

**Dispositif de détection de gaz
Gas Detection Device**

**Manuel de l'utilisateur
ToxyPoint
User Manual**

ERP 511407
6/07

Gas Detection Device

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Symbol Definitions

The following table lists the symbols used in this document to denote certain conditions:

Symbol	Definition
	ATTENTION: Identifies information that requires special consideration
	TIP: Identifies advice or hints for the user, often in terms of performing a task
	REFERENCE _ INTERNAL: Identifies an additional source of information within the bookset.
CAUTION	Indicates a situation which, if not avoided, may result in equipment or work (data) on the system being damaged or lost, or may result in the inability to properly operate the process.
	CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. CAUTION: Symbol on the equipment refers the user to the product manual for additional information. The symbol appears next to required information in the manual.
	WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death. WARNING symbol on the equipment refers the user to the product manual for additional information. The symbol appears next to required information in the manual.

Contents

INTRODUCTION	11
Safety Information - Read First	11
Elements Drawing	12
Sensor Installation Locations	13
Mounting the Enclosure	14
System Design Specifications	15
Cable Installation	16
System Wiring Diagram	17
4-20 mA Loop Installation	18
Connect the Transmitter	18
Alarm Output(s)	18
Connect the Controller and Power Supply	18
OPERATION	19
Sensor Startup Cycle	19
Power-up	19
Test ToxyPoint Calibration	19
Instrument Status Advice	20
Alarm Output Setpoints	20
Automatic Self-Test	20
Self-Test Fail	21
Operational Life	21
Life-Ended Warning	21
Life-Ended Alarm	21
Care	21
SPECIFICATIONS	22
Safety Specifications	22
General Specifications	22
LIMITED WARRANTY	25
Limited Warranty	25
ReStocking Policy	25
Exclusions	26
Warranty Limitation and Exclusion	26
Disclaimer of Unstated Warranties	27
Limitation of Liability	27

Introduction

The ToxyPoint gas monitor provides continuous monitoring for carbon monoxide (CO) hazards in ambient air. The monitor is a 2-wire, 4-20mA transmitter with sensor. It is factory calibrated and tested and has a maximum operating life of 3 years.

Safety Information

Users of the ToxyPoint require a full understanding of the installation, operating and maintenance instructions, otherwise protection provided by the monitor may be impaired. Read the following Warnings before using the monitor.

- Install according to local electrical regulations and codes.
- Installation should be performed by qualified personnel.
- Do not paint over the sensor screen.
- Do not activate the monitor after the date on the package.
- Make sure the sensor screen is free of dirt and debris.
- Make sure the sensor screen is not covered.
- Do not expose the monitor to electrical shock and/or continuous mechanical shock.
- Do not expose the sensor to high pressure water spray.
- Do not use the monitor if it is damaged. Before use inspect the monitor. Look for cracks, missing metals or plastics. If the monitor is damaged, contact Vulcain immediately.
- The warranty will be voided if the customer or any unauthorized service personnel attempts to repair the unit.
- The ToxyPoint should be interfaced to a Class 2 or Limited circuit.



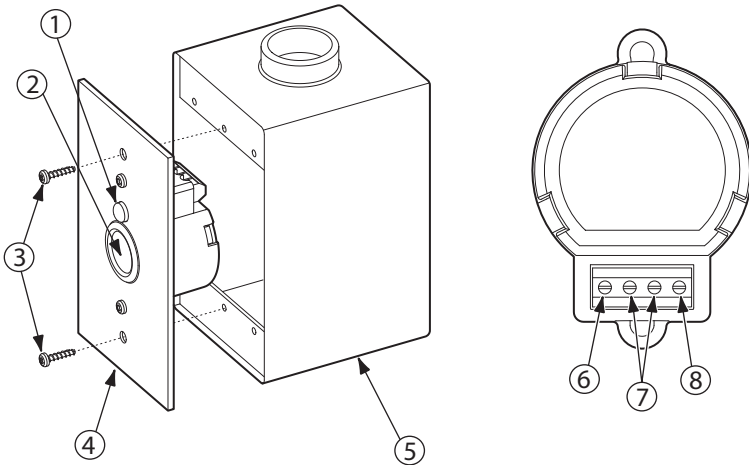
A limited circuit is a circuit supplied by sources such as a battery or a transformer winding where the open-circuit potential is not more than 30 V r.m.s or 42.4 V.d.c., and the energy available to the circuit is limited according to one of the following:

