

## SEAHAWK LEAK DETECTION



The SeaHawk LD2000 is the only advanced control panel on the market with both distance read technology and Ethernet capability. Designed to be used with SeaHawk Water Leak Detection Cable (SC), the LD2000 detects and reports the presence of any conductive fluid. RLE distance read systems are ideal in areas where the sensing cable may not be visible. The most common applications include data centers (under raised floors), clean rooms, telecommunication centers and other critical areas.

As a supervised system, the LD2000 continually monitors the cable for continuity. When a conductive fluid comes in contact with the SC or SeaHawk spot detectors (SD-Z), the system quickly pinpoints the location of the leak and shows the distance to the leak on the display LED. By cross-referencing the distance displayed with a cable reference map of your site, users can easily determine the physical location of the leak.

Alarm notification is via user-configurable SNMP, SMTP (email), Modbus (RS485 or TCP/IP), BACnet (IP), or Form C output relay. The LD2000 provides a web page (HTML) interface to allow users to get updates on conditions via the Internet or local area network. Notably, the LD2000 can be easily integrated into existing Building Management Systems (BMS) and Network Management Systems (NMS).

SC is available in standard and custom lengths with pre-installed mating end connectors. Mating end connectors simplify installation and expansion of the system. The recommended maximum length of SC connected to a LD2000 is 2,000 feet (609m).

### Key Features & Benefits

- Direct alarm notification via email, cell phone or other wireless devices
- Adjustable leak, delay and contamination alarm thresholds to help prevent false alarms
- HTML user interface
- Simple integration with existing monitoring systems: SMTP, SNMP, Modbus, BACnet
- Compact, light-weight, and DIN rail mountable
- Network (RJ-45) and RS-232 configuration with PC
- Event log stores 100 date and time stamped alarms
- Single person cable mapping and no calibration required for simple installation
- 8 Virtual zones
- RoHS compliant

D  
I  
C  
T  
I  
C  
S

# Specifications

<b>Power</b>	24VAC Isolated @ 600mA max, 50/60Hz, 24VDC@ 600mA max; requires power supply; power supply not supplied (part #WA-DC-24-ST)
<b>Inputs</b>	
<b>Water Leak Detection Cable</b>	Compatible with SeaHawk SC Cable
<b>Cable Input</b>	Requires SeaHawk LC-KIT (15ft [4.57m] leader cable and EOL); LC-Kit not supplied
<b>Recommended Maximum Length</b>	2,000ft (609m)
<b>Detection Accuracy</b>	± 2ft (0.6m) +/- 0.5% of the cable length
<b>Detection Repeatability</b>	± 2ft (0.6m) +/- 0.25% of the cable length
<b>Detection Response Time</b>	5-990sec, software adjustable in 5sec increments; ±2sec
<b>Outputs</b>	
<b>Relay</b>	Summary Relay; 1A @ 24VDC, 0.5A resistive @ 120VAC
<b>Communications Ports</b>	
<b>Ethernet</b>	10/100 BaseT, RJ45 connector; 500VAC RMS isolation
<b>RS-232</b>	DB9 female connector; 9600 baud; No parity, 8 data bits, 1 stop bit
<b>RS-485</b>	1200, 2400, 9600 or 19200 baud (selectable); Parity: none, even or odd, 8 data bits, 1 stop bit
<b>Protocols</b>	
<b>TCP/IP, HTML, TFTP</b>	IPv4.0; web pages comply with Rehabilitation Act of 1973, sections 504 and 508, US Dept of Education (website accessibility for computer users with disabilities)
<b>SNMP</b>	V1: V2C MIB-2 compliant; NMS Manageable with Get, Set, Traps
<b>SMTP (Email)</b>	Supports Client Authentication (plain and login); compatible with ESMTP Servers
<b>Modbus (RS-485)</b>	Slave; RTU mode; Supports function codes 03, 04, 06 and 16
<b>Modbus TCP/IP</b>	Modbus Slave; TCP/IP transmission protocol
<b>BACNet/IP</b>	Conformance Level 1
<b>Terminal Emulation (RS-232)</b>	VT100 compatible
<b>Alarm Notification</b>	
<b>Visual Alarm</b>	Red, 4-digit; 7 Segment LED Display; Bi-color status LED
<b>Email (Ethernet, Modem PPP)</b>	4 email recipients; email sent on Alarm and Return to Normal; each Alarm can notify any or all of the email recipients
<b>SNMP Traps (Ethernet)</b>	4 Community Strings
<b>Logging Capabilities</b>	
<b>Event Log</b>	Last 100 events
<b>Trend Log</b>	Cable current level every day, for the last 288 days
<b>Login Security</b>	
<b>Web Browser Access (Ethernet)</b>	1 Web password Read Only; 1 Web password Read/Write
<b>Terminal Emulation Access</b>	None
<b>Front Panel Interface</b>	
<b>Display</b>	Red, 4-digit; 7 Segment LED Display; Bi-color status LED
<b>Push Buttons</b>	1 Test/Rest
<b>LED Indicators</b>	1 tri-color Power/Status (green=power on, red=alarm, yellow=cable fault)
<b>Operating Environment</b>	
<b>Temperature</b>	32° to 122°F (0° to 50°C)
<b>Humidity</b>	5% to 95% RH, non-condensing
<b>Altitude</b>	15,000ft (4,572m) max.
<b>Storage Environment</b>	-4° to 185°F (-20° to 85°C)
<b>Dimensions</b>	8.0"W x 4.25"H x 1.25"D (203mmW x 108mmH x 31.75mmD)
<b>Weight</b>	1.5 lbs. (680g)
<b>Mounting</b>	Vertical wall mount, or optional din rail mount
<b>Certifications</b>	CE; ETL listed: conforms to UL STD 61010-1, EN STD 61010-1; certified to CSA C22.2 STD NO. 61010-1; RoHS compliant



FORT COLLINS CO  
970 484-6510  
970 484-6650 FAX  
WWW.RLETECH.COM

©2008 RLE Technologies 110050 Rev 0.0 (03/2008)

**SeaHawk**

Although the information contained in this document is believed to be accurate and correct, RLE Technologies assumes no responsibility, and disclaims all liability, for any damages resulting from the use of this information or any error or omission in this document. RLE Technologies does not warrant, guarantee, or make any representations as to the performance, fitness for use, safety, or reliability of any existing or future wiring, equipment, additions or modifications to equipment, or any other component of the original or modified system. Specifications are subject to change without notice.