



Job or Customer:

Engineer:

Contractor:

Submitted by:

Date

Approved by:

Date

Order No:

Date

Specification:

COMPANION PRODUCTS

Encase™
PP Double Containment System

Guardian™
Vinyl Double Containment Systems

CustomGuard®

CENTRA-GUARD LOW POINT LEAK DETECTION

IPEX'S patented leak detection systems offer the ultimate defense against potential containment challenges. Centra-Guard™ is automated, trouble-free and user-friendly. It offers an economical, proactive solution for guarding against environmental damage and the high cost of cleanup.

Centra-Guard™ is the only non-intrusive leak detection system available. The sensor never comes in contact with the media.

Centra-Guard™ leak detection systems are well suited to above-ground suspended pipeline applications, with sensors housed on the external wall of the pipe, in a saddle-type clamp. Centra-Guard is also well suited to underground pipeline systems with sensors resting on the external wall of a drip leg assembly. Low point electronic leak detection is ideal for double contained applications that require flexible and cost effective leak detection solutions.

Sensors

To detect the presence of fluid leakage into the interstitial space, leak detection stations are installed inline that allow for leakage to accumulate. Each station segregates that portion of the system into a zone that is monitored by an individual external capacitive sensor affixed to the outside of the leak detection station pipe.

- Sensor LED light
 - Illuminated light indicates the sensor is operational
- Built-in sensitivity control
 - Enables sensing point adjustment to minimize false alarms
- Non-intrusive sensors mean:
 - No need for upsizing containment pipe or pulling cable, reducing material and installation cost
 - No need to remove or replace sensors after a leak
 - No need to verify compatibility with fluids

Electrical Connections

- Capacitive proximity sensor
 - 3-wire, 24 VDC, normally closed solid state switches.
 - Normally closed sensors ensure a failsafe system.
 - Wire break/short or sensor malfunction trigger an alarm
- Sensor power is sourced to the sensors from the control panel.
- Sensor switches open when fluid is detected in the outer containment pipe.

Control Panel

- Internally fused
- Requires 120 VAC and 60 Hz
- Keyed On/Off switch & Alarm Silence switch
- Available 8, 16, 24, 32, 64, 96, 128, 160, and 192 zones
- Each zone is continuously monitored by the processor
- Panel will identify:
 - Date, time, zone and type of alarm (break/short or sensor malfunction)
- Alarm data saved in non volatile memory – Data is not lost if there is a power failure
- Standard NEMA 4X FRP enclosure with mounting flange
- Available NEMA 4X: Aluminum, Stainless Steel enclosure
- Built in audible and visual alarm signals
 - 95 dB alarm
 - LCD monitor indicates the type of alarm
 - Large Alarm light
- HMI buttons
 - Allow user to scroll through history, status, and test screens as well as alarm acknowledgment.
- Multi-level password protection ensures only authorized personnel may acknowledge an alarm.
- Standard SPDT general alarm relay switch
 - Allows interaction with plant PLC
- Standard RS-485 communication port
 - Allows for communication with mobile devices/ printers
- Optional remote monitoring via phone app, email, or internet browser.



