

#### **3-Phase Voltage Monitors** IN STOCK Motor Protection Not Fooled by Regenerated Voltages **RLM Series DLM Series PLMU Series Solid State** Protection You Can **Rely On** 4.50" x 3.13" x 1.35' 1.78" x 2.39" x 3.03" 4.33" x 2.95" x 1.97" (114x80x34mm) (45x61x77mm) (110x75x50mm) Phase Loss . . . Phase Reversal . . . Protection Voltage Unbalance • • • Low Voltage • • • . • High Voltage 200 to 240VAC . • • Adjustable 355 to 425VAC . . • Voltage 400 to 480VAC • • • Ranges 500 to 600VAC • LED . . . Normal Operation (ON) Indicators 0.25 to 30 Sec. Adj Trip Delay 2 to 20 Sec. Adj 2 to 20 Adj Voltage Unbalance 2-6% Adj 2 to 10% Adi 2 to 8% Adj. Output Contacts SPDT (Resistive) 8 Amps 10 Amps 10 Amps **FI (** (U)

**RLM Series** 

· Encapsulated

Connects

· Low Cost OEM

· Automatic Reset

&Trip Delay

· .25"(6.35mm) Quick

· Adj. Voltage, Unbalance,

Part Number	Line Voltage (Adjustable)	Voltage Unbalance	Trip Delay	Connection
PLMU11	200 to 480VAC*	Adj 2 to 10%	Adj. 0.25 to 30 Seconds	Fig. 1
Use Socket OT08 Bated for 480VAC Use				

Part Number	Line Voltage (Adjustable)	Voltage Unbalance	Trip Delay	Connection
RLM611	240VAC	Adj.	Adj.	
		2 to 6%	2 to 20	Fig. 2

Agency Approvals

480VAC Other Voltages and Options Available

RLM911

Part Number	Line Voltage (Adjustable)	Unbalance (Adjustable)	Trip Delay (Adjustable)	Connection
DLM611	200 to 240VAC	2% to	2 to	
DLM911	400 to 480VAC	8%	20 Secs	Fig. 3
DLM011	500 to 600VAC	0,0	20 0000.	

Seconds

Other Voltages and Options Available

### PLMU (Fig. 1)

RLM (Fig. 2)



### **PLMU Series**

**71 (**])

- Standard 8 Pin
- Plug-in Package
- Universal Voltage Automatic Reset
- · Adj. Voltage, Unbalance
- &Trip Delay
- · Adj. Voltage, Unbalance, &Trip Delay

**DLM Series** 

· 35mm DIN Rail or

Surface Mounting

50mm Package with

Touch Proof Terminals

Encapsulated Circuitry

· Automatic Reset

### **Key Features**

- Prevents Motor Burnout
- Prevents Expensive Down Time
- Universal Design One Monitor for any Size Motor
- 3 Wire Delta or Wye Connection
- New "Easy Set" Design Eliminates Nuisance Tripping
- LED "ON" Indicates Normal Operation

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# **IN STOCK**

entrelec

ssac



6.90"x 4.40" x 2.40" (175x112x61mm)

### **Connection Diagram**



2 Amp Fast Acting Fuses Must be Installed In Series with Line Inputs

### Accessories

#### **Clear Tamperproof Cover**

The P0500-153 protects against unauthorized adjustment of the trip points. Alignment dimples allow drilling (5 places) for limited access to adjustment knobs and the reset switch. Included are (2) spaces and (5) hole plugs. 7.5" x 4.7" x 2.6" (190.5mm x 119.5mm x 66.3mm)



# **Motor Protectors**

# ✓ 3 Phase Voltage Monitors

### WVM Series (With 10 Fault Memory)

- Protects Against: Phase Loss;Phase Reversal; Low, High, and Unbalanced Voltages; And Short Cycling
- Non-volatile Memory 10 Fault Capacity
- Six Status And Fault Memory Indicators
  Adjustable Line Voltage Automatically Sets the (+10%) High and (-10%) Low
- Voltage, Trip Points • Adjustable Voltage Unbalance (2% to 10%)
- Adjustable Restart Delay Prevents Short Cycling (0.25 to 64 Seconds or Minutes)

- True Random Start Delay (3 to 15 Seconds) Prevents Short Cycling
- Adjustable Trip Delay (0.25 to 30 Seconds) Prevents Nuisance Tripping
- 10 Amp SPDT Isolated Relay Contacts
- Switch Selectable Restart Mode: Automatic, Automatic With Delay, or Manual
   Manual Reset Onboard or Remote
- Surge Protection IEEE 587-1980 Level B
- Screw Terminals With Captive Wire
- Clamps For Up to #12 AWG Wire

**Description:** The WVM Series provides protection against premature equipment failure caused by adverse voltages. The WVM Series'microcomputer circuitry constantly monitors the three phase voltages for Phase Loss; Phase Reversal; Low, High, and Unbalanced Voltages. It is the first low cost voltage monitor to include a fault memory. The WVM Series not only protects your equipment, but it remembers the type of faults and the order in which they occurred. It provides reliable protection even if regenerated voltages are present. Part instrument and part control the WVM Series detects and protects plus it displays what happened.

