Technical Manual

Honeywell

Touchpoint 1
Single Channel Gas Detector Controller

Safety

This manual supports software revision 1.07.

Ensure that this Technical Manual is read and understand **BEFORE** installing/operating/ maintaining the equipment.

Pay particular attention to **Warnings** and **Cautions**.

All document **Warnings** are listed here and repeated where appropriate at the start of the relevant chapter(s) of this Technical Manual. **Cautions** appear in the sections/sub-sections of the document where they apply.

WARNINGS

Touchpoint 1 is designed for installation and use in indoor safe area non-explosive atmospheres. Installation must be in accordance with the recognized standards of the appropriate authority in the country concerned.

Before carrying out any work ensure local regulations and site procedures are followed.

Access to the interior of the controller, when carrying out any work, must only be conducted by trained personnel. Switch off and isolate the power supply to the controller, or obtain a hot work permit, when access is required. Take any necessary precautions to prevent false alarms.

The detectors/sensors that the controller connects to may be used for gas detection in hazardous atmospheres. Refer to the individual detector/sensor instructions for their details.

Information

Honeywell Analytics can take no responsibility for installation and/or use of its equipment if this is not done in accordance with the appropriate issue and/or amendment of the Technical Manual.

The reader of this Technical Manual should ensure that it is appropriate in all details for the exact equipment to be installed and/or operated. If in doubt, contact Honeywell Analytics for advice.

The following types of notices are used throughout this Technical Manual:

WARNING

Identifies a hazardous or unsafe practice which could result in severe injury or death to personnel.

Caution   Identifies a hazardous or unsafe practice which could result in minor injury to personnel, or product or property damage.

Note   Identifies useful/additional information.

Every effort has been made to ensure the accuracy of our documents, however, Honeywell Analytics can assume no responsibility for any errors or omissions in our documents or their consequences.

Honeywell Analytics greatly appreciates being informed of any errors or omissions that may be found in the contents of any of our documents.

For information not covered in this document, or there is a requirement to send comments/ corrections about this document, please contact Honeywell Analytics.

Honeywell Analytics reserve the right to change or revise the information supplied in this document without notice and without obligation to notify any person or organization of such revision or change. If information is required that does not appear in this document, contact the local distributor/agent or Honeywell Analytics.

Contents

Introduction

Touchpoint 1 is a self-contained single channel gas detector controller for use in indoor safe areas. It is designed for use with the Honeywell Analytics range of Flammable, Toxic and Oxygen gas detectors — Sensepoint, Sensepoint Plus and Sensepoint Pro. Other types of detector may also be connected to the unit after verification of power requirements.

Two types of controller are available:

• mV version — for 3-wire mV flammable gas detectors, e.g. Sensepoint Flammable detector

• 4-20 mA version — for 2 and 3-wire 4-20 mA gas detectors, e.g. Sensepoint Toxic and oxygen detectors, Sensepoint Plus and Sensepoint Pro detectors

Touchpoint 1 is wall mounted and displays gas concentration, alarm, fault and status information via a backlit LCD and LEDs, together with a built in audible alarm. A keypad, located beneath a panel under the display, allows user interaction with the unit.
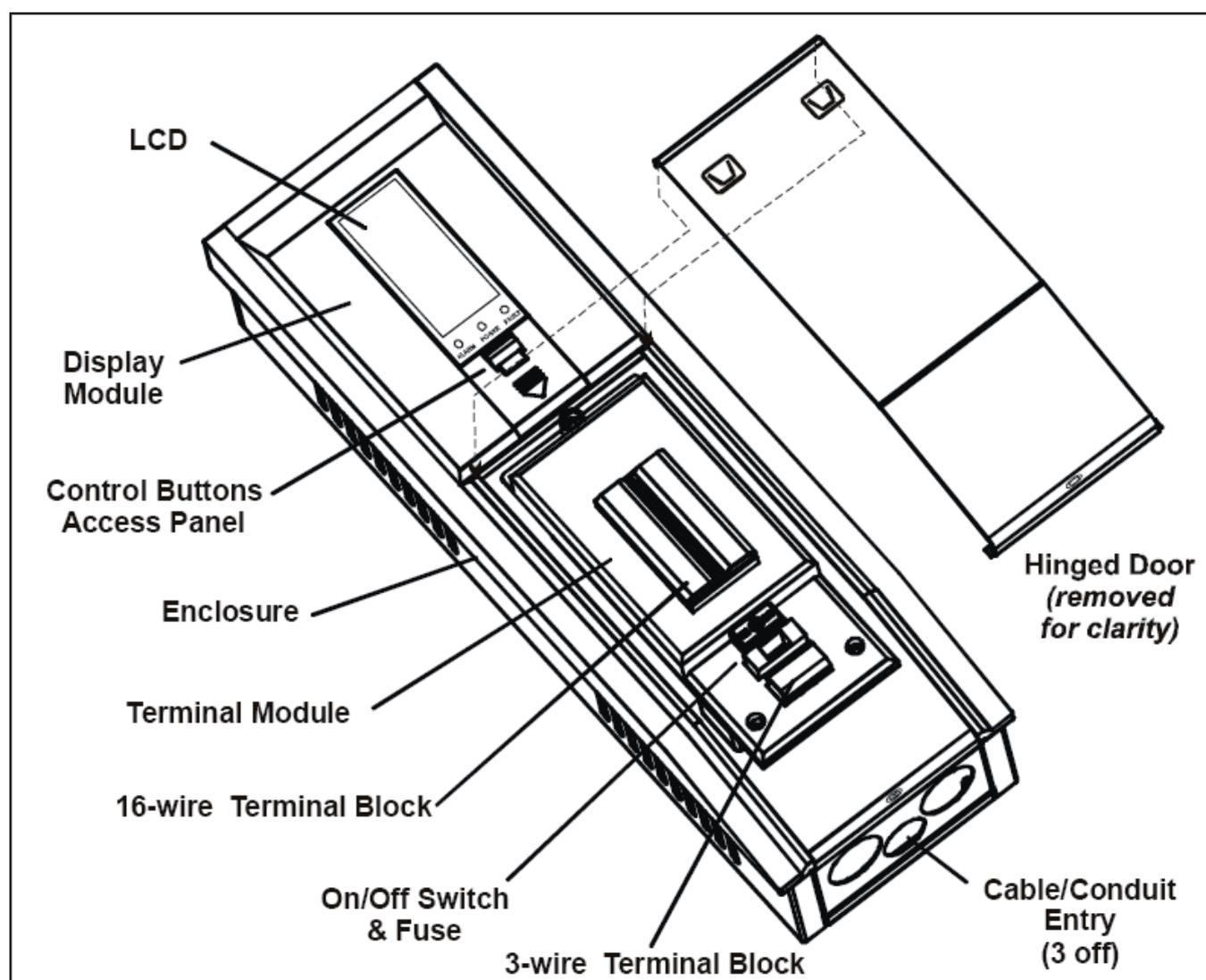
The controller is AC and/or DC powered. A gas detector is connected to the controller via a terminal module that also provide connections for relay and repeated 4-20 mA signals.

Enclosure

The rigid steel enclosure houses the **Display Module** and **Terminal Module**, and has integral mounting hooks on the rear for fitting to a supplied mounting plate.

The base of the box has 3 cable/conduit knock-out entries to enable wiring to the **Terminal Module**. A hinged door below the Display Module provides access to the **Terminal Module**. it may be latched open for hands-free access. For mechanical installation details see **page 9**.

Display Module

One of the following two types of **Display Module** is fitted to the controller:

- **mV module**
- **4-20 mA module**

The module allows easy set-up and configuration/calibration of the channel and attached gas detector.

It features an LCD screen, to display gas concentrations and ranges, settings, time, alarms and faults, and 4 buttons, three behind a **Controls Access Door**, that are used to navigate through an integral menu system to set-up the controller/detector settings and view an event record of controller status, e.g. alarms, etc.

Terminal Module

This module provides the connection point for power and signals, and features the following:

- **16-wire terminal block for the gas detector signals, relay outputs, repeated 4-20 mA signal and battery supply/backup power**
- **3-wire terminal block for AC power**
- **power on/off toggle switch and replaceable fuse**
- **3 relays for alarms and faults**

For electrical installation details see **page 13**.

General

This Technical Manual provides all the information necessary to install, commission, operate and maintain the controller in conjunction with the Honeywell Analytics range of gas detectors. It consists of the following chapters:

- **Introduction**
- **Installation, *see page 9***
- **Operation, *see page 25***
- **Commissioning, *see page 34*User Settings, *see page 38***
- **Maintenance, *see page 47***
- **Parts, *see page 51***
- **Specification, *see page 52***

Installation

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WARNINGS

Touchpoint 1 is designed for installation and use in indoor safe area non-explosive atmospheres. Installation must be in accordance with the recognized standards of the appropriate authority in the country concerned.

Before carrying out any work ensure local regulations and site procedures are followed.

Access to the interior of the controller, when carrying out any work, must only be conducted by trained personnel. Switch off and isolate the power supply to the controller, or obtain a hot work permit, when access is required. Take any necessary precautions to prevent false alarms.

The detectors/sensors that the controller connects to may be used for gas detection in hazardous atmospheres. Refer to the individual detector/sensor instructions for their details.

</div>

Caution   *When carrying out any work ensure that executive outputs from the controller are inhibited in order to prevent false alarms.*

This chapter provides the following information about installing **Touchpoint 1**:

- **where to locate the controller, its dimensions and how to mount it**
- **how to access the interior of the controller, see *page 12***
- **cabling and wiring, see *page 13* and *page 14***

Note   *It is recommended that a local fused power feed spur, with lockout switch, is used.*

Earth/Ground loops or poor screening are the most common cause of false alarms.

Proper installation, using appropriate earth techniques improves:

- **resistance to radio frequency interference (RFI), e.g. mobile phones and walkie-talkies**
- **resistance to *induced* signals from magnetic fields (EMC), e.g. high power cables and switch gear.**

Location

Touchpoint 1 can only be installed in indoor safe areas.

Refer to International codes of practice, e.g. National Electrical Code (NEC) or Canadian Electrical Code (CEC), where applicable, for guidance when installing.

Ensure that the maximum distance from the controller to the detector is within specification. Locate the bracket so that when the controller is fitted to it there is:

- *easy access to it*
- *a clear view of the controller's display (normally eye level), check for national/ local regulations regarding the viewing of displays*

- *enough space to open the enclosure's access panels, for cabling, maintenance, adjustments, etc.*
- *enough space for cable or conduit access to the bottom of the enclosure*

Follow the advice of:

- **experts having specialist knowledge of gas detection and control systems**
- **experts having knowledge of the process plant system and equipment involved**
- **safety and engineering personnel**

Always record the location of the detector that is connected to the controller.

Dimensions

Enclosure

90 mm (3.5")

Mounting Hooks

395 mm (15.6")

130 mm (5.1")

Note   *Diagram **not** to scale.*

Mounting Bracket

Mounting Hole (6 off)

Thickness - 5.25 mm (0.2") max.

228.0 mm (9.0")

240.0 mm (9.5")

198.0 mm (7.8")

78.0 mm (3.0")

12.0 mm (0.5")

100.0 mm (3.9")

