Genetec Synergis™ IX

Touch Sense LCD Keypad

SY-SIX-KLCS

Installation Manual

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Genetec™

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Introduction

The Synergis™ IX Touch Sense LCD Keypad provides a sleek, user friendly human interface to the Synergis™ IX system, an advanced technology security product providing seamless and powerful integration of access control, security and building automation.

The current features of the keypad include:

- Securely login with user codes from 1 to 8 digits and support for card reader and PIN code operation.
- Intuitive menu function allows scrollable options according to user security level with quick access shortcut keys for the power user.
- Dual code and master code provider functions for secure ATM and banking vault area access with automatic timeout and delayed opening functions.
- Individual reportable duress code trouble for each Synergis™ IX keypad.
- Activation of 3 reportable panic events (Panic, Medical and Fire).
- Smoke detector reset provided on Clear and Enter keys selectable for an output or output group.
- 4 inputs (duplex mode) can be used to perform any system alarm and automation functions with a dedicated enclosure tamper switch.
- 1 low current output for driving any signaling device.
- Capacitive touch sense keypad.
- Available in white or black.

Installation Requirements

This equipment is to be installed in accordance with:

- The product installation instructions
- AS/NZS 2201.1 Intruder Alarm Systems
- The Local Authority Having Jurisdiction (AHJ)

