6100 Control Panel

User Manual

Issue 7



Document Revision Details

Issue	Modification Detail	Author	Date
0	Document Creation	NH	15/11/2011
1	Section 14.0 amended; miscellaneous text tidied	NH	17/01/2012
2	Refer to ECN3414	NH	10/10/2013
3	Addition of WEEE data in section 1.0	NH	22/06/2014
4	Refer to ECN3729	NH	14/07/2015
5	Update to BS5839 references Refer to ECN4363	NH	16/05/2019
6	UKCA Update Document indexed	TW	22/07/2022
7	Updated Safety Notices Update to format Update to BS5839 references Refer to ECN4996	TW	20/03/2026

Table of Contents

1 Introduction 5

2 For your safety 6

3 User Responsibilities 7

3.1 Requirements of the Premises Management Named Person 7

4 Routine Testing of the System 8

4.1 Daily Inspection 8

4.2 Weekly Test 8

4.3 Monthly Test 8

4.4 Periodic Inspection 8

4.5 Annual Test 9

4.6 5 Yearly Test 9

5 6100 Access Levels 10

5.1 Access Level 1 (General User) 10

5.2 Access Level 2 (Authorised/Trained User) 10

6 6100 Indications and Controls 11

6.1 Multifunction Display 11

6.2 General Indications 11

6.3 Multifunction Zone Status Indications (Row 2, first 16 zones only) 11

6.4 Code Entry and Menu Navigation Keys 12

6.5 Sound Alarms, Silence Alarms, Reset Panel and Mute Buzzer keys 12

7 6100 Fire Indications 12

7.1 General Fire Indicator Illuminated 12

7.2 Multifunction Zone Indicator Flashing Red 12

8 6100 Fault Indications 13

8.1 Zone Faults 13

8.2 System Faults 13

8.3 Alarm Fault 13

8.4 Supply Fault 13

8.5 Aux. Supply Fault 13

8.6 Repeat Panel Fault 14

8.7 Fire link Fault 14

9 6100 Disablement Indications 15

9.1 Zone Disablement 15

9.2 Alarm Disablement 15
9.3 Fire Link Disablement 15
10 Miscellaneous Indications 16
10.1 Power on Indication 16
10.2 Pre-Alarm 16
10.3 Outputs Delayed 16
11 System Delays 17
12 Coincidence Operation 18
13 6100 Response to an Alarm 19
13.1 Automatic Detection 19
13.2 Manual Detection 19
13.3 Coincidence Activation 19
13.4 Silencing the Alarms 19
13.5 Resetting the 6100 after an Alarm 19
13.6 New Zone in Alarm 19
13.7 Activating the Alarms Manually 19
14 6100 Status Displays 20
14.1 The System Normal Display 20
14.2 The Fault, Disablement and Test Display 20
14.3 The Fire Alarm Display 21
15 6100 User Menus 22
15.1 Entering the 6100 Menu System 22
15.2 User Menu Structure 22
15.3 Viewing Faults and Disablements 23
15.4 Clearing System Faults 24
15.5 Testing the Front Panel Indications 24
15.6 Setting a Zone into Walk Test Mode 25
15.7 Disabling a Zone 25
15.8 Disabling Alarm and Fire Link Outputs 26
15.9 Setting the Date and Time 27
15.10 Viewing the Alarm Counter 28
15.11 Viewing the Fire Event Log 28
15.12 Viewing the General Event Log 29
15.13 Exiting the Menus 30
16 6100 Fire Brigade Panel Operation (Australian Markets) 31
16.1 Enable Key 31

16.2 Silence Buzzer Button 31
16.3 Silence Alarms Button 31
16.4 Reset Button 31
16.5 Disable Button 31
17 Appendix 1 - 6100 System Set up Record 32
18 Appendix 2 - 6100 Event Log 36
19 Appendix 3 – 6100 Operation Quick Reference Guide 40
19.1 Entering Access Level 2 40
19.2 Returning to Access Level 1 40
19.3 Muting the Internal Buzzer and accepting Current Faults 40
19.4 Sounding the Alarms 40
19.5 Silencing the Alarms 40
19.6 Resetting the 6100 40
19.7 Testing the Indicators and Internal Buzzer 40
19.8 Setting the Date and Time 40
20 Conformity 41
21 6100 Technical Specification 42

1 Introduction

The Protec 6100 Fire Alarm Control Panel has been designed and manufactured in the United Kingdom and complies fully with current standards dictating fire alarm system design practice (EN54 parts 2 and 4).

The 6100 is a 32-zone single loop fire alarm control panel that uses digital addressable technology to communicate with Protec 6000PLUS series loop devices (automatic detectors, Manual Call Points, sounders, interfaces etc.).

As the integrity and reliability of a fire alarm system is vital, the 6100 continuously monitors all critical paths for faults. The fire detection/alarm loop devices and wiring are constantly monitored to check for faults. The integrated power supply regularly performs self-checks to ensure it is in full working order and that the stand-by batteries are in a good state.

Any faults detected are reported on the front panel display of the 6100, a fault output is also provided which may be connected to external systems (a remote monitoring centre, for example) to signal that the 6100 has a fault and attention is required.

Please be aware that the 6100 is supplied to various countries, the particular panel variant typically having slight operational differences dependent on the target market.

UK CA This equipment has been manufactured in conformance with the requirements of all applicable UK council directives and regulations.

CE This equipment has been manufactured in conformance with the requirements of all applicable EU council directives and regulations.



Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive). To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.

The policy of Protec Fire Detection PLC is one of continuous improvement. As such we reserve the right to make changes to product specifications at any time and without prior notice. Errors and omissions excepted.

2 For your safety

Warning! Ensure that the mains supply cabling is adequately rated for this product's operating current and temperature, and is protected against short-circuit by a correctly rated fuse or circuit breaker.

Caution! The device may only be operated by trained personnel.

Notice! There are no user serviceable parts inside the panel. A competent person trained to undertake such work MUST carry out any internal maintenance work. Separate installation and commissioning manuals are available.

Notice! This equipment and its associated connections must be installed, commissioned and maintained by a suitably trained skilled and competent person.

Notice! This equipment is not guaranteed unless installed and commissioned in accordance with current national standards.

Notice! Clean the screen and surfaces with a slightly damp soft cloth only. Do not use any cleaning agents and make sure that no liquid enters the inside of the device.