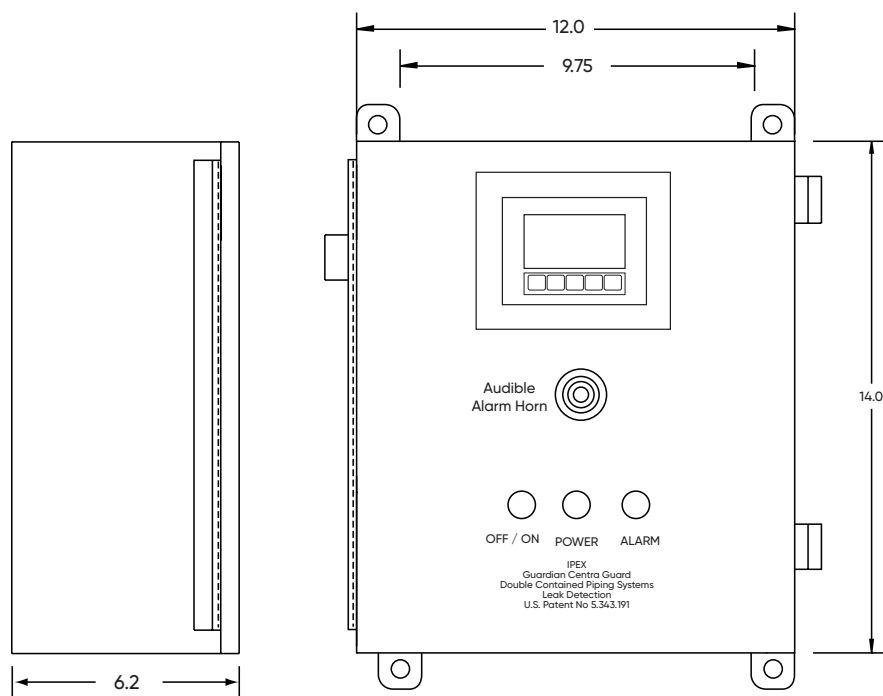
WARNING

Panel requires constant 120VAC 60Hz Power to operate. During power outage panel and sensors are not operational. Personnel are required to ensure that power is being supplied to the panel. The Power Light must be illuminated and the LCD monitor must read "LEAK DETECTION SYSTEM OPERATING NO ALARMS DETECTED". This is the only indication that the panel and wired sensors are operational and monitoring.

NOTE: For additional Operating and Maintenance information including trouble shooting data, please contact IPEX.

Standard 8 and 16-zone panels

- Failsafe Design has processor and HMI display for detection of fluid by sensor and continuity of wire.
- Standard general alarm SPDT relay contacts allow communication with plant PLC.
- Standard NEMA 4X FRP enclosure.
- Optional NEMA 4X enclosures: aluminum, T304 stainless steel, T316 stainless steel.
- Specially designed panels available upon request.

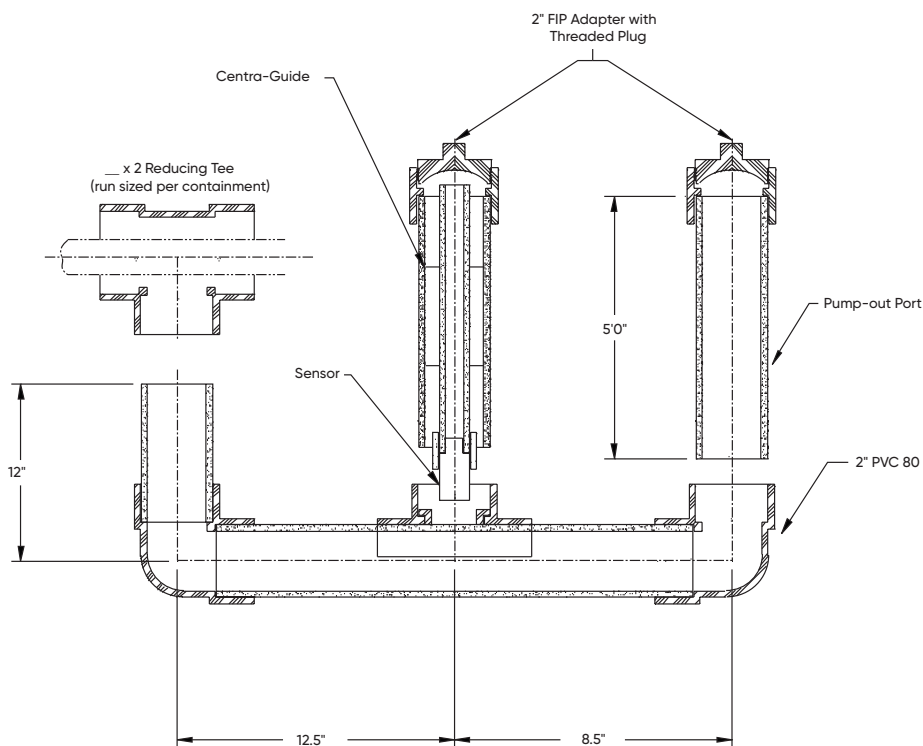


NOTE: Refer to Centra-Guard O & M manual for wiring and startup procedures.

