

# MODEL 273

## Single Phase Current Monitor

- Adjustable trip point
- Over or under current sensing
- 5 or 10 amp adjust range options
- Five year unconditional warranty

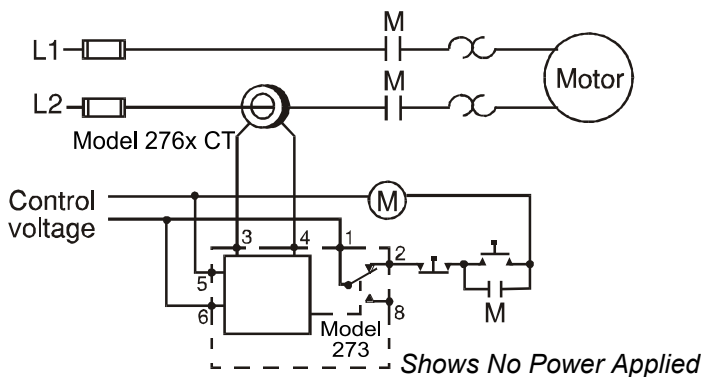
### DESCRIPTION

The **Model 273** Single Phase Current Monitor is a single setpoint sensor. It can be used as either an over current or under current sensor, depending on the contacts used.

This device can directly monitor AC currents in the range of 0.5 to 5 amps; or 2 to 10 amps, 50 to 400Hz. Matching transformers are available to extend the use of the monitor to most any range. The current being monitored can be of any voltage, up to the rating of the socket. An LED indicator is provided to show when the relay is energized.

The Model 273 is available for either 24VAC or 120VAC supply voltages. Model 273-5 is UL Recognized and CSA Certified. All versions use a standard 8-pin socket.

### APPLICATION: Typical Over-current sensing



### SPECIFICATIONS

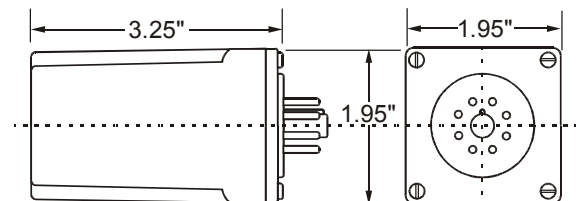
Model	273-X-XX
Current range	0.5 to 5 amps or 2 to 10 amps*
Supply voltage	24VAC or 120VAC
Power consumption	1 watt max
VA burden	Less than 0.5 VA
Frequency range	50-400Hz
Repeat accuracy	1% max
Dead band	4% max
Reset	Automatic
Output contacts	SPDT 10A at 240VAC resistive
Expected relay life	Mechanical: 10 million operations Electrical: 100,000 at rated load
Operating temperature	-20° to +131° F
Humidity tolerance	0 - 97% w/o condensation
Enclosure material	ABS plastic
Mounting	8-pin socket ( **sold separately)
Weight	6.4 oz.
Agency approvals	273-5 is UL Recognized and CSA Certified * 273-10 has NO Agency approvals

\*\* Order 8-pin socket number 51X120

### ORDERING INFORMATION

SPECIFY: Model - Current - Oper Voltage (e.g. 273-5-120)

### DIMENSIONS



Telephone: Main - (918) 438-1220  
Sales - (800) 862-2875  
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# MODEL 273

# Single Phase Current Monitor

READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING THIS DEVICE.  
KEEP THIS DATA SHEET FOR FUTURE REFERENCE.

## GENERAL SAFETY

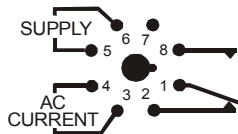
POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE MODEL 273.  
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.  
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

## Installation Instructions

### INSTALLATION

Using the Model 273 base diagram, pictured on the unit (contacts shown in the de-energized condition), connect operating voltage and current input wiring to the socket.

### PIN DRAWING



### ADJUSTMENT SETTINGS

The output contacts used will depend on whether the Model 273 is applied to detect over current, under current, to shut off a load, or trip an alarm.

The internal relay will energize when the input current rises above the **Current Adjust** setting. This allows the unit to be set to detect over-current (*relay will energize on fault*). The LED indicator will illuminate whenever the relay is energized.

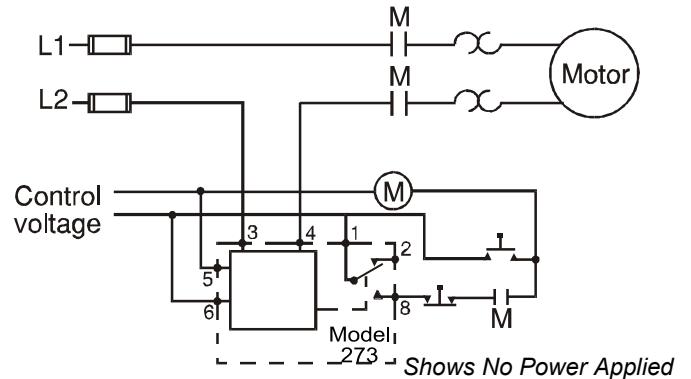
Apply normal operating current, then adjust the Model 273 Monitor until the relay just trips or resets, depending on the application. This will result in the unit tripping on relatively small current changes.

### WARNING

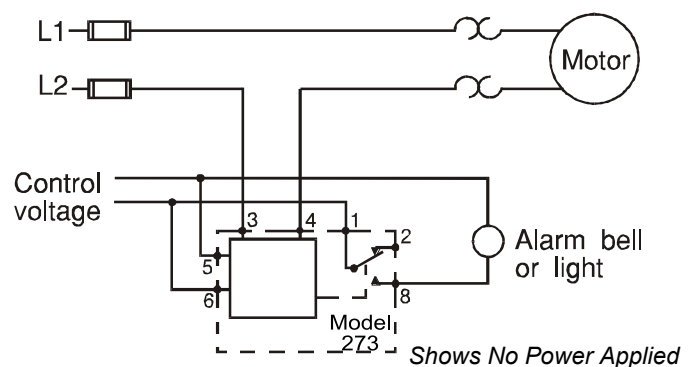
IN APPLICATIONS WHERE VOLTAGES IN EXCESS OF 300VAC ARE TO BE MONITORED, BE CERTAIN TO USE THE TIME MARK MODEL 51X120 8-PIN SOCKET, OR AN EQUIVALENT UL APPROVED 600VAC RATED SOCKET.

**NOTE:** When installing the Model 273 Current Monitor in areas of high humidity or contamination, it is recommended that the base area and all exposed metal parts of the socket be coated liberally with a good quality silicone grease, such as Dow Corning DC-4 or DC-4X. Insert the unit into the socket and wipe off excess grease around the base. This will prevent the entrance of moisture and other contaminants into the base and socket areas.

### APPLICATION: Typical Under-current sensing



### APPLICATION: Typical Over-current Alarm



### TROUBLESHOOTING

Should the Model 273 Monitor fail to operate properly, check all connections to the monitor, and to the control circuits. Verify that the proper voltage and currents are present, and check all fuses.

### WARRANTY

This product is warranted to be free from defects in materials and workmanship, and is covered by our exclusive **5-year Unconditional Warranty**. Should this device fail to operate for any reason, we will repair it for five years from the date of manufacture. For complete warranty details, see the *Terms and Conditions of Sales* page in the front section of the Time Mark catalog or contact Time Mark at 1-800-862-2875.

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