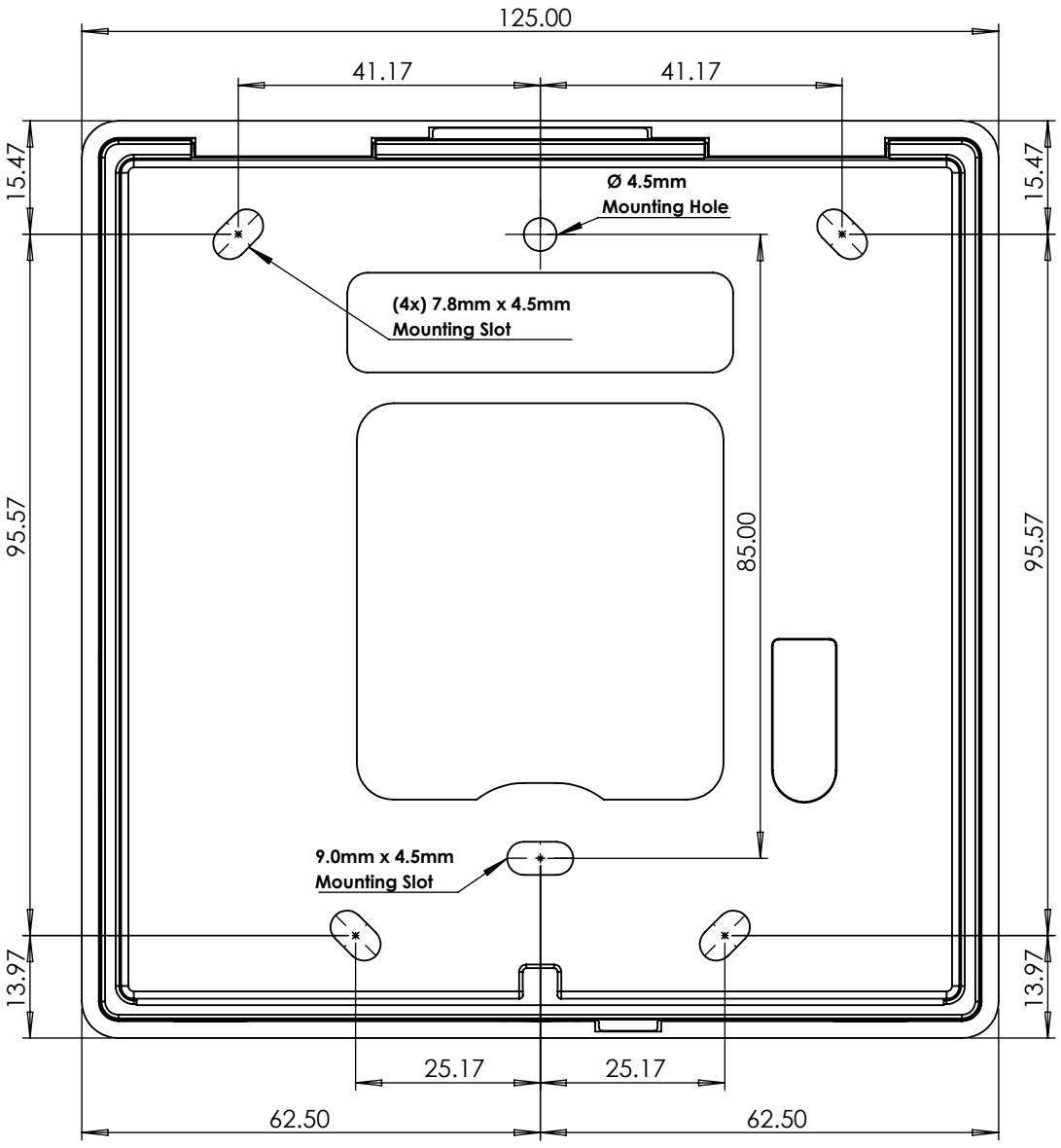
Mounting Instructions

The keypad should be mounted in an accessible location, such as near an external door. Cables are intended to be run inside the wall.

1. Select where to mount the keypad, ensuring that it is in an accessible location.
2. Hold the rear case against the wall and mark the mounting holes and cable entry area. The cable entry area should align with a hole cut through the plaster wall-board.
3. Use appropriate screws (not supplied) to affix the case to the wall.
4. Run the wiring. Refer to later sections of this manual for the electrical connections. Leave about 20cm (8") of wire protruding through the center of the mounted half of the case.
5. Connect the wiring to the keypad electronics.
6. Clip the upper rim of the front case over the upper rim of the rear case. Press gently on the front case until the lower rim slots over the lower rim of the rear case, lining up the screw hole at the bottom.
7. To complete the installation, use the M3 x 8mm Plastite screw provided with the keypad to secure and fasten the cases together.

Mechanical Layout

The mechanical layout shown below outlines the essential details needed to help ensure the correct installation of the keypad. All measurements are shown in millimeters.



Configuration

Before the keypad will communicate with the Synergis™ IX system it must be assigned an address.

To program an address using the system configuration menu, apply power to the keypad. When the screen displays the keypad version information press the **[CLEAR]** key then press **[ENTER]**. A configuration menu is displayed. Scroll the available options by pressing the up and down keys and **[ENTER]** to select the menu item.

The configuration menu can only be accessed when the keypad powers up. It cannot be accessed when the keypad is operational.

Keypad Functions

Key	Function
0-9	The primary function of the numeric keys is to enter user codes. When controlling devices the **[1]** key turns the device on, the **[2]** turns the device off, and in the on state the **[3]** key latches the device.
	The **[ARM]** key is used to start the arming process for an area.
	The **[DISARM]** key is used to silence alarms, disarm the area, and cancel an arming sequence.
	The **[MENU]** key is used to access the menu and can be followed by menu shortcut selection key(s) that represent a menu item. When the **[MENU]** key is held for 2 seconds, the keypad will recognize it as the **[FUNCTION]** key, which can be programmed to unlock a door.
	The **[STAY]** key is used to initiate the stay arming process for an area.
	The **[FORCE]** key is used to force arm an area.
	The **[MEMORY]** key will take a user directly to the memory view menu.
	The **[BYPASS]** key can be pressed when an area is breached during an arming process to bypass the displayed input.
	The **[CLEAR]** key will log off the user currently logged in to the keypad. When pressed while not logged in the display will be refreshed.
	The **[ENTER]** key is used to confirm an action on the keypad, acknowledge memory and alarm information, and move to the next programming screen.
ARROW KEYS	The arrow keys are used to scroll the menu, move the focus of a program window to the next screen, and move the cursor when programming or editing values.