Underground Leak Detection Station with Sensor and Pump Out Port

General Notes

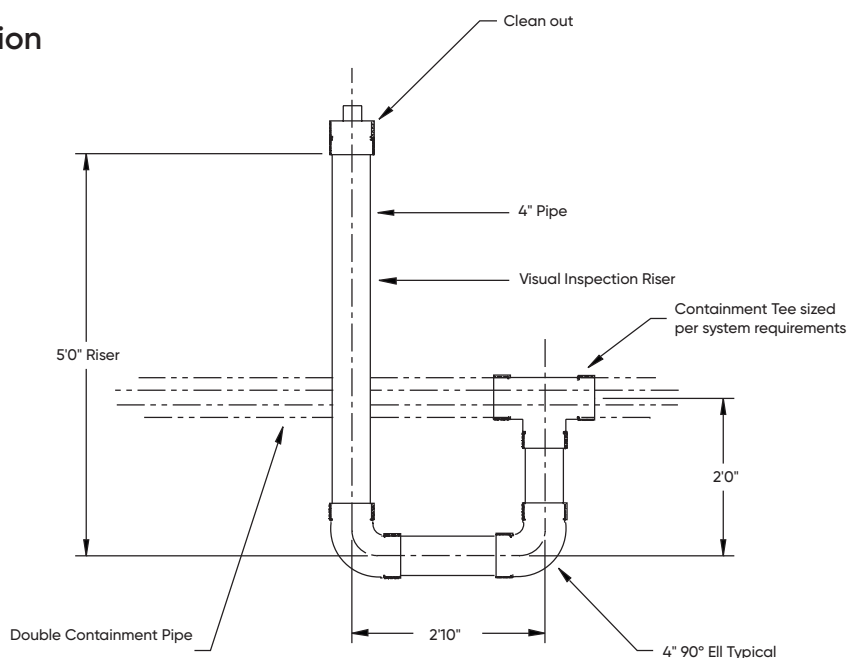
- All fittings are factory tested.
- Leak detection shipped in four separate pieces consisting of: containment tee, saddle, sensor riser, pump out riser and u-bend.
- Containment tee sized per system requirement.
- Leak detection –
U.S. patent no. 5,343,191.



Visual Underground Leak Detection Station

General Notes

- Leak detection shipped in three separate pieces consisting of containment tee, saddle, riser and U-bend.
- Containment tee sized per system requirement.



Centra-GuardTM

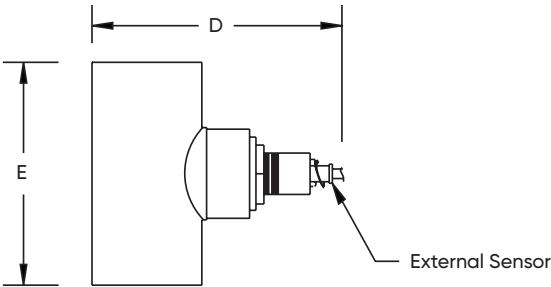
Electronic Low Point Leak Detection

Installation

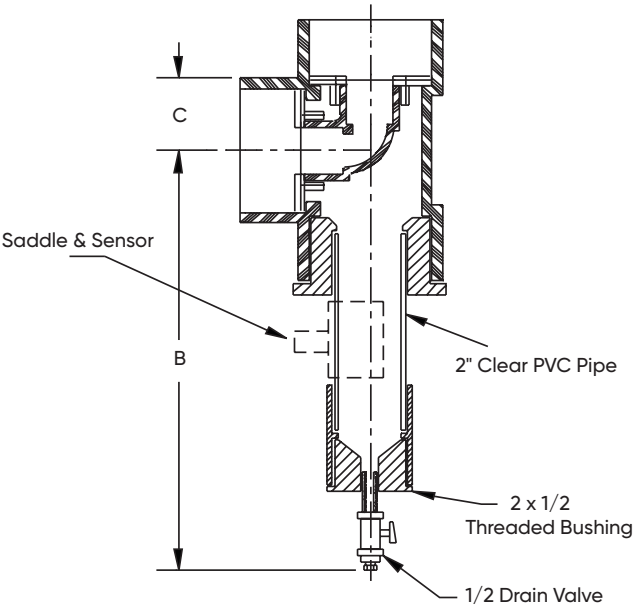
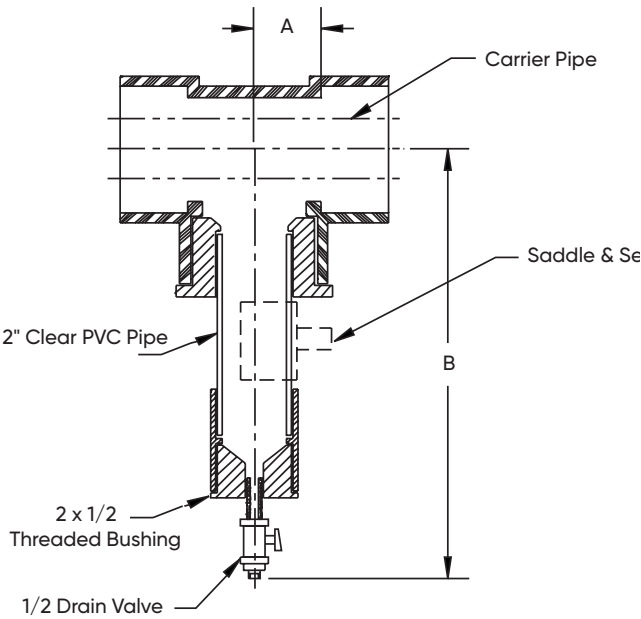
Above Ground Leak Detection Station with Sensor

General Notes

- All fittings are factory tested.
- All dimensions are in inches unless otherwise indicated.
- Containment tee sized per system requirement.
- Guardian leak detection – U.S. patent no. 5,343,191.



