# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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234P

### Single-Phase Pump Monitor

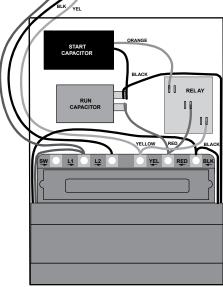




#### Wiring Diagram

234P CONNECTIONS IN GRUNDFOS® CONTROL BOX





For installation instructions see the Fresh Water Pumping Catalog.

#### Description

The PumpSaver® Plus Model 234P protects single-phase pumps from dry-well, dead-head, rapid-cycle, jammed-impeller, and over/undervoltage conditions. Typical applications include residential waterwells, commercial waterwells, irrigation wells, and golf course and other sprinkler systems.

The Model 234P is designed to be mounted inside a Grundfos<sup>®</sup> control box to protect <sup>1</sup>/<sub>3</sub>–3hp, 2- or 3-wire, 230V pumps.

An infrared LED communicates directly with a hand-held diagnostic tool called the Informer (sold separately).

#### **Features & Benefits**

FEATURES	BENEFITS
Proprietary microcontroller based circuitry	Constant monitoring of voltage and current protects pumps from dry-well, dead-head, jammed impeller, rapid cycling, and voltage faults
Onboard calibration adjustment	Allows user to adjust the current sensitivity for the dry-well / dead-head trip point from 70% - 90% of the full load.
Adjustable restart delay	Allows user to select well recovery time delay after a dry-well condition occurs, or to select manual reset
Built in IR communications link	Used with the Informer, allows user to see stored faults, run time, and also troubleshoot the pump while it's running
LED indication	Provides status and diagnostics for troubleshooting

#### Accessories



A hand-held diagnostic tool that uses an infrared receiver to access information which can be helpful for troubleshooting the system. Includes the Informer IR Kit-12



12" infrared adapter cable attaches to the face of the unit to provide remote diagnostics without opening the panel. Included with the Informer

#### **Protection Relays** Motor and Pump Protection





#### **Specifications**

**Functional Specifications** Adjustments/Settings . Overcurrent Underload (dry-well) **Overvoltage** Undervoltage Number of restarts allowed in a 60-second period (rapid-cycling) Trip Delay Times Overcurrent Dry-well **Restart Delay Times** Over/undervoltage All other faults (dry-well recovery timer)

125% of calibration point Adjustable (70 - 90% of calibrated run power) 265VAC 190VAC

5 seconds 4 seconds

4

2 seconds

Manual, 2-225 Minutes

#### Input Characteristics Supply Voltage

Load Range Frequency Output Characteristics

**General Characteristics** 

**Operating Temperature** 

Maximum Input Power

**Mounting Methods** 

**Standards Passed** 

Dimensions

Weight

230VAC  $\frac{1}{3} - 3$  hp 50/60Hz (Note: 50Hz will increase all delay timers by 20%)

Output Contact Rating (SPST) 3 hp@240VAC (17 amps max.)

-40° to 70°C (-40° to 158°F) 5W (max.) Fitted to Grundfos® Control Box 14 oz. Grundfos® Control Box

Electrostatic Discharge (ESD) IEC 61000-4-2, Level 2, 4kV contact, 6kV air