BUILDING POWERFUL CONNECTIONS

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ruralelectric.com

2020 CATALOG
OUR MISSION

We leverage the talent of our people and use emerging technology while Building Powerful Connections through innovative solutions for our construction and manufacturing clients.
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Since 1964 Rural Electric has been providing electrical contracting services with an eye on innovation, quality and customer service. As a family owned and operated business Rural Electric has grown to a leader in Airport, Industrial and Roadway electrical contracting and manufacturing. We pride ourselves on bringing creative solutions to exceed our customer’s expectations with on-time and on-budget project contracting and management.
QUALIFICATIONS & SERVICES

• 44 years of continuous electrical contracting experience
• On-staff electrical, manufacturing and control engineers
• ISO 9001-2015 certified manufacturing and contracting management services
• Multi-state licensed as both an electrical and general contractor throughout the Southwest
• UL 508A Industrial Control Panel design and fabrication
• Manufacturer of FAA Approved Listed airfield lighting hardware and controls
• Manufacturer of a complete line of approved airfield lighting hardware and controls
• Custom control engineering design, build and installation services for all industrial applications
• Complete electrical contracting for any commercial, industrial or transportation project
• Service and repair for all installed airfield lighting equipment
• Custom Programmable Logic Computer based retrofit and repair for industrial control systems

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BRIEF DESCRIPTION

Rural Electric’s L-854 FM radio receiver/decoder is designed with flexibility and reliability in mind! This field tunable radio allows pilots to control airfield lighting with a series of 3, 5 or 7 microphone clicks in a 5-second period. An integrated selectable timer automatically shuts airfield lights off after 1, 15, 30 or 60 minutes of illumination. Our L-854 receiver is particularly useful for small to mid-sized airfields where continuous nighttime illumination is unnecessary and expensive. Our rugged, solid-state design will provide years of service and is the perfect replacement for aging “crystal” based units. The L-854 has a receiver which is 100% field tunable throughout the airband, 118-136MHz, in 25kHz increments.

DETAILS & FEATURES

Tested to operate indoors or outdoors in temperatures from -40°C to +55°C.

Standard construction features a rugged NEMA 4/12 enclosure. Custom cabinets are available to suit your application.

Relay bank is easily accessible from front panel. Set up couldn’t be easier!

Standard long life mechanical relays ensure compatibility with your equipment.

Our solid state receiver design makes for extremely low power consumption.

Custom designs are available for OEM integration, solar deployment, mobile operation and Heliport control. Ask our engineers to build your exact model needs!

Wide range of operating voltages, from 100-240vac, 50/60Hz.

DC Version is available.

Eu Version now available with 8.33kHz channel spacing.

INSTALLATION

Sold as a complete package, installation-ready with a sturdy dipole antenna, lightning arrester and 20 feet of coaxial antenna cable.

Front Panel cage clamp terminals are contractor friendly and make installations a breeze!

Deployment is as easy as hanging the unit, providing a radio power source, wiring control power inputs and outputs and mounting the antenna - simple, quick and reliable!

<table>
<thead>
<tr>
<th>RDL8541A ELECTRICAL CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
</tr>
<tr>
<td>90-264 VAC 50-60Hz Auto Sensing</td>
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**BRIEF DESCRIPTION**

The Rural Electric Heliport Lighting Control Box works with Rural Electric's L-854 receiver. The system allows a pilot to remotely turn on your heliport lighting for an adjustable period of 15, 30 or 60 minutes.

**DETAILS & FEATURES**

Quick and easy interface with our L-854 air-to-ground radio receiver, part number #RDL8541A.

- Small size, NEMA 1 enclosure.
- Works with either 120vac or 230vac.
- Power out to your loads is switched by a reliable 30 Amp, 2 pole, mechanical contractor.
- Need more switching capacity? Our engineers will design and build a custom solution for you!

**INSTALLATION**

Easy, wall mount design.

Control wiring could not be simpler, just connect two wires to your L-854.

All control and power wiring connect using reliable cage clamp terminals.

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BRIEF DESCRIPTION

Rural Electric’s L-821 Conventional and L-821 PLC control panels provide smaller airports complete airfield lighting control. Relays, switches, and human interfaces are all combined into one compact unit for most applications thereby eliminating additional panels and providing a clean and economical installation. Two models are offered, a base Type I, Style 1 with manual switches for control and a touch screen version Type III, Style 3 both meeting FAA certification requirements is available.

TYPE I, STYLE 1

DETAILS & FEATURES

An effective, low maintenance and economical airfield lighting control system that utilizes state-of-the-art electrical components proven through decades of industrial use in the harshest of environments.

Thoughtfully designed as “plug and play” with contractor friendly cage clamp terminal blocks to route directly to regulators and other switch gear.

High quality cabinetry with industrial grade relays and silver contact switches will provide decades of trouble-free service and low life cycle costs.

Custom designed exactly to your lighting control needs.

Engineering includes a complete submittal package prior to construction and as built drawings shipped with the panel.

Our compliance with ISO 9001: 2015 ensures a quality product and the ability to provide field support with controlled revision drawings.

INSTALLATION

Commission-free installation is as simple as hanging the cabinet, providing control power and terminating to airfield lighting gear. Quick, easy and reliable!

DETAILS & FEATURES

A low cost PLC driven system with HMI interface

Completely self contained with “soft key” buttons customized to your exact needs for virtually unlimited control options

Custom designed exactly to your lighting control needs.