The current under any condition of load, including short circuit, is not more than 8A measured after 1 minute of operation;

The source is RATED or set to limit its power output to 150 VA under any condition of load including short circuit;

An overload protector or circuit component opens to interrupt the power output at a lower value than 150 VA under any condition of load including short circuit.

Elements Drawing



1. LED indicator
2. Sensor with sensor screen
3. Mounting screws (not included)
4. Mounting/cover plate
5. Standard single outlet (gang1) electrical box (not included)
6. O/P2 High alarm output Two
7. Sensor wiring terminals; 4-20 mA and 24 Vdc
8. O/P1 Low alarm output One

Sensor Installation Locations

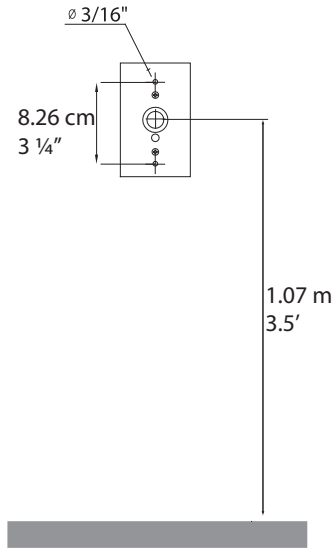
The following suggestions should be considered to assure detection of the target gas. Select the most suitable location for each sensor.

- Air Currents:** If there are fans, wind, or other sources of air movement, gases may tend to rise or collect in certain areas of a facility. The local air currents should be assessed to aid in selecting the sensor location. Air convection can often be more important in determining gas concentration areas than factors of Vapor Density.
- Gas Emission Sources:** As a rule, at least one sensor should be located in close proximity to each point where an emission is likely to occur.
- Height:** We suggest, dependent of air currents, that the ToxyPoint be installed at approximately 3 to 5 feet above ground or higher where CO emission is likely to accumulate.

Mounting the Enclosure

ToxyPoint is mounted in a standard single outlet (gang1) electrical box supplied by the customer. The ToxyPoint Mounting Plate fits boxes mounted in drywall (new construction) or is surface mounted.

The diagram below provides installation and mounting heights.



Recommended Installation Heights

Gas Detected		Relative Density (air = 1)	Height
CO	Carbon monoxide	0.968	3-5 feet (1 - 1.5m) from floor



The installation heights recommended by Honeywell represent general guidelines. Always confirm local laws and regulations before proceeding, as these take precedence over manufacturer's recommendations.

Cable Installation

The distance the 4-20 mA signal can travel is dependent on several factors including cable gauge. Maximum cable resistance is 650 ohms less the controller resistance.

The table below assumes a constant 24 volt power supply (at 20C), copper wire and a Controller resistance of 250 ohms. The signal range from the Controller/PLC etc. to the ToxyPoint takes into account the return loop. The distance shown is from the Controller to the Transmitter.

Maximum Cable Lengths Between Controller and ToxyPoint		
	Conductor size	Distance
22 AWG	0.64 mm	2,045 m (6,715 ft)
20 AWG	0.75 mm	3,253 m (10,953 ft)
18 AWG	1.00 mm	5,167 m (16,953 ft)



Recommended: Use shielded cable, or cable in conduit to avoid electrical interference. The shield (including mylar) must be grounded. Keeping the shield as short as possible, tie the shield and extra wires to the electrical box grounding screw. Pull 2-wire cable into the enclosure(s).

Output Signals: If accessing the output signal(s) at O/P1 and/or O/P2 additional wire(s) will be required from the sensor. Wire as shown in the Alarm Output Installation diagram.