Keypad Address

The address selection sets the address of the keypad. This address must be a unique address in the Synergis™ IX system that is below an address of 200.

```
Enter device
address: 256
```

Use the numerical keys 0 to 9 to program the address and press **[ENTER]** to save the setting.

To exit without making changes press the **[MENU]** key.

Backlight Brightness Setting

The backlight brightness setting adjusts the brightness for the LCD screen and the keypad's LEDs.

```
Backlight
 [******* ]
```

Use the left and right keys to adjust the brightness and press **[ENTER]** to save the setting.

To exit without making changes press the **[MENU]** key.

Default Configuration

The default setting resets the keypad to the factory default settings.

```
Press [ENTER] to
default keypad.
```

Press **[ENTER]** to default the keypad.

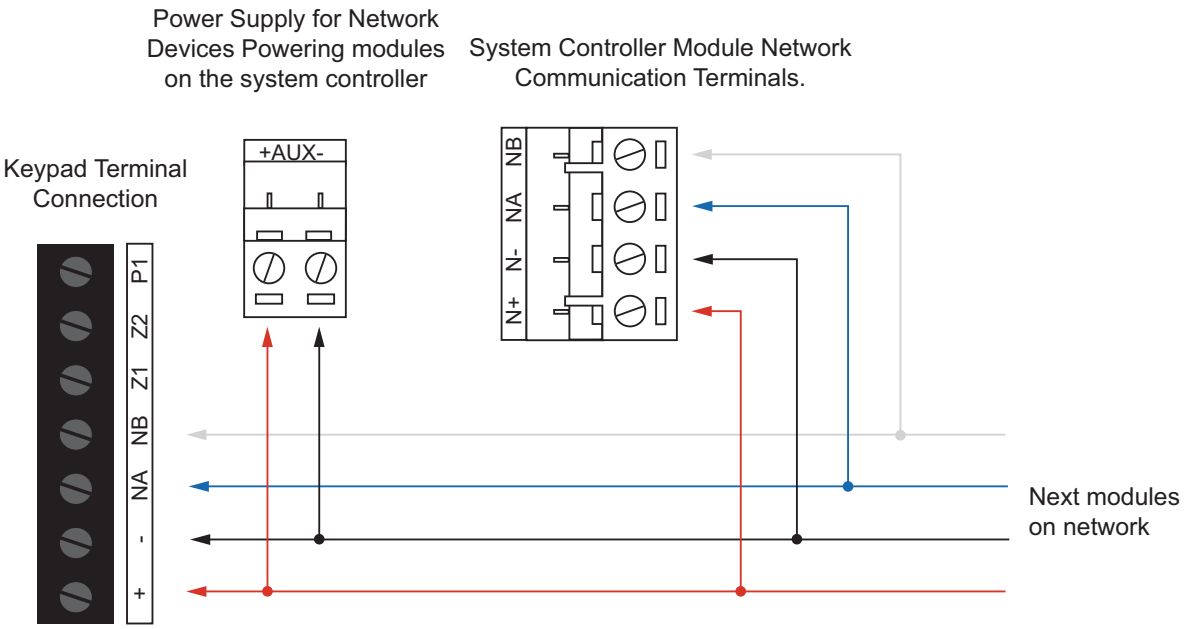
To exit without defaulting the keypad press the **[MENU]** key.

Keypad Version Information

The version menu option displays the version and build information about the keypad. The version information is displayed on two lines and can be scrolled. Press the **[MENU]** key to exit.

Communication

The Synergis™ IX system incorporates encrypted RS-485 communications technology for its module network. Each system controller supports up to 250 keypads.



Connections

End of Line Termination (EOL)

The EOL (End of Line) jumper should be placed in the ON position when the keypad is inserted as the **first or last** module on the RS-485 network.