Notice! Take care using any pointed or sharp objects (e.g. screw drivers, pens, etc.) when working near the display.

3 User Responsibilities

The registered owner of the fire alarm system has specific responsibilities regarding the installation, testing, and maintenance of the fire alarm system.

BS5839 Part 1:2025 states that the user of the fire alarm system must appoint a single named person to supervise all matters regarding the fire alarm system.

Summarised below are the responsibilities expected of the named person,



It is strongly advised that a full copy of BS5839 Part 1:2025 is obtained and thoroughly read and understood.

3.1 Requirements of the Premises Management Named Person

- Ensure that the fire alarm equipment is checked at least once every 24 hours to ensure there are no faults on the system. Report any faults to the site maintenance manager.
- Ensure that arrangements are in place for correct testing of the fire alarm system (as specified in BS5839 Part 1: 2025, summarised in Section 3.0 of this document).
- Ensure that the system event log is kept up to date and is available for inspection by any authorised person when required. An example event log is included in Appendix 2 - Section 18 of this document.
- Ensure that all occupants of the protected premises are trained how to use the system properly and that they are aware of what action to take in the event of an alarm.
- Ensure that false alarms are minimised.
- Ensure all detectors and manual call points are not obstructed. Detectors must have at least 500mm clear space preserved in all directions around them.
- Establish a liaison with those responsible for changes in, or maintenance of the building fabric.
- Ensure that when changes are made to the system, record drawings and operating instructions are updated.
- Ensure that, where necessary, a suitable zone plan is displayed and kept up to date.
- Ensure that any relevant spare parts for system maintenance are held within the premises.

4 Routine Testing of the System

Recommendations for testing of the system are detailed in BS5839 Part 1: 2025 and in accordance with BS EN IEC-IEEE 82079-1:2020, the following maintenance tasks should be performed:

4.1 Daily Inspection

- Check that the Supply Present indicator is illuminated.
- Check for any faults on the system and report these to the site maintenance manager.

4.2 Weekly Test

Perform the daily test recommended in 4.1 and:



During the test you may wish to **temporarily** place the zone to be tested into test mode (consult Section 15.6)

- Perform an indicator test (lamp test) to check the integrity of the front panel indications, and internal buzzer.
- Ensure no Manual Call Points or detectors are obstructed.
- Operate a Manual Call Point or detector during normal working hours to ensure the fire alarm system operates correctly.
- A different Manual Call Point or detector on a different zone should be tested each week, in this way all the devices on all the zones are tested.
- Ensure the system sounders are operational.
- Ensure the sounders are not operated for longer than 60 seconds during testing. The occupants of the building can then distinguish genuine alarms.

4.3 Monthly Test

Perform the weekly test recommended in 4.2 and:

- If an automatic generator is used as part of the mains failure back-up system it should be started up once each month by simulated failure of the normal power supply, and then run in this mode for at least 1 hour.
- Visually inspect the stand-by batteries and their connections. Check that the batteries are capable of supplying the alarm sounders.

4.4 Periodic Inspection

Perform the monthly test recommended in 4.3 and:

- Ensure the system event log is up to date and all entries are correct. Check that any faults noted have been rectified.



It is important that during any periodic inspection of the system the CIE software version is inspected and verified as being the most up to date. Any systems operating an old version must be updated and tested by a competent person in accordance with the current British Standards BS5839, or equivalent regional standards. The latest software and release notes are available freely via our website (support.protec.co.uk) for the lifetime of the product.

4.5 Annual Test

Perform the quarterly test recommended in 4.4 and:

- Test every detector, Manual Call Point and all auxiliary equipment for correct functionality.

4.6 5 Yearly Test

Perform the Annual test recommended in 4.5 and:

- Carry out a full wiring check in accordance with the testing and inspection requirements of the relevant National wiring regulations (I.E.E regulations for the UK).

5 6100 Access Levels

The 6100 has two access levels to allow users of different authorisation levels access to various parts of the system. The access levels and a description of functions available are given in the next sections.

5.1 Access Level 1 (General User)

Access level 1 allows the general user to view the status of the 6100 at any time. Zone fire, fault, disablement, and test states are clearly displayed as are any current system faults and disablements.

Full detail of the front panel display is given in the next section.

The following functions may be performed at access level 1.

- Entering access level 2

5.2 Access Level 2 (Authorised/Trained User)

Access level 2 allows the authorised user access to various critical system functions.

To enter access level 2 either enter the user code using the numbered keypad or insert and turn the fire man's key-switch (depending on the particular model purchased).

When access level 2 has been entered the 'User Level Entered' screen will be displayed and access level 2 menus are available after an addition ↵ key press.

To return to access level 1 scroll to the EXIT MENU function and press the ↵ key.



As a security measure the 6100 will return to access level 1 if no key activity has been detected for 1 minute.

The following functions are accessible at access level 2.

- Sounding the alarms
- Silencing an alarm condition
- Resetting the panel after alarm activation
- Accepting current faults or alarms (Mute Buzzer)
- Viewing current faults
- Viewing current disablements
- Clearing system faults
- Testing the front panel indications, and internal buzzer
- Exchanging a loop device for another device of the same type
- Programming a single zone into walk test mode
- Disabling a zone
- Disabling the Fire Link (if used)
- Disabling alarm outputs
- Viewing the alarm counter
- Setting the time and date
- Viewing the fire event log
- Viewing the general event log

6 6100 Indications and Controls

The 6100 has a comprehensive front panel display enabling the current state of the 6100 to be rapidly determined. Figure 1 shows the indications and controls.

