

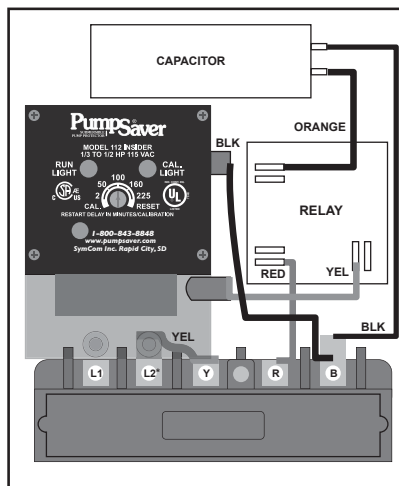
232-INSIDER

Single-Phase Pump Monitor



Wiring Diagram

232-INSIDER CONNECTIONS IN GRUNDFOS® CONTROL BOX



For installation instructions see the Fresh Water Pumping Catalog.

Description

The Model 232-Insider single-phase PumpSaver® fits inside 1/3, 1/2, 3/4, and 1hp, 230V Grundfos control boxes. The PumpSaver® Model 232-Insider is a current 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 applications, 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.

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.

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
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

Specifications

1 Phase Line Voltage (±10%)	230VAC
Load Range	1/3-1hp
Frequency	50*/60Hz
Operating Points	
Overload	125% of Cal. Point
High Voltage Reset Point	265
Low Voltage Reset Point	190
Trip Delay Time (Overload)	5 sec.
Trip Delay Time (Dry well)	2 sec.**
Restart Delay Time	
Overvoltage/Undervoltage Delay	5 sec.
All other faults (dry-well rec. timer)	2-225 min.
Output Contact Rating (SPST)	1hp @ 240VAC (17 amps max.)

Safety Marks

UL	UL508
CSA	C22.2 No.14
Weight	10 oz.
Power Consumption	5 Watts (max.)

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

**Other trip delays and restart delays are available upon request.