Note   *Diagram **not** to scale.*
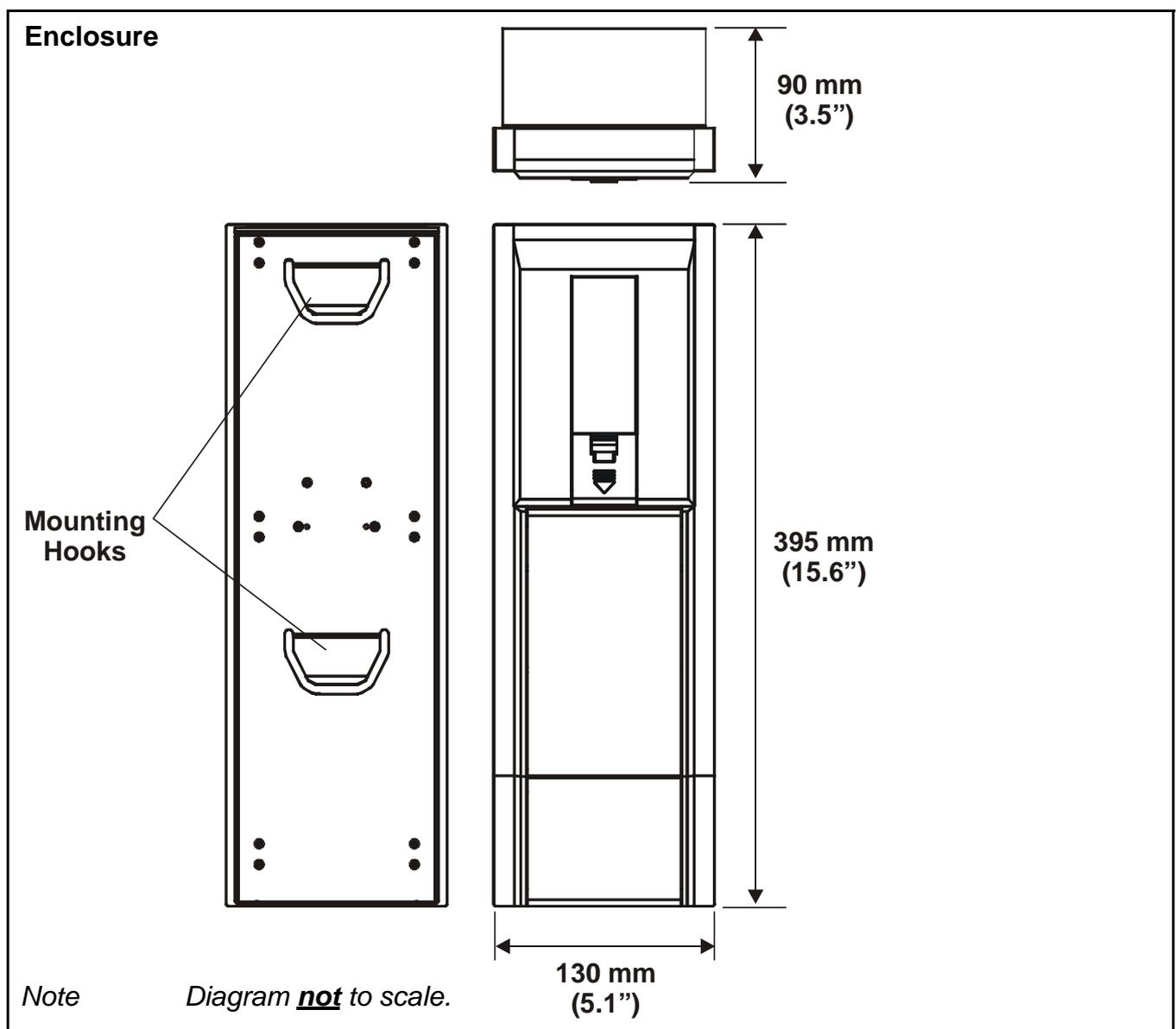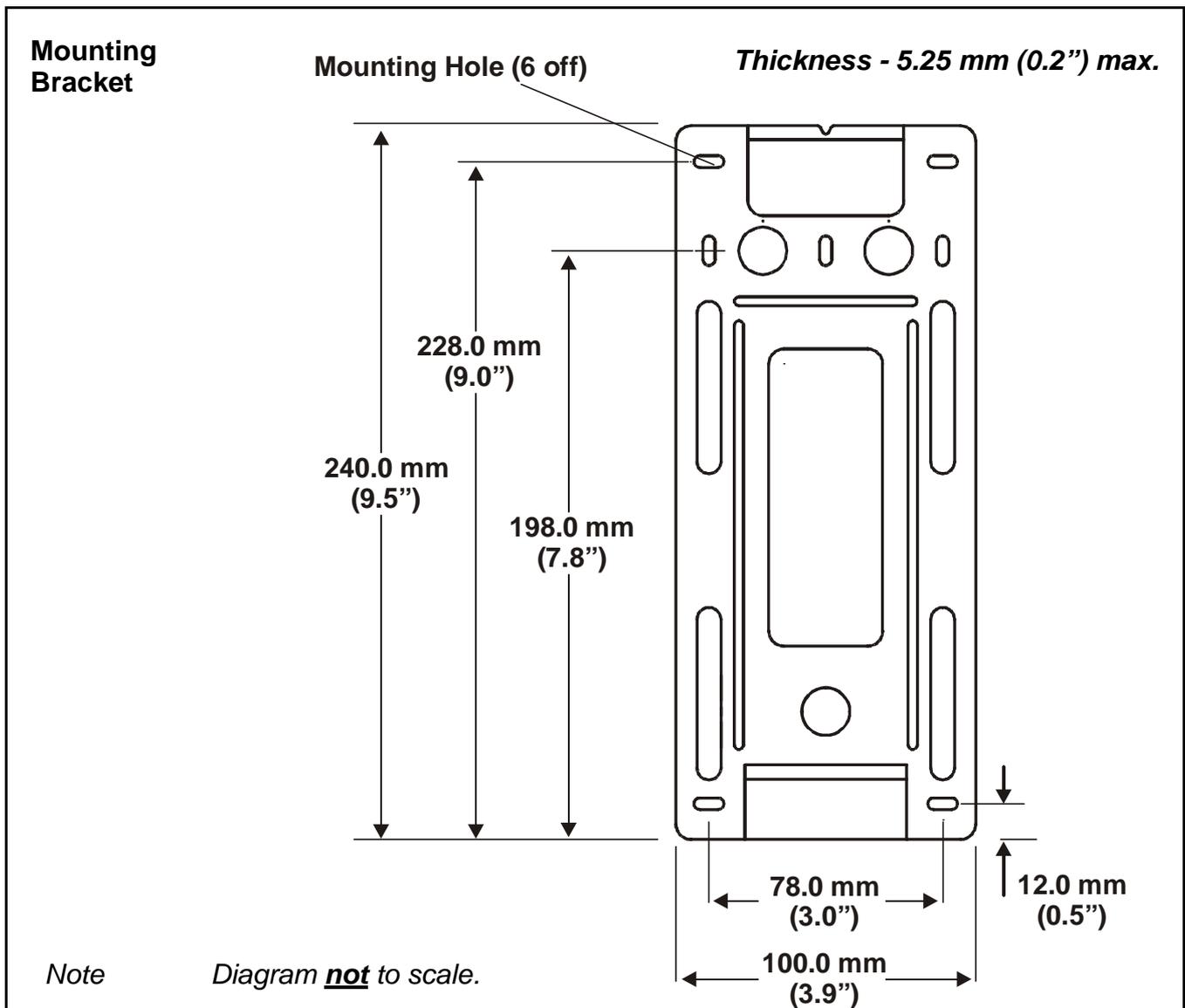
Mounting

Touchpoint 1 is supplied with a mounting bracket that fits onto a suitable wall. The controller is then hooked onto the bracket. The previous diagrams show dimensions for **Touchpoint 1** and the bracket.

Fit the bracket to a flat, firm surface, e.g. wall, suitable for the controller's size and weight. Recommended screw for mounting is M3.5 x 25 (or #8 x 1").

1   Mark out and drill *4 x M3* holes for the mounting bracket fixing screws.

Use the mounting bracket as a template for the position of the holes.

2   Fix the bracket securely to the wall.

Use appropriate fixings for the surface to which the bracket/controller is mounted.

3   With the bracket secure, locate and then lower *Touchpoint 1* onto it.

Ensure both top and bottom hooks on the back of the unit engage properly in the mounting bracket slots.

Controller Components

This procedure describes how to access the components inside the controller.

1   Loosen the single captive screw securing the *Terminal Module* access panel.

   The panel is located at the bottom of the enclosure.

2   Push down on the finger grips at the top of the access panel.
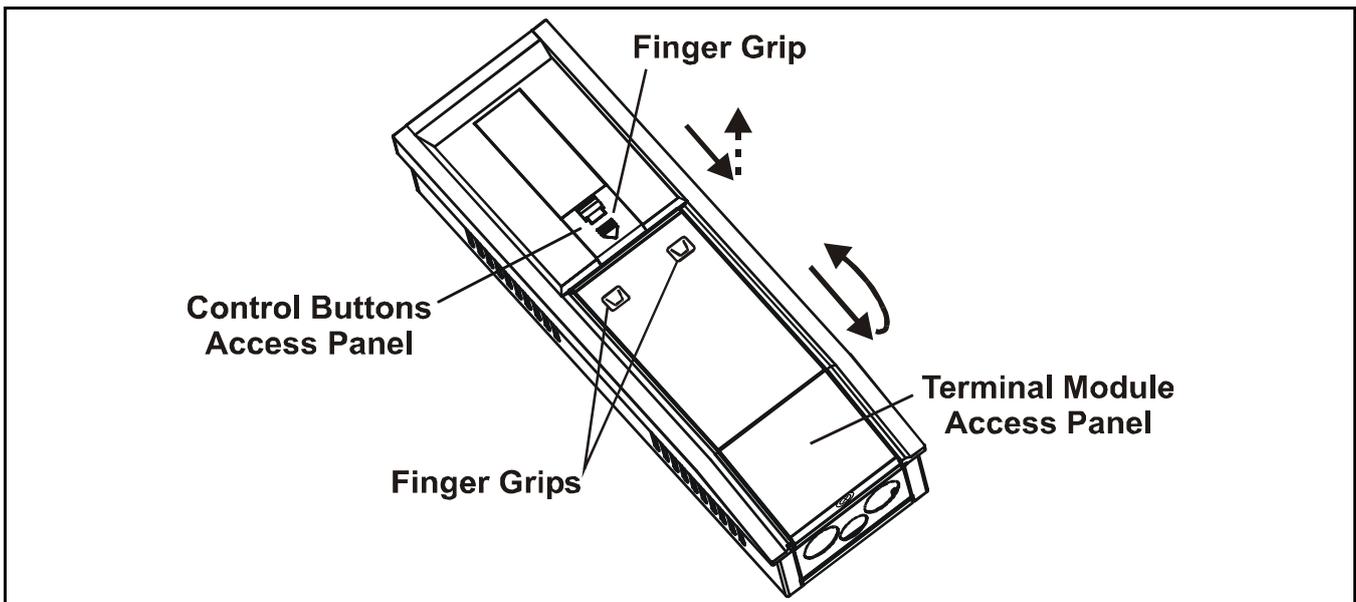
3   Slide the panel down to release it.

4   Pull the panel outward.

   Pull it until the door is approximately at a right-angle to the enclosure.

5   Push the panel inward toward the enclosure.

   This locks it in the open position and provides two handed access to the cable entries, etc.
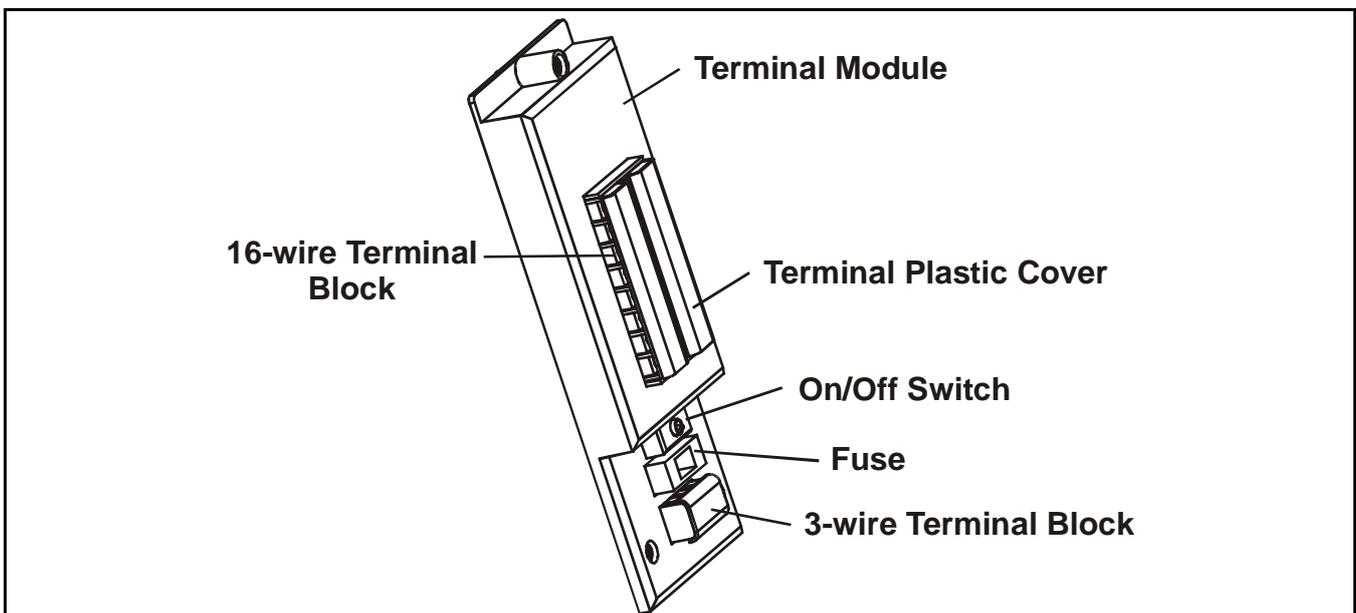
To access the connections on the terminal blocks, slide the plastic cover fitted over them off.

Ensure the plastic terminal covers are fitted once wiring is complete.

6   After carrying out the procedures subsequently described close and secure the Terminal Module Access Panel.

Caution   Always ensure the cover is replaced/refitted after work is complete.

Power

Touchpoint 1 has an auto-sensing mains power supply capable of operating between **85** and **265 Vac**, **50/60 Hz**. **Touchpoint 1** will also accept a **DC** input of **19** to **32 V**.

Honeywell Analytics recommend that the power to the controller is sourced from a locally fused circuit. This should have an isolation facility for maintenance purposes. The table on **page 17** and the terminal block diagram following it show the wiring for power to **Touchpoint 1**.

Maximum power requirement for worst case detector and relays activated is **30 Wac** and/or **15Wdc**.

Touchpoint 1 can accept signals from three types of detector. The table summarizes the types of detector compatible with the controller and the maximum power required.

