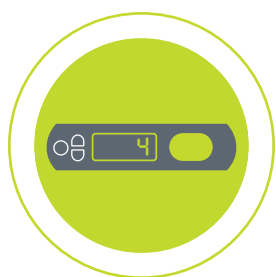# LP PLC Bridge

Light Module Interface for A-B ControlLogix & CompactLogix

Capability

Empower PLC Programmers and System Developers to use light modules in customer manual pick and put applications and as an option for distributed interface applications.

LIGHTNING PICK

Product Overview

Light-directed technologies, often called Pick-to-Light, have been used successfully in warehouses and distribution centers for years.

Now, Lightning Pick makes this equipment available for PLC users through the introduction of the Allen-Bradley Control-Logix Light Module Interface.

LP PLC Bridge is a software interface for ControlLogix and CompactLogix PLCs which allows them to control a network of light modules via interface blocks connected to the PLC serial port. Hundreds of thousands of Lightning Pick® modules have aleady been implemented for customers worldwide.

Applications

The LP PLC Bridge is used for applications such as: assembly line error-proofing, remote operator stations, kit picking, sequential assembly / test stands and automated sortation chutes.

Features

- Provides a wide range of modules with numeric display lighted buttons.
- Includes up to seven software selecable colors and various specialized actuators.
- Each module is individually addresable and includes built-in capabilities to beep, flash change status when the button is pushed.
- All functions are set using PLC data registers.
- Light module network uses a pair of 16-gauge wires for both power and data.
- Modules can be distributed along the network up to 100 feet from the controller.
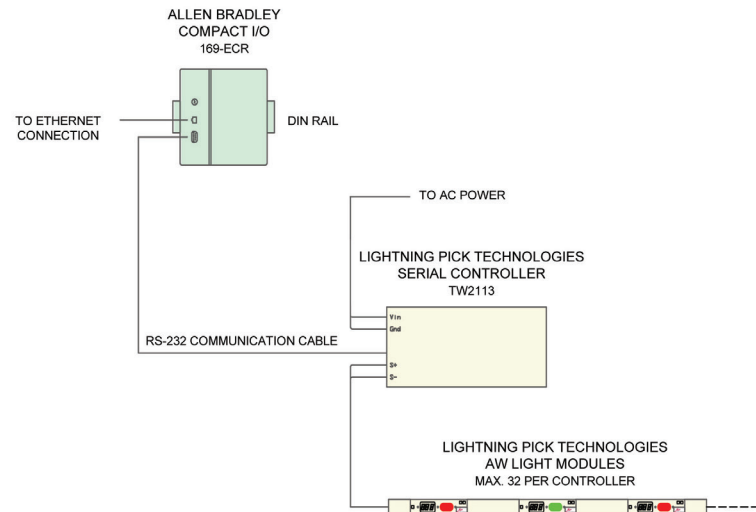
Interface & Components

Interface Overview

The Lightning Pick Rockwell PLC Interface allows the Rockwell PLC to control light modules directly without an interfacing computer. The interface currently supports any modules in the JW, SW or AW families, which include a numeric display (with options for 1 to 5 digits) or indicator-only lights without numeric displays. The system supports both single color and multi-color light modules.

The PLC must include a serial port, that is used to communicate to the light interface hardware via a serial cable. The cable (not included) can be up to 50 feet in length. Lightning Pick also offer two types of controllers. A TW2111 controller can support over 5,000 modules in groups of 160, using TW2201 junctions boxes.

For smaller systems, a TW2113 controller/junction box is available. This combination unit can support 32 light modules.

AW Wiring/PLC Bridge Summary

- Creates ladder call-able sub-routine that controls the Lightning Pick network.
- User Specifies:
    - Light address.
    - Quantity display and characteristics.
    - Confirm light characteristics.
    - Actions after confirm pressed.
- Returns Light Module Status
- Works through Control Logix Serial Port
    - Each port supports 32 lights.

ALLEN BRADLEY
COMPACT I/O
169-ECR

TO ETHERNET
CONNECTION

DIN RAIL

TO AC POWER

LIGHTNING PICK TECHNOLOGIES
SERIAL CONTROLLER
TW2113

Vin
Gnd

S+
S-

RS-232 COMMUNICATION CABLE

LIGHTNING PICK TECHNOLOGIES
AW LIGHT MODULES
MAX. 32 PER CONTROLLER

LP Advantage

- Easily supported through PLC ladder statements without requiring development of "interface code".
- Simple and cost effective solution to manual picking and putting operations.
- Installs easily without special tools.
- Works with modular rack systems.
- Easy system troubleshooting and expansion.

For more than 30 years and across 500 installations worldwide, Lightning Pick has delivered advanced light-directed technologies on time, on budget, every time. Our best-in-class pick-to-light, put-to-light, pack-to-light, pick carts and other solutions optimize material handling processes — from manufacturing through order fulfillment. Today, we're the number one provider of light-directed solutions in North America, providing our customers increased productivity, higher quality and improved process efficiency.

LIGHTNING PICK

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