



PENTEK INTELLIDRIVE™ CONSTANT PRESSURE CONTROLLER

Intelligent Variable Frequency Drive
For Residential Well Pump Systems
Maintains Constant Pressure Inside and Outside



PENTEK INTELLIDRIVE™

CONSTANT PRESSURE CONTROLLER



CONSTANT PRESSURE FOR WELL PUMP SYSTEMS

For use with both Submersible and Above Ground Well Pumps to Control Changes in Water Demand

Most homeowners with well systems know what happens when demand for water changes. If they're taking a shower, water pressure drops when someone starts the dishwasher or turns on a faucet. Weak showers, unclean dishes and other water pressure problems become frustrating daily experiences.

A "Variable Frequency Drive" for Submersible or Above Ground Well Pumps.

The **PENTEK INTELLIDRIVE** Water Pressure Control Center directs changes in pump motor speed, responding to fluctuations in demand. If water pressure starts dropping, an electronic pressure transducer signals the drive to accelerate the pump motor to increase water volume going into the home.

The Benefit? Strong, equal pressure, everywhere.

Homeowners will recognize the difference right away. Water flows smoothly and evenly throughout the home. Regardless of changes in demand, water pressure stays the same: in the shower, the dishwasher, and from every other faucet and fixture.

And when homeowners are outside, they'll enjoy a lush, green lawn and landscaping. Sprinkler systems will perform at their best, with consistent spray patterns, constantly pressurized to achieve complete coverage.

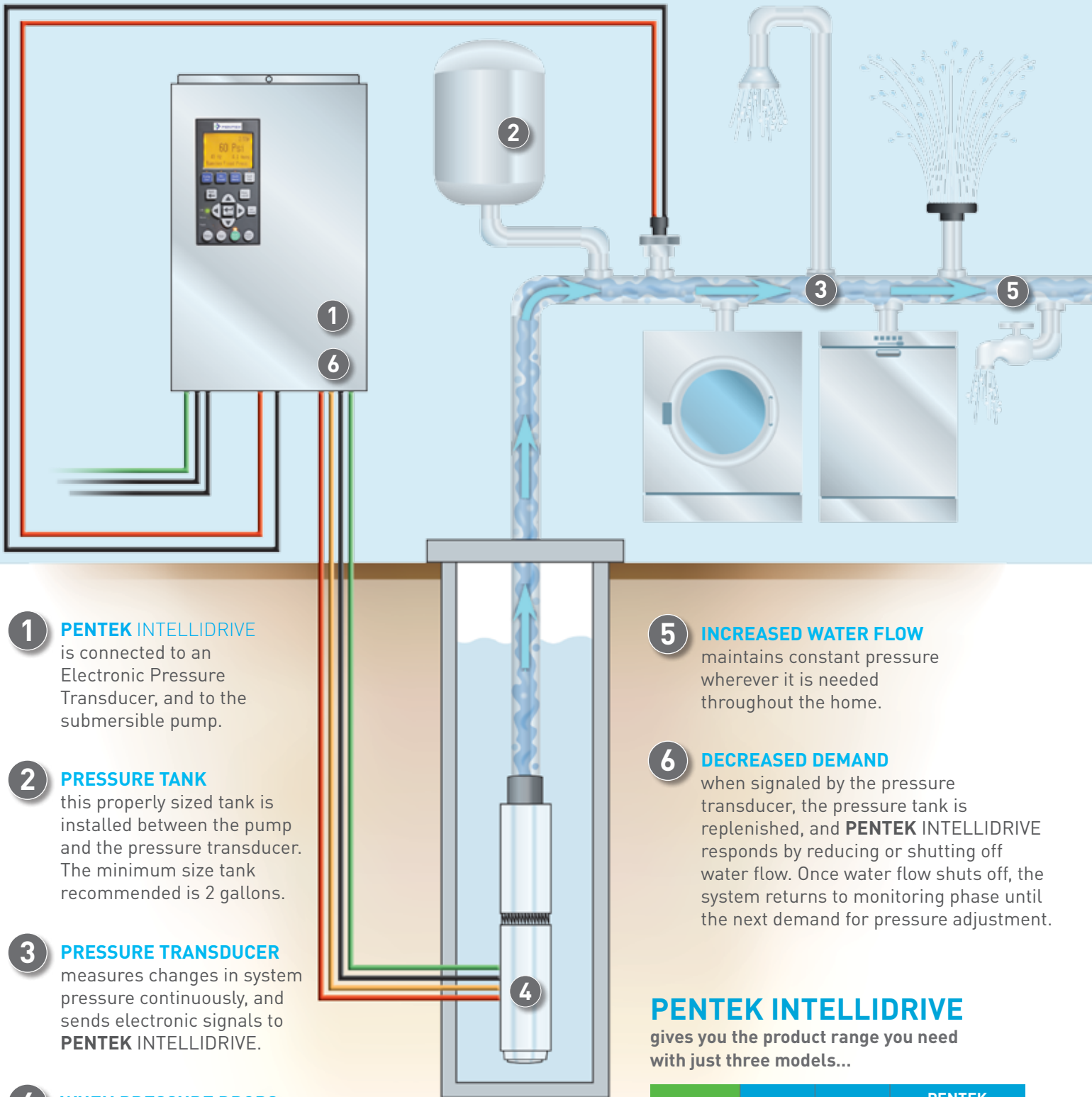
The pump and motor will last longer.

PENTEK INTELLIDRIVE features "Soft Start/Coast to Stop" design, which minimizes mechanical stress. And during long-running applications like lawