

# 201A SERIES

## 3-Phase Voltage/Phase Monitor



### Description

The 201A is a 3-phase, auto-ranging, dual-range voltage monitor that protects 190-480VAC, 50/60Hz motors regardless of size. The product provides a user selectable nominal voltage setpoint and the voltage monitor automatically selects between the 200V and 400V range. The 201A includes advanced single LED diagnostics, where color and light patterns distinguish between faults and normal conditions.

This unique microcontroller-based voltage and phase-sensing device constantly monitors the 3-phase voltages to detect harmful power line conditions. When a harmful condition is detected, the 201A's output relay is deactivated after a specified trip delay. The output relay reactivates after power line conditions return to acceptable levels for a specified restart delay time.

### Features & Benefits

FEATURES	BENEFITS
<b>Proprietary microcontroller based circuitry</b>	Constant monitoring of single-phase, low voltage, voltage unbalance, phase reversal, harmful power line conditions. High voltage monitoring optional.
<b>Compact design for 8-pin; DIN rail or surface mount</b>	Allows flexibility in panel installation
<b>Auto-sensing wide voltage range</b>	Automatically senses system voltage between 190 - 480VAC. Saves setup time.
<b>Advanced LED diagnostics</b>	Quick visual indicator for cause of trip. LED indications include: normal operation, power-up restart delay, reverse-phase trip, unbalance/single-phase trip, high/low voltage trip

### Accessories

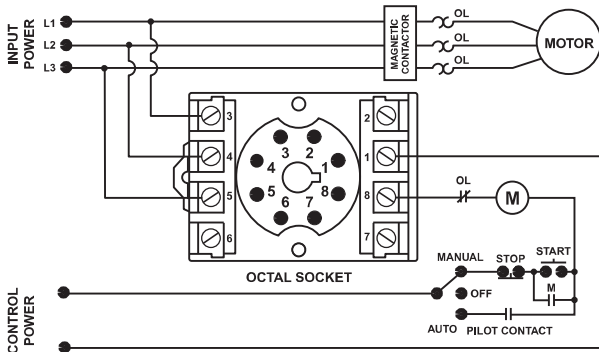


#### OT08PC Octal 8-pin Socket

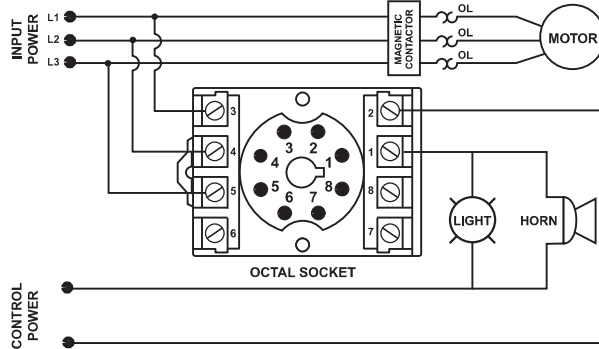
8-pin 35mm DIN rail or surface mount. Rated at 10A @ 600VAC. Surface mounted with two #6 screws or snaps onto a 35 mm DIN rail.

### Wiring Diagram

201A WITH MOTOR CONTROL



201A WITH ALARM CONTROL



AC SYSTEM MONITORS/LOAD SENSORS

9

For dimensional drawing see: Appendix, page 509, Figure 8.

### Ordering Information

MODEL	LINE VOLTAGE	DESCRIPTION
201A	190-480VAC	DIN rail or surface mountable
201A-9	190-480VAC	Includes high voltage detection. DIN rail or surface mountable

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### Specifications

<b>Frequency</b>	50/60Hz
<b>Functional Characteristics</b>	
<b>Low Voltage (% of setpoint)</b>	
<b>Trip</b>	90% ±1%
<b>Reset</b>	93% ±1%
<b>Voltage Unbalance (NEMA)</b>	
<b>Trip</b>	6%
<b>Reset</b>	4.5%
<b>Optional High Voltage (% of setpoint)</b>	
<b>Trip</b>	110% ±1%
<b>Reset</b>	107% ±1%
<b>Trip Delay Time</b>	
<b>High/Low Voltage Fault</b>	4 seconds
<b>Unbalance &amp; Phasing Faults</b>	2 seconds
<b>Restart Delay Time</b>	
<b>After a Fault</b>	2 seconds
<b>After a Complete Power Loss</b>	2 seconds
<b>Output Characteristics</b>	
<b>Output Contact Rating (SPDT)</b>	
<b>Pilot Duty</b>	480VA @ 240VAC
<b>General Purpose</b>	10A @ 240VAC
<b>General Characteristics</b>	
<b>Temperature Range</b>	-20° to 70°C (-4° to 158°F)
<b>Trip &amp; Reset Accuracy</b>	±1%
<b>Maximum Input Power</b>	5 W
<b>Relative Humidity</b>	10-95%, non-condensing per IEC 68-2-3
<b>Terminal Torque</b>	12 in.-lbs. (for OT08-PC socket)
<b>Wire Gauge</b>	12-22 AWG solid or stranded
<b>Transient Protection (Internal)</b>	2500V for 10 ms

### Standards Passed

<b>Electrostatic Discharge (ESD)</b>	IEC 61000-4-2, Level 3, 6kV contact, 8kV air
<b>Radio Frequency Immunity (RFI), Radiated</b>	150MHz, 10V/m
<b>Fast Transient Burst</b>	IEC 61000-4-4, Level 3, 3.5kV input power & controls

### Surge

<b>Immunity IEC</b>	IEC 61000-4-5, Level 3, 4kV line-to-line; Level 4, 4kV line-to-ground
<b>ANSI/IEEE</b>	C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line
<b>Hi-potential Test</b>	Meets UL508 (2 x rated V + 1000V for 1 min.)

### Safety Marks

<b>UL (OT08PC octal socket required)</b>	UL508 (File #E68520)
<b>CE</b>	IEC 60947-6-2
<b>Dimensions</b>	<b>H</b> 44.45 mm (1.75"); <b>W</b> 60.33 mm (2.38"); <b>D</b> (with socket) 104.78 mm (4.13")

### Weight

0.7 lbs. (11.2 oz., 317.51 g)

### Mounting Method

DIN rail or surface mount

(plug in to OT08PC socket)

### Socket Available

Model OT08PC (UL Rating 600V)

The 600V socket can be surface mounted or installed on DIN Rail.

Note: Manufacturer's recommended screw terminal torque for the OT Series Octal Sockets is 12 in.-lbs.

**Must use Model OT08PC socket for UL Rating!**