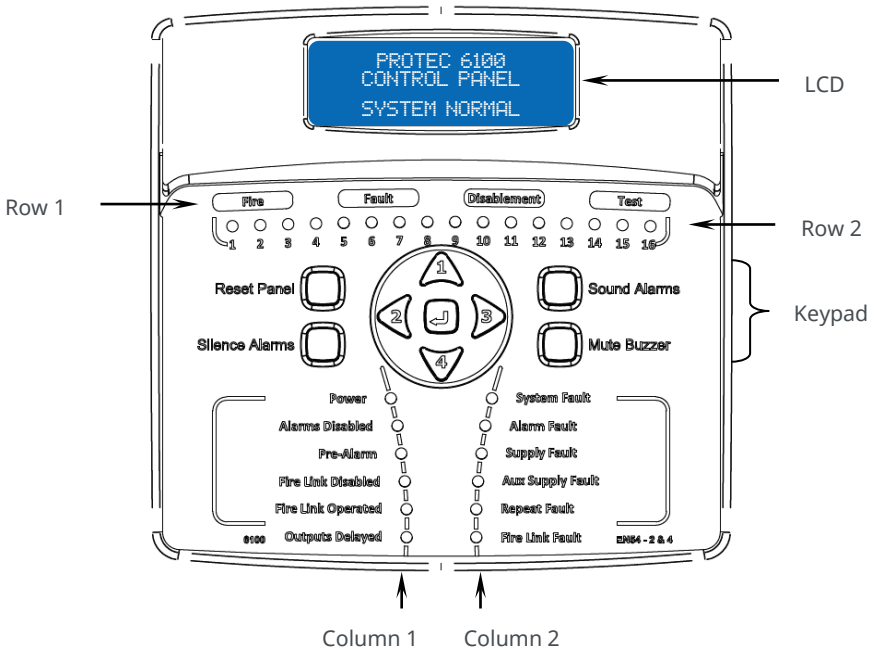


Figure 1 - 6100 front panel indications and controls

6.1 Multifunction Display

The 6100 gives a clear indication of the current status of the 6100 on the Liquid Crystal Display (LCD). Under normal conditions the LCD shows the System Normal screen. This changes to the status display screen if the 6100 has faults, disablements, or tests present.

6.2 General Indications

Row 1 comprises the General Fire, Fault, Disablement and Test indicators. These indications give clear indication that the 6100 has at least one Fire, Fault, Disablement or Test condition.

6.3 Multifunction Zone Status Indications (Row 2, first 16 zones only)

Zone *fires* are indicated when the zone indicator flashes red and are always accompanied by the General Fire indicator.

Zone *faults* are indicated when the zone indicator flashes yellow and are always accompanied by the General Fault indicator.

Zone *disablements* are indicated when the zone indicator lights steady yellow and are always accompanied by the General Disablement indicator.

Zones in *test mode* are indicated when the zone indicator lights steady yellow and are always accompanied by the General Test indicator.

6.4 Code Entry and Menu Navigation Keys

The keys in the centre of the 6100 are used to enter the user code (using keys 1, 2, 3 and 4) and are also used to navigate the menu system.

6.5 Sound Alarms, Silence Alarms, Reset Panel and Mute Buzzer keys

These keys are used to control panel functions. The user code must be entered before the keys become operational.

7 6100 Fire Indications

The 6100 displays fire information on the LCD along with the General Fire indicator and the relevant red zone indicators. The following sections details the meaning of each indicator.

7.1 General Fire Indicator Illuminated

The 6100 has detected a fire on one of its zones or has been activated from another piece of equipment connected to its Remote Alarm input.



The building fire plan should be executed immediately.

7.2 Multifunction Zone Indicator Flashing Red

The 6100 has detected a fire in the zone shown. The General Fire indicator will always accompany this, and the internal buzzer will be fast pulsing. Indication of a zone fire always overrides a zone fault, disablement or test indication.

8 6100 Fault Indications

When the 6100 has detected a fault in any of the critical operating paths of the system it will display this on the front panel display. The internal buzzer will also pulse slowly.

The General Fault indicator will be illuminated and is always accompanied by other indicator(s) detailing the exact fault.

In general, fault indicators flash until the fault is accepted (by pressing the Mute Buzzer button in access level 2) the fault indicator then illuminates steadily, and the internal buzzer will be muted. Further faults activate the buzzer again.

In the event of any fault the following action should be taken:

- Investigate the fault, then, at access level 2, accept the fault by pressing the Mute Buzzer button.
- Note the fault down in the Logbook and take action to remedy the fault. **In all cases expert advice should be sought.**

When the fault has been rectified the fault indicator will automatically extinguish.

The following sections give descriptions of each fault.

8.1 Zone Faults

The 6100 displays any faults in the first 16 zones on the multifunction zone indicators. All Zone faults are also displayed on the LCD. The General Fault indicator will be illuminated accompanied by the relevant zone indicator flashing yellow. Pressing Mute Buzzer will mute the buzzer but **will not** make the zone indicator go steady.

8.2 System Faults

The 6100 performs regular self-tests to ensure the software is working correctly. If a fault is detected in software operation a System Fault is declared. This is a latching fault and can only be cleared by using the ‘clear system faults’ menu.

8.3 Alarm Fault

A fault has been detected on one or more of the alarm devices connected to the loop, or one or both conventional alarm outputs have a fault. One or more alarm devices may no longer operate correctly.

8.4 Supply Fault

A fault has been detected in the power supply of the 6100. This may be because the local mains supply has failed or because the internal stand-by batteries or circuitry are faulty. The General Fault indicator will be illuminated accompanied by the PSU Fault indicator.

8.5 Aux. Supply Fault

A fault has been detected with the Auxiliary 24 V supply output of the 6100. There may no longer be an auxiliary supply to external devices, or the auxiliary devices are drawing too much current. The General Fault indicator will be illuminated accompanied by the ‘Aux Supply Fault’ indicator.

8.6 Repeat Panel Fault

A fault has been detected on a repeat panel connected to the 6100, or the wiring to the repeat panel is faulty. The General Fault indicator will be illuminated, accompanied by the Repeat Fault indicator.

8.7 Fire link Fault

A fault has been detected on the monitored fire link path. This may be a wiring fault or a fire link interface fault. The connection to the fire station link is no longer reliable. Expert advice should be sought immediately. The General Fault indicator will be illuminated accompanied by the Fire Link Fault indicator.

9 6100 Disablement Indications

9.1 Zone Disablement

Fires and faults from the disabled zone are prevented. Detectors and Manual Call Points in this zone will not trigger the 6100 into a fire condition.

9.2 Alarm Disablement

Activation to and faults from alarm outputs are prevented. The sounders will not operate in the event of a fire.

9.3 Fire Link Disablement

Activation and faults on the fire link output are inhibited. The fire link will not activate in the event of a fire.

10 Miscellaneous Indications

10.1 Power on Indication

This indication illuminates when the 6100 is powered up from mains or its internal batteries.

10.2 Pre-Alarm

One or more loop detectors are near to their full alarm condition. It is recommended that the area where the device is located is investigated and appropriate action taken.