Type of detector	Maximum Power	Recommended Detector
2-wire 4-20 mA sink	500 mA (18 to 32 Vdc)	Sensepoint Toxic and Oxygen
3-wire 4-20 mA source	500 mA (18 to 32 Vdc)	Sensepoint Plus and Sensepoint Pro
3-wire mV bridge	2.9-3.5 Vdc, 200 mA, 0.7 W (max)	Sensepoint Flammable

Cabling

Touchpoint1 is designed for use in safe areas. Electrical installation should follow national guidelines using suitably approved cable and glands **(M20 or 3/4"NPT)** or conduit **(3/4"NPT)**. Approved cable glands must accommodate a 360 degree termination of the EMI shield. Screened **0.5mm² (20AWG)** to **2.5mm² (14AWG)** cross sectional area cable should be used where appropriate to minimize unwanted effects from RF sources. **1.0mm² (16AWG)** is preferred. Solid or stranded cable may be used. Ensure the cable gland is installed correctly and fully tightened. The enclosure has three knockouts in the base sized for both **M20** and **3/4 in.** NPT fittings.

When running cabling to the unit consider conduit/cable weights to avoid any stress to the unit.

The subsequent diagrams show examples of how to earth-bond Steel Wired Armored (SWA) cable at enclosures. The same principles apply to conduit installations. These bonding techniques provide good RFI/EMC performance.

To calculate the maximum cable run length from the controller to the detector see *page 23*.

AC Supply

Neutral
Live
Earth

Star Ground/Earth Point

Gas Detector

+ve
Signal
-ve

Sensor Enclosure

Controller Enclosure

Cable screen attached to enclosures
via cable entry glands

To avoid ground loops ONLY bond controller
enclosure to ground/earth. DO NOT bond both
enclosures to ground/earth.
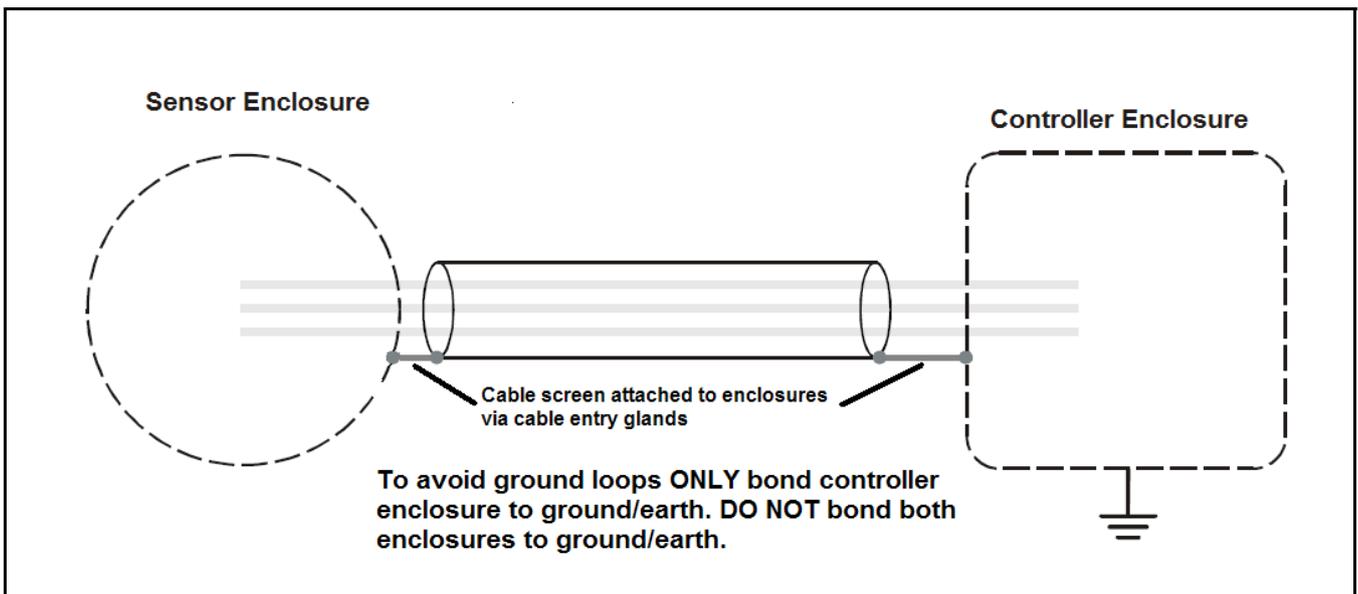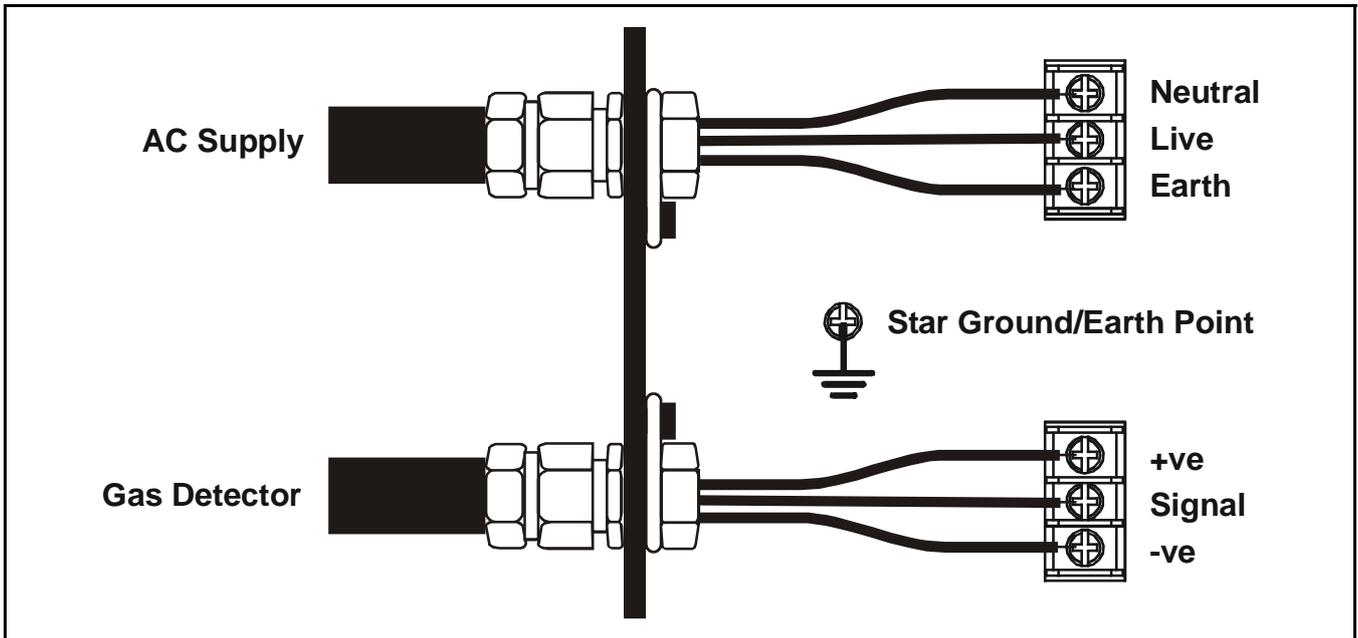
Wiring

Caution	*An earth point is provided inside the controller. Ensure that all detector screens/armor are grounded at a single earth star point at the controller or detector — BUT NOT BOTH — to prevent false alarms due to earth loops.*

All electrical wiring connections are made via the **Terminal Module**. Wire size from **0.5** to **2.5 mm^2** (**20 AWG** to **14 AWG**). **1.0 mm^2** is preferred.

Always use suitable wiring techniques and crimps when terminating cable cores, especially if running two cores to a single terminal.

Signal and DC power connections are made via a *16-wire* terminal block. Mains power is connected via a separate *3-wire* terminal block.

The diagram shows the *16-wire* terminal block layout with terminal identifiers.
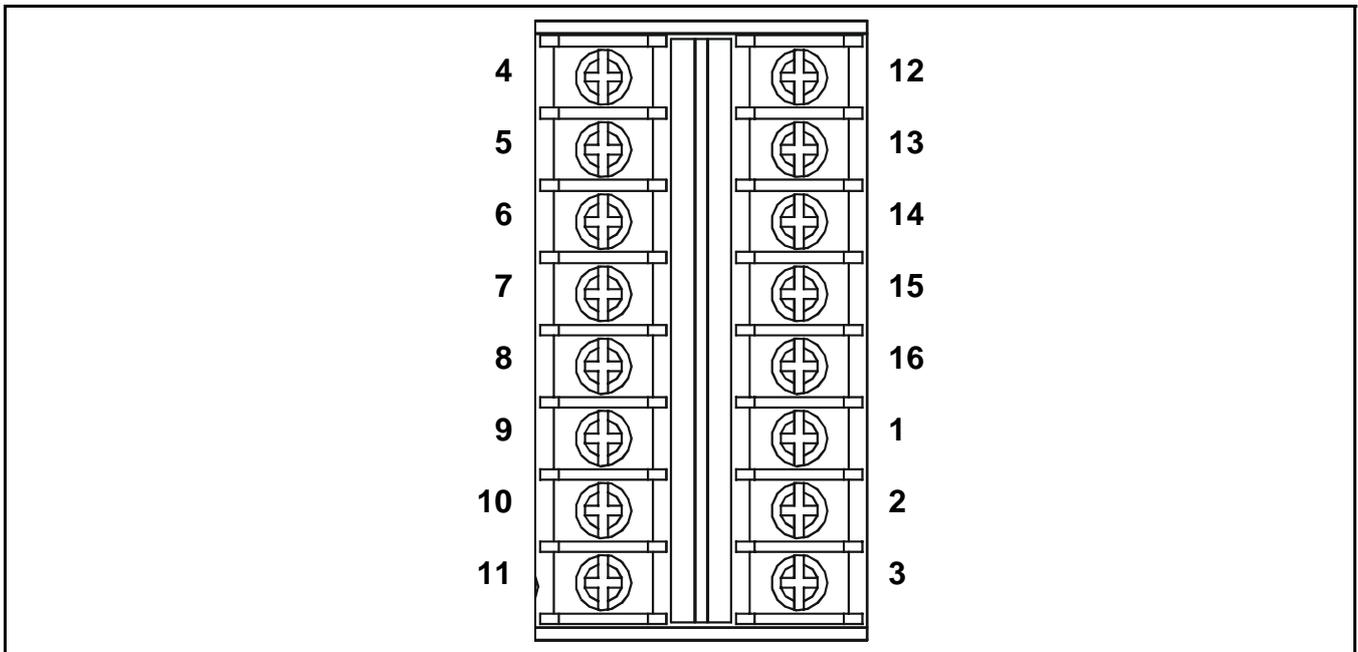
This table lists the terminals and their functions and specifications.

Id.	Name		Function	Input/ Output	Specification
1	Power supply	**+**	Gas detector connections	Output	4-20 mA input module: 2-wire, 4-20 mA loop powered, or, 3-wire, 4-20 mA source mV input module: 3-wire, mV bridge
2	Signal	**S**		Input	Variable signal
3	Power supply	**-**		Output	0 Vdc
4	N/O Contact	**1NO**			
5	Common	**1C**	Alarm Relay 1	Outputs	240 Vac, 3 A max.
6	N/C Contact	**1NC**			

Id.	Name		Function	Input/Output	Specification
7	N/O Contact	**FNO**			
8	Common	**FC**	Fault Relay	Outputs	240 Vac, 3 A max.
9	N/C Contact	**FNC**			
10	DC Power	**DC+**	DC supply/ battery back-up	Inputs	18 to 32 Vdc
11		**DC–**			
12	N/O Contact	**2NO**			
13	Common	**2C**	Alarm Relay 2	Outputs	240 Vac, 3 A max.
14	N/C Contact	**2NC**			
15	* Signal current output	**I+**	Isolated 4-20mA signal output	Output	0~22 mA
16		**I–**			

