Transformer Extension Cable	0.3 (0.1)
n/a	99953	120 VAC Transformer	6.9 (3.1)
PS6	99954	Power Supply Module	1.6 (0.7)

Note: Approvals/Listings maintained by and manufactured by Edwards

The seller makes no warranties, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, except as expressly stated in the seller's sales contract or sales acknowledgment form. Every attempt is made to keep our product information up-to-date and accurate. All specific applications cannot be covered, nor can all requirements be anticipated. All specifications are subject to change without notice.



1102 Rupcich Drive
 Millennium Park
 Crown Point, IN 46307
 TEL: (219) 663-1600 FAX: (219) 663-4562
 e-mail: info@janusfiresystems.com
www.janusfiresystems.com