10.3 Outputs Delayed

This indicator will be illuminated if the commissioning engineer has programmed alarm output, or fire link activation delays into the system. The alarms, or fire link may not activate immediately in the event of a fire.

11 System Delays

Delays may have been programmed into the 6100 at commissioning time to allow a predetermined delay time from zone activation until,

- The alarm outputs activate
- The fire link activates

Delays may be used to allow time for the cause of the activation to be investigated by the premises management. If the cause of the activation is found to be legitimate the alarm outputs can be manually activated. If the cause of the activation is found to be false, the 6100 can be reset.

The 6100 system set-up chart must be consulted to determine exactly which outputs have been delayed and how the delay time has been set up.

If the Silence Alarms button is pressed while a delay is running, the alarm outputs will not be activated when the delay expires. The global fire contacts, however, will still be activated.



Delays only apply to automatic detector activations. A manual activation on a zone

(Activating a Manual Call Point) always overrides all current delays.

12 Coincidence Operation

At the time of commissioning, the system may have been programmed to operate in ‘coincidence’ mode.

Coincidence operation is used to minimise the effects of false alarms.

Coincidence operation can be used to prevent alarm outputs in certain areas from triggering until two, or more activations have been received from a certain group of devices.

This allows the initial activation to be investigated before the 6100 activates the full alarm outputs.

13 6100 Response to an Alarm

13.1 Automatic Detection

If a detector (smoke, heat etc.) activates on a zone of the 6100 this is known as an automatic operation. The 6100 responds by:

- Illuminating the ‘General Fire’ indicator.
- Flashing the relevant red zone fire indicator and displaying on the display.
- Fast pulsing of the internal buzzer.
- Activating alarm outputs as programmed, after any delays have expired.
- Activating the Fire Link output after any programmed delays have expired.
- Activating the Global Fire contacts.

13.2 Manual Detection

If a Manual Call Point is operated on the zone of a 6100 this is known as manual operation. The 6100 responds by:

- Illuminating the ‘General Fire’ indicator.
- Flashing the relevant zone fire indicator.
- Fast pulsing of the internal buzzer.
- Immediately activating alarm outputs as programmed.
- Activating the Global Fire contacts.
- Immediately activating the Fire Link output.

13.3 Coincidence Activation

Please see Section 12.

13.4 Silencing the Alarms

Pressing Silence Alarms when in access level 2 will silence alarm outputs. A further activation will re-sound the alarms.

13.5 Resetting the 6100 after an Alarm

After the cause of the alarm has been determined (and entered in the log by the authorised user) the 6100 can be reset if required. Manual Call Points, if triggered, must first be reset locally. In access level 2 press Silence Alarms then press Reset Panel. The 6100 will reset any latched devices on its loop. This process takes about 20 seconds during which time the 6100 will not detect new fires.

13.6 New Zone in Alarm

If a new zone or a previously silenced zone goes into alarm, the 6100 will re-activate the alarms and re-sound the internal buzzer.

13.7 Activating the Alarms Manually

Press Sound Alarms when in access level 2 to evacuate the building. Alarm outputs will be activated as programmed but the Global Fire Contacts and the Fire Link Interface **will not** be activated.

14 6100 Status Displays

At any given time, the 6100 will be in one of three main states. These are the normal condition, the fault/disablement/test condition, or the fire condition.

14.1 The System Normal Display

When the 6100 does not have any fires, faults, disablements or tests it is in the System Normal condition.

In this state the 6100 will have its power on indicator illuminated and the LCD will show the System Normal display, as shown in Figure 2.



Figure 2 - The System Normal Display

14.2 The Fault, Disablement and Test Display

If the system has one or more faults, disablements or tests the 6100 will display this as shown in Figure 3.

Faults, disablements, and tests are always accompanied by the relevant general indicator, plus separate indications detailing the individual condition.

The authorised user may enter the access level 2 code to accept the current system status by pressing the Mute Buzzer key or retrieve more detailed information about individual faults or disablements by entering the 6100 menu system.

Faults that have not been accepted will, in general, use a pulsing indication. This then changes to steady when the fault is accepted.

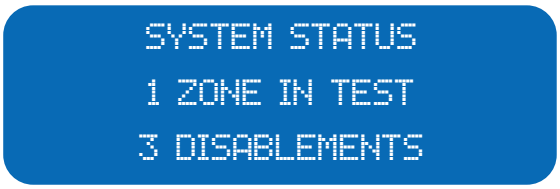


Figure 3 - The Fault, Disablement and Test Display

14.3 The Fire Alarm Display

The 6100 enters the alarm state if one or more loop devices have triggered (this may be because an automatic detector has sensed a fire, or a Manual Call Point has been operated).

The 6100 will activate its alarms as dictated by the system programming when commissioned.

The General Fire indicator will illuminate and (if the alarm is in zones 1 to 16) the multifunction zone indicator will flash red.

The LCD shows the fire display (overriding any normal or fault displays) as shown in Figure 4.

The display follows the format of displaying the first zone into fire on line 1, Latest zone into fire on line 2 and the total number of zones in fire on line 3.

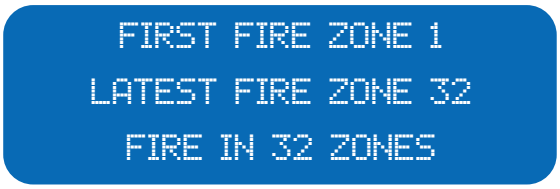


Figure 4 - 6100 Alarm Condition Display

The authorised user may press the ↵ key at this screen to retrieve more detailed information about any current fires. The display will show details of the first device to generate an alarm, pressing the ▲ or ▼ keys will rotate the displayed information showing the zone text for the device, the address text for the device then the time and date at which the device generated the alarm.

Pressing the ◄ or ► keys scrolls through any further devices in fire.

The screen automatically returns to the standard 6100 fire display if no buttons are pressed for 30 seconds.

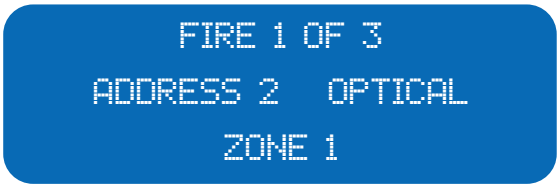


Figure 5 - Example of display showing information for the first device that generated an alarm

15 6100 User Menus

15.1 Entering the 6100 Menu System

When the user code is entered at access level 1 the ‘user level accessed’ screen will be displayed as shown in Figure 6. The Sound Alarms, Silence Alarms, Reset Panel and Mute Buzzer buttons are now enabled.

