



WirelessHART HC-Tracker™

Underground Leak Detection: Monitoring Well Solution Package



Application Challenge

An effective monitoring well system detects the presence of liquid or gaseous hydrocarbons quickly, accurately, and reliably even when encased in ice, submerged in water, or located in areas with rapid temperature fluctuations. Solutions must also comply with US EPA directives regarding release detection for tanks and piping.

Syscor's Solution

Syscor developed the WirelessHART HC-Tracker system in close cooperation with the petroleum industry to provide a reliable and economical tool for underground hydrocarbon leak detection.

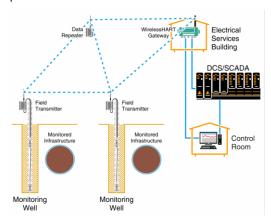
The WirelessHART HC-Tracker Monitoring Well Solution Package supports customers in their mission towards zero-incident operations, environmental responsibility, cost reduction, and rapid field deployment.

Features and Benefits

- Intrinsically safe design for Zone 0 deployment
- Extensively tested and independently qualified devices
- Stainless steel construction
- Wireless, battery powered units allow rapid deployment
- Intrinsically safe Syscor designed Li-SOCl₂ battery packs provide up to 10 years of power
- Self-contained units are easily installed and removed
- Performs reliably in temperature ranges from -40 to +60°C [-40 to +140°F]
- WirelessHART (IEC 62591) mesh technology creates self-forming, self-healing, scalable, secure networks
- WirelessHART technology allows easy addition and removal of units from an existing network
- Integrates easily with industry standard WirelessHART Gateways
- Syscor's polymer absorption sensor formulations provide accurate, reliable and rapid detection of liquid and gaseous hydrocarbons (C₃ and heavier) in air, water, ice and underground
- Water Immersion sensor formulation unaffected by freezing temperatures, extended periods under water, and when encased in ice
- Accessories are available to support rapid deployment of sensors in water bodies or underground

How it Works

Up to two sensor transducers, positioned at different depths within the monitoring well, are connected to a Syscor Field Transmitter by cable. The sensor transducers detect acceleration/vibration, the presence of hydrocarbons (C₃ and heavier) and temperature. The Field Transmitter communicates data via the WirelessHART standard to a WirelessHART Gateway, which in turn routes the data to the facility's control and monitoring system for analysis and data collection. Alarms are generated and communicated to all appropriate people and systems when key operational parameters are detected.

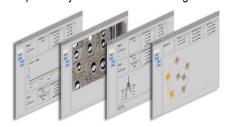


HC-Tracker™ application examples

Solution Package Details

Syscor's WirelessHART HC-Tracker Monitoring Well Solution Package typically contains the following items:

- WirelessHART Field Transmitter
- Optional WirelessHART Data Repeater
- WirelessHART Gateway
- Syscor Li-SOCl₂ battery pack
- · Sensor transducers
- Antenna selected for the application and site
- Two-foot sections of perforated, stackable, stainless steel tubing
- Waterproof, oleophilic, polymeric fabric sensor sleeve
- Standard mounting bracket
- Optional Syscor Tracker monitoring software



Syscor Tracker™ monitoring software

Other Applications

The HC-Tracker Monitoring System can also be used for the following applications:

- Facility Integrity Monitoring: Pumps, flanges, mixers, sump pits
- Underground: Hydrocarbon leak detection around underground storage tanks and associated piping
- Water Bodies: Hydrocarbon leak detection in reservoirs, lakes, ponds, rivers, etc.

Products List



#	Item	Qty
1	Field Transmitter PCU w two sensor ports	
-	Data Repeater PCU (not shown, similar to 1)	
-	WirelessHART Gateway (not shown)	
2	2-cell battery pack 7.2V 19.0Ah 136.8Wh	
3	4-cell battery pack 7.2V 38.0Ah 273.6Wh	
4	HCD sensor (2 shown), configured as required	
5	Omni-directional rigid monopole antenna	
6	Omni-directional whip monopole antenna	
7	Perforated stainless steel tubing (2 ft. lengths)	
8	Polymeric fabric sensor sleeve (order by m/ft.)	
9	Standard mounting bracket	
-	Optional Syscor Tracker monitoring software	
-	Optional stainless steel tubing end cap (not shown)	
-	Cable (up to 266.7m/875 ft. maximum total length) (not shown)	

How to Purchase

Visit syscor.com for more information. Contact Syscor to discuss your specific site and application requirements.

Contact Information

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