Laird
Smart Technology. Delivered.

CattronControl™
LRC-M-IS & LRC-L-IS Intrinsically Safe





The LRC-M-IS and LRC-L-IS are Intrinsically Safe Operator Control Units that are part of the CattronControl™ family of remote control systems for cranes, lifting equipment and a diverse range of machines operating in hazardous areas. They employ advanced dual processor electronics and safety critical software, protected in an ergonomic and robust housing that is well suited for use in aggressive industrial environments.

These controllers are approved to UL913 for the United States, CSA C22.2#157 for Canada and ATEX for Europe and other regions recognizing the ATEX approval. Operation is possible in hazardous areas classified as zone 0 (constant immersion in the explosive atmosphere). Approval for Zone 0 operation requires products to be able to tolerate two concurrent faults without resulting in conditions likely to cause an explosion; whereas products approved to Zone 1 are only required to consider a single fault. Therefore, Zone 0 compliant OCUs can be used in Zone 1 and lower environments with the added benefit of the two-fault tolerant design.

These OCUs feature an external memory button, for simple unit configuration, to allow facilities to quickly deploy spare units by simply swapping the memory button between the operating unit and a spare, downtime and spares holding are minimized.

The LRC-M-IS and LRC-L-IS are available as engineered units configured to suit the specific application and may (depending on the unit selected) incorporate up to three stepped or step-less joysticks OR up to 5 full-size paddles OR up to eight mini paddles, PLUS up to ten additional actuators (pushbuttons, toggle, rotary switches, etc.) OR without any main actuators, up to 32 Auxiliary switches plus Stop/Horn/ON-OFF.

There are so many possibilities with their high reliability switches, levers, feedback to LEDs, multi-crane, multi-hoist / bridge selection capabilities, tilt switches, memory button configuration, and global compliance, these tough and highly configurable controllers are ideal for operation in almost any application and operators maintain total freedom of movement for safe and efficient operations.

FEATURES

- For control of cranes and machines with digital or analog drive systems
- Status LEDs for status and feedback
- High safety-class through redundant hardware and software architecture
- Zone 0 rating for continuous exposure
- Dual concurrent fault tolerance and higher safety
- IP65 housing made of high impact-resistant polycarbonate resin for tough indoor and outdoor environments
- Customer-specific layout with a wide range of control elements
- Compatible with a number of machine control units featuring various interface options
- Optional force/angle safety feature
- System configuration via secure memory button for simplification of spares holding
- Tandem and multi-transmitter and/or receiver operation
- CE compliant

Systems-US-Sales@lairdtech.com
+1.724.962.3571
+1.760.737.7800

Systems-CDN-Sales@lairdtech.com
+1.514.908.1659

Systems-EU-Sales@lairdtech.com
+49.2161.6363.0

Systems-UK-Sales@lairdtech.com
+44.0.1932.247.511

Systems-CN-Sales@lairdtech.com
+86.21.3120.0188

Systems-SA-Sales@lairdtech.com
+27.11.425.1123

Systems-BR-Sales@lairdtech.com
+55.19.3243.7803

www.lairdtech.com

CattronControl™
LRC-M-IS & LRC-L-IS
Intrinsically Safe

APPLICABILITY BY INDUSTRY

INDUSTRIAL SECTOR											
Approval Region	Approved to	Oil Rig Petroleum Industry, Storage, Lubrication	Natural Gas	Boat Building Glass Resin	Paint Booth Solvent Based	Lead Acid Battery Charging, Fuel Cells, Tanks	Coal Mine	Sewer or Slurry Applicatons	Grain Mills	Metal Working & Fabrication	Chemical & Pharma-ceuticals
Hazard	Gaseous	Ethanols	Propane Butane, L.N.G.	Styrene	Toluene	Hydrogen, Hydrogen Sulfide	Methane	Methane Ethanols			
Hazard	Dusts						Coal Dust		Non-Metallic Dusts	Spun Style Flyings	
ATEX Compliant	I Ma (Operates during hazard)						✓				
ATEX Compliant	II 1 GD Ex ia IIC T4 Ga Ex ia IIC T4 Da Temp -20C < +60C (ZONE 0)	✓	✓	✓	✓	✓		✓	✓	✓	✓
ATEX Compliant	II 2 GD Ex ib IIC T4 (ZONE 1)	✓	✓	✓	✓	✓		✓	✓	✓	✓
CLASS											
North America	Class I, Div 1, Group A, B, C, D, Temp T4	✓	✓	✓	✓	✓		✓			✓
North America	Class II, Div 1, Class III, Div 1, Groups E, F, G Temp T4								✓	✓	

TECHNICAL DATA AND SPECIFICATIONS

ELECTRONIC DATA

Commands	Up to 55 digital commands + STOP Up to 8 analog commands
Digital circuitry	Dual-processor technology
System addresses	24 bits = 16 million addresses
Energy-saving mode	Automatic shutdown (configurable 0-30 minutes)
Supply voltage	Rechargeable battery, NiMH 4.8V/1220 mAh
Autonomy	> 12 h at 100% uninterrupted use

OPERATION AND INDICATION

Layout	Fully customizable
Control elements (typical)	1, 2 or 3 joysticks, stepped or step-less, start, horn, stop, keyswitch, push buttons, toggle switches, rotary switches, etc.
Memory button	System configuration, address and RF channel setting
Buzzer	Low voltage indication and tilt
LED	1 status LED 4 multi-function LEDs

STANDARDS

Safety	EN 13849-1 Category 3 PL d EN 60204-1 EN 60204-32 CE Compliant UL 913 CSA 22 • 2 # 157 ATEX

MECHANICAL DATA

Weight - M1	Approx. 1.6 kg (3.5 lbs)
Dimensions - M1 L x W x H	274 x 207 x 160 mm (10.8 x 8.2 x 6.3 inches)
Weight - L1	Approx. 1.7–2.3 kg (3.7–5 lbs)
Dimensions - L1 L x W x H	370 x 200 x 175 mm (14.8 x 7.8 x 7 inches)
Housing material	RTP-2599x123015 polycarbonate/ABS alloy, standard color black
Housing protection rating	IP 65 - Suitable for outdoor use
Operating temperature	-20º to +60º C (-4º to +140º F)
Vibration and shock	Vibration/impact and drop tested to 1m on concrete

RF

Frequency range	433-434 MHz 902-927 MHz
Transmission speed	4.8 to 20 kbit/s
Transmitter output power	10 mW
Modulation	FM
RF channel spacing	12.5 kHz; 25 kHz
Antenna	Internal

ACCESSORIES

Batteries	1 rechargeable battery, NiMH, 4.8 V/1220 mAh
Battery charger	Processor-controlled charger with changing system on the primary side for international use 100-240 V AC, 50-60 Hz

Any information furnished by Laird and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird materials rests with the end user, since Laird and its agents cannot be aware of all potential uses. Laird makes no warranties as to the fitness, merchantability or suitability of any Laird materials or products for any specific or general uses. Laird, Laird Technologies, Inc or any of its affiliates or agents shall not be liable for incidental or consequential damages of any kind. All Laird products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2014 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird or any third party intellectual property rights..