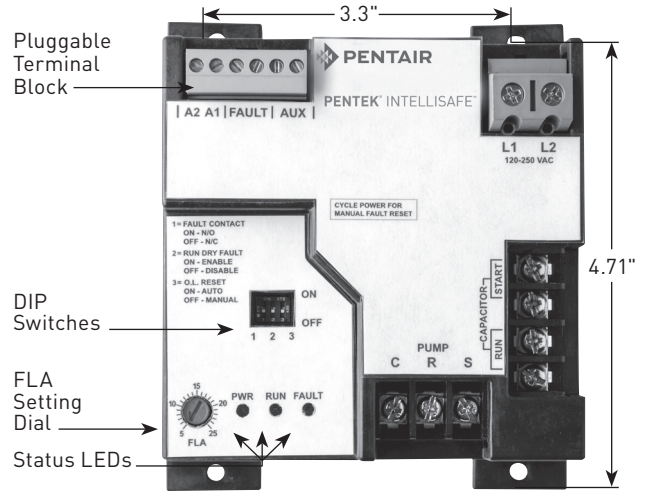
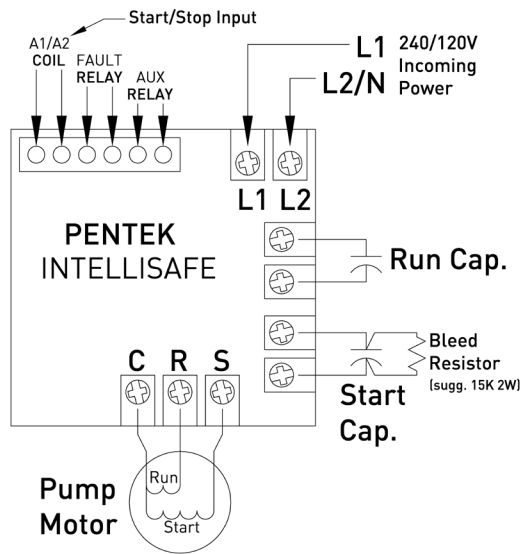





INSTALLATION INSTRUCTIONS

PENTEK® INTELLISAFE™



For Simplex Single Phase Grinders

SPECIFICATIONS

Electrical		Mechanical	
Input Voltage	115–240 VAC, 1Φ, 60Hz	Dimensions	Inches: 4.3 x 5.05 x 2.45 Millimeters: 109.2 x 128.3 x 62.2
Motor FLA	5A–25A	Weight	0.88 lbs (400g)
HP Rating	3.0	Mounting	Backplate
Short Circuit Rating	5kA	Environmental	Pollution Degree 3 Environment. Indoor or Protected Use Only.
Overload Trip Class	Class 10	Approvals UL Listing:  UL File # E344161 Ind. Cont. Eq. 4EJ5	
Power Consumption	4.5W Max.		
Aux/Fault Contact Rating (Non-powered, Dry Contacts)	3A, 120 VAC Max. Each		
A1, A2 (Start/Stop Input)	100-250 VAC		
Terminal Torque			
L1–L2 Terminals	15 in-lbs		
Pump/Cap Terminals	10.54 in-lbs		
Control Terminals	7 in-lbs		
Conductor Size			
Power Terminals	16-10 AWG		
Control Terminals	26-12 AWG		
Operating Temperature	–40°F to 104°F		



ELECTRICAL SHOCK HAZARD

Disconnect power before installing or servicing this product. A qualified service person must install and service this product according to applicable codes and electrical schematics.



EXPLOSION OR FIRE HAZARD

Do not use this product with flammable liquids. Do not install in hazardous locations as defined by National Electrical Code, ANSI/NFPA 70.

Failure to follow these precautions could result in serious injury or death. Keep these instructions with warranty after installation. This product must be installed in accordance with National Electrical Code, ANSI/NFPA 70 so as to prevent moisture from entering or accumulating within the controller housing.