Pressing the enter key (↵) will access the user menus, navigation of the menu options is achieved by using the ◄ or ► keys. The menu structure is shown in Figure 6. Pressing ↵ on a particular menu option will accept the option.

15.2 User Menu Structure

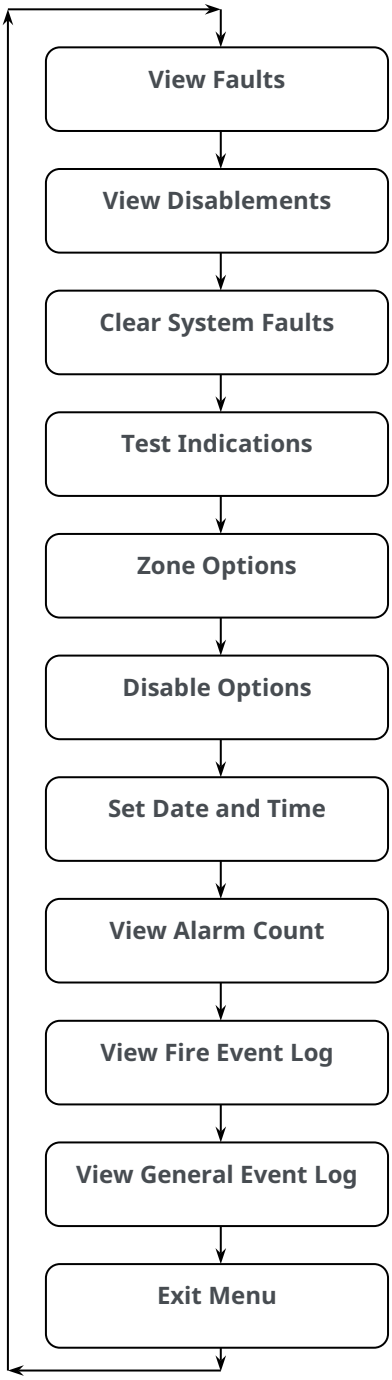


Figure 6 - User Menu Structure

15.3 Viewing Faults and Disablements

The VIEW FAULTS and the VIEW DISABLEMENTS menus allow the user to view any faults or disablements currently on the 6100. Both these menus have the same basic format.

1. Enter the user code supplied with the system and press the ↵ key to access the menu system.

2. Using the ◄ and ► keys navigate to the VIEW FAULTS or VIEW DISABLEMENTS menu as required and press the ↵ key.

3. The first event is displayed, (illustrated in Figure 7/Figure 9) If there are no current events the 6100 will show the screen illustrated in Figure 8/Figure 10, and an error tone will be issued.

4. Use the ◄ and ► keys to navigate to the previous or next event.

5. Use the ▲ and ▼ keys to toggle between the time of the event, the location text or the zone text. Please note that depending on the event type some of the display options will not be available.

6. Press the ↵ key to exit the menu and return to the main menu.

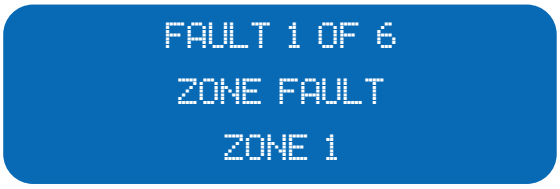


Figure 7 - View faults display, initial screen



Figure 8 - No Faults to View Display



Figure 9 - View Disablements Display



Figure 10 - No Disablements Display Screen

15.4 Clearing System Faults

The CLEAR SYSTEM FAULTS menu allows the user to reset any latching system faults that are on the system.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.
2. Using the ◄ and ► keys navigate to the CLEAR SYSTEM FAULTS menu and press the ↵ key.

Any current system faults will be cleared, and the system fault indicator will extinguish.

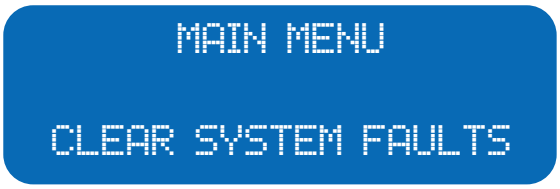


Figure 11 - Clear System Faults display

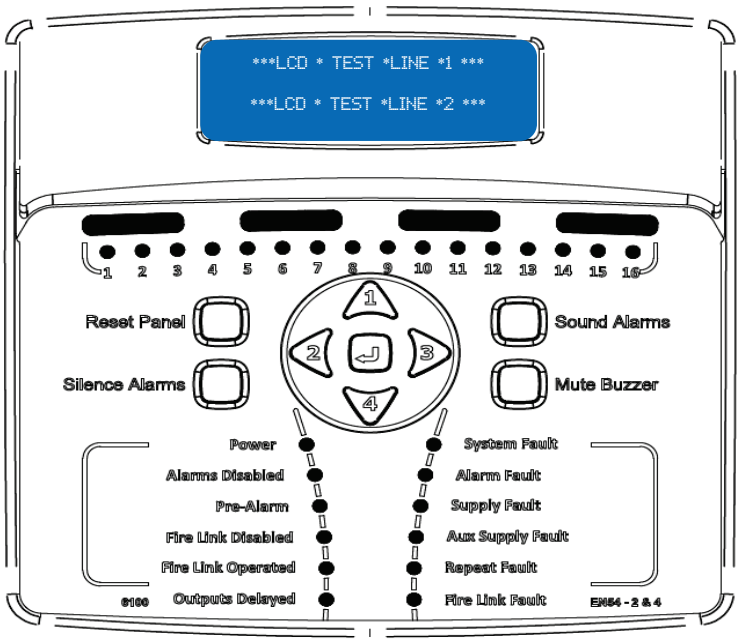
15.5 Testing the Front Panel Indications

The TEST INDICATIONS menu is used to test the functionality of the front panel indicators, LCD and internal buzzer.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.
2. Using the ◄ or ► keys navigate to the TEST INDICATIONS menu press the ↵ key to start the test.

All indications will illuminate, the LCD will display its test message (as shown in Figure 12) and the internal buzzer will sound. The test will automatically stop after 5 seconds (do not press any buttons during this time).

