

**The Zareba Unipoint,  
a simple DIN rail  
mounted controller**

# Unipoint DIN controller



## Typical Applications

- Small and medium integrated systems
- Custom control cabinets and panels
- Unmanned equipment rooms
- Boiler Houses
- HVAC systems
- Analyzer houses
- Car Parks
- Crane cabs
- Laboratories

## User Friendly

- Ultra-clear backlit display
- System status codes
- Built-in audiovisual alarms
- Intuitive menu system
- Simple pushbutton operation
- Remote accept, reset and inhibit inputs

## Easy to Install

- TS35 ('top hat') DIN rail mounting
- Removable terminal connectors.
- Easy access to all terminals
- Additional units clip together

## Comprehensive Operation

- 3 wire mV bridge, 2 and 3 wire 4-20mA inputs
- DC operation
- 3 x alarm relays
- 1 x system fault relay
- Field inhibit input (mA versions)

## Flexible Operation

- Fully user programmable scale, units and calibration
- Relays configurable as energized, de-energized, latching or non-latching, alarm relay on/off delay
- Compatible with a wide range of gas detectors

**The Zareba Unipoint is a simple DIN rail mounted controller offering integrators a flexible and low cost solution to incorporate flammable, toxic or oxygen gas detection into their control systems.**

Unipoint can be easily installed into any plastic or metal enclosure for use indoor or outdoors and even in potentially explosive atmospheres. With the addition of one of the Zareba range of flammable, toxic or oxygen detectors, systems may be configured to monitor gases in a wide range of applications from car parks and boiler houses to analyzer shelters or crane cabs in offshore facilities.

Two versions of Unipoint are available; one for mV bridge, catalytic bead type, flammable gas detector and the other for any 2 or 3 wire 4-20mA type gas detector. Each Unipoint is easily installed onto the DIN rail via a special socket (provided) that also interconnects power to adjacent units. With removable terminal connectors individual Unipoint controllers can be easily changed without disturbing other devices.

By clipping together multiple Unipoints small to medium sized monitoring solutions can be realized. Each unit includes built-in audiovisual alarms, three programmable alarm relays and a fault relay. Gas concentration and system status is displayed on the backlit LCD and each controller is fully user programmable via an intuitive, push button operated menu system. Configuration menus can be password protected to prevent unauthorized access. In addition remote inputs allow accept, reset and inhibit of alarms without the need to open the enclosure that the Unipoint is mounted in.

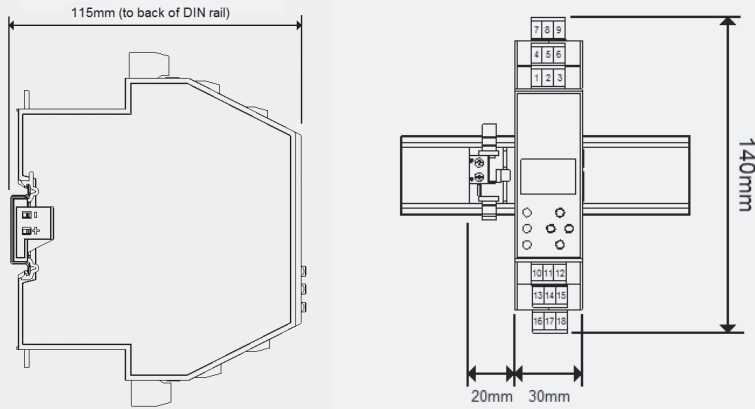
Unipoint's uncomplicated design makes it ideal for applications where a simple method of integrating gas detectors into a 3rd party control system is required or as part of a small standalone gas detection solution. All Honeywell Analytics gas detectors and third party detectors may be used with Unipoint subject to overall power requirements.