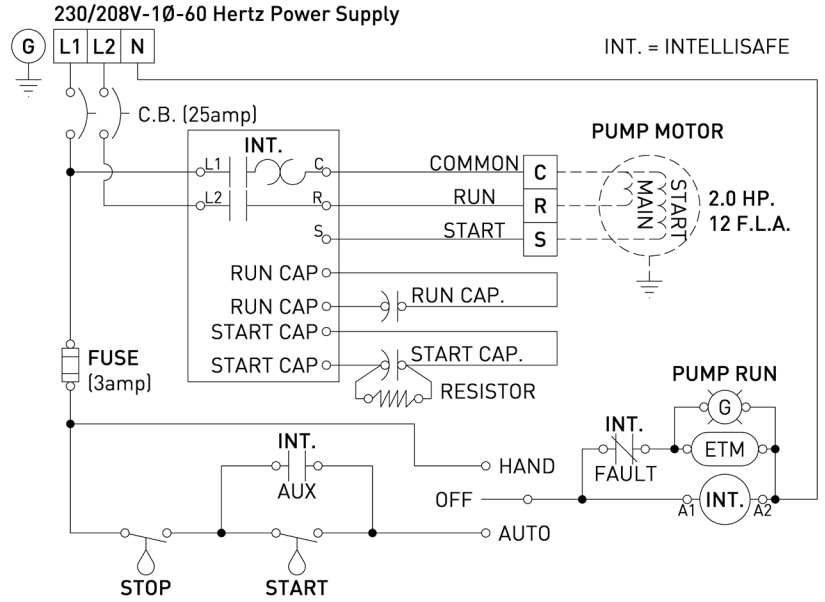
- Do not connect power to this equipment if it has been damaged or has any missing parts.
- The INTELLISAFE contains no serviceable parts; do not attempt to repair this equipment. Replace the INTELLISAFE if a short-circuit event occurs.
- The INTELLISAFE is designed and approved for use only with motor start capacitors that are in compliance with standard EIA 463.
- The INTELLISAFE is only for use on approved pumps. Warranty will be void if used on unapproved pumps.
- Critical control systems should always have a backup alarm and/or operation.

INSTALLING INTELLISAFE™

1. Verify that the FLA rating of the motor is more than 5A but less than 25A. Secure the INTELLISAFE to the control panel backplate. The module must be screwed directly to the backplate.
2. Make electrical connections per the wiring diagram. Caution: The bleed resistor is necessary to prevent risk of electric shock. (Suggested 15kΩ 2W)
3. Set the 3 DIP switches as required, using a pen or small screwdriver.
4. Determine the FLA of the pump. Set the overload setpoint dial to match the pump motor FLA using a small flat head screwdriver.
5. Apply power and run the pump to verify proper operation.

Note: Maximum allowed wire strip length is 5/16". When wiring the power terminals with stranded wire, care must be taken to ensure all strands are confined and prevent any stray strands from projecting from the terminal.

Example Circuit



DIP Switch Settings

Description	"On" Setting	"Off" Setting
1 Fault Contact	Normally Open	Normally Closed
2 Dry Run Protection	Enabled	Disabled
3 Overload Reset	Auto Reset	Manual Reset

TROUBLESHOOTING

The INTELLISAFE provides a red fault light that is used to indicate if a fault condition has occurred. The flash code is used to identify what type of fault has occurred. Below are the flash codes with associated faults that cause them.

FLASH SEQUENCE	FAULT CONDITION
On solid (no flashing)	Overload Fault Occurred but is now clear, waiting for a manual reset. (This can occur only when the O.L. Reset switch is set to manual). Cycle pump power to reset the fault.
One flash every two seconds	Overload Fault Active (Cannot be cleared by cycling power. It will clear only by waiting for it to "cool down". The cool down timer only operates when the INTELLISAFE is powered.)
One flash every six seconds	Low Current fault. Low current is set to trip at 50% of the overload set point. This protects the pump against a dry run condition. (When run-dry protection is disabled, low current will trip at 1 amp.) The motor current must be below this threshold for ten seconds for the Low Current fault to activate. When the Low Current fault trips, it will automatically reset after 10 minutes. Subsequent Low Current fault trips without a successful pump cycle in between will automatically reset again with increasing reset times of 30 and 90 minutes. After a 90-minute auto-reset, a subsequent Low Current fault will latch in until line power to the INTELLISAFE is cycled off and then back on.
Three flashes every six seconds	Low Voltage fault. Low Voltage is automatically set based on the incoming line voltage. Nominal rated voltages are 115V, 208V and 230V. Low Voltage will trip when the line voltage drops 10% below the nominal rated voltage. The Low Voltage fault will be automatically reset when the voltage returns to be 5 volts above the trip value.
Four flashes every six seconds	No Current sensed at start-up. The No Current fault can occur if the motor load to the INTELLISAFE has been disconnected. This fault can also mean a failure of the internal contacts of the INTELLISAFE, or the current sensor. This fault can be reset so the INTELLISAFE can try to start again by cycling the line power to the INTELLISAFE.
Five flashes every six seconds	Internal fault. If this should occur, attempt to clear the fault by cycling power to the INTELLISAFE.



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Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.

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