EOL Jumper OFF

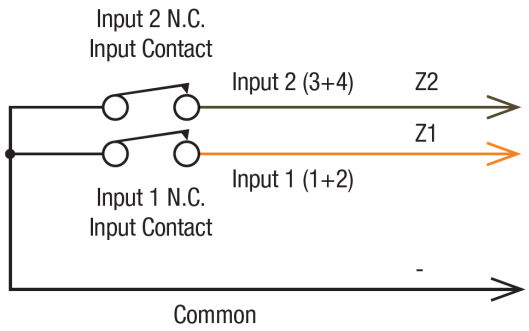
EOL Jumper ON

Inputs

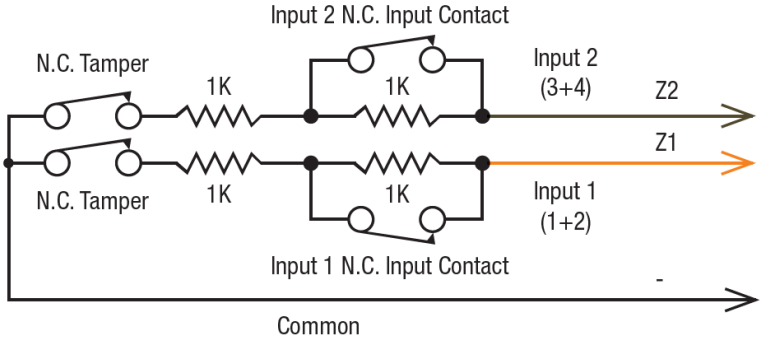
The keypad is capable of connecting to 4 inputs, each of which can be programmed to perform the required function in the Synergis™ IX system.

The following diagrams show examples of the input wiring configuration settings that can be programmed under the input options within the Synergis™ IX software.

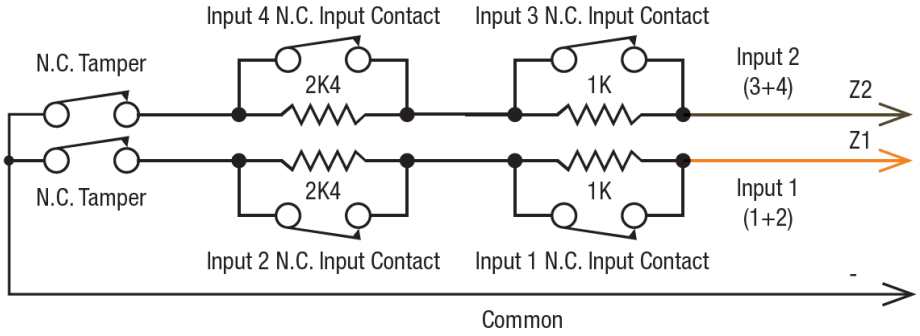
Input (No Resistors):



Input (1K and 1K):



Input Duplex Mode (1K and 2K4):



To utilize the input duplex mode configuration shown above, the **Duplex Inputs** setting must be enabled in the keypad programming (**Keypads | Options 2**).

Trouble Inputs

Each keypad can monitor up to 8 trouble inputs.

Trouble inputs are used to monitor the module status and in most cases are not physically connected to an external input.

The following table details the trouble inputs that are configured in the system and the trouble groups that they are associated with.

Trouble Input	Function	Default Trouble Group	Default Trouble Group Option
KPXXX:01	**Module Tamper** Opens when the keypad is removed from the wall.	System	Module Tamper
KPXXX:02	Reserved	-	-
KPXXX:03	**User Panic** Keys 1 and 3 are pressed together generating a panic message.	-	-
KPXXX:04	**User Duress** A user code with the duress option enabled has entered a code on the keypad.	-	-
KPXXX:05	Reserved	-	-
KPXXX:06	Reserved	-	-
KPXXX:07	**Too Many Codes** Too many incorrect codes have been entered at the keypad and it has been locked out for the programmed lockout time.	Access	Number of Attempts
KPXXX:08	**Module Offline** The keypad has either been removed from the system or lost communications.	System	Module Lost

Replace 'xxx' with the appropriate address of the module that you are programming.

