

232-INSIDER

Single-Phase Pump Monitor



Description

The Model 232-Insider single-phase PumpSaver® fits inside 1/3, 1/2, 3/4, and 1hp, 230V Grundfos control boxes manufactured prior to mid 2014. The PumpSaver® Model 232-Insider is a pump monitor designed to protect single-phase pumps from dry-well, dead-head, jammed impeller, overvoltage and undervoltage conditions. Typical applications include residential water wells, commercial water wells, irrigation wells, and golf course systems.

A calibration adjustment allows the 232-Insider to be calibrated to your specific pumping application, thereby reducing the possibility of false or nuisance tripping. A unique microcontroller-based voltage and current-sensing circuit constantly monitors the incoming power for fluctuations, overcurrent, and undercurrent. When an abnormality, such as loss of suction is detected, the 232-Insider deactivates its output relay and directly disconnects the pump motor. The 232-Insider then begins its user-selectable restart delay (dry-well recovery) timer. When the timer counts to zero or power is removed and reapplied, the 232-Insider reactivates its output relay and turns the pump back on. By leaving the restart delay knob in the reset position, the 232-Insider will operate in manual reset mode.

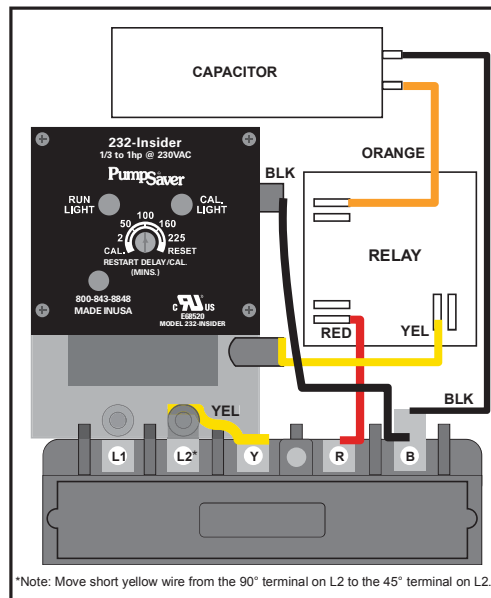
The Insider communicates with a hand-held diagnostics tool called the Informer (sold separately). The Informer displays parameters including calibration points, trip points, run time and last faults. This is valuable for troubleshooting the pump while it is running.

Note: The use of flow restrictors or unusually high head pressures at the time of calibration may interfere with the detection of dead-head conditions. Contact Littelfuse for information on a product to fit these applications.

Wiring Diagram

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232-INSIDER CONNECTIONS IN GRUNDFOS® CONTROL BOX



MOTOR & PUMP PROTECTION

For installation instructions see the Install Bulletin.

Features & Benefits

FEATURES	BENEFITS
Proprietary microcontroller based circuitry	Constant monitoring of voltage and current protects pumps from dry-well, dead-head, jammed impeller, and voltage faults
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



Informer

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

232-INSIDER

Specifications

Functional

Adjustments/Settings

Overcurrent 125% of calibration point
Underload (dry-well) Approx. 80% of calibration point

Underload (dry well) with high sensitivity jumper removed Approx. 87% of calibration point

Overvoltage 265VAC

Undervoltage 190VAC

Trip Delay Times

Overcurrent 5 seconds

Dry-well 4 seconds

Restart Delay Times

Over/undervoltage 2 seconds

All other faults (dry-well recovery timer) Manual, 2-225 minutes

Input Characteristics

Supply Voltage 230VAC

Load Range 1/3 – 1 hp

Frequency 50*/60Hz

Output Characteristics

Output Contact Rating-SPST 1hp@240VAC (17 amps max.)

General Characteristics

Operating Temperature -40° to 60° C (-40° to 140° F)

Maximum Input Power 5 W

Safety Marks

UL UL508

CSA C22.2 No. 14

Weight 10 oz.

Mounting Methods Grundfos[®] Control Box manufactured prior to mid 2014

*Note: 50 Hz will increase all delay timers by 20%