

## LSRU SERIES

### Load sensor



### Wiring Diagram



### Description

The LSRU Series is a microcontroller-based family of load sensors. The LSRU family of products employ three basic types of control logic: motor control logic, alarm logic and feed control logic.

#### Motor Control Logic

Several combinations of functions are available in the LSRU, including overcurrent and undercurrent or either overcurrent or undercurrent with variable trip, restart or extended restart delay settings. These various versions of the LSRU trip on the respective fault and then automatically reset after the restart delay expires, in preparation for the next motor start. LSRUs do not trip on undercurrent when the load turns off, this is recognized as a normal condition.

#### Alarm Logic

The LSRU-AL simply indicates whether the current is between the setpoints or outside of the setpoints. This product is best used with a PLC or other controller where status indication is desired.

#### Feed Control

The LSRU-FC is a load monitor intended to control feeder mechanisms in a variety of applications. It stops the feeder when the grinder, chipper, saw, auger, etc. nears overload. When the load is reduced to a preset level, the feeder is restarted.

### Features & Benefits

FEATURES	BENEFITS
<b>LED indicator</b>	Visual indication of relay status
<b>Built in current sensor</b>	Eliminates the need for a stand alone current transformer and also provides isolation between the monitored and control circuits
<b>Adjustable current sensing range</b>	Provides ability to precisely set the current trip point for any application

### Ordering Information

See next page.

# LSRU SERIES

## Ordering Information

MODEL	LINE VOTAGE	CURRENT RANGE	DESCRIPTION
LSRU-024-AL-2	24VAC	5-25A	Alarm logic
LSRU-024-AL-3	24VAC	25-100A	Alarm logic
LSRU-115-AL-1.5	115VAC	0-10A	Alarm logic
LSRU-115-AL-2	115VAC	5-25A	Alarm logic
LSRU-115-AL-3	115VAC	25-100A	Alarm logic
LSRU-115-FC-1.5	115VAC	0-10A	Feed control logic
LSRU-115-OT-1.5	115VAC	0-10A	Motor control logic with overcurrent trip, adj trip delay (0.5-60s)
LSRU-115-OT-2	115VAC	5-25A	Motor control logic with overcurrent trip, adj trip delay (0.5-60s)
LSRU-115-OT-3	115VAC	25-100A	Motor control logic with overcurrent trip, adj trip delay (0.5-60s)
LSRU-115-OR-1.5	115VAC	0-10A	Motor control logic with overcurrent trip, adj restart delay (0.5-300s, manual)
LSRU-115-OR-2	115VAC	5-25A	Motor control logic with overcurrent trip, adj restart delay (0.5-300s, manual)
LSRU-115-UE-2	115VAC	5-25A	Motor control logic with undercurrent trip, adj ext restart delay (2-300m, manual)
LSRU-115-UT-2	115VAC	5-25A	Motor control logic with undercurrent trip, adj trip delay (0.5-60s)
LSRU-115-UT-3	115VAC	25-100A	Motor control logic with undercurrent trip, adj trip delay (0.5-60s)
LSRU-115-UR-2	115VAC	5-25A	Motor control logic with undercurrent trip, adj restart delay (0.5-300s, manual)
LSRU-115-OU-1.5	115VAC	0-10A	Motor control logic with overcurrent and undercurrent trip
LSRU-115-OU-2	115VAC	5-25A	Motor control logic with overcurrent and undercurrent trip
LSRU-115-OU-3	115VAC	25-100A	Motor control logic with overcurrent and undercurrent trip

**PART # KEY**

O = Overcurrent Trip  
 U = Undercurrent Trip  
 T = Adj. Trip Delay (0.5-60 seconds)  
 R = Adj. Restart Delay (0.5-300 seconds, Manual)  
 E = Adj. Extended Restart Delay (2-300 minutes, Manual)

1.5 = 0-10 Amps  
 2 = 5-25 Amps  
 3 = 25-100 Amps

## Specifications

### Functional Characteristics

**Isolation** 600VAC rms  
**Power** 2 Watts  
**Motor Acceleration Time** 2 seconds  
**When not selected as an option:**  
**Fixed Trip Delay (-AL, -FC)** 0.5 second  
 1 second  
**Fixed Restart Delay (-AL only)** 1 second  
 as soon as current is within limits  
**(-FC only)** 0.5 second

**Input Characteristics**  
**Control Power** 24VAC or 115VAC

**Output Characteristics**  
**Output Contact Rating (SPDT)**  
**Pilot Duty** 480VA @ 240VAC  
**General Purpose** 10A @ 240VAC

### General Characteristics

**Temperature Range** -40° to 70°C (-40° to 158°F)  
**Wire Size** #12-24AWG  
**Hole Size** 0.725" diameter  
**Terminal Torque** 7 in.-lbs.  
**Safety Marks**  
**CSA, CSA-NRTL/C** (File #46510)  
**CE**  
**Dimensions** **H** 42.42 mm (1.67"); **W** 58.42 mm (2.3");  
**D** 90.43 mm (3.56")  
**Weight** 0.5 lb. (8 oz., 226.8 g)  
**Mounting Method** Four #6 screws 3/4" in length

**Caution:** This product should not be relied upon solely for safety of life or safety applications.

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