Figure 12 - Test Indications Display



15.6 Setting a Zone into Walk Test Mode

The 6100 allows a single zone at a time to be set to walk test mode. In walk test mode a loop device can be functionally tested and, after a predetermined time, the 6100 will automatically reset.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.
2. Using the ◄ and ► keys navigate to the ZONE OPTIONS menu and press the ↵ key to access the menu (Figure 13).
3. Using the ◄ and ► keys select the desired zone to be tested.
4. Using the ▲ and ▼ keys move the cursor to the TESTING option and set testing to ON or OFF using the ◄ and ► keys.
5. When all zone programming has been finished press the ↵ key to return to the main menu.

The zone in walk test mode will illuminate the global test indicator, along with the specific zone indicator.

Activations from a zone programmed into walk test mode will not activate the global fire contacts or Fire Link output. Remember to take the zone out of walk test mode when testing has been completed.

15.7 Disabling a Zone

The 6100 allows zones to be disabled. This means that faults and activations are inhibited. Fires on a disabled zone will not be detected.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.
2. Using the ◄ and ► keys navigate to the ZONE OPTIONS menu and press the ↵ key to access the menu (Figure 13).
3. Using the ◄ and ► keys select the desired zone to be disabled.
4. Using the ▲ and ▼ keys move the cursor to the DISABLED option and using the ◄ and ► keys set to ON (disabled) or OFF (not disabled).
5. Press the ↵ key to return to the main menu.

A zone disablement will illuminate the global disablement indicator, along with the specific zone indicator.

It is possible that loop devices in a zone that is about to be normalised (removed from disablement) may be in alarm. If this is the case the 6100 will display a warning screen, then automatically reset.

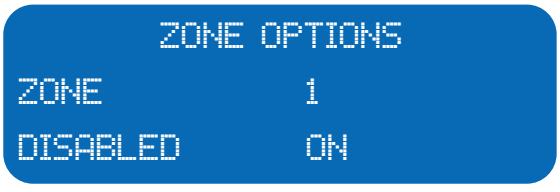


Figure 13 - Zone Options display

15.8 Disabling Alarm and Fire Link Outputs

The user can disable certain 6100 functions to suit current site conditions.

- The panel alarm outputs (loop sounders and conventional alarm outputs) can be disabled. Doing this means that if the panel enters the alarm condition no sounders will operate. Faults from alarm devices will not be reported.

- The fire link output may also be disabled, which will prevent the fire link from activating, or generating faults.

Please consult the system set-up record (appendix 1) before adjusting these critical parts of the system. If it is unknown why the system has been configured in this way **do not** continue.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.

2. Using the ◄ and ► keys navigate to the DISABLE OPTIONS menu and press ↵ to access the menu (Figure 14).

3. Press the ▲ and ▼ keys to highlight the option to be edited (the flashing cursor indicates which option is currently selected)

4. Press the ◄ and ► keys to toggle the state of the highlighted option.

5. Press the ↵ key to accept the changes and return to the main menu.

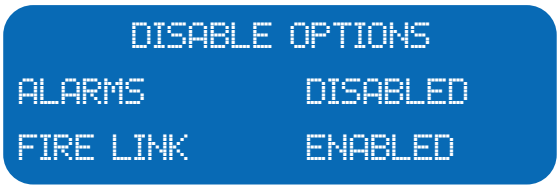


Figure 14 - Disable options display

15.9 Setting the Date and Time

The SET DATE AND TIME menu allows the user to set the current date and time used by the 6100. The time is entered in 24-hour format and is used when time stamping alarm, fault, disablement, or test events.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.

2. Using the ◄ and ► keys navigate to the SET DATE AND TIME menu and press the ↵ key. The currently set date and time will be displayed (Figure 15).

3. Press the ◄ and ► keys to move the flashing cursor to the number to be edited, then press the ▲ and ▼ keys to set the chosen value.

4. Press the ↵ key to save the time and date and return to the main menu.



Figure 15 - Set Date and Time display

15.10 Viewing the Alarm Counter

The VIEW ALARM COUNT menu allows the user to view the total number of times the 6100 has entered the alarm state since the alarm counter was last reset.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.

2. Using the ◄ and ► keys navigate to the VIEW ALARM COUNT menu press the ↵ key to enter the view alarm counter display (Figure 16).

3. Press the ↵ key to return to the main menu.



Figure 16 - Example View Alarm Counter Display

15.11 Viewing the Fire Event Log

The VIEW FIRE EVENT LOG menu allows the user to view data about historic fire events.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.

2. Using the ◄ and ► keys navigate to the VIEW FIRE EVENT LOG menu and press the ↵ key.

3. The latest fire is displayed first, as shown in Figure 17. If there are no fires in the log the 6100 will show the screen illustrated in Figure 18 and issue an error tone.

4. Use the ◄ and ► keys to view the previous or next event.

5. Press the ↵ key to exit this menu and return to the main menu.



Figure 17 - Illustration of View Fire Event Log display



Figure 18 - No Fire Events display

15.12 Viewing the General Event Log

The VIEW GENERAL EVENT LOG menu allows the user to view any historic non-fire events.

1. Enter the user code supplied with the system and press the ↵ key to access the menus.

2. Using the ◄ and ► keys navigate to the VIEW GENERAL EVENT LOG menu and press the ↵ key.

3. The latest event is displayed first, as shown in Figure 19 If there are no events in the log the 6100 will show the screen illustrated in Figure 20 and issue an error tone.

4. Use the ◄ and ► keys to view the previous or next event.

5. Press the ↵ key to exit this menu and return to the main menu.



Figure 19 - Illustration of View General Event Log display

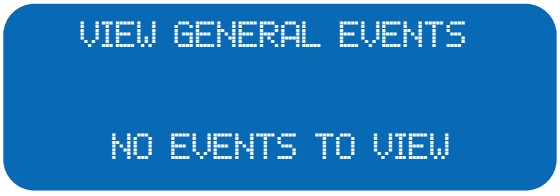


Figure 20 - No General Events display

15.13 Exiting the Menus

The EXIT MENU operation allows the user to exit from the menu and save any changes that may have been made.

1. Using the ◄ and ► keys navigate to the EXIT MENU menu and press the ↵ key.

2. If no changes have been made the 6100 will return to the system status display. If changes have been made, then the save changes screen (Figure 21) will be displayed. Using the ▲ and ▼keys select whether to save changes.