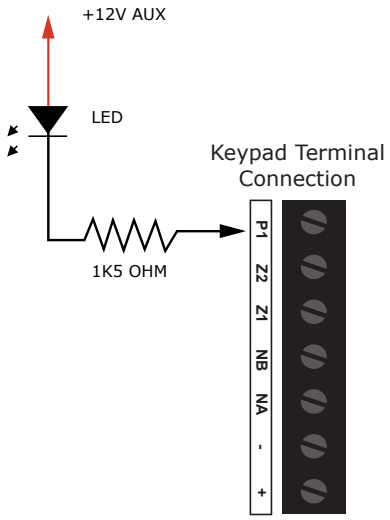
Outputs

The keypad has 4 programmable outputs. These outputs are used to control the 2 system status LED indicators, system beeper and the open collector output. The outputs can be activated and deactivated based on specific events or functions within the Synergis™ IX system.

Output	Function
KPXXX:01	Open collector output on the keypad terminal block (P1)
KPXXX:02	Armed status indicator LED (red)
KPXXX:03	Disarmed status indicator LED (green)
KPXXX:04	Beeper output

Replace 'xxx' with the appropriate address of the module that you are programming.

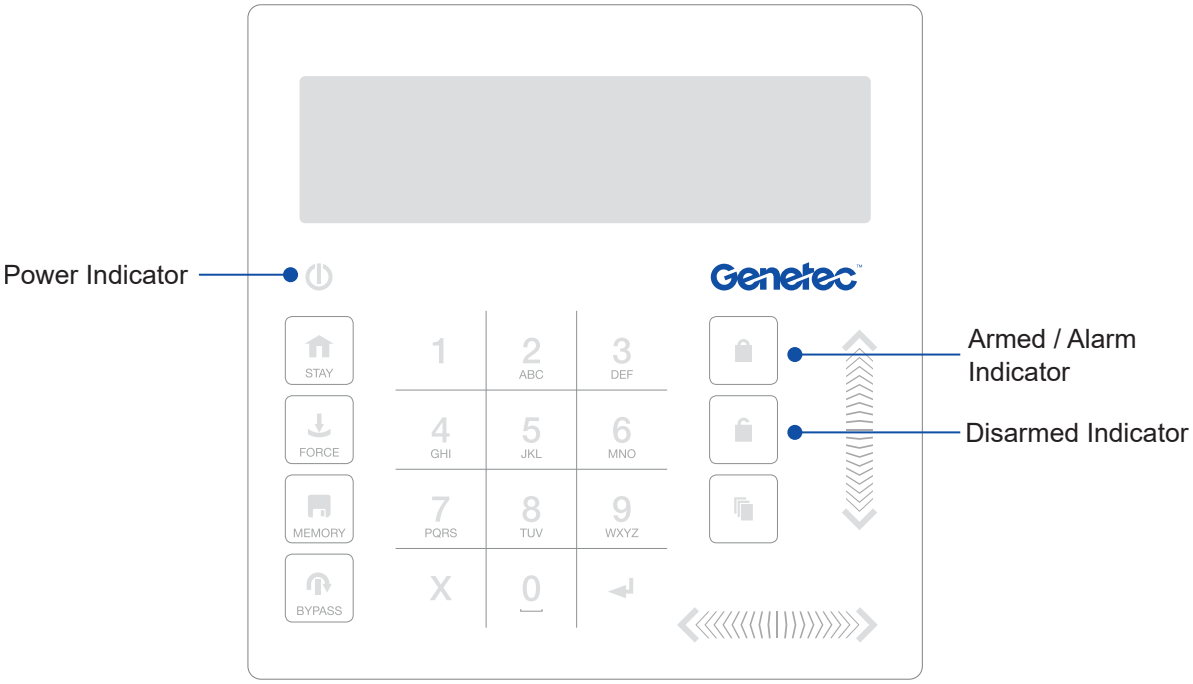
Example Open Collector Output Connection (P1):



Warning: The open collector output can switch to a maximum capacity of 50mA. Exceeding this amount will damage the output.

LED Indicators

The keypad features three status indicator lights showing the condition of the Synergis™ IX system.



Confidentiality Mode

Keypads include a confidentiality mode where activation of the onboard output will cause all lights (Power, Disarm, Arm and LCD backlight) to turn off when the keypad is not in use.