**User Friendly Adjustments:** The WVM's user friendly adjustment panel can be successfully set without training or instruction sheets. Simply rotate the pointers to select; 1) Line Voltage, 2) Voltage Unbalance, 3) Trip Delay, 4) Auto Restart Delay, and 5) Mode Selector

#### Protect your Equipment With the Best, Specify SSAC'S WVM Series

Line Voltage	Restart Delay	Reset Method	Part Number
200 to 240\/AC	0.25 to 64 Secs.		WVM611AL
200 10 240VAC	0.25 to 64 Mins.		WVM611AH
400 to 480\/AC	0.25 to 64 Secs.	Switch Selectable	WVM911AL
400 10 480 VAC	0.25 to 64 Mins.	Gwitch Colociable	WVM911AH
500 to 600\/AC	0.25 to 64 Secs.		WVM011AL
300 10 000 VAC	0.25 to 64 Mins.		WVM011AH
200 to 240VAC		Manual Reset	WVM611M
400 to 480VAC	None		WVM911M
500 to 600VAC			WVM011M

Other options and voltages available

#### All Part numbers Listed are In Stock



### Three Phase Fuse Block/Disconnect

The P0700-241 is designed for use with HRC midget fuses rated up to 20 amperes @ 600 volts AC. It can be surface mounted or mounted on 35mm DIN rail.  $3.9" \times 2.9" \times 2.2"$  (99mm x 73mm x 54mm)

2 Amp @ 500 Volts AC Rated Fuse
 P0600-11 2 ampere fast acting fuse.
 1.5" x 13/32" (38.1mm x 10.3mm)

### 35mm DIN Rail Adaptor

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The P1011-38 provides an easy method of mounting the WLM Series on 35mm DIN rail. Includes four mounting screws. 7" x 4.5" x .33" (177.8mm x 114.3mm x 8.3mm)



# sales@relayspec.com

3.50"x 2.50" x 1.64'

ECS

Connection Diagram

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(89x64x42mm)

# Current Sensor

# IN STOCK Universal AC Current Sensor Switch Selectable Overcurrent or Undercurrent Control ECS Series • Switch Selectable Overcurrent or Undercurrent Control

- Adjustable Trip Points From 0.5 to 50 Amperes (120 Amp-turns Max.)
- Adjustable Trip Delays From 0.5 to 50 Seconds
- 1 Second Delay On Start Up
- 10 Amp, SPDT Isolated Relay Contacts
- Compatible With External Current Transformers
- 5% Dead Band Prevents Rapid Switching

**Description:** The ECS Series is a one-piece, off-the-shelf, universal, AC, over or undercurrent sensor/control. Its built-in toroidal sensor provides complete isolation. The output energizes when a fault is sensed. Use alone to 50 amps or with a 2 VA external current transformer (see below). LED fault indicator, .25" (6.35mm) quick connects. Mounts with two #6 screws.Toroid hole size is 0.36"(9.1mm) ID.

<b>AT</b> @P.	external current connects. Mount	transformer is with two #	(see be 6 screws	low). Le s.Toroid	ED 1 ho
		-			

Series	Operating	Adjustable	In Stock
	Voltage	Trip Point	Part Numbers
ECS20BC	24VAC	0.5 to 5 amps	•
ECS21BC	24VAC	2 to 20 amps	•
ECS2HBC	24VAC	5 to 50 amps	
ECS40BC	120VAC	0.5 to 5 amps	•
ECS41BC	120VAC	2 to 20 amps	•
ECS4HBC	120VAC	5 to 50 amps	
ECS60BC	230VAC	0.5 to 5 amps	•
ECS61BC	230VAC	2 to 20 amps	•
ECS6HBC	230VAC	5 to 50 amps	

Other Options Available

### **Connecting An External Current Transformer**

LPM12

OR

LPMG12

Pass the wire of the current to be monitored through the hole in the CT (this serves as the primary). Make one pass of the CT's secondary wire through the toroid on the ECS. Complete the CT's secondary circuit. When properly connected, the CT's secondary will appear to be "shorted".

