

HCD-P Hydrocarbon Detector Probe with HDPE Enclosure



Description

Syscor's HCD-P Hydrocarbon Detector with HDPE enclosure probe can detect hydrocarbons (butane and heavier). The HCD-P can only be wired to Syscor's Rapid Deployment External Leak Detection System (ELDS).

Detection and Measurement Capabilities

Hydrocarbon Detection: Syscor has developed and qualified, in close cooperation with the petroleum industry, a new generation of hydrocarbon detection Polymer Absorption (PA) Sensors. The probe contains two PA Sensors (for redundancy) built with Syscor's proprietary formulations. The PA sensors have a high signal-to-noise ratio, methane immunity, are corrosion proof, and are designed to operate for up to 30 years (5 years under water). The PA sensors are available in two variations:

- **Standard PA sensor** is a highly robust environmental monitoring device for long term deployment in remote locations or where residual hydrocarbons may be present.
- **Fast-Action PA sensor** is a higher sensitivity hydrocarbon detector for installation around high consequence ecosystems or critical infrastructure.

The HCD-P probe is capable of self-calibration in the field.

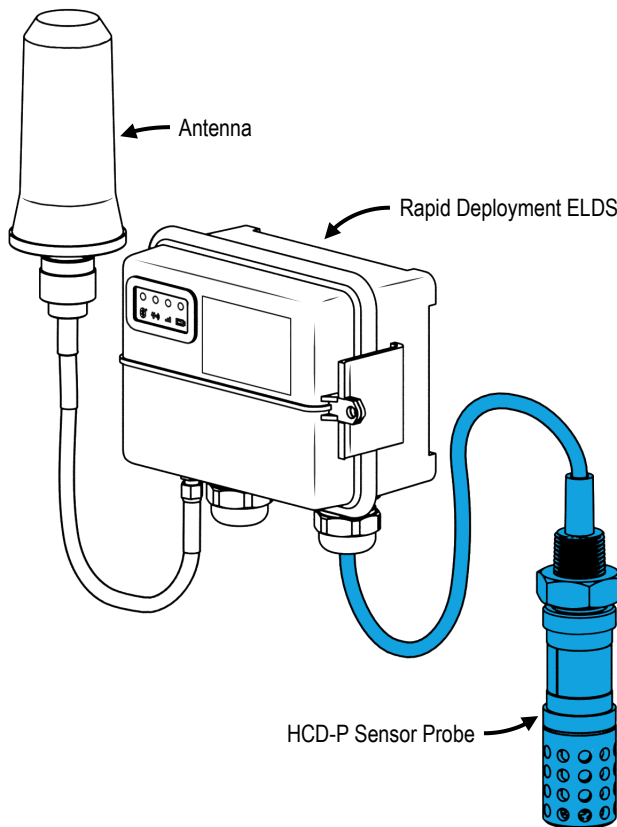
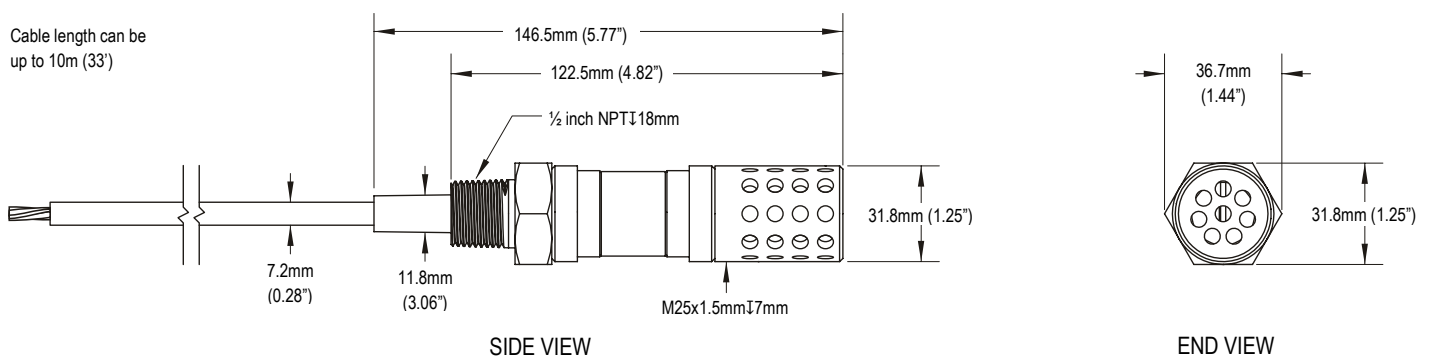


Figure 1. HCD-P Probe wired to a Rapid Deployment External Leak Detection System (ELDS).



Specifications

Functional Specifications

Power Usage	Nominal < 0.1 W
Sensor Features	Hydrocarbon Detection (butane and heavier), Temperature, Accelerometer (see Performance Specifications)
Communication	Proprietary serial protocol to PCU-X01 or PCU-X11

Physical Specifications

Enclosure	Stainless steel SS316 IP68, Type 4X
Wiring	4x1 conductor (red, black, white, green) 20 AWG tinned copper
Weight	400g [14.1oz.]
External Connections	Must be connected to port 1 or port 2 on a PCU-X01 or PCU-X11. If two sensor probes are connected to same PCU, then the total combined cable length for Intrinsically Safe operation cannot exceed 10m (33ft.).

Performance Specifications

Polymer Absorption (PA) Sensors	Detects all hydrocarbons (butane and heavier) in air and water.
Accelerometer	Ultra-low-power, high performance, three-axis linear accelerometer; Dynamically selectable range from 0g to 16g; Acceleration and velocity detection
Temp. Sensor	Resolution: 12 bits (0.0625°C) Accuracy: ±0.75°C (maximum) from -20°C to +85°C ±1°C (maximum) from -40°C to +125°C
Operating Temp.	-40°C to +60°C [-40°F to +140°F]

Certifications

<i>Rapid Deployment ELDS (CSENSE-A310)</i>	1) C US listed E165880
	2) Class 1, Division II, groups A,B,C,D
	3) T6
	4) Emissions a. Contains FCC ID: R17LE910NAV2 & QQBLE112 b. Contains IC: 5131A-LE910N & 5123A-BGTBLE112
	5) II 3G DEMKO 16 ATEX 1717X Ex nA IIC T6 Gc

Learn More

Rapid Deployment External Leak Detection System (ELDS)	syscor.com/downloads/syscor_solution-sheet_rapid-deployment-elds_en_80209.pdf
Polymer Absorption (PA) Sensors	syscor.com/technology/pas
Micro-Electro-Mechanical-System (MEMS)	syscor.com/technology/mems