When the onboard output is not activated, these lights serve their normal functions.

This feature must be enabled by entering the following command in the keypad programming:

```
ConfidentialMode = true
```

Confidentiality mode is available for keypads with firmware version 1.09.013 or later.

Power Indicator

When the power indicator **on**, the system is powered and operating normally. If there is a complete power failure this indicator will be **off**.

Disarmed Indicator

This indicator is programmable and can perform one or more functions in the Synergis™ IX system. The following are common functions:

- To illuminate this LED when an area is disarmed, program it as the **Disarmed output** for the area.
- To illuminate the LED when an area is ready to arm (i.e. all inputs are closed), program it as the **Ready output** for the area.

Armed / Alarm Indicator

This indicator is programmable and can perform one or more functions in the Synergis™ IX system. The following are common functions:

- To illuminate this LED when an area is armed, program it as the **Armed output** for the area.
- To flash this LED when an area is in alarm (until the alarm times out or the area is disarmed), add it to the **Bell output group** for the area. Use the **Bell pulse on/off time** settings to pulse the LED on and off.
- To flash this LED when an area has had an alarm (until the area is disarmed), program it as the **Alarm memory output** for the area. Use the **Alarm memory pulse on/off time** settings to pulse the LED on and off.

Error Messages

When the keypad attempts to register or communicate with the system controller after powering up, errors can be generated indicating access to the Synergis™ IX system has been denied or was unsuccessful. This is a normal part of the Synergis™ IX system.

Keypad Version Error

The version of the keypad is incorrect for the system controller. This error cannot be corrected without updating the keypad firmware. The event log in the system controller will display the version of the keypad and the version that is required if this error has occurred.

Please contact your distributor for information on how to update the firmware.

Keypad Address Too High

The address of the keypad that is programmed is beyond the maximum number of keypads that are allowed to connect to the controller. Press the **[EXIT]** key to restart the keypad. Set the keypad address to a lower value.

Duplicate Keypad Address

The address of the keypad is already programmed into the system controller. Press the **[EXIT]** key to restart the keypad then set the keypad address to a free address.

Security Violation

The system controller has security enabled and devices cannot be added to the Synergis™ IX system. Remove the security setting for the system controller then press the **[EXIT]** key to restart the keypad.

Invalid Serial Number

The keypad has an invalid serial number programmed and cannot be registered on the Synergis™ IX system. Return the keypad to your distributor. This error cannot be corrected without updating the keypad firmware.

Technical Specifications

The following specifications are important and vital to the correct operation of this product. Failure to adhere to the specifications will result in any warranty or guarantee that was provided becoming null and void.

Ordering Information	
SY-SIX-KLCS	Synergis™ IX Touch Sense LCD Keypad
Power Supply	
Operating Voltage	11VDC to 14VDC
Operating Current	60mA (95mA Max)
User Interface	
User Interface Display	Energy smart backlit LCD 16 x 2 alphanumeric display with enhanced viewing angle
User Interface Keypad	Combined 23 key capacitive touch keypad with 3 system status LEDs
Inputs and Outputs	
Inputs	2 standard or 4 using Input Duplex mode
Outputs	1 open collector (50mA Max) output. Programmable for all output functions. 3 system status LEDs 1 system beeper
Dimensions	
Dimensions (H x W x D)	125 x 125 x 20mm (4.92 x 4.92 x 0.79”)
Net Weight	192g (6.8oz)
Gross Weight	243g (8.6oz)
Operating Conditions	
Operating Temperature	EU EN -10° to 55°C (14° to 131°F)
Storage Temperature	-10˚ to 85˚C (14˚ to 185˚F)
Humidity	0%-93% non-condensing, indoor use only (relative humidity)

The size of conductor used for the supply of power to the unit should be adequate to prevent voltage drop at the terminals of no more than 5% of the rated supply voltage.

Genetec Inc. continually strives to increase the performance of its products. As a result these specifications may change without notice. We recommend consulting our website (www.genetec.com) for the latest documentation and product information.