Carrier / Containment (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)
2 x 4	1.25	19.25	1.50	5.00	5.25
3 x 6	1.88	19.75	2.13	5.00	5.25
4 x 8	2.31	20.40	2.56	5.00	5.25
6 x 10	3.50	21.50	3.75	5.00	5.25
8 x 12	4.56	22.50	4.81	5.00	5.25



Centra-Guard™

Electronic Low Point Leak Detection

Installation

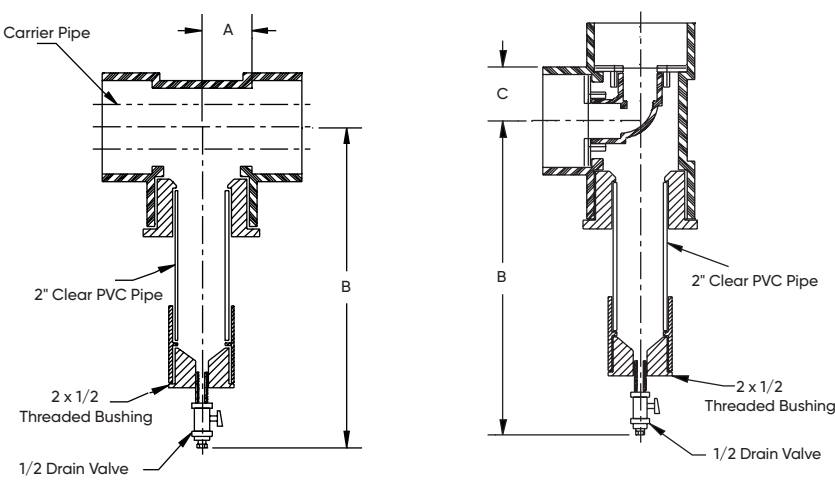
Visual Above Ground Leak Detection Station

General Notes

- All fittings are factory tested.
- All dimensions are in inches unless otherwise indicated.
- Containment tee sized per system requirement.

Dimensions

Carrier/Containment (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)
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4 x 8	2.31	20.40	2.56	5.00	5.25
6 x 10	3.50	21.50	3.75	5.00	5.25
8 x 12	4.56	22.50	4.81	5.00	5.25



Centra-Guard Leak Detection – U.S. Patent No. 5,343,191

Provide and install at each zone a capacitive sensor station consisting of an external clip-on sensor, drip leg and drain valve with hose connection and/or riser and sensor extension handle. Each sensor shall have LED testing lamp, adjusting potentiometer and be removable for periodic testing. Sensor shall not penetrate the containment piping jacket or come into contact with the leaking media. Control console shall be housed in a NEMA 4X enclosure, operating on 120 VAC and supplying 24 VDC to zone sensors. Console shall have LCD display continuously showing system operating conditions and HMI buttons to allow authorized personnel to scroll through history, status, and test screens as well as alarm acknowledgement. Console shall also have a power indicator light, keyed on/off switch, keyed alarm silence switch, and common audible and visual alarm. LCD display shall indicate date, time, zone, and type of alarm (break/short, sensor malfunction or leak) and store data in non volatile memory. An external output switch for accessory alarms and an RS-485 communication port shall be included. Leak detection system shall be Centra-Guard as manufactured by IPEX.

About IPEX by Aliaxis

As leading suppliers of thermoplastic piping systems, IPEX by Aliaxis provides our customers with some of the world's largest and most comprehensive product lines. All IPEX by Aliaxis products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have earned a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX by Aliaxis products are:

- Electrical systems
- Telecommunications and utility piping systems
- PVC, CPVC, PP, ABS, PEX, FR-PVDF and PE pipe and fittings (1/4" to 48")
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- PE Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems

Products manufactured by IPEX Inc.

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A policy of ongoing product improvement is maintained. This may result in modifications of features and/or specifications without notice.