* The repeated signal output requires an external power supply connected as in the following diagram.
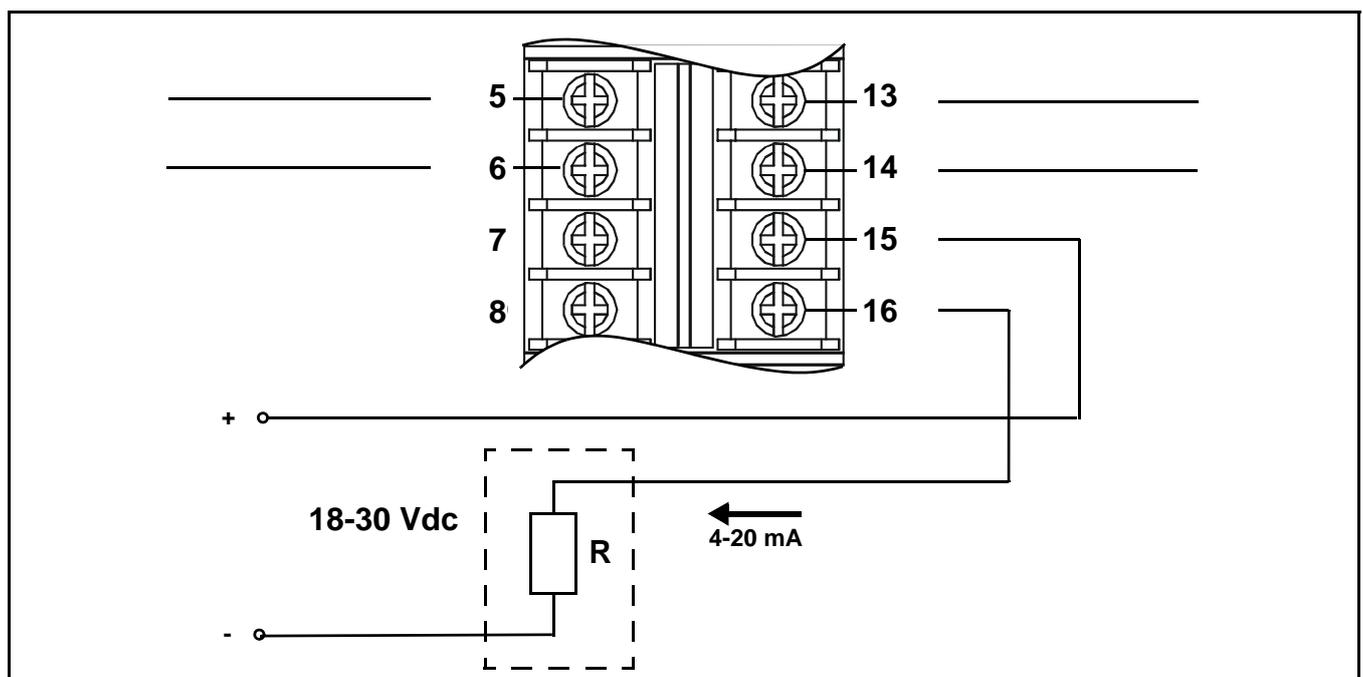
The following diagram shows the **3-wire** mains terminal block layout with terminal identifiers.
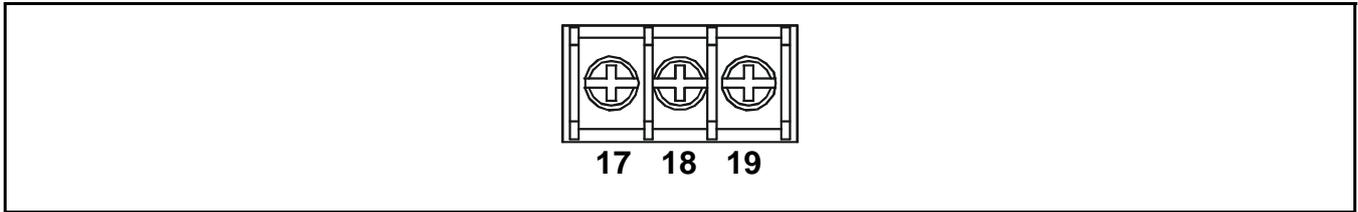
This table lists the power supply terminals and their functions and specification.

Id.	Name		Function	Input/Output	Specification
17	Live	**L**			85 to 265 Vac, 50/60 Hz, 30 Wac and/or 15Wdc max. power
18	Neutral	**N**	Power Supply	Inputs	
19	Earth/Ground	**E**			

Zareba Sensepoint Gas Detector Connections

Touchpoint 1 is specifically designed for use with the Sensepoint range of gas detectors. The subsequent diagrams show connection details for these units.

For further information about Sensepoint detectors refer to their individual technical manuals/data sheets.

Sensepoint Flammable Gas Detector

Sensitive Element (brown)

Earth Terminal

Center Tap (white)

Non-Sensitive Element (blue)

To avoid ground loops ONLY bond controller enclosure to ground/earth. DO NOT bond both enclosures to ground/earth.

Cable screen attached to controller enclosure via cable entry gland

Toxic/Oxygen
Gas Detector

Screen (braided wire)

Sleeve

Earth Terminal

Signal (blue)

To avoid ground loops ONLY bond controller enclosure to ground/earth. DO NOT bond both enclosures to ground/earth.

Cable screen attached to controller enclosure via cable entry gland

+ Supply (red)

12 13 14 15 16 1 2 3

ON OFF

17 18 19

4 5 6 7 8 9 10 11

Sensepoint Plus
Gas Detector

Cable screen attached to both enclosures via cable entry glands

To avoid ground loops ONLY bond controller enclosure to ground/earth. DO NOT bond both enclosures to ground/earth.

Sensepoint Pro
Gas Detector

To avoid ground loops ONLY bond controller enclosure to ground/earth. DO NOT bond both enclosures to ground/earth.

Cable screen attached to enclosures via cable entry glands

Generic Gas Detector Connections

The following diagrams show generic installation connections for other gas detectors.

3-Wire mV Detector
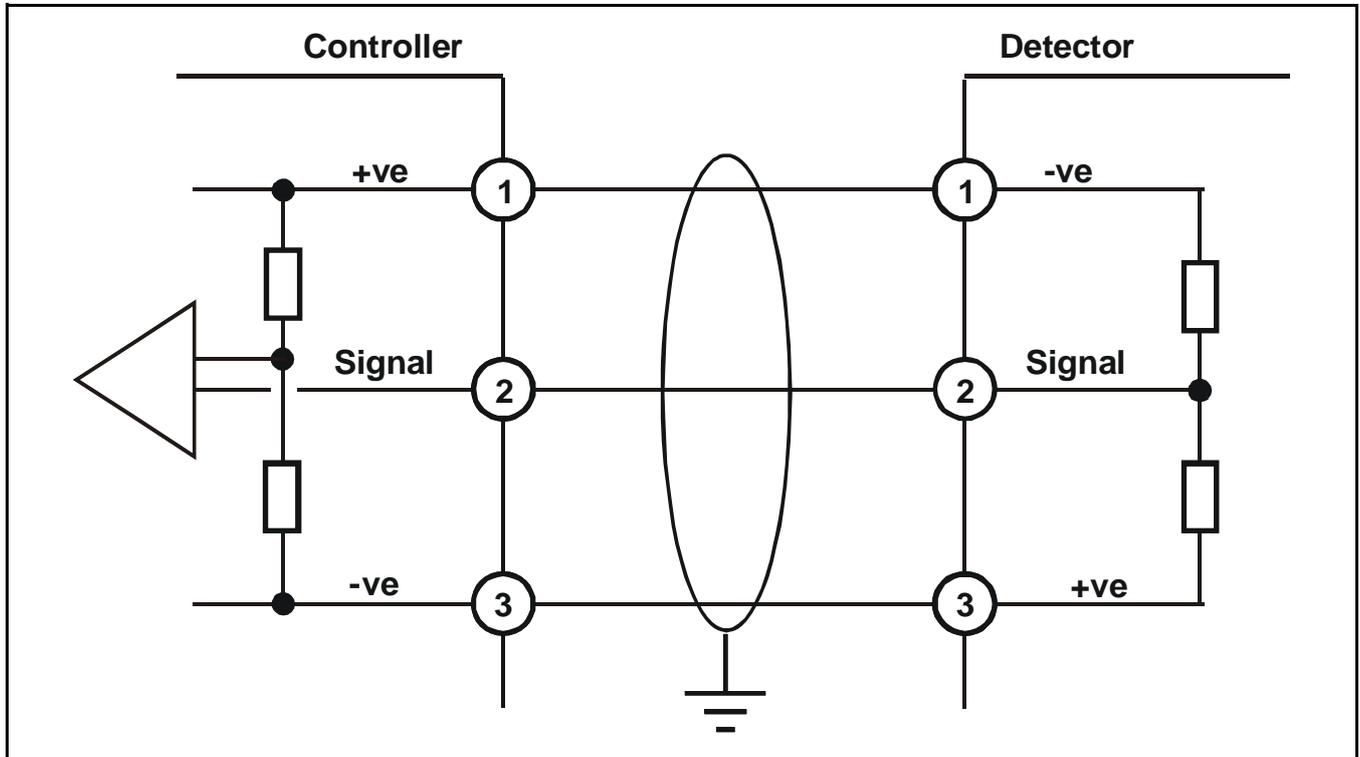
3-Wire 4-20 mA Detector
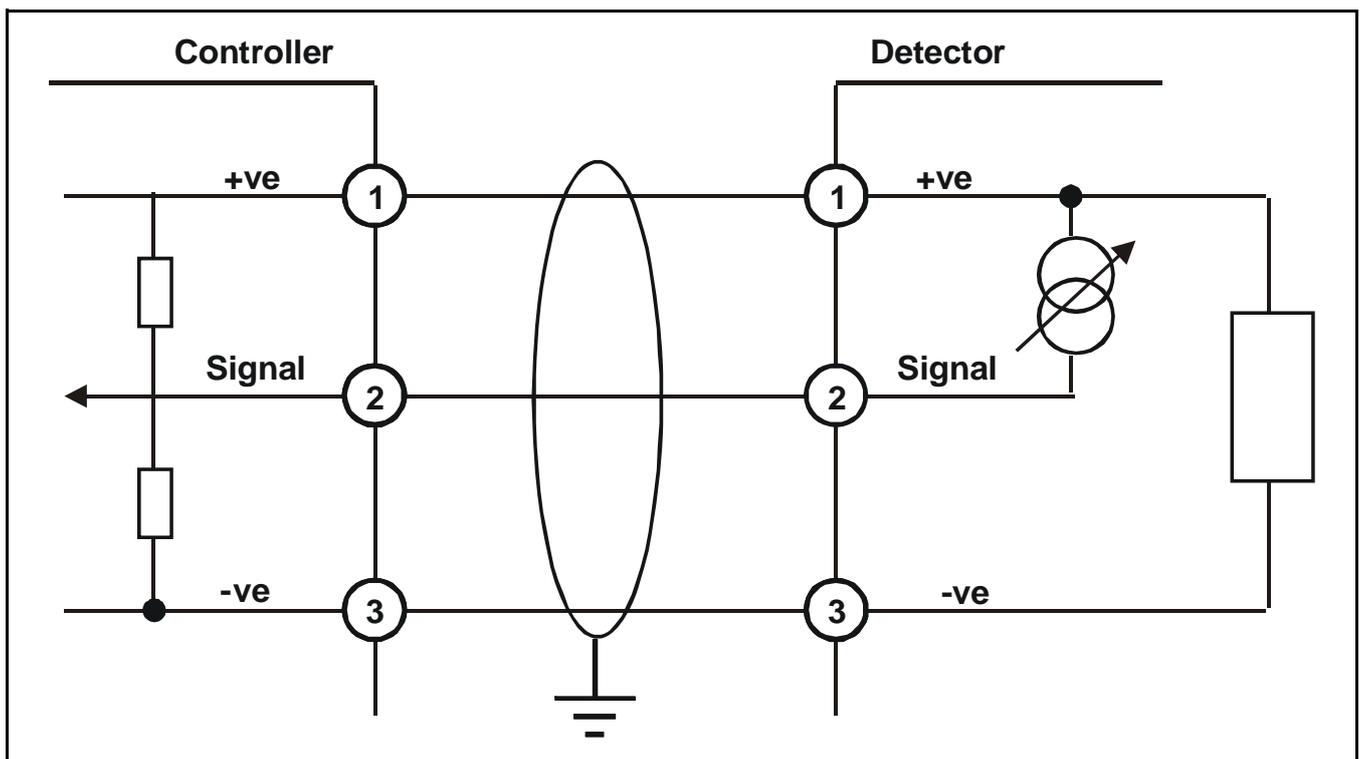
<u>*2-Wire 4-20 mA Detector*</u>
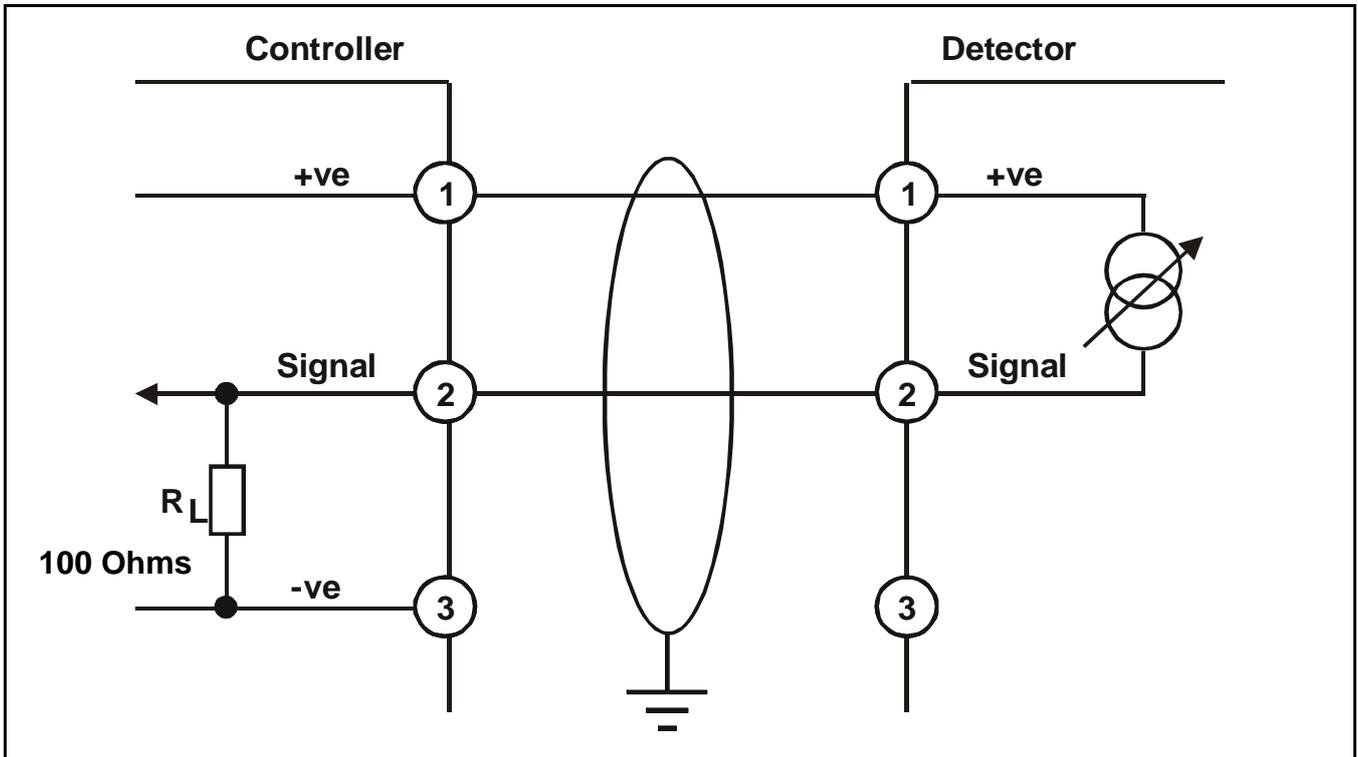
Maximum Cable Lengths