Engineering includes a complete submittal package prior to construction and as built drawings shipped with the panel.

Our compliance with ISO 9001: 2015 ensures a quality product and the ability to provide field support with controlled revision drawings.

INSTALLATION

Commission-free installation or Commissioning by an engineer is available.
L-890 AIRPORT LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS)

BRIEF DESCRIPTION
The Rural Electric L-890 Airport Lighting Control and Monitoring System brings full featured L-890 system to airports of every size. Our industrial quality touch screen combined with customized graphics provides a real-time visual status of airfield lighting at a fraction of the cost of larger systems. The Rural Electric team can build unique graphics, programs and operating sequences for virtually any sized airfield from general aviation to major airport.

DETAILS & FEATURES
An effective, low maintenance and economical airfield lighting control system that utilizes state-of-the-art electrical components proven through decades of industrial use in the harshest of environments.

Completely self contained with “soft key” buttons customized to your exact needs for virtually unlimited control options.

A wide variety of communication links makes this system easily deployable in every situation from retrofits to new construction.

Commercially available, “Non-Proprietary” components ensure a low total life-cycle cost and future sustainability.

INSTALLATION
Integrate our custom Programmable Logic controller cabinet into your existing vault with “plug and play” wiring that is contractor friendly with industrial Ethernet, fiber optic or wireless connectivity.
**BRIEF DESCRIPTION**

Rural Electric's closure-x is made of durable vinyl coated fabric and provides airports with reliable and economical method for closing runways and taxiways to aircraft use. The solid yellow color provides superior visibility for a clear indication of closures.

**DETAILS & FEATURES**

Convenient anchoring is accomplished by filling a 3-inch “fire hose” bladder that runs the entire perimeter of the vinyl sheet.

Water bladder is resistant to wind and is more “forgiving” than sandbags or stakes in the event of an aircraft strike.

Material is mildew and U.V. resistant as well as double-seamed for durability.

Easy removal is allowed by opening a drain at the low point of the bladder.

Approximately 50 gallons of water is required per one half of the “X.”

**INSTALLATION**

Each leg of the “X” is unrolled and located over the runway numbers or other chosen location.

Approximately 50 gallons of water is pumped or gravity flowed into the 3/4” hose fitting in the 3” diameter bladder. A vent is opened on the other end of the bladder and a short extension hose is attached and elevated to ensure complete filling of the bladder.
**BRIEF DESCRIPTION**

Rural Electric's patented non-metallic transformer stand is designed to support an isolation transformer in a L-860 series base can. The open bottom design is perfect for French drain systems where a landscape brick would obstruct the drain hole.

**DETAILS & FEATURES**

Elevates the isolation transformer approximately 6” above the can bottom.

Non-conductive construction provides a degree of isolation from the metallic base can.

The fluted foot bottom allows for passage of the series conductors while leaving the drain hole unobstructed.

Field tested to support in excess of 200 pounds.

Ships flat for economical delivery and assembles in seconds.

**INSTALLATION**

The three part device is quickly assembled and held together using ordinary PVC glue.
Palm Springs International Airfield | Lighting Control

This system was engineered, fabricated, and installed by Rural Electric. Working with our Airfield Construction Group a turnkey solution was created for the customer. The system utilizes Color Touch Screens which are located in the Air Traffic Control Tower and in the Lighting Vault.

This system controls 10 Constant Current Regulators & 8 Lighting contractors. The system is designed with controls for Air Traffic Control Tower personnel when manned and Pilot Control when the Air Traffic Control Tower is unmanned. The system also has control for Day/Night operations. The communications between the Air Traffic Control Tower and the Lighting Vault is via Fiber-Optic Cable.

WACO Airport | Lighting Control

This system was engineered, programmed and fabricated by Rural Electric working in partnership with the Airport staff and Project Engineer. The Color Touch Screen shown is in the Air Traffic Control Tower and used to control the airfield lighting components via a PLC in the Lighting Vault.

The system is operated in two modes. Tower Control Mode is used by Air Traffic Control Tower personnel when they are present, and Air to Ground Pilot Control Mode when the Air Traffic Control Tower is unmanned. Rural Electric supplied all control components for this project including the Air to Ground radio.
FMI - CHLORINATOR CONTAINMENT

- PLC Programming and Integration to existing plant DCS system (including control panel design, I/O terminations, Backup Redundant PLC Controller, interlock logic strategy, fiber optic cable routing, Ethernet (Cisco only) design, etc.)
- Commissioning.
- Design an installation of all the necessary chlorine leak monitoring and alarm equipment for the chlorination building integrated into the existing leak detection system

ASARCO – ACID STORAGE TANKS

1. Installation of two (2) vertical acid pumps
2. New elevated MCC building, MCC building foundation,
3. Instrumentation, power and control systems
4. Construction of a new high voltage supply line, including end structure, primary transformer and connecting to existing 44KV line, safety showers and all miscellaneous connections.

PINTO VALLEY

Modifications to existing junction Boxes.

CLIENT

ARCHER WESTERN
MANUFACTURING DELIVERED TO RURAL (INTERNAL JOB),

LOCATION
SIERRITA, ARIZONA

CLIENT

AGATE
MANUFACTURING DELIVERED TO RURAL (INTERNAL JOB),

LOCATION
KEARNY, ARIZONA

CLIENT

SKANSKA and AJAX LTD.

LOCATION
MIAMI / GLOBE