New Zealand and Australia

General Product Statement

The RCM compliance label indicates that the supplier of the device asserts that it complies with all applicable standards.

European Standards

CE Statement CE

Conforms where applicable to European Union (EU) Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility (EMC) Directive 2014/30/EU, Radio Equipment Directive (RED)2014/53/EU and RoHS Recast (RoHS2) Directive: 2011/65/EU + Amendment Directive (EU) 2015/863.

This equipment complies with the rules, of the Official Journal of the European Union, for governing the Self Declaration of the CE Marking for the European Union as specified in the above directive(s).

WEEE

Information on Disposal for Users of Waste Electrical & Electronic Equipment

This symbol on the product(s) and / or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge.

Alternatively, in some countries you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.

EN50131 Standards

This component meets the requirements and conditions for full compliance with EN50131 series of standards for equipment classification.

EN 50131-1:2006+A2:2017, EN 50131-3:2009, EN 50131-6:2008+A1:2014, EN 50131-10:2014, EN 50136-1:2012, EN 50136-2:2013, EN 60839-11-1:2013

Security Grade 4
Environmental Class II
Equipment Class: Fixed
Readers Environmental Class: IVA, IK07
SP1 (PSTN – voice protocol)
SP2 (PSTN – digital protocol)
SP6 (LAN – Ethernet) and DP1 (LAN – Ethernet + PSTN)
SP6 (LAN – Ethernet) and DP1 (LAN – Ethernet + USB-4G modem)

Tests EMC (operational) according to EN 55032:2015
Radiated disturbance EN 55032:2015
Power frequency magnetic field immunity tests (EN 61000-4-8)

EN50131

In order to comply with EN 50131-1 the following points should be noted:

- Ensure for Grade 3 or 4 compliant systems, the minimum PIN length is set for 6 digits.
- To comply with EN 50131-1 Engineer access must first be authorized by a user, therefore Installer codes will only be accepted when the system is unset. If additional restriction is required then Engineer access may be time limited to the first 30 seconds after the system is unset.
- Reporting delay –Violation off the entry path during the entry delay countdown will trigger a warning alarm. The warning alarm should not cause a main alarm signal and is not reported at this time. It can be signaled locally, visually and or by internal siren type. If the area is not disarmed within 30 seconds, the entry delay has expired or another instant input is violated, the main alarm will be triggered and reported.
- To comply with EN 50131-1 neither Internals Only on Part Set Input Alarm nor Internals Only on Part Set Tamper Alarm should be selected.
- To comply with EN 50131-1 Single Button Setting should not be selected.
- To comply with EN 50131-1 only one battery can be connected and monitored per system. If more capacity is required a single larger battery must be used.
- For Security Grade 4 installations, two forms of reporting are required. This can be satisfied using the onboard 2400bps modem included with the modem controller model, or through the incorporation of the SY-SIX-4G-USB cellular modem module into the installation with the non-modem controller model.

Anti Masking

To comply with EN 50131-1 Grade 3 or 4 for Anti Masking, detectors with a separate or independent mask signal should be used and the mask output should be connected to another input.

I.e. Use 2 inputs per detector. One input for alarm/tamper and one input for masking.

To comply with EN 50131-1:

- Do not fit more than 10 unpowered detectors per input,
- Do not fit more than one non-latching powered detector per input,
- Do not mix unpowered detectors and non-latching powered detectors on an input.

To comply with EN 50131-1 the Entry Timer should not be programmed to more than 45 seconds.

To comply with EN 50131-1 the Bell Cut-Off Time should be programmed between 02 and 15 minutes.

EN 50131-1 requires that detector activation LEDs shall only be enabled during Walk Test. This is most conveniently achieved by using detectors with a Remote LED Disable input.

UK Conformity Assessment Mark

General Product Statement

The UKCA Compliance Label indicates that the supplier of the device asserts that it complies with all applicable standards.

FCC Compliance Statements

FCC Rules and Regulations CFR 47, Part 15, Subpart B

This equipment complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules.

Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

Industry Canada Statement

ICES-003

This class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (A)/NMB-3(A)

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