Note: To increase sensitivity, multiple turns can be made through the ECS's toroid. The 0.5 to 5 amp range is divided by the number of turns through the toroid to create a new trip point range (i.e., 2 passes through toroid creates a sensing range of 0.25 to 2.5 amps on the ECS). With each pass through the toroid, you are adding a 0.5 VA burden to the CT's secondary.

LCS10T12

Wire Length 500 Ft. Max.



### Low Cost AC Current Indicator - LCS10T12 with LPM12 or LPMG12

• Sensing Range - 1 Pass = 5 to 50 Amperes

- Sensing Range 4 Passes = 1.3 to 12.5 Amperes
- For Higher Currents Use An External Current Transformer
- Self Powered, Easy to Connect, 12 Inch Lead Lengths
- LPM12 is a Red LED, LPMG12 is green, in a Mounting Bezel With 12" Leads
- LPM12 and LPMG12 Indicator Can Be Up to 500 Feet From The Sensor

**Description:** The LCS10T12 current sensor connected to the LPM12 or LPMG12 indicator is a low cost, easy-to-use system for the remote Go/No Go indication of the current flowing to a load. When the current flowing in the monitored wire is 5 ampere-turns or more, the LPM12 or LPMG12 will glow.

LPM 0.75"x 0.28"(19.0x7.1mm) LCS 1.5"x .98" x .46"(38x25x12mm) Hole .36"(9.1mm) LPMG 0.75"x 0.28"(19.0x7.1mm)

F	Part Number	ltem
	LCS10T12	Sensor
	LPM12	Red LED
	LPMG12	Green LED

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# IN STOCK



2.0"x 2.0" x 1.60"(51x51x41mm)

### **Connection Diagram**



# Go/No Go Sensor/Control

## ✓ AC Current Interface for PLC or AC / DC Loads

### TCS Series (Go/No Go Self-Powered Current Switch)

- Adjustable 2 to 20A:Fixed to 45A (for Higher Trip Points Use an External CT)
- Complete Isolation Between Sensed AC Current and Control Circuitry
- N.O. Closes on Current Rise, N.C. Opens on Current Rise
- 1 Amp Steady 10 Amps Inrush
  - 3 to 50 VDC, 24 to 240 VA in 2
  - Ranges
  - Totally Solid State Encapsulated
  - .36"(9.1mm) Hole Through Sensor

**Description:** The TCS is a self powered AC current switch. The TCS Series has a solid state output that can sink or source current when connected to a PLC input module. Its normally open or normally closed output can also control loads rated up to 1 A steady - 10 A inrush. The TCS can be surfaced mounted or 35mm DIN rail mounted using the P1023-20 (S102320-1) adaptor.

Operating Voltage	Actuate Current	Output Form	Part Number	In Stock Part Numbers
	2 40 20 4	Normally Open	TCSGAA	•
	2 10 20 A	Normally Closed	TCSGAB	•
	2.4	Normally Open	TCSG2A	
3 to 50VDC	2 A	Normally Closed	TCSG2B	
	40 A	Normally Open	TCSG40A	
		Normally Closed	TCSG40B	
	2 to 20 A	Normally Open	TCSHAA	•
		Normally Closed	TCSHAB	•
24 to 240VAC	2 A	Normally Open	TCSH2A	
		Normally Closed	TCSH2B	
	40.4	Normally Open	TCSH40A	
	40A	Normally Closed	TCSH40B	

# Motor Duplexor • Alternating Relay



1.78 x 2.39 x 3.20 (45x61x81mm)

٩RP	Series
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- Low Profile Selection Switch
- Alternating or Locked Operation
- Solid State Circuitry
- 10 Amp DPDT Output Contacts
- Simplified Field Programming
- Industry Standard 8 Pin Base Connection
- LED Status Indication
- 24VAC 230VAC ±20%
- 1 Million Operations



Operating

Voltage

24VAC ± 20%

120VAC ± 20%

230VAC + 20%

In Stock

P/N

•

•

٠

Part

Number

ARP23S

ARP43S

ARP63S

Other Models and Options Available.

The ARP Series is used in systems where equal run time for two motors is desirable. Their low profile selector switch and dual contact status indicators virtually eliminate field programming confusion. Selection of Load A or Load B will electrically lock the internal relay in that position. This allows maintenance on one motor while the other continues to cycle normally. \*The alternating action of the ARP occurs upon the opening of the control switch. The 8-Pin, internally cross wired ARP allows extra system load capacity through simultaneous operation of both motors.

\*CAUTION: Always disconnect line voltage before servicing any electrical equipment.

### Accessories



world of components



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### 890