



# PHOTON4.1

## Lighting Interface

The PHOTON4.1 interface has 4 outputs capable of controlling G.E.® RR7 or RR9 relay types (up to 10 per output) lighting contactors. It provides the necessary latch and unlatch pulses required by these contactors. Up to 255 PHOTON4.1s can be controlled and monitored over a single twisted pair of wires from a desktop PC or a building automation system computer. This enables a system of PHOTON4.1s to control a minimum of 1020 contactors (more if multiple relays per output). Each PHOTON4.1 has an 8-position DIP switch to set its individual address.

Conforms to ACI protocol. Multiple PHOTON4.1s can be grouped in enclosures next to breaker panels, or mounted individually for remote circuit control. **Local Overrides:** The PHOTON4.1 has momentary local override push buttons for each of the 4 outputs. The corresponding output is toggled on or off each time the local override button is pressed. **Remote Override:** Each PHOTON4.1 has 4 digital inputs for remote override. These require a momentary or maintained contact (specify when ordering). When an override input is made, the PHOTON4.1 will turn on the appropriate contactor, and flag the controlling CPU of the override. These digital inputs can also be used for monitoring RR9 pilot contacts or receiving a signal from digital output current transducers (CT's). The timed override can be set from 2-63 minutes. The lights will flash one minute before the override times out. Override off is not timed. **Special Emergency "ALL ON":** The PHOTON4.1 has a terminal connection for emergency "ALL ON", and requires a momentary contact to the "REMOTE ALL ON" terminals. This feature bypasses all electronic circuits and directly connects the power transformer to the contactors. This feature is useful in emergency situations where the host computer, or other electronic devices are inoperative. **Contactors Status Indicators:** The PHOTON4.1 has an LED status indicator for each of the outputs that turns on or off with each latch or unlatch signal sent.

**Applications:** Lighting Circuit Control, Perimeter Strip Heat Lockout, Economical Control of Scattered Electrical Loads, Replacement of existing lighting panel control package

**The PHOTON4.1 is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, [www.workaci.com](http://www.workaci.com).**

### PRODUCT SPECIFICATIONS

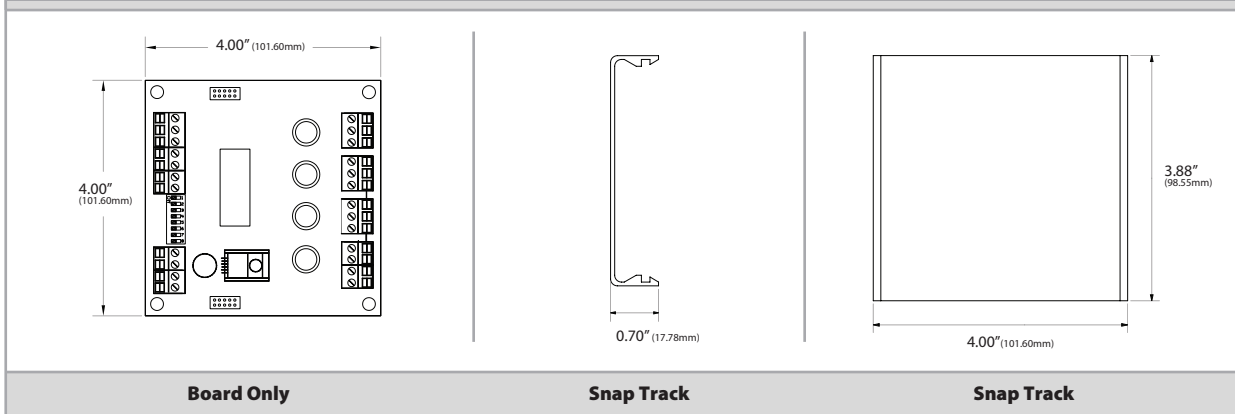
<b>Supply Voltage:</b>	24 VAC (+/- 10%)
<b>Supply Current 1:</b>	150 mA + specific contactor inrush during latch or unlatch pulse   G.E.® RR7 is ½ amp
<b>Input Signal Source (@ Impedance):</b>	5-24 VDC or VAC @100KΩ
<b>Communications:</b>	RS-485, ACI Protocol
<b>Baud Rate:</b>	9600
<b>Data Bits:</b>	Eight (8)
<b>Parity:</b>	None (0)
<b>Stop Bits:</b>	One (1)
<b>Auxiliary Voltage Output:</b>	12 VDC
<b>Auxiliary Current:</b>	150 mA maximum
<b>Contactors Voltage Output:</b>	24 Volts half wave (to contactor)
<b>Maximum Contactors Per Output:</b>	10 G.E.® RR7 or RR9 (Contact factory for more than 10 G.E.® RR7 or RR9 contactors per output)
<b>Connections:</b>	90° Pluggable Screw Terminal Blocks
<b>Wire Size:</b>	16 (1.31 mm <sup>2</sup> ) to 26 AWG (0.129 mm <sup>2</sup> )
<b>Terminal Block Torque Rating:</b>	0.5 Nm (Minimum); 0.6 Nm (Maximum)
<b>Operating Temperature Range:</b>	35 to 120°F (1.7 to 48.9°C)
<b>Operating Humidity Range:</b>	5 to 95% non-condensing
<b>Storage Temperature:</b>	-20 to 150°F (-28.9 to 65.5°C)
<b>Snaptrack Material:</b>	Polyvinyl Chloride (PVC)
<b>Snaptrack Flammability Rating:</b>	UL94 V-0
<b>Product Dimensions:</b>	(L) 4.00" (W) 4.00" (H) 1.37" (101.60 x 101.60 x 34.92 mm)
<b>Product Weight:</b>	0.39 lbs. (0.176 Kg)
<b>Agency Approvals:</b>	RoHS2, WEEE

**Note:** Outputs are automatically sequenced unless using "ALL ON" which turns all latch outputs on together | Size transformer accordingly





**DIMENSIONAL DRAWING**



**STANDARD ORDERING**

Model # Example: PHOTON4.1 -OR- 127748

Model #	Item #	Firmware Version #	Application
PHOTON4.1	127748	0140Y0F.OBJ	Momentary digital control of G.E.© RR7 & RR9 Contactors
PHOTON4.1 Version 2	130182	0374Y0E.OBJ	Maintained digital control of G.E.© RR7 & RR9 Contactors

**ACCESSORIES**

Model # Example: A/DO008 -OR- 142583

Model #	Item #	Description
A/DO008	142583	Transient Voltage Suppressor, Bi-directional, 56 VAC/DC, 1500W
A/DRC 3.88 x 4.00	142622	DIN Rail Adapter Kit

