

ViAC-SIP Switch Interface Plate Product Manual

1 Product Overview

The Switch Interface Plate (SIP) allows the connection of a third party contact such as a switch strip, a micro switch on a door or medical cabinet, a panic or staff alarm in a health centre or gym, etc.

2 Operation

2.1 Overview

The Switch Interface Plate (SIP) monitors the contact from either a switch or relay. The SIP also monitors the AssistCall circuit. The operation of the SIP is governed by the dipswitch settings (indicated in Figure 1). The dipswitch has 4 settings:

1. Momentary/Latching
2. Off/Monitored
3. NO (normally open)/NC (normally closed)
4. Red/Blue

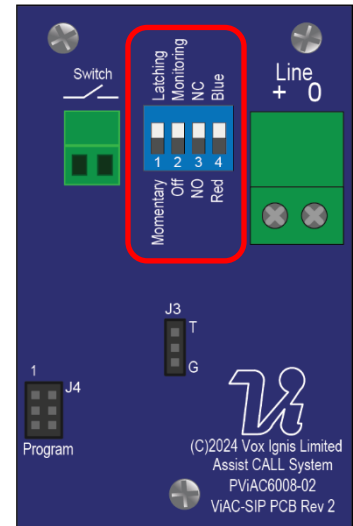


Figure 1 - ViAC-SIP PCB View

2.2 SIP Activation

SIP activation is determined by the contact state and the dipswitch settings (see Table 1). When the SIP is activated, the status LED is illuminated in the appropriate colour. The AssistCall circuit is placed into the alarm condition.

2.3 SIP Deactivation

SIP deactivation is determined by the contact state, the AssistCall circuit state, and the dipswitch settings (see Table 2). When the SIP is deactivated, the status LED is illuminated green. If the SIP has placed the AssistCall circuit into the alarm condition, the alarm trigger is removed.

Note – If the SIP is set to latching (See 2.4), a cancel command is required along with the conditions in Table 2. This command either comes from a cancel plate, or a ViAC-ACT.

NO/NC	Monitored / Off	Switch State
Normally Open (NO)	Monitored	470Ω
	Not Monitored	Short 470Ω
Normally Closed (NC)	Monitored	10kΩ
	Not Monitored	Open
		10kΩ

Table 1 - SIP Activation Conditions

NO/NC	Monitored / Off	Switch State
Normally Open (NO)	Monitored	10kΩ
	Not Monitored	Open 10kΩ
Normally Closed (NC)	Monitored	470Ω
	Not Monitored	Short 470Ω

Table 2 - SIP Deactivation Conditions

2.4 Dipswitch 1: Momentary/Latching

Momentary

The AssistCall circuit is placed into the alarm condition when the SIP is activated (see 2.2). The AssistCall circuit is placed into the idle condition when the SIP is deactivated (see 2.3).

Latching

The AssistCall circuit is placed into the alarm condition when the SIP is activated (see 2.2). The SIP will remain activated until a cancel is detected on the AssistCall circuit, and the contact is in the off state.

2.5 Dipswitch 2: Off/Monitored

Off

The contact is not monitored for open circuit or short circuit conditions.
The status LED shows the SIP activated or deactivated state as required (see 2.7).

Monitored

The contact is monitored for open circuit or short circuit conditions. When either fault is detected, the SIP is deactivated. A short circuit will illuminate the status LED yellow, with an open circuit the LED flashes yellow. Both faults will display as an open circuit fault on the control module/panel (i.e. ACT, 4ZC)

2.6 Dipswitch 3: NO/NC

NO (Normally Open)

When the contact closes, the SIP is activated.

If the SIP is set to momentary, the SIP is deactivated when the contact opens.

If the SIP is set to latching, the SIP is deactivated when the cancel state on the AssistCall circuit has been detected, and the contact is opened.

If the SIP is not monitored, the SIP is activated if the contact is in the short circuit condition, and the SIP is deactivated when the contact is in the open circuit condition.

NC (Normally Closed)

The SIP is activated when the contact is opened.

If the SIP is set to momentary, the SIP is deactivated when the contact closes.

If the SIP is set to latching, the SIP is deactivated when the cancel state on the AssistCall circuit has been detected, and the contact is closed.

If the SIP is not monitored, the SIP is activated if the contact is in the open circuit condition, and the SIP is deactivated when the contact is in the short circuit condition.

2.7 Dipswitch 4: Red/Blue

Red

The status LED is illuminated red when the SIP is activated.

If the SIP is latching and is activated, and the cancel condition has been detected, the AssistCall circuit will remain in the alarm condition and the status LED will flash red to indicate there is a cancel pending.

Blue

The status LED is illuminated blue when the SIP is activated.

If the SIP is latching and is activated, and the cancel condition has been detected, the AssistCall circuit will remain in the alarm condition, and the status LED will flash blue to indicate there is a cancel pending.

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2.8 LED Indication

The status LED on the SIP indicates the following states:

Status LED	State Description
	SIP is healthy and idle.
	SIP is activated (colour dependant on dipswitch 4).
	SIP is activated, but pending cancellation (colour dependant on dipswitch 4).
	SIP is monitoring faults, and short circuit detected.
	SIP is monitoring faults, and open circuit detected.

3 Installation

The SIP can be used independently, or in conjunction with the AssistCall over door indicators and cancel buttons. Please consult VI technical department for guidance.

The SIP is wired using the same 2-core wiring as other AssistCall devices, but must be placed at the end of the circuit as the last device (as shown in Figure 2).