3. Press the ↵ key to accept and return to the status display screen.



Figure 21 - Save Changes display

16 6100 Fire Brigade Panel Operation (Australian Markets)

If the 6100 is equipped with the optional Fire Brigade Panel (FBP) controller, illustrated in Figure 22.

The FBP controls are enabled by use of a special key.

16.1 Enable Key

Operation of FBP controls is inhibited until the key is inserted into the key-switch and rotated clockwise by 90 degrees. Confirmation of this is given by illumination of the 'OPERATED' indicator and audible feedback from the internal buzzer.

Once activated all button controls (detailed below) are available.

If programmed to do so the LCD on the 6100 will turn off upon activation of the FBP controller.

16.2 Silence Buzzer Button

Momentary pressing of the SILENCE BUZZER button allows the user to silence the audible indication (internal buzzer) of the 6100.

16.3 Silence Alarms Button

Momentary pressing of the SILENCE ALARMS button allows the user to silence any active alarm outputs. Subsequent presses of the SILENCE ALARMS button toggles between re-sounding and silencing any currently active alarms.

16.4 Reset Button

Momentary pressing of the RESET button allows the user to reset the panel following a fire condition. A panel reset will only occur following a silence of the alarm outputs and should only be reset after the cause of the alarm has been determined (and entered in the fire alarm logbook).

16.5 Disable Button

Momentary pressing of the DISABLE button allows the user to disable any zones that are currently in a fire condition. A zone disablement is only permitted following a silence of the alarm outputs.

Following a panel reset the zones will require normalising using the panel menus (refer to Section 15.2).

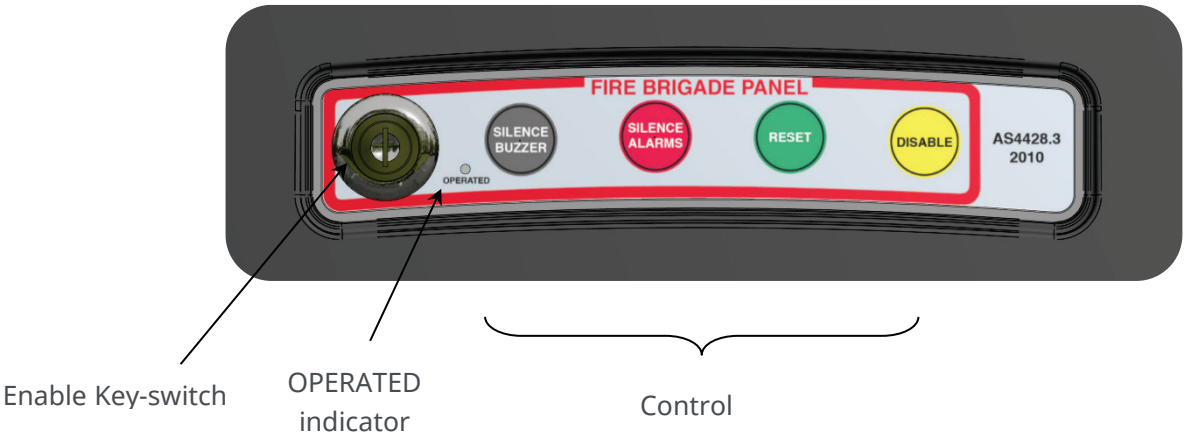


Figure 22 - Fire Brigade Panel Controller

17 Appendix 1 - 6100 System Set up Record

The engineer in charge of commissioning the system must complete this sheet. It is the only record of how the system has been configured and, as such, should be safely stored for future reference.

COMMISSIONING DETAILS

System Commissioned By	
Company	
Contact Details	
Authorised User Code	

CONNECTION	CONNECTED TO / PROGRAMMING	RESULT
Global Fault		
Global Fire		
Class Change		
Remote Alarm		
Fire link		
Auxiliary 24V		

Notes:

ZONE	ZONE DESCRIPTION / LOCATION	PROGRAMMING
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

ZONE	ZONE DESCRIPTION / LOCATION	PROGRAMMING
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

18 Appendix 2 - 6100 Event Log

The person appointed in charge of the fire alarm system should complete the relevant section of this sheet whenever an event (fire or fault) occurs on the system.

Name of the person in charge of the fire alarm system

.....

Contact details of above person

.....

Contact details of maintenance person / company

.....

.....

.....

.....

6100 Fire Alarm System Event Log

DATE	TIME	ZONE	DETAILS	ACTION REQUIRED	COMPLETED	NAME

DATE	TIME	ZONE	DETAILS	ACTION REQUIRED	COMPLETED	NAME

DATE	TIME	ZONE	DETAILS	ACTION REQUIRED	COMPLETED	NAME

19 Appendix 3 – 6100 Operation Quick Reference Guide

19.1 Entering Access Level 2

Using the keypad enter the user code (supplied with the control panel's documentation).

19.2 Returning to Access Level 1

Press the ↵ key at the EXIT MENU option.

19.3 Muting the Internal Buzzer and accepting Current Faults

From access level 2 press Mute Buzzer.

19.4 Sounding the Alarms

From access level 2 press Sound Alarms.

19.5 Silencing the Alarms

From access level 2 press Silence Alarms. A further activation will re-sound the alarms.

19.6 Resetting the 6100



Determine the cause of the alarm before resetting the panel

Ensure the cause of the alarm has been removed, and any Manual Call Points locally reset.

From access level 2 press Silence Alarms then press Reset Panel.

19.7 Testing the Indicators and Internal Buzzer

From access level 2 navigate to the TEST INDICATIONS menu then press ↵ the 6100 will perform

a full indicator test. Do not press any buttons while the test is in progress.

19.8 Setting the Date and Time

From access level 2 navigate to the SET DATE AND TIME menu then press ↵**.** Enter the time and date in 24-hour format.

