



PHOLON-RR

LonWorks Remote Relay Driver Node

FEATURES

INPUTS:

- Twisted pair - uses LonWorks FTT10A Free Topology Transceiver - values available as network variables
- Four (4) momentary or maintained dry contact closures
- One (1) analog or pulse (network configured)

OUTPUTS:

- Four (4) transistor drivers for external relays, one power terminal, and one common terminal
- Four (4) status terminals and LED for each transistor driver

APPLICATIONS

(With Customer supplied Relay Interface)

- Lighting circuit control
- Perimeter strip heat lockout
- Economical control of remote electrical loads such as pumps, fans, etc.
- Replacement of existing lighting panel control package



PRODUCT DESCRIPTION

The PHOLON-RR accepts data from the LonWorks network or other inputs and turns a transistor driver on or off. With customer supplied remote relays, the PHOLON-RR can control all types of line voltage powered equipment such as fans, pumps, or heaters.

Inputs and User Choices

Each PHOLON-RR has 4 inputs that utilize a contact closure to accept remote overrides and can be configured by network software to be momentary or maintained. The network software also configures the relays to operate from the PHOLON-RR's digital inputs, or from other network overrides or controllers. When an appropriate signal type is presented, the PHOLON-RR LonWorks Node will turn the proper transistor driver on or off.

An additional input is configured by network software to be either a pulse counter or 0-5 VDC analog input. By moving a jumper shunt, the analog/pulse input may be used for connection to a photoelectric cell (resistive input).

Smart Operation

In case of a power loss, the current state of the transistor driver is stored in on-board RAM for recovery (10 hour maximum backup - optional battery for longer times). Upon power restoration the transistor drivers resume their last commanded state. If that state is "ON", they sequence in one second intervals to reduce power surge. Network software determines whether the remote relays operate individually or in groups.

Relay Status

The PHOLON-RR LonWorks node has a status LED for each relay to indicate on or off. Terminal connections are also provided for remote relay LED status indication.

Versatile

Its compact size allows the PHOLON-RR LonWorks node to be grouped in enclosures near breaker panels, or mounted individually for remote circuit control. The PHOLON-RR is supplied with a 6" length of plastic snap track for mounting and is powered by 24 VAC or VDC.

SPECIFICATIONS

Electrical Requirements

Power Supply

Supply Voltage	24 VAC or VDC +/- 10% (21.6 to 26.4 volts), 50/60 Hz
Supply Current	350 mA maximum

Input

Four (4) dry contact closures	DI1 to DI4. Dry contact closure to common, configured for momentary or maintained.
One (1) analog	0-5 VDC (Network selectable between analog or pulse counter)
One (1) Pulse	5-24 VDC, 20 mA maximum (Network configured)
One (1) photoelectric cell input	Analog input is shunt selectable for photoelectric cell input.. Photoelectric cell impedance is network configured by user.

Output

Transistor driver output designed for operation of remote relays (not provided by ACT)	Relay 1 through Relay 4. Any relay with coil voltage of 24 VDC and coil impedance of 660 ohms
Four (4) Relay Status Output	DO1 to DO4. Open collector outputs. Each output is limited to approximately 2.7 mA when 22V terminal is used. LED common anode connections from 22V (approx. 20V) to the DO1-4 terminals.

Communications

Transceiver	Echelon Free Topology (FTT-10A)
Protocol	Echelon LonTalk ®

Memory (I/O Status)

Type	Dallas EconoRAM
Storage Time	Minimum of 10 hours, Optional Battery Backup for longer time.

Mechanical Requirements

Connections (Power/Signal)

Wire Size	Up to one 14 AWG
Terminal Type	45°, captive screw, moving clamp design in nickel-plated copper alloy.

Connections (to Remote Relays)

Wire Size	22 to 12 AWG wire
Terminal Type	Right angle, tri-barrier, rising clamp washer screw terminals.

Dimensions

4.0" W X 6.0" L X 2.0" H

Weight

10.5 oz.

Mounting

6" length of 6TK Snap Track (Provided)

Environmental Requirements

Operating Temperature	32 to 120 degrees F
Storage Temperature	-20 to 150 degrees F
Operating Humidity	10 to 95% non-condensing

Specification may change without notice to improve quality or functionality.