# Installation details



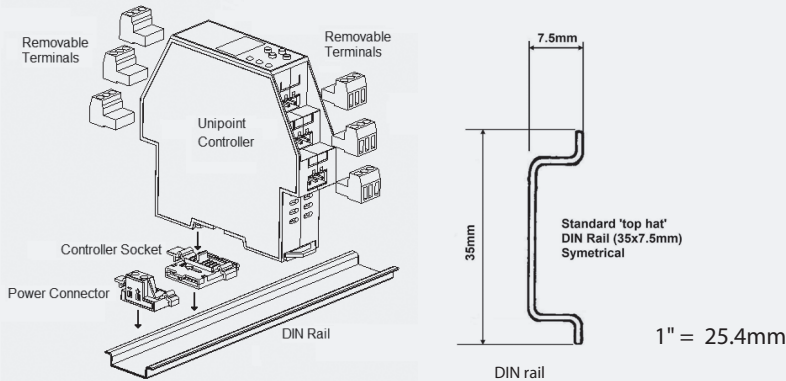
## Dimensions



## Terminal detail

1	+	Detector
2	S	
3	-	
4	NO	Fault
5	C	
6	NC	
7	R	Reset
8	I	Inhibit
9	C	Common
10	NO	Alarm 1
11	C	
12	NC	
13	NO	Alarm 2
14	C	
15	NC	
16	NO	Alarm 3
17	C	
18	NC	

## Installation



Max number of controllers on one power rail

Detector type	Max number of controllers
3 wire mV	8
2 wire mA	8
3 wire mA	4

wiring of power rail in parallel allows larger systems to be constructed

## Electrical

Type of Detector	Output to Detector	Recommended Detector
2 wire 4-20mA	Controller Input (18-32Vdc)-1.5Vdc*, 30mA (max). Sense resistor 33 Ohms.	Signalpoint or Sensepoint Toxic and Oxygen
3 wire 4-20mA source	Controller Input (18-32Vdc)-1.5Vdc*, 0.5A (max). Sense resistor 33 Ohms.	Sensepoint Plus and Sensepoint Pro
3 wire mV bridge	2.4-8.6V, 200mA constant current. Max cable loop resistance 28 Ohms.	Signalpoint or Sensepoint Flammable

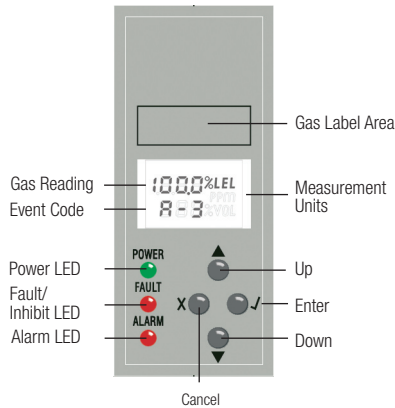
\*The detector supply voltage is 1.5Vdc less than the supply to the controller

## Controller Power Consumption

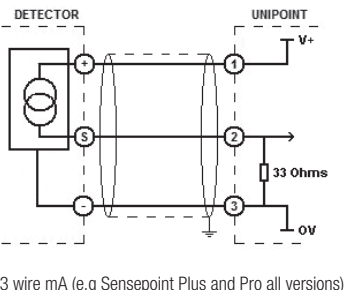
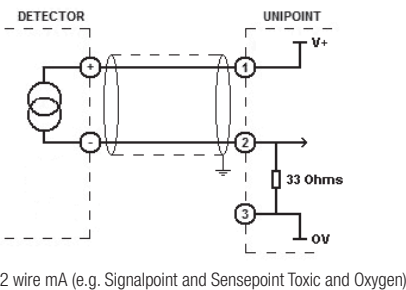
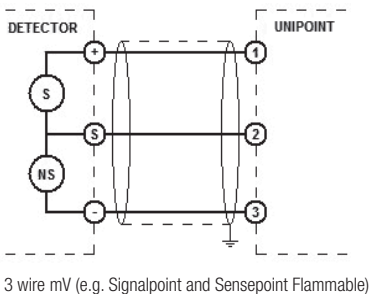
Unipoint Version	Controller Status	Relays		Power
		Fault	Alarm	
mV	Normal operation, no faults, no alarms. Zero cable resistance	Energized	De energized	2.4W <sup>1</sup>
	Normal operation, no faults, no alarms. Max loop cable resistance (28 ohms)	Energized	De energized	3.6W <sup>1</sup>
	All alarms, no faults. Max cable resistance (28 ohms)	Energized	Energized	4.8W <sup>1</sup>
mA	Normal operation, no faults, no alarms. Inclusive of 2 wire signal loop current	Energized	De energized	1.8W <sup>2</sup>
	All alarms, no faults. Inclusive of 2 wire signal loop current	Energized	Energized	3.0W <sup>2</sup>

<sup>1</sup> includes power to detector <sup>2</sup> excludes power to 3 wire mA detector. All controllers with default configuration.