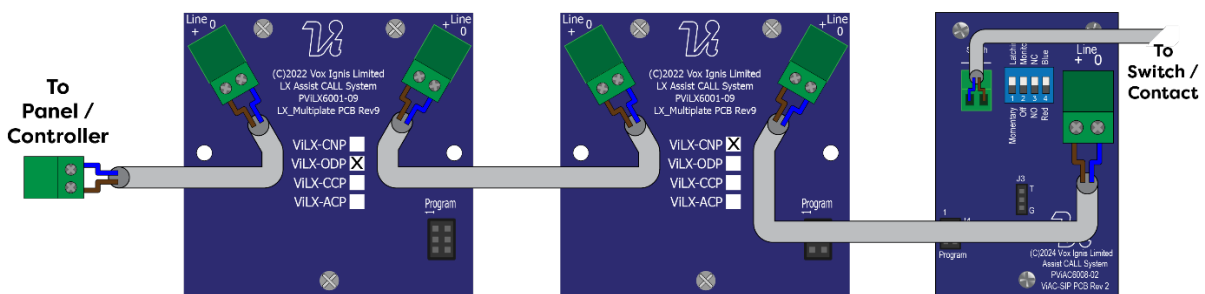
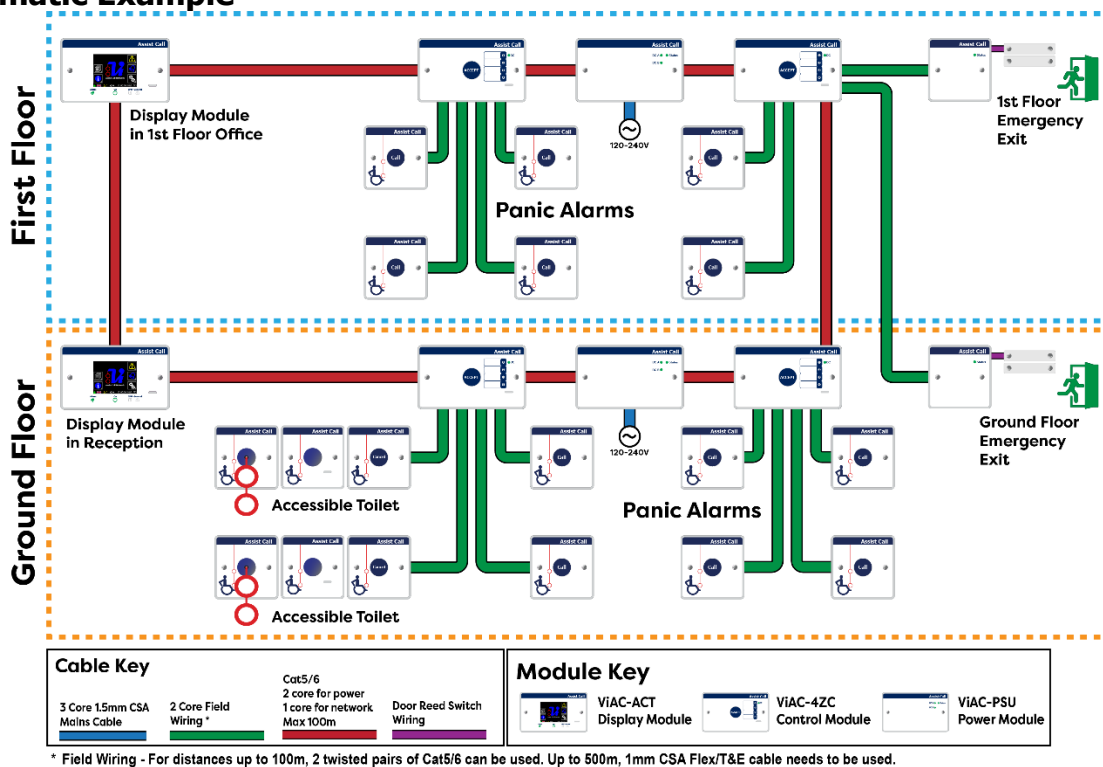


Figure 2 - ViAC-SIP with Over Door and Cancel Plates

3.1 Mounting

The ViAC-SIP-W/SS AssistCall plates mount onto a 25mm UK SINGLE gang back box. The ViAC-SIP-W/SS AssistCall plates are not supplied with back-boxes as they can be used with any "MK" style single back-box over 25mm deep. To accept cable glands the back-box needs to be 35mm deep including metal clad surface types and plastic plasterboard dry liner boxes. When flush mounting, use the back-box manufacturers recommended cut out.

3.2 Schematic Example



This example shows a pair of ViAC-SIPs being used to monitor emergency exit doors in a doctor’s office. They are wired to 4-Zone Control Modules and displayed on a pair of AssistCall Touchscreen Modules. All system wiring should be installed to meet the appropriate parts of BS 7671 (Wiring Regulations). Other national standards of installation should be adhered to where applicable.

Extra Low Voltage (ELV) Wiring: Always segregate low voltage wiring from the mains wiring.

4 Technical Specification

Physical

	-W	-SS
Height	86mm	
Width	86mm	
Visible Depth	12mm	
Total Weight	90g	120g
Material	White Polycarbonate	Blue Polycarbonate & Stainless Steel

Part numbers

ViAC-SIP-W	Switch Interface Plate White
ViAC-SIP-SS	Switch Interface Plate Stainless Steel

Recommended Cables

Type	Cores	Distance from panel/controller
PVC or fire-rated	2-core 1mm	500m
Cat5/6	1× pair 0.22 mm	50m
	2× pair 0.22 mm	100m

Standards Compliance

EMC	EN 55035:2017+A11:2020 EN 55032:2015+A1:2020
LVD	EN IEC62368-1:2020+A11:2020
Product Family	BS 5839-9:2021 BS 8300-2:2018

This product is designed and manufactured in the UK by:
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