20 Conformity

CE 2797	UKCA 0086
12	21
Protec Fire Detection PLC, Protec House, Churchill Way, Nelson, Lancashire, BB9 6RT, United Kingdom	
PFD-CPR-0055	PFD-UKCA-0055
BS EN 54-2:1997+A1:2006 BS EN 54-4:1997 + A1 + A2:2006 Control / Indicating and Power Supply equipment for fire detection and fire alarm systems for buildings **6100 Fire Alarm Control Panel** **Options with requirements:** 7.8 Output to fire alarm devices 7.9.1 Output to fire alarm routing equipment 7.11 Delays to outputs 7.12.3 Dependencies on more than one alarm signal (Type C) 7.13 Alarm counter 8.3 Fault signals from points 10 Test condition **Control & Indicating:** Performance under fire conditions: Pass Response delay (response time to fire): Pass Operational reliability: Pass Durability of operational reliability, Temperature resistance: Pass Durability of operational reliability, Vibration resistance: Pass Durability of operational reliability, Electrical stability: Pass Durability of operational reliability, Humidity resistance: Pass **Power supply:** Performance of power supply: Pass Operational reliability: Pass Durability of operational reliability, Temperature resistance: Pass Durability of operational reliability, Vibration resistance: Pass Durability of operational reliability, Electrical stability: Pass Durability of operational reliability, Humidity resistance: Pass	

UKCA This equipment has been manufactured in conformance with the requirements of all applicable UK council directives and regulations.

CE This equipment has been manufactured in conformance with the requirements of all applicable EU council directives and regulations.

Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive). To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.

The policy of Protec Fire Detection PLC is one of continuous improvement. As such we reserve the right to make changes to product specifications at any time and without prior notice. Errors and omissions excepted.

21 6100 Technical Specification

Environmental Specification

Operating Temperature	0 to 40 °C
Humidity Limit	95% RH (no condensation, or icing)
Ingress Protection (IP)	Meets IP30 if mounted in a dry position that does not exceed the temperature and humidity limits given. Do not position in areas subject to direct sunlight.
Mounting	3 points surface mount or flush Unit must be installed at a height no greater than 2 meters above the floor
Operating Altitude	<2,000 meters above sea level (unless otherwise specified by manufacturer)
Installation Environment	Indoor use only; avoid direct sunlight; surface or flush mount
Pollution Degree	2 (Indoor use only; non-conductive environment with occasional condensation)
Dimensions (mm)	228 (W) x 345 (H) x 111 (D)
Product Weight	1.5 kg (excluding batteries)

Power Supply Specification

Rated Voltage	100 to 240 V ac rms
Rated Frequency	50 to 60 Hz
Rated Current	600 mA rms
Maximum Inrush Current	20 A at 240 V from cold
Maximum Quiescent Load, Imax_a	647mA (22 mA panel, 200 mA loop, 150 mA aux. 24 V, 275 mA battery charge) 372 mA (22 mA panel, 200 mA loop, 150 mA aux. 24 V)
Maximum Alarm Load, Imax_b	1026 mA (56 mA panel, 600 mA loop, 200 mA alarm, 150 mA aux. 24 V, 20 mA fire-link). Batteries are not charged during an alarm condition
Minimum Load, Imin, panel only	22 mA (panel normal, 30 seconds after a mains failure) 56 mA (panel in alarm, 30 seconds after a mains failure)
Mains Input Fuse	1.6 A time delay (not user or engineer replaceable)
Output Voltage	24 - 29 V dc with mains present, 17 - 29 V dc on batteries
Output Ripple Voltage	400 mV maximum (peak to peak) at full output load

Battery Type	YUCEL Y3.2-12 (UL File Number MH28018) 2 × 12 V 3.2 Ah Valve Regulated Lead Acid (VRLA) batteries **Alternative batteries must be certified under UL Guide Number BAZR2 and compliant with UL 1989**
Battery Charge Voltage	27.3 V at 20 °C. Temperature compensated at – 40 mV/°C. Protected by 1.6 A self-resetting thermal fuse
Battery Charge Current	250 mA (± 25 mA)
Battery Test Load	47Ω (internal to the 6100)
Battery Over Voltage Fault Level	28.5V dc
Battery Under Voltage Fault Level	22 V dc
Battery Low Voltage Cut-off Level	18.5 V dc Battery Voltage (6100 turns off)
Battery Monitoring	Charger dip, battery load and internal impedance
Maximum Battery Resistance (Ri)	2 Ω (battery internal resistance + lead and connection resistances)
Standby Time (typical)	24 Hours, assuming 100 mA quiescent current then 700 mA in-alarm current for 30 minutes. (Note that currents are additions of panel, alarm, loop, auxiliary 24 V and fire link). The exact standby time must be calculated and then verified by measurement
Low battery cut-off condition	Less than 150 µA (6100 is turned off)

Control Panel Specification

Loop Driver Output Capability	600 mA average, 1.2 A peak
Auxiliary 24 V Output	150 mA maximum (limited by monitored, self-resetting thermal fuse). Any overload must be completely removed to clear a fault condition
Auxiliary 24 V Fault Thresholds	An ‘Aux Supply Fault’ is generated when the voltage on the Aux. 24 V output drops to 75% of the panel running voltage 100mA maximum current per output, monitored for open and short circuit faults. A 10kΩ ¼ W (± 5%) end of line resistor is required on each alarm output

Conventional Alarm Outputs	The alarm outputs can be connected in parallel to achieve a single alarm output with 200mA drive capability, in which case the end of line resistor must change to a 4.7kΩ ¼ W (± 5%) **All devices connected to the alarm outputs must be polarised and suppressed.**
Conventional Alarm Output End of Line Fault thresholds	The alarm outputs are monitored as a pair. An alarm fault is generated if the measured resistance (both alarm circuits in parallel) is above 7.5kΩ or below 2.5kΩ
Remote Alarm and Class Change Inputs	50Ω or less to activate
Fire and Fault Outputs	Volt free changeover contacts rated at a maximum of 1A 24V dc
Fire Link Output	Monitored for open and short circuit faults. Requires Protec end of line module (see appendix 1) if used to signal to a remote station, otherwise a 4.7kΩ ¼ W (± 5%) termination resistor must be connected locally in the 6100
Fire link Output Current When Operated	20 mA
Fire Link Output End of Line Fault thresholds	A 'Fire Link Fault' is generated if the measured resistance is above 7.5kΩ or below 2.5kΩ

6100 Control Panel – User Manual
20/03/2026 RDM0052 Issue 7

Protec Fire Detection PLC
Protec House, Churchill Way
Nelson, Lancashire
BB9 6RT
United Kingdom

Bosch Building Technologies GmbH
Energy and Building Solutions
Fritz-Schäffer-Straße 9,
81737 München, Germany

A Proud British Manufacturer

This document must be read in accordance with the Product Documentation Disclaimer available at protec.co.uk/terms.

All rights reserved © 2026
Protec Fire Detection PLC