To calculate the maximum cable run length from power source to the detector refer to the following example diagram and formula.

$$R_{loop} = (V_{controller} - V_{detector\ min}) / I_{detector}$$

Maximum cable run length = R_{loop} / cable per metre resistance

where:

R_{loop} = maximum working cable run resistance

$V_{controller}$ = maximum available supply voltage at controller

$V_{detector\ min}$ = minimum voltage at which the connected sensor can operate (sensor dependent, see individual sensor technical manual/data sheets)

$I_{detector}$ = sensor maximum drawn current (sensor dependent, see individual sensor technical manual/data sheets)

Labels within the figure:

V_{supply}

Cable run

Detector

Controller

Signal

I_{max}

R_l

V_{sensor}

0 V
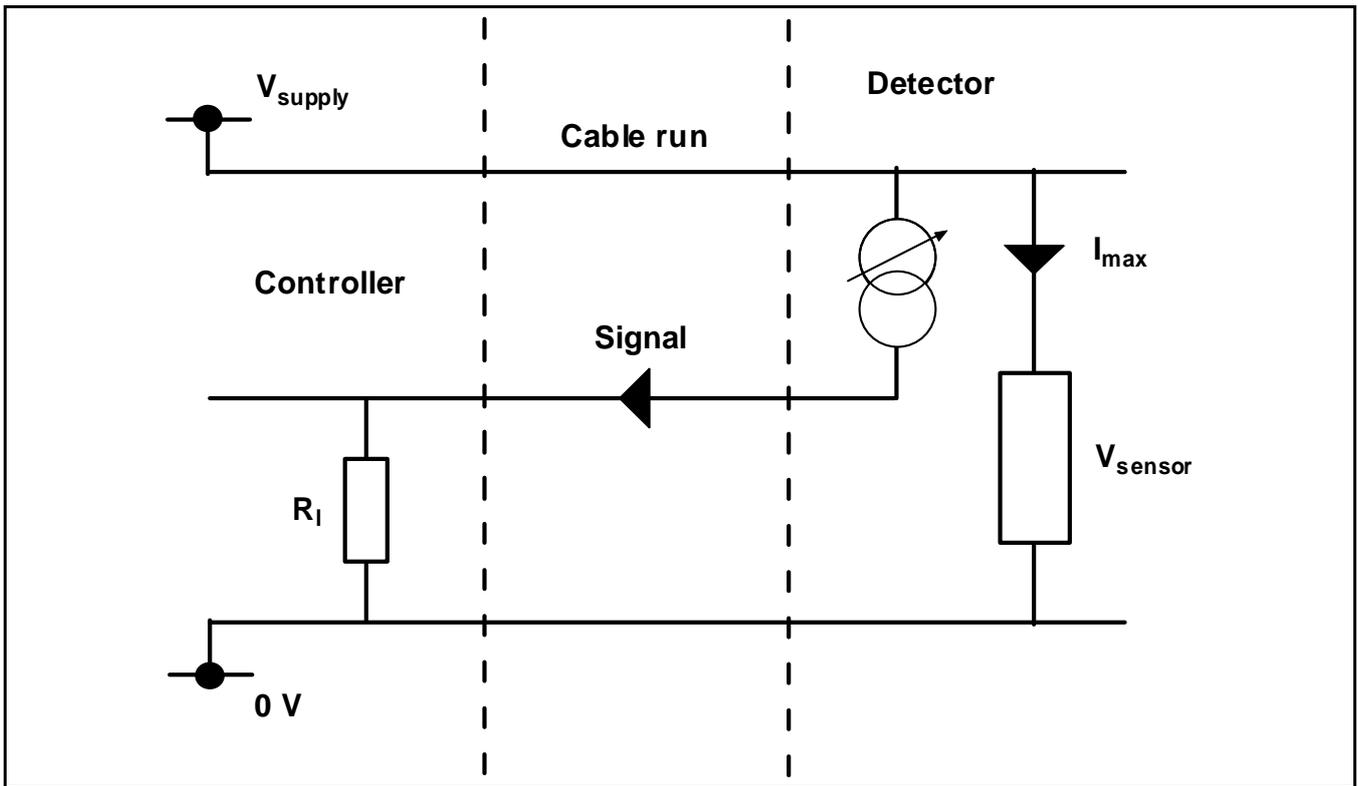
Operation

> ## *WARNING*
>
> ***Access to the interior of the controller, when carrying out any work, must only be conducted by trained personnel. Switch off and isolate the power supply to the controller, or obtain a hot work permit, when access is required. Take any necessary precautions to prevent false alarms.***

Once powered, *Touchpoint 1* displays gas concentration, alarm, fault and status information on its view screen. *Touchpoint 1* is controlled and configured interactively via a menu system and a set of control buttons.

This chapter provides operational information about the following:

- **powering-up**
- **information on the display, see *page 26***
- **control buttons, see *page 31***
- **menus, see *page 32***
- **dealing with alarms, see *page 33***

Powering Up

Touchpoint 1 is mains AC and/or DC powered. Power-up/power-down the controller using the *ON/OFF* switch located on the *Terminal Module*, as follows.

1   Access the interior of the controller.

*See **page 12**.*

On/Off Switch & Fuse
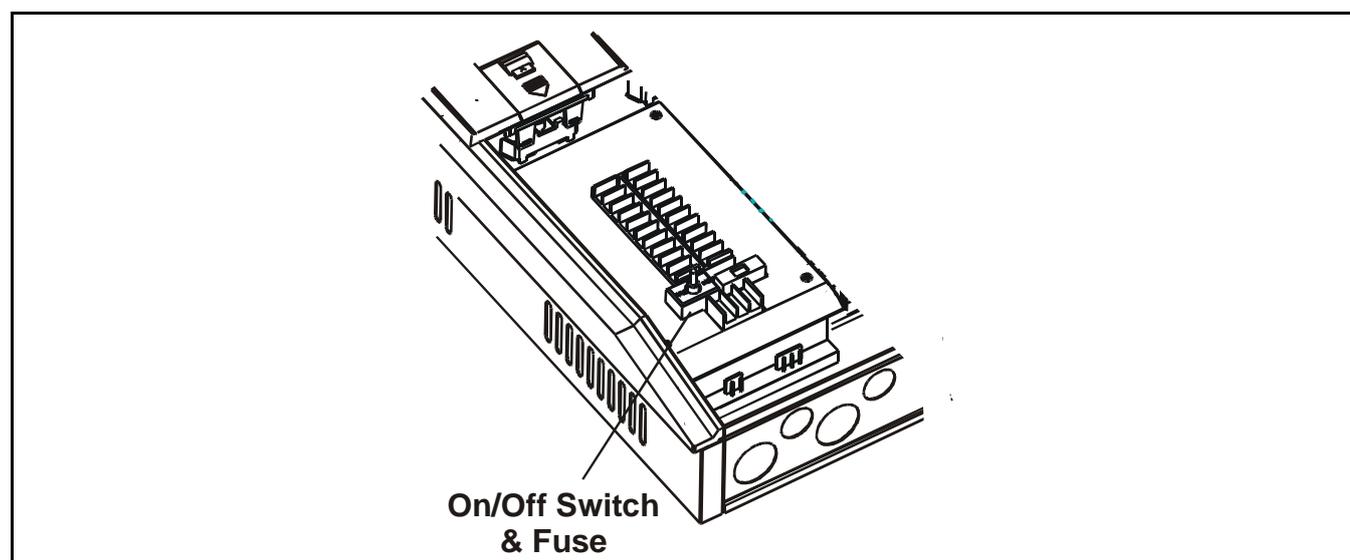
2   Switch on *Touchpoint 1*.

The controller is now in normal operation.

Note   After switching on or off always close the access panel.

Information on the Display

The controller features a user interface that, during normal operation, displays gas reading information, and also system fault and information messages.

It displays status and configuration information about the system via a menu options accessed and controlled via four buttons (3 are hidden) below the display, see **page 31** and **page 32**.

An audible alarm sounds whenever an abnormal event occurs, e.g. gas alarm, fault, etc.

3 LEDs below the screen indicate status information - power on (green), gas alarm (red) and fault (amber).

Caution   **Gas events occurring at the detector while in menu mode are not reported at the controller.**

At switch on all display icons/text/numbers/symbols on the display are lit for **1 second**.

They then show a warm-up count down from **C180** (**3** minutes) to **C000**.

To skip the warm-up sequence press the channel's **Cancel** button for **3** seconds.

The display screen shows the gas concentration (both graphically and numerically), range, units, alarm/fault status and configuration mode.

The diagram shows the display layout.

The meaning of the menu icons is explained on **page 32.**

Status Indications

Typical display indications and default relay status for a particular operational state are shown in the following examples.

Operational State	Status			4-20 mA Output Examples (for 200ppm range)
	Display	**Audible Alarm**	**Relays**	
Normal operation	200 ppm 000 08:40 ○ ● ○ ALARM POWER FAULT	Off	Alarm Relay 1 de-energized Alarm Relay 2 de-energized Fault relay energized (default) Alarm set point indicators (bars) flash	4mA
Alarm 1	200 ppm 52 A1 08:45 ☀ ● ○ ALARM POWER FAULT	On	Alarm Relay 1 energized Alarm Relay 2 de-energized Fault relay energized	8.16 mA
Key:	● LED on		○ LED off	
	☀ LED flashing		$\overset{\backslash|/}{\underset{/|\backslash}{A1}}$ Alarm 1, A1, flashing (and/or A2, and/or F may flash)	

Operational State	Status			4-20 mA Output Examples (for 200ppm range)
	Display	**Audible Alarm**	**Relays**	
Alarm 2	200 ppm 148 A1 A2 10:15 ALARM POWER FAULT	On	Alarm Relay 1 energized Alarm Relay 2 energized Fault relay energized	15.84 mA
Greater than full scale alarm	200 ppm FULL A1 A2 11:55 ALARM POWER FAULT	On	Alarm Relay 1 energized Alarm Relay 2 energized Fault relay energized	22 mA
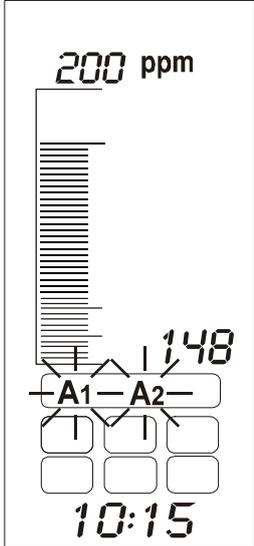
Key:	●	LED on	○	LED off
	☀	LED flashing	☀A1	Alarm 1, A1, flashing (and/or A2, and/or F may flash)

Operational State	Status			4-20 mA Output Examples (for 200ppm range)
	Display	Audible Alarm	Relays	
Deadband (negative drift <5%)	200 ppm -0 F 14:32 ○ ALARM ● POWER ☀ FAULT	On	Alarm Relay 1 de-energized Alarm Relay 2 de-energized Fault relay de-energized (default energized in normal operation)	3.2 - 4 mA
Fault (negative drift >5%)	200 ppm CAL F 14:50 ○ ALARM ● POWER ☀ FAULT	On	Alarm Relay 1 de-energized Alarm Relay 2 de-energized Fault relay de-energized	2.5 - 3.2 mA
Key:	● LED on		○ LED off	
	☀ LED flashing		$-A_1-$ Alarm 1, A_1, flashing (and/or A_2, and/or F may flash)	
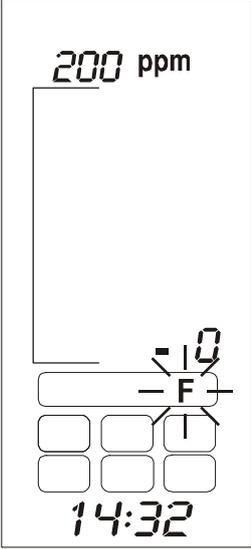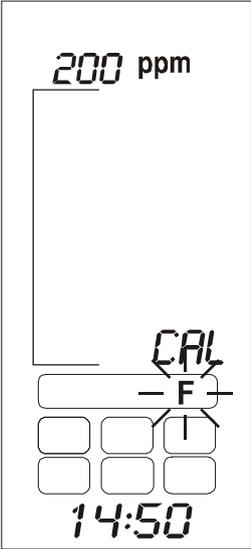
| Operational State | Status | | | 4-20 mA Output Examples (for 200ppm range) |
	Display	Audible Alarm	Relays	
Fault (open/short circuit)	200 ppm FFLt F 14:50 ALARM ○ POWER ● FAULT ☀	On	Alarm Relay 1 de-energized Alarm Relay 2 de-energized Fault relay de-energized	0 mA
Inhibit	200 ppm INH 16:20 ALARM ○ POWER ● FAULT ○	Off	Alarm Relay 1 de-energized Alarm Relay 2 de-energized Fault relay energized	1.5 - 2.5 mA
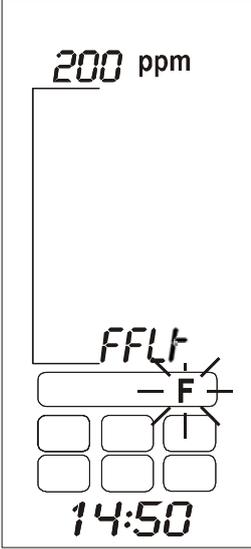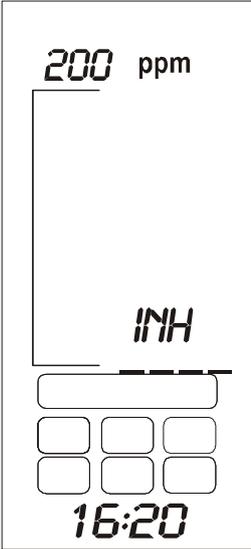
Key:	● LED on	○ LED off
	☀ LED flashing	A1 Alarm 1, A$_1$, flashing (and/or A$_2$, and/or F may flash)

Control Buttons

The control buttons are located beneath an access panel underneath the display screen. They are used to cancel alarms and access/navigate the menu system.

