



# RLE Technologies

## ZONE WATER LEAK DETECTION

### SeaHawk LDZ Series

Designed for use with RLE's patented SeaHawk Water Leak Detection Cable, the SeaHawk LDZ Series Panels report the presence of water and any other conductive fluid within a predetermined zone. There are four models available:

- 1) **LDZ1:** 1 zone system with audible and visual alarm indicators.
- 2) **LDZ1-NA:** 1 zone system with a visual alarm indicator only, no audible alarm.
- 3) **LDZ4:** 4 zone system with audible and visual alarm indicators.
- 4) **LDZ8:** 8 zone system with audible and visual alarm indicators. The LDZ8 can also interface with a computer through a standard RS-232 port, through which a 117 day history of the cable's current level readings and the last 100 alarms can be viewed for analysis. Additionally, the unit contains a Modbus slave port allowing other devices to communicate with it.



The LDZ control panels continuously monitor up to 1,000' (300m) of SeaHawk Water Leak Detection Cable per zone. If any conductive fluid contacts the water leak detection cable anywhere along its length, the LDZ panel illuminates the corresponding zone LED, clearly indicating which zone is affected. All models also audibly announce the leak (except the LDZ1-NA). Additionally, if the water leak detection cable is cut, has a poor connection or continuity is lost for any reason, the panel will activate a cable fault LED. Each zone has an independently adjustable leak detection "threshold" (i.e. sensitivity setting) to help prevent false alarms. A summary alarm relay output is standard.

### LDZ Series Features

- One, four and eight zone models
- Monitors up to 1,000' of SeaHawk Water Leak Detection Cable per zone
- Two LED indicators per zone (*single indicator on LDZ1-NA*);
  - Leak Detected
  - Cable Fault
- Sensitivity settings for each zone help eliminate false alarms
- Summary alarm relay output
- Wall mount enclosures
- LDZ8 alarm and trend logs – last 100 alarms, cable current levels for last 128 days
- LDZ8 Modbus (RS-485) interface and RS-232 craft port interface

