



LC82-S APPLICATION NOTE

MINI-MART GAS STATION

A major oil company in Canada was looking for a way to conserve energy in its mini-mart operations and to take advantage of local utility rebate programs. Realizing service stations and convenience markets with lighting attract customers, management wanted precise high footcandle switching levels so as to maintain customer safety and station visibility.

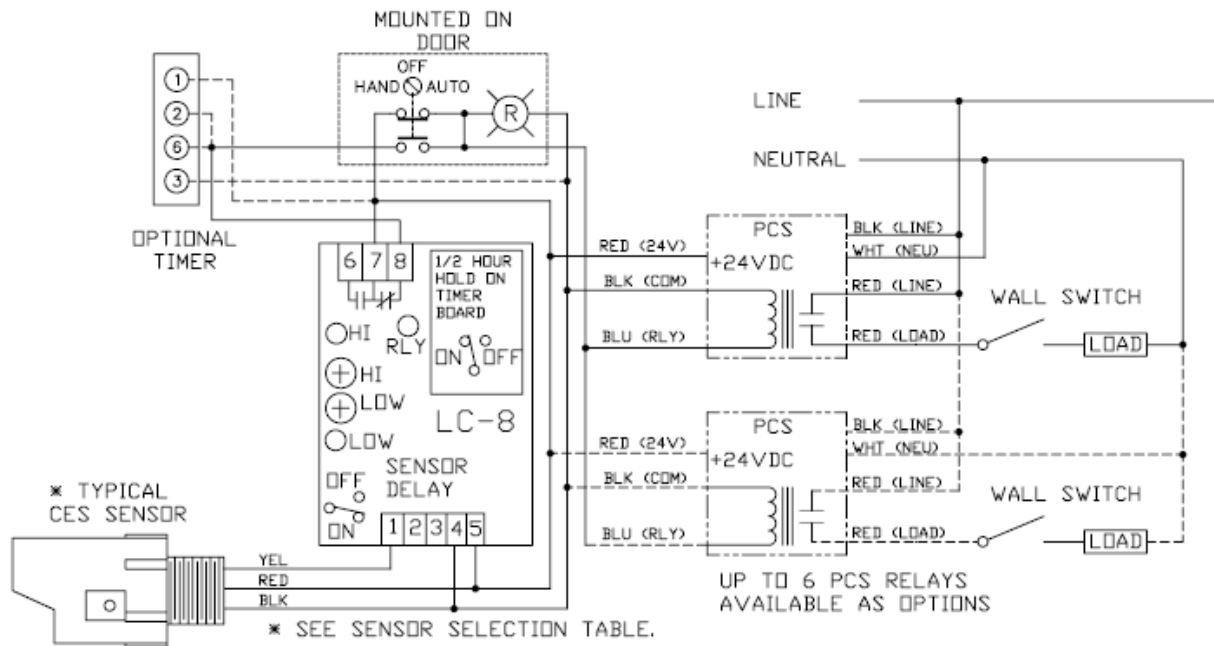
Initially **PLC-MULTIPOINT** was to control only the high intensity discharge (HID) lighting under the canopy area. A unit with an ON-OFF-AUTO selector switch, LED status indicator, two **PCS/120** relays controlling two on board 8 pole lighting contactors, and a 1/2 hour hold on timer module was installed. The unit worked so well that many stations wanted to add perimeter and security circuits to the system. The additional circuits were handled by an **LC82-S-32P** system, since it has twice the control capabilities.

Some stations also added a time switch option that allowed for control of selected circuits through timed exclusion periods. This is a period that disallows the lights to come on even if the **CES/O** sensor calls for the lights to be on.

The ON and OFF setpoints of the controllers in the **LC82-S-32P** were pre-calibrated at the factory and matched with the included **CES/O** sensor. Final adjustment of the switching setpoints was accomplished at some stations using a **PC-SIM** calibration simulator. The **LC82-S** relay output powered remote mounted lighting contactors that were in the controller's enclosure. The ON-OFF-AUTO switch provided override control of the automatic functions of the unit. The LED status indicator showed the output relay state.

Ease of installation was an important consideration. The **LC82-S's** NEMA 1 enclosure provided perforated conduit knockouts. The energy savings were confirmed by comparing electric bills prior to and after installation of controls. The following graphs show an average savings of 20%. The **LC82-S** controller achieved pay back in as little as nine months.