To access the buttons carry out the following procedure:

1   Access the controller interior.

See page 12.

*Note   The **Control Buttons Access Panel cannot be opened** until access is made.*

2   Push down on the finger grip located at the bottom of the Control Buttons Access panel.

*See the subsequent diagram and the diagram on **page 12**.*

3   Slide the panel down to release it.

The panel springs upward and is held in the open position. This provides access to the buttons.
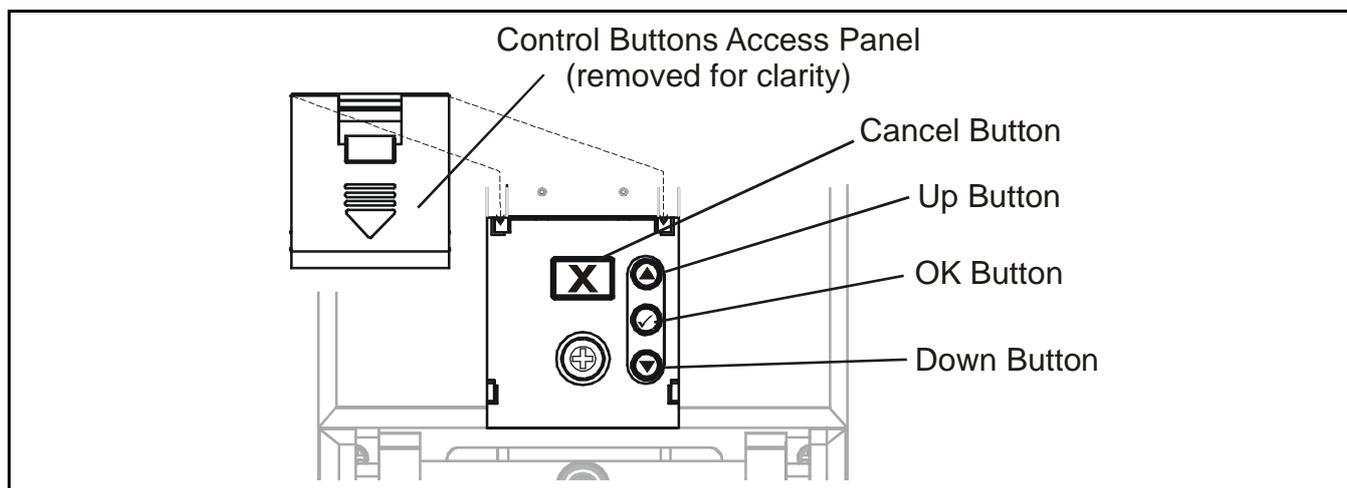
The four control buttons provide the following functions:

Button	Function	In Text
▲	Navigates up through menus and lists and is used to select (highlight) a menu option. Also used to increment values, e.g. range.	*Up*
▼	Navigates down through menus and lists and is used to select (highlight) a menu option. Also used to decrement values.	*Down*
✔	Enters a menu function. Saves a user setting	*OK*
X	Exits/cancels the current screen/option and returns to the previous screen/option. Acknowledges alarm/fault. With no gas event reported, press the button once to put the controller through a self-test routine, see **page 26**.	*Cancel*

The results of these actions are shown on the display.

Menus

Touchpoint 1 has **6** menus for configuring/controlling the unit. They are represented on the display by the icons shown in the following table lists them and explains what they are for.

Menu	Description	Function	More information
	Gas units/range settings	Change gas units (%v/v, %LEL, kppm, ppm) and range	See **page 38**
	Set zero and span	Calibrate the detector zero and span.	See **page 40**
	View Event History	Check the time/date of each alarm and power on/off	See **page 41**
	Set alarm levels and relay actions	Change the gas levels at which alarms occur. Set relays to: latching or non-latching, energized or de-energized, **O_2 only** — also rising or falling	See **page 42**
	Set time and date	Set the real-time clock on the controller	See **page 44**
	Choose power source	Set power source to **AC**, **DC** or both	See **page 45**

Using Menus

The controller uses a menu system for configuration/control that is displayed/navigated in the following ways.

Displaying Menus

■ **Press the ▲ and ▼ — *Up* and *Down* — control buttons at the same time.**

*000 is displayed in the gas reading position and the **Gas Units/Range** menu icon flashes.*

Navigating Menus

1 **Press either the ▲ or ▼ — *Up* or *Down* — control buttons.**

This steps through the menu choices. The associated icon flashes.

2 **Press the ✓ — *OK* — control button to enter the selected menu.**

Accepting Menu Choices

■ **Press the ✓ — *OK* — control button.**

This accepts the selection/value, or change, and moves to the next step.

Cancelling Operations/Choices

To cancel operations/choices:

■   **Press the** `X` **— Cancel — button.**

This returns to the previous menu level, setting, etc.

*Pressing **Cancel** again returns to normal operation.*

Note   *The system automatically returns to normal operation if no buttons are pressed for more than **30 minutes**.*

For details of the Common Module menu see page 37. For details of the Channel Module menu see page 43. To change user settings/configuration using the menus and control buttons see **page 38**.

Alarms

When any detector event occurs, e.g. **Alarm 1**, **Alarm 2** or **Fault**, the following occurs:

● **the status icon for the event flashes, e.g.** $\dot{A1}$ **— for Alarm 1**

● **the LED for the type of event flashes, e.g.** ● **— ALARM**

● **the audible alarm sounds**

To acknowledge/accept any alarm press the **Cancel** button.

This silences the audible alarm and at the same time the related icon and LED on the display change from flashing to steady.

For detailed operation of audible and visual alarms under latching/non latching relay configuration refer to page **page 42**.

Pressing the **Cancel** button when there are no alarms/faults tests the display and visual indicators, without operating the alarm relays.

Commissioning

WARNINGS

Touchpoint 1 is designed for installation and use in indoor safe area non-explosive atmospheres. Installation must be in accordance with the recognized standards of the appropriate authority in the country concerned.

Before carrying out any work ensure local regulations and site procedures are followed.

Access to the interior of the controller, when carrying out any work, must only be conducted by trained personnel. Switch off and isolate the power supply to the controller, or obtain a hot work permit, when access is required. Take any necessary precautions to prevent false alarms.

Caution   *Calibration of the gas detector and the controller is mandatory during commissioning to ensure their proper functioning.*

This chapter describes how to put the two versions of **Touchpoint 1** into service with the following different types of gas detectors:

- **3-wire mV bridge, see *page 34***
- **2-wire 4-20 mA sink, see *page 36***
- **3-wire 4-20 mA source, see *page 37***

After powering up the **Touchpoint 1** for the first time, the controller uses the default factory settings.

To customize these settings for new requirements see ***page 38***.

Note   *On the subsequent diagrams, ● = LED **ON**, ○ = LED **OFF***

3-wire mV Bridge

This procedure covers connection to gas detectors such as **Sensepoint Flammable**. Carry out the following procedure

1   **Check that all power and electrical connections to the controller, and electrical connections to the gas detector are correct.**

   *For gas detector access see its user manual. For detector to controller wiring details see **page 18**.*
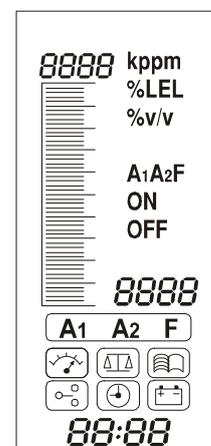
2   Apply power to the controller and switch it on.

*See **page 25**.*

*To skip the warm up sequence press the **Cancel** button for 3 seconds.*

3   Check for a minimum voltage of 2.9 Vdc at the detector.

*If incorrect check for constant current supply of **200 mA +/-2 mA**. For detectors other than **Sensepoint Flammable** refer to their operating instructions. .*

4   Close the detector enclosure.

For gas detector details see its user manual.

5   Press the *Up/Down* buttons on the controller simultaneously.

*This enters the configuration mode and the **Set Gas Units and Range** menu icon is displayed and flashes.*

6   Select the *Calibration Menu* icon ⟨⟨⟩⟨⟩⟩

*Use the **Up/Down** buttons.*

7   Press the *OK* button.

*The top left of the display reads **C0** indicating the set zero menu mode.The display shows the gas reading current **real** zero value.*

Ensure the sensor is in clean air.

8   Adjust the reading to zero.

*Use the **Up/Down** buttons.*

9   Press *OK*.

*The display shows a **10 second** countdown.*

*When the countdown finishes the display shows **GOOD** if set zero has succeeded. The display then changes to the set span menu mode indicated by **CS** in the top left of the display.*

*If set zero fails the display shows **FAIL** and returns to the start of the set zero mode.*

10   Fit a flow adapter to the gas detector sensor.

First remove any accessory fitted to the sensor, e.g. weather protection.

11   Apply calibration (*span*) gas to the detector.

*Adjust the gas flow rate to **0.3 l/min**.*
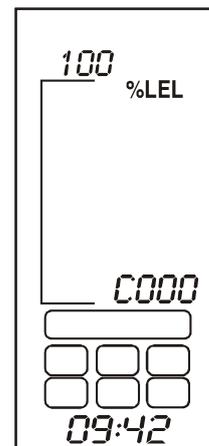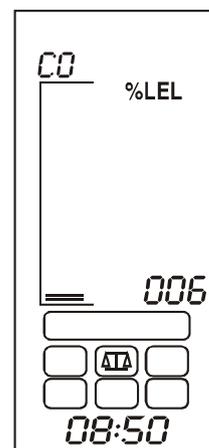
Note   *Honeywell Analytics recommend the use of half full-scale gas for calibration purposes (contact a distributor for the supply of calibration gas).*

The controller now displays the actual gas measurement at the gas detector.

12   **Adjust the reading to the actual concentration of the calibration gas applied to the sensor.**

*Use the **Up/Down** buttons.*

13   **Press the *OK* button.**

*The display shows a **10 second** countdown.*

*If the set span succeeds the display shows **GOOD**.*

*If the set span fails the display shows **FAIL** and returns to the beginning of the set span mode.*

After successfully setting the span the display returns to the menu selection mode.

14   **Switch off the calibration test gas and remove the flow adapter from the detector.**

15   **Refit any accessory to the detector.**

16   **Return *Touchpoint 1* to normal operation.**

*Press the **Cancel** button. Alternatively select a different menu option.*
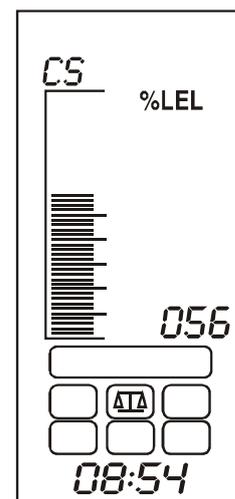
2-wire 4-20 mA Sink

This describes connection to gas detectors such as ***Sensepoint Toxic***.

1   **Set up the gas detector.**

*Refer to the **detector's user manual** for details describing how to set up the detector.*

2   **Check that all power and electrical connections to the controller, and electrical connections to the gas detector are correct.**

*For gas detector access see its user manual. For detector to controller wiring details see **page 19**.*

3   **Follow *step 2* on *page 35*.**

4   **Check for a minimum voltage of *16 Vdc* at the gas detector.**

*For detectors other than **Sensepoint Toxic/Oxygen** refer to their operating instructions.*

5   **Check that the *Touchpoint 1* display shows the correct gas units and range for the detector in use.**

*If not follow the procedure on **page 38** to change the gas units and range.*

6   **Follow *step 4* on *page 35*, to *step 16* on *page 36*.**

3-wire 4-20 mA Source

This covers connection to gas detectors such as **Sensepoint Plus** and **Sensepoint Pro**.