# Technical summary



## Detector Wiring Schematics



General Specification				
<b>Use</b>	The Zareba Unipoint controller provides integrators with a flexible and low cost solution to the many applications requiring flammable, toxic or oxygen gas detection to be incorporated into their control systems. Unipoint is designed to use industry standard DIN rail allowing it to be easily installed into many different types of plastic or metal, indoor or outdoor, hazardous or non hazardous area enclosures. It is designed for use with any mV flammable gas detector as well as any 2 or 3 wire 4-20mA gas detector (subject to overall power requirements).			
User interface				
<b>Operation</b>	Two pushbuttons for normal operation of resetting alarms and initiating self diagnostic test of system. Four buttons for user programmable functions via intuitive menu			
<b>Backlit Display</b>	Units of measure, digital gas reading and event code			
<b>Other Indication</b>	Ultra-bright steady/flashing LEDs subject to condition; alarm (red), power (green), fault (amber). In-built audible alarm 63dB at 0.3 meters			
<b>Termination</b>	Easily accessible plug in screw type terminals. Terminals accept maximum wire diameter 1.5mm <sup>2</sup> (16 AWG)			
Environmental				
<b>IP Rating</b>	Indoor, IP3x, to BS EN 60529:1992 (controller to be installed in suitable enclosure)			
<b>Weight</b>	225g (7.94 oz) - Controller only			
<b>Operating Temp Range</b>	-10°C to +40°C / 14°F to 104°F			
<b>Operating Humidity Range</b>	10 to 90%RH (non condensing)			
<b>Operating Pressure Range</b>	90-110kPa			
<b>Storage</b>	-25°C to +60°C / -13°F to +140°F, 20 to 80%RH (non condensing)			
Inputs				
<b>Supply</b>	Nominal 24Vdc (18-32Vdc). Max power mW = 4.8W (including power to detector), mA= 3.0W (excluding power to 3 wire detector)			
<b>Detector Type</b>	3 wire mV bridge e.g. Sensepoint or Signalpoint flammable gas detectors	2 wire, 4-20mA, loop powered e.g. Sensepoint or Signalpoint toxic or oxygen gas detectors	3 wire, 4-20mA, source output e.g. Sensepoint Plus and Pro flammable, toxic and oxygen gas detectors	
<b>Detector Supply</b>	2.4-8.6V, 200mA constant current. Maximum loop resistance: 28 Ohms	Input (18-32Vdc)-1.5Vdc, 30mA max	Input (18-32Vdc)-1.5Vdc, 0.5A max	
Outputs				
<b>Relays</b>	Alarm 1	Alarm 2	Alarm 3	Fault
<b>Rating</b>	SPCO/3A, 240Vac/28Vdc (non inductive load)	SPCO/3A, 240Vac/28Vdc (non inductive load)	SPCO/3A, 240Vac/28Vdc (non inductive load)	SPCO/3A, 240Vac/28Vdc (non inductive load)
<b>Default Setting</b>	Non Latching Normally de-energized Energize on alarm Factory setting 10%FSD	Non Latching Normally de-energized Energize on alarm Factory setting 25%FSD	Latching Normally de-energized Energize on alarm Factory setting 50%FSD	Non Latching Normally energized De-energize on fault/power loss
<b>User Configurable Options</b>	Latching/ non-latching Energized/ de-energized Alarm trip point Rising/falling Alarm on / off delay (0 to 900 seconds)*	Latching/ non-latching Energized/ de-energized Alarm trip point Rising/falling Alarm on / off delay (0 to 900 seconds)*	Latching/ non-latching Energized/ de-energized Alarm trip point Rising/falling Alarm on / off delay (0 to 900 seconds)*	Latching/ non-latching Energized/ de-energized
Approvals				
<b>EMC/RFI</b>	EN50270			
<b>Electrical Safety</b>	EN61010, UL61010b			
<b>Performance</b>	ATEX measuring function EN61779 (Independent accreditation expected late 2005)			
<b>Other</b>	CE, TÜV			

\* Functionality only implemented in units supplied with software version 5V0. Available late 2005.



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