APPLICATION NOTES

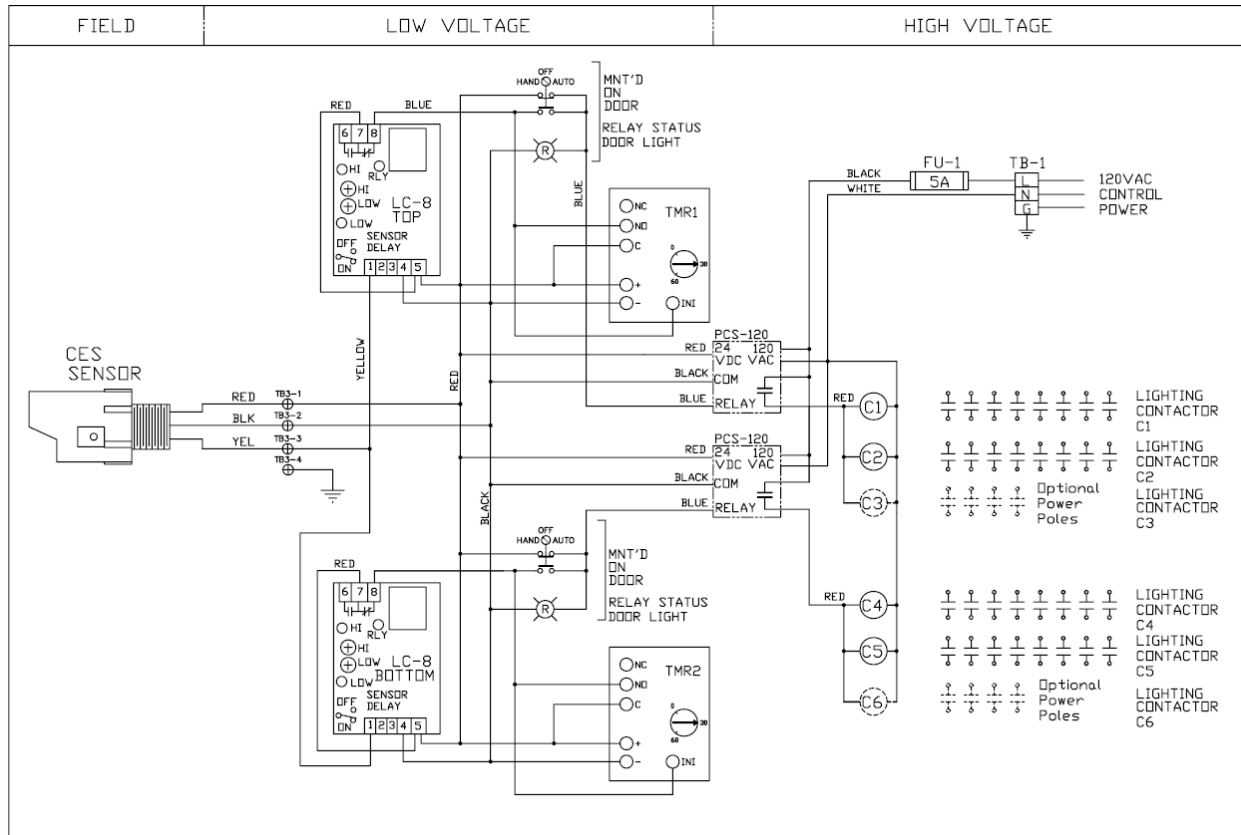


LC81 SCHEMATIC



PLC-MULTIPOINT, INC.

PHOTO LIGHTING CONTROL & SYSTEMS



APPLICATION NOTES

LC81 CONTROLLER

BASIC LC81-B

Nema 1 enclosure
Internal override
Input for time-clock includes
Output and logic options

STANDARD LC81-S

Upgrade to include
24"H x 18"W x 6"D enclosure
On door illuminated HOA

CUSTOM LC81-CUSTOM

Complete system includes
Industrial panel & display
Time-clock and contactors

FEATURES

ETL approved
CES photodiode sensor
PCS supplies 24vdc
12"H x 12"W x 4"D NEMA1
Internal HOA
PCS/120 or 277 20A load relay
1/2hr Hold-On-Timer

ETL approved
CES photodiode sensor
PCS/120 or 277 20A load relay
Up to two hr Hold-On-Timer optional
Terminal Block for optional time-clock

ETL approved
CES photodiode sensor
120 or 277/24VAC 40VA XFMR
NEMA 1,4 or 12
Dual setpoint adjustable dead-band
Door mount HOA override
PCS/120 or 277 20A load relay
Optional Hold-On-Timer
Electronic 7 day time-clock
PC-Simulator for calibration
multiple contactors as required