1   **Set up the gas detector.**

   *Refer to the **detector's user manual** for details describing how to set up the detector.*

2   **Check that all power and electrical connections to the controller, and electrical connections to the gas detector are correct.**

   *For gas detector access see its user manual. For detector to controller wiring details see **page 20** and **page 21**.*

3   **Follow *step 2* on *page 35*.**

4   **Check for a minimum voltage of *12 Vdc* at the gas detector.**

   *See the gas detector user manual. For detectors other than **Sensepoint Plus** and **Sensepoint Pro** refer to their operating instructions.*

5   **Check that the controller's display shows the correct gas units and range for the detector in use.**

   *If not follow the procedure on **page 38** to change the gas units and range.*

6   **Follow *step 4* on *page 35*, to *step 16* on *page 36*.**

User Settings

The controller is supplied pre-configured with factory defaults, see **page 45**.

These can be used if suitable, or customized by the user to suit site requirements.

This chapter explains how to:

- **set gas units and range, see** *page 38*
- **set zero and span, see** *page 40*
- **browse** *Touchpoint 1***'s event record, see** *page 41*
- **set alarm levels and relay actions, see** *page 42*
- **set the real-time clock, see** *page 44*
- **set the power source, see** *page 45*

Before performing any of the above actions refer to the procedures that explain how to use menus, see **page 32**.

The following table provides a summary of the configuration options available.

For detailed step-by-step instructions for each menu see the subsequent sections.

Gas Units and Range

WARNING

If the range is changed, the alarm set points also change.
Verify desired alarm set points.

This menu is the first one displayed when the menu system is accessed. It sets the units of gas measurement and the range.

1 **Press the *Up* and *Down* buttons simultaneously.**

This accesses the menu system and displays the menu icon, which flashes.

2 **Press *OK*.**

The current units and range are displayed.

3 **Press *Up* or *Down* to select a different unit of gas measurement.**
See the subsequent table.

4 **Press *OK* to accept the selected unit.**
The display now shows the current range.

5 **Press the *Up* or *Down* down buttons to select a different range.**
Default units and ranges are shown in this table.

Unit	kppm	ppm	%LEL	%v/v
Range	1.0 - 999.9	1.0 - 999.9 or 10 - 9999	10 - 100	1.0 - 100

Caution ***If the range is changed, the alarm level will also be changed.***
Set desired alarm levels per page 42.

Menu					
Units and Range	Select *kppm*, *ppm*, *%LEL* or *%v/v*	Change range value	Finished. Returns to *Configuration Menu*		
Calibration	Set *Zero* (C0). With zero gas at detector adjust value to zero. For O_2 only apply N_2 at *0.3 liter/min*	Wait for *10s* count down. If OK *GOOD* is displayed. If fail *FAIL* is displayed and return to set *Zero*	Set *Span* (CS). Apply cal. gas. When stable adjust value to cal. gas concentration	Wait for *10s* count down. If OK *GOOD* is displayed. If fail *FAIL* is displayed and return to set span	Finished. Returns to *Configuration Menu*
History	Select *A1*, *A2*, *F* for *ON/OFF*	Selected event shows with Year, Date, and Time.	Select next record. **X** to return to selection		
Alarms/ Relays	*A1* alarm level. Change to new value.	*O2 only* - select rising (*rISE*) or falling (*FALL*) alarm	Select *r 1-E* (energized) or *r 1-d* (de-energized)	Select *r 1-L* (latching) or *r 1-N* (non-latching)	Repeat for *A2* alarm level, energized and latching status — Repeat for *Fault* (energized status only)
Time/Date	Select year (*2000-2099*)	Select month (*1-12*)	Select day (*1-31*)	Select hour (*0-23*)	Select minutes (*0-59*) — Finished. Returns to *Configuration Menu*
Power Source	Select *dC-1* (AC), *dC-2* (AC&DC or *dC-3* (DC)	Finished. Returns to *Configuration Menu*			

6   When settings are complete press *OK*.

Returns to the menu selection screen.

7   Press *Cancel*.

Returns controller to normal operation.

Zero and Span ⟨△│△⟩

This menu is for calibrating controller measurements to the connected gas detector.

1   Access the menu system and select the ⟨△│△⟩ menu option.

Press Up or Down. The icon flashes.

2   Press OK.

*The top left of the display reads **CO** to indicate the set zero menu mode. The gas reading displays the current real zero value.*

*Note   Ensure the sensor is in clean air before carrying out the next step. For **oxygen** apply **nitrogen** to the sensor at **0.3 l/min**.*

3   When the gas reading is stable adjust the reading to zero.

*Use the **Up/Down** buttons.*

4   Press *OK* when the reading is zero.

*The display now shows a **10** second countdown.*

*When the countdown is complete the display shows **GOOD** if the zero has succeeded, and then changes to the span mode.*

*If the zero fails the display shows **FAIL** and return to the beginning of the set zero mode.*

*After successfully setting the zero, the display then changes to show **CS** in the top left to indicate the set span mode.*

*For O$_2$ only — fit a flow adapter to the gas detector sensor, see **step 5**, and apply **N$_2$** at **0.3 l/min**.*

5   Fit a flow adapter to the gas detector sensor.

First remove any accessory fitted to the sensor, e.g. weather protection.

6   Apply calibration (span) gas to the detector at a flow rate of 0.3 l/min.

Note   Honeywell Analytics recommend the use of half full-scale gas for calibration purposes (contact a distributor for the supply of calibration gas).

The gas reading on the controller display shows the measured reading from the detector

7   When the gas reading is stable adjust the reading to the actual concentration of the calibration gas being applied to the detector.

*Use the **Up/Down** buttons.*
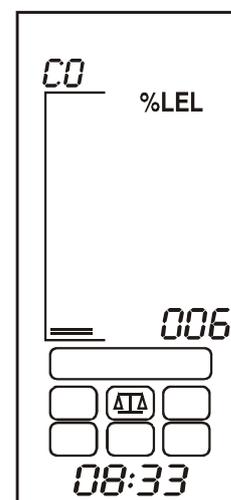
8   Press *OK.*

*The display then shows a **10** second countdown.*

*When the countdown is complete the display shows **GOOD** if the span has succeeded.*

*If the span fails the display shows **FAIL** and returns to the beginning of the span menu.*

9   Press *OK.*

The display returns to the menu selection screen.

10   Press *Cancel.*

Returns controller to normal operation.
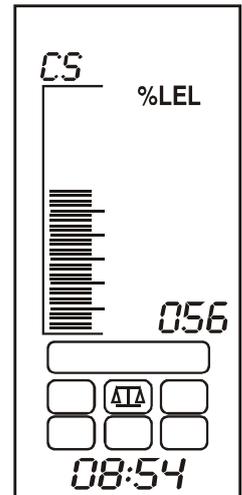
Event History

This menu is for the review the last **10** time and date action records for alarms, faults and controller Power On/Off events.

1   Access the menu system and select the [📖] menu option.

*Press **Up** or **Down**. The icon flashes.*

2   Press OK.

*The display shows a flashing **A1** to indicate **Alarm 1** event history is initially selected.*

3   Select from:

- *A1- Alarm 1 (default)*
- *A2- Alarm 2*
- *F- Fault*
- *On/Off- Power*

*Use the **Up/Down** buttons.*

4   Press OK to access the selected history.

***001** to **010** are shown on the display to indicate the position in the series of records.*

*For example if **A1** is selected by pressing **OK** the screen displays its **ON** record initially.*

- **ON — indicates time/date the alarm activated.**

*By pressing **Up/Down** the **OFF** record is then displayed.*

- **OFF — indicates the time/date when a latched alarm was accepted/reset, or the time/date a non-latched alarm automatically reset.**

***010** indicates the last (**10th**) record.*
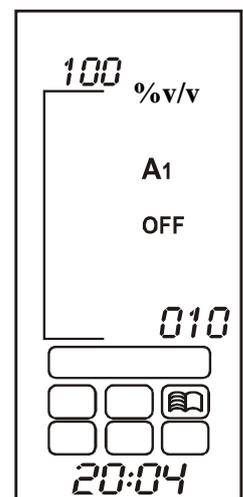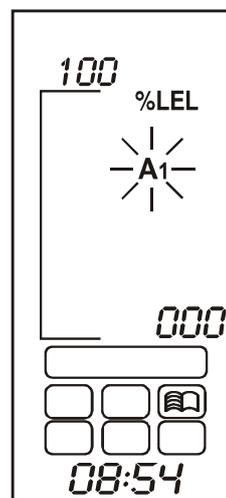
5   To view the other *9* records repeat the procedure.

*Note   The time and date for each record is shown at the bottom of the display in a sequence of three parts. Each part is displayed for **2 seconds**.*

*For example if the time for the record is **18 minutes past 12 o'clock on July 27th, 2004** then the display shows:*

- ***2004 - year 2004 — first***
- ***07 27 - 7th month, 27th day — second***
- ***12:18 - 18 minutes past twelve — third***

The sequence then repeats.

6   Press *Cancel*.

*Goes to the **A1** history record.*

*Choose further records from **A2**, **F**, or **Power on/off**.*

7   When record viewing is complete press *Cancel*.

The display returns to the menu selection screen.

8   Press *Cancel*.

Returns controller to normal operation.

Alarm Levels and Relay Action ⊶

Sets the alarm levels for **Alarm 1** and **Alarm 2** as well as how the alarm and fault relays operate. For **oxygen**, either a **Rising** (oxygen enrichment), or **Falling** (oxygen deficiency) alarm can be selected.

1   Access the menu system and select the ⊶ menu option.

*Press **Up** or **Down**. The icon flashes.*

2   Press OK.

*The current **A1** (**Alarm 1**) setting is displayed.*

3   Use Up/Down to change the value.

*A1 alarm levels can be set between **0%** and **FS** (full scale). The default setting is **20%** of the full scale range.*

4   Press *OK* to accept the change.

*If the gas units are **%v/v** and the gas being detected is **oxygen** then a rising alarm, **UP**, or a falling alarm, **DOWN**, can be set. Use **Up/Down** buttons to change the value.*
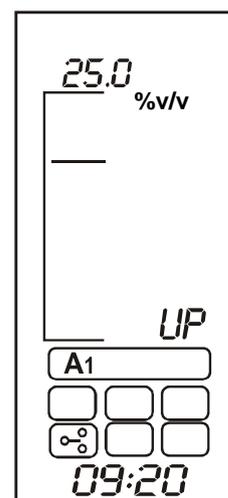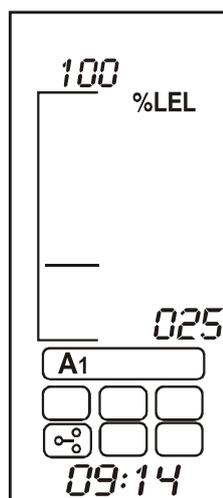
O2 only

5   Press *OK* to accept the change.

*The display changes to the **A1** relay action menu.*

*The display shows either **r 1-d** (for relay 1 de-energized), or **r 1-E** (for relay 1 energized).*

6   Use *Up/Down* to change the relay action.

7   Press *OK* to accept the change.

*The display changes to the relay latching or non-latching menu and shows either **r 1-L** (for **Relay 1** latching), or **r 1-N** (for **Relay 1** non-latching).*

*Use **Up/Down** to change the relay action.*

The diagram shows the effect of latching or non latching relays.

```
2000 ppm          2000 ppm




           r1-d              r1-L
```

Gas Reading   **Press *Cancel* button**   **Press *Cancel* button**

Alarm Point

Alarm Relay Operation (Latching)

Alarm Relay Operation (Non-Latching)

Audible alarm can be silenced with gas present

If gas rises again then Audible Alarm re-activates

Audible Alarm

Visual Alarm

Flashing visual indicators show alarm has occurred and *Cancel* not pressed

Visual alarm not cleared until gas alarm has cleared and *Cancel* is pressed

Visual indicators stop flashing and go steady when *Cancel* pressed but gas still present

8   Press *OK* to accept the change.

*The display now changes to the current **A2 Alarm 2** setting.*

9 *Alarm 2* **settings are changed in the same way as for** *Alarm 1.*

A2 *alarm levels can be set between the* *A1* *alarm level and the full scale range.*
The default setting is *50%* *of the full scale range.*

10 **Press** *OK* **to accept the changes.**

The display now changes to the *F Fault Relay* *settings.*

11 *Fault Relay* **settings are changed in the same way as for the alarm relays.**

12 **Press** *OK.*

The display returns to the menu selection screen.

13 **Press** *Cancel.*

Returns controller to normal operation.

Time and Date ⟨☉⟩

This menu sets the controller's real-time clock.

1 **Access the menu system and select the** ⟨☉⟩ **menu option.**

Press Up or Down. The icon flashes.

2 **Press** *OK.*

At the bottom of the display the current selected year flashes.

3 **Use** *Up/Down* **to change the year.**

Between *2002* *and* *2099.*

4 **Press the** *OK* **button to accept the change.**

The display changes to a flashing display of the current month setting.

5 **Use** *Up/Down* **to change the month.**

Between *1* *and* *12.*

6 **Press** *OK* **to accept the change.**

The display changes to a flashing display of the current day.

7 **Use** *Up/Down* **to change the day.**

Between *1* *and* *31.*

8 **Press** *OK* **to accept the change.**

The display changes to a flashing display of the current time (hours).

9 **Use** *Up/Down* **to change the hours.**

Between *00* *and* *23.*
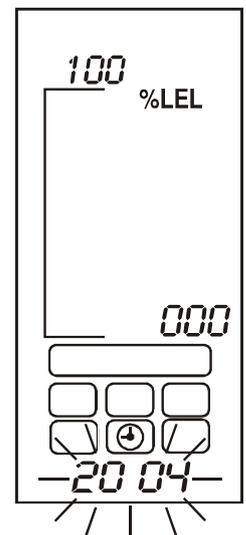
10   **Press *OK* to accept the change.**

The display changes to a flashing display of the current time (minutes).

11   **Use *Up/Down* to change the minutes.**

*Between **00** and **59**.*

12   **Press *OK*.**

The display returns to the menu selection screen.

13   **Press *Cancel*.**

Returns controller to normal operation.

Power Source ⊞

This menu programs ***Touchpoint 1*** for the type of available power source(s).

The controller can be set to any of three different power supply modes.

1   **Access the menu system and select the** ⊞ **menu option.**

Press Up or Down. The icon flashes.

2   **Press *OK*.**

The display shows one of the following current selected power modes:
- ***dC-1 — AC only power supply***
- ***dC-2 — AC and DC power supplies***
- ***dC-3 — DC only power supply***

3   **Use *Up/Down* to select the required power configuration.**

Note   *If the system is powered by an **AC** supply, only **dC-1** or **dC-2** should be selected.*
              *If the system is powered by a **DC** supply, only **dC-2** or **dC-3** should be selected.*

4   **Press *OK*.**

The display returns to the menu selection screen.

5   **Press *Cancel*.**

Returns controller to normal operation.

Default Configuration

Touchpoint 1 is supplied from the factory with a standard default configuration.
The configuration is based on settings typically used in gas detection systems.

The two versions of ***Touchpoint 1*** are factory configured as follows.

mV input detector

Function	Default Configuration	
Display range and units	0-100% LEL	
mV Signal	<2.9 mV	Fault (open circuit)
	2.9 - 3.5 mV	Normal operation
	>3.5 mV	Overrange
Alarm Relay 1*	Alarm level 1 — 20% LEL Latching, normally de-energized, energizes on alarm (Single Pole Change Over 240 Vac 3A max)	
Alarm Relay 2*	Alarm level 2 — 40% LEL Latching, normally de-energized, energizes on alarm (Single Pole Change Over 240 Vac 3A max)	
Fault Relay	Non-latching, normally energized, de-energizes on fault (Single Pole Change Over 240 Vac 3A max)	

4-20 mA input detector

Function	Default Configuration	
Display range and units	0-100% FS	
mA Signal	0 - 1.5 mA	Open circuit fault
	1.5 - 2.5 mA	Inhibit
	2.5 - 3.2 mA	Drift fault
	3.2 - 4.0 mA	Deadband
	4.0 to 20.0 mA	Normal operation
	22.0 mA	Max. overrange
Alarm Relay 1*	Alarm level 1 — 20% of full scale Normally de-energized, energizes on alarm (Single Pole Change Over 240 Vac 3A max)	
Alarm Relay 2*	Alarm level 2 — 40% of full scale Normally de-energized, energizes on alarm (Single Pole Change Over 240 Vac 3A max)	
Fault Relay	Non-latching, normally energized, de-energizes on fault (Single Pole change over 240 Vac 3A max)	

* User configurable alarm set point in the range 10% to 90% of full scale.

Maintenance

> ## WARNINGS
>
> *Touchpoint 1 is designed for installation and use in indoor safe area non-explosive atmospheres. Installation must be in accordance with the recognized standards of the appropriate authority in the country concerned.*
>
> *Before carrying out any work ensure local regulations and site procedures are followed.*
>
> *Access to the interior of the controller, when carrying out any work, must only be conducted by trained personnel. Switch off and isolate the power supply to the controller, or obtain a hot work permit, when access is required. Take any necessary precautions to prevent false alarms.*
>
> *The detectors/sensors that the controller connects to may be used for gas detection in hazardous atmospheres. Refer to the individual detector/sensor instructions for their details.*

This chapter tells about the following:

- **general maintenance**
- **troubleshooting**, see *page 39*
- **system configuration sheet**, see *page 40*
- **system review check sheet**, see *page 41*

General Maintenance

Honeywell Analytics recommend that the controller's configuration and operation are checked annually using the two check sheets shown at the end of this section.

The *System Configuration Sheet* should be referenced during system checks and updated if any changes to the system configuration have been made as well as a calibration log.

The *System Review Check Sheet* contains a list of the minimum checks that should be made to ensure the proper and safe functioning of a system.

The gas detectors connected to the controller should be checked by following the procedures detailed in their user guides.

Troubleshooting

The following table details self diagnostics/problem solving for ***Touchpoint 1***.

Configuration	Fault Condition	Symptom	Action
Power Supply Faults — subject to selected settings			
DC1 normal: Power LED (green) **ON** Battery icon **OFF**	AC supply failed (<85 Vac)	All LEDs & display off/not working. Fault relay de-energized	AC voltage $\geq$ 85 Vac
DC2 normal: Power LED (green) **ON** Battery icon **OFF**	AC supply failed (<85 Vac)	Flashing **FAULT** LED (amber). *F* shown on display. Fault alarm relay activated Audible alarm Battery icon flashes Power LED **ON** (green)	AC voltage $\geq$ 85 Vac
	DC supply failed	Flashing **FAULT** LED (amber). *F* shown on display. Fault alarm relay activated Audible alarm Battery icon flashes Power LED **ON** (green)	DC voltage $\geq$ 19 Vdc
DC3 normal: Power LED (green) **ON** Battery icon **ON**	DC supply failed (<19 Vdc)	All LEDs & display off/not working. Fault relay de-energized	DC voltage $\geq$ 19 Vdc

System Configuration Check Sheet

Controller location		Installed by		Date	
		Configured by		Date	
		Calibrated by		Date	
		Contact tel no			

Power supply .... AC volts   .... DC volts

Channel	Type		SensePoint detector type						Other detector type
	mV input	mA input	Flam.	Toxic	Oxygen	STD	Plus	Pro	
1	☐	☐	☐	☐	☐	☐	☐	☐	....

Comments *(Detail ancillary equipment such as audible/visual alarm indicators, battery back up systems etc.)*

Channel Configuration

Channel	Gas	Range	Units	Alarm 1			Alarm 2			Fault
				Level*	E/D	L/NL	Level*	E/D	L/NL	E/D
1										

* For Oxygen state rising (R) or falling (F)   E/D Energized or De-Energized   L/NL Latching/Non-Latching

Calibration Record

Actual zero reading	Zero re-cal? Y/N?	New zero reading	Actual span reading	Span re-cal? Y/N?	Span gas conc.	New span reading	Next cal. due	Carried out by	Date

Comments

System Review Check Sheet/Record

Company Name Contact Name Address Tel Mobile Fax Email	Application Details (Brief application and system overview including ancillary devices)

Customer reported problems/specific requests

Checklist

Control System	Y	N	Comments
Is control system mounted in a suitable place? *Daily viewing, access for maintenance?*			
Is protection suitable for location? *Indoor/outdoor, enclosure IP /NEMA rating?*			
Are there any visual signs of damage? *Physical damage?*			
Is suitable cable/wire used for all connections? *Screened, SWA, CSA, or AWG?*			
Have all cables/wire been terminated correctly? *Use of crimps, terminals tightened?*			
Have all earth/ground connections been made? *Earth loops?*			
Are all the display indicators working properly? *LCDs, LEDs?*			
Detectors	**Y**	**N**	**Comments**
Are the detectors located in a suitable place? *Lighter/heavier than air gas? Breathing zone? Ventilation?*			
Are the detectors correct for the application? *Gas? Range? Type?*			
Are recommended accessories fitted? *Weather protection, collecting cone, filters?*			
Are the detectors/filters clean? *Not been painted, filters clean?*			
Are the detectors securely mounted? *Bracket, wall mount, pipe mount?*			
Are all glands/conduit secure? *Securely tightened, seals not perished?*			
Have all cables/wires been terminated correctly? *Use of crimps, terminals tightened?*			
Are junction boxes/enclosures closed properly? *Junction boxes, transmitter enclosures?*			
Ancillary Devices	**Y**	**N**	**Comments**
Are connections to ancillary devices correct? *Audio/Visual alarms? Signs? Valves? DCS? SCADA?*			
Are the devices suitable for the relay ratings? *Correct switching power rating or driving other relays?*			

Other General Comments

Checks carried out by	Date	Next check

Parts

This chapter lists part numbers for complete units and spare/replacement items.

Touchpoint 1 Controllers

Description	Part No.
mV Input	TPWM1101
mA Input	TPWM1110

Spares

Description	Part No.
Instruction manual	TP1MAN
Wall mounting bracket	TP1WMB
mV input module	TP1MVIM
mA input module	TP1MAIM
mV display module	TP1MVDM
mA display module	TP1MADM
IDC lead (display to input module)	TP1IDC
Terminal screw and 'U' clamp (bag of 20)	SPPPMTS

Specifications

General

Use	Wall mounted single channel control panel for the local annunciation of gas hazards as detected by the Honeywell Analytics range of Sensepoint gas detectors. Suitable for small scale, indoor installations requiring a self contained gas detection and control system
User interface	
Operation	Single Test/Accept/Reset push-button for normal operational use. Three further hidden push buttons for configuration via intuitive menu system
Backlit display	Channel status including measuring range, units of measure, digital gas reading, bar graph displays 0-100% full scale, status indicators including alarm set point, alarm activated, and power health
Other Indicators	Ultra-bright LEDs: alarm (red), power (green), fault (amber)
Audible Alarm	85 dBA at 1 m / 90 dBA at 1 foot, user hush facility, re-activated on new event
Terminations	Accessed via hinged front cover (latch to hold open as required). All cable/ conduit entry via pre-formed knockouts in gland plate at bottom of controller. Screw terminals suitable for use with 0.5 mm^2 (20 AWG) to 2.5 mm^2 (14 AWG) wires. Crimped connection recommended. Take care not to over tighten screw terminals. The recommended torque setting for the terminals is 12 lb in.

Environmental

IP Rating	Indoor use, IP44 in accordance with EN60529:1992
Weight	2.5 kg / 5.5 lb (approx.)
Operating Temp Range	-10°C to +40°C / 14°F to 104°F continuous (up to +50°C/122°F intermittent)
Operating Humidity Range	10 to 90% RH (non condensing)
Operating Pressure Range	90-110 kPa
Storage	-40°C to +80°C / -40°F to +176°F, 20 to 80% RH (non condensing)
EMC	EN50270

Inputs

Supply	Auto-sensing 85-265 Vac, 50/60 Hz, 30 W and/or 18-32 Vdc, 15 W		
Detector Type	3 wire mV bridge	2 wire, 4-20 mA, loop powered	3 wire, 4-20 mA, source output
Example	Sensepoint Flammable	Sensepoint Toxic and Oxygen	Sensepoint Plus and Sensepoint Pro
Detector Supply	mV Bridge Input Module Constant current supply: 200 mA Self regulating supply voltage subject to cable resistance Maximum loop resistance: 18 ohms	mA Input Module Maximum detector current supply: 500 mA Minimum guaranteed supply voltage from the controller: 18 Vdc input impedance: 100 ohms	

Outputs

Relays	Alarm 1 (A1)	Alarm 2 (A2)	Fault (F)
Rating	SPCO/3 A, 240 Vac (non inductive load)		
Default Settings	Latching		Non- Latching
	De-energized		Energized
	Energize on alarm		De-energize on fault or loss of power
	Factory setting 20% FS	Factory setting 40% FS	
User Configurable Options	Latching/non-latching		
	Energized/de-energized		
	Rising/falling (oxygen only)		
	Trip point 10-90% FS		

Warranty

All products are designed and manufactured to the latest internationally recognized standards by Honeywell Analytics under a Quality Management system that is certified to ISO 9001. As such Honeywell Analytics warrants its products against defective parts and workmanship and will repair or (at its option) replace any instruments which are or may become defective under proper use within 12 months from date of commissioning by an approved Honeywell Analytics representative or 18 months from date of shipment from Honeywell Analytics, whichever is the sooner. This warranty does not cover disposable batteries or damage caused by accident, abuse, abnormal operating conditions or poisoning of sensor.

Defective goods must be returned to Honeywell Analytics premises accompanied by a detailed description of any issue. Where return of goods is not practicable Honeywell Analytics reserves the right to charge for any site attendance where any fault is not found with the equipment. Honeywell Analytics shall not be liable for any loss or damage whatsoever or howsoever occasioned which may be a direct or indirect result of the use or operation of the Contract Goods by the Buyer or any Party.

This warranty covers instrument and parts sold to the Buyer only by authorized distributors, dealers and representatives as appointed by Honeywell Analytics. The warranties set out in this clause are not pro rata, i.e. the initial warranty period is not extended by virtue of any works carried out there under.

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