## LDZ Series Technical Specifications

	LDZ1	LDZ1-NA	LDZ4	LDZ8
<b>Power</b>	24VAC/VDC ( $\pm 10\%$ ) @ 300mA max.	24VAC/VDC ( $\pm 10\%$ ) @ 300mA max.	24VAC/VDC ( $\pm 10\%$ ) @ 300mA max.	85-264VAC @ 500mA max., 50/60Hz
<b>Inputs</b>				
<b>Water Leak Detection Cable</b>	Supplied with 15' (4.57m) leader cable per zone	Supplied with 15' (4.57m) leader cable per zone	Supplied with 15' (4.57m) leader cable per zone	Supplied with 15' (4.57m) leader cable per zone
<b>Maximum Length</b>	1000' (305m)	1000' (305m)	1000' (305m)/zone	1000' (305m)/zone
<b>Detection Response Time</b>	Configurable for 10sec or 2min, $\pm 10\%$	Configurable for 10sec or 2min, $\pm 10\%$	<20sec	<20sec
<b>Outputs</b>				
<b>Relay</b>	1 Form C Leak Relay, 1 Form C Cable Fault Relay, configurable to 2 Summary Alarm Relays; 1A @ 24VDC, 0.5A resistive @ 120VAC; configurable for supervised or non-supervised, latched or non-latched	1 Form C Summary Alarm Relay; 1A @ 24VDC, 0.5A resistive @ 120VAC; configurable for supervised or non-supervised, latched or non-latched	1 Form C Leak Relay, 1 Form C Cable Fault Relay, 1 Form C Summary Alarm Relay (silenceable); 1A @ 24VDC, 0.5A resistive @ 120VAC; configurable for supervised or non-supervised, latched or non-latched	1 Form C Leak Relay, 1 Form C Cable Fault Relay, 1 Form C Summary Alarm Relay; 1A @ 24VDC, 0.5A resistive @ 120VAC; configurable for supervised or non-supervised, latched or non-latched
<b>Communications Ports</b>				
<b>RS-232</b>	N/A	N/A	N/A	1200, 2400, 9600 or 19200 selectable; No parity, 8 data bits, 1 stop bit
<b>RS-485</b>	N/A	N/A	N/A	1200, 2400, 9600 or 19200 selectable; No parity, 8 data bits, 1 stop bit
<b>Protocols</b>				
<b>Terminal Emulation (RS-232)</b>	N/A	N/A	N/A	VT100 compatible
<b>Modbus (RS-485)</b>	N/A	N/A	N/A	Slave; RTU Mode; Supports function codes 03, 04, 06 and 16
<b>Alarm Notification</b>				
<b>Audible Alarm</b>	85DBA @ 2' (0.6m)	N/A	85DBA @ 2' (0.6m), re-sound 0-24hrs	85DBA @ 2' (0.6m), re-sound 0-9,999min
<b>Logging Capabilities</b>				
<b>Alarm Log</b>	N/A	N/A	N/A	Last 100 alarms (FIFO)
<b>Trend Log</b>	N/A	N/A	N/A	Cable current level per zone, for the last 128 days
<b>Login Security</b>				
<b>Terminal Emulation Access</b>	N/A	N/A	N/A	1 Administrator (password for configuration)
<b>Front Panel Interface</b>				
<b>LED Indicators</b>	1 green Power (on/off); 1 amber Cable Fault; 1 red Leak Detected	1 green Power/Status (green=on/normal; flash rate indicates cable fault or leak detected)	1 green Power (on/off); 4 amber Cable Fault; 4 red Leak Detected (1 per zone)	1 green Power (on/off), 8 amber Cable Fault; 8 red Leak Detected (1 per zone)
<b>Push Buttons</b>	1 for Reset, Quiet & Test	N/A	1 Reset, 1 Quiet & 1 Test	1 Reset, 1 Quiet & 1 Test
<b>Operating Environment</b>				
<b>Temperature</b>	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)
<b>Humidity</b>	5% to 95% RH, non-condensing	5% to 95% RH, non-condensing	5% to 95% RH, non-condensing	5% to 95% RH, non-condensing
<b>Altitude</b>	10,000' (3,048m) max.	10,000' (3,048m) max.	10,000' (3,048m) max.	10,000' (3,048m) max.
<b>Storage Environment</b>	-4° to 158°F (-20° to 70°C)	-4° to 158°F (-20° to 70°C)	-4° to 158°F (-20° to 70°C)	-4° to 158°F (-20° to 70°C)
<b>Dimensions</b>	2.56"W x 1.57"H x 4.72"D (65mmW x 40mmH x 120mmD)	2.56"W x 1.57"H x 4.72"D (65mmW x 40mmH x 120mmD)	10.5"W x 8.0"H x 2.0"D (267mmW x 203mmH x 51mmD)	12.0"W x 14.0"H x 4.0"D (305mmW x 356mmH x 102mmD)
<b>Weight</b>	8 oz. (227g)	8 oz. (227g)	4 lbs. (1.82kg)	12 lbs. (5.45kg)
<b>Mounting</b>	Vertical wall mount	Vertical wall mount	Vertical wall mount	Vertical wall mount
<b>Certifications</b>	UL508A/CUL508A, FCC Part 15	UL508A/CUL508A, FCC Part 15	UL508A/CUL508A, FCC Part 15	UL508A/CUL508A, FCC Part 15



**RLE Technologies**

*What's Going On...*

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. Further, 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.

©2004 RLE Technologies

### Warranty

Products manufactured by RLE Technologies are warranted to be free from defects in materials and workmanship for one year after the date of shipment. Such warranty is limited to parts and labor to repair or replace such RLE products that are found to be defective. To ensure warranty coverage, all installation and other instructions must be followed properly. All installation and setup work must be performed by qualified personnel who are knowledgeable of the equipment and aware of appropriate safety, wiring, and other applicable practices.

11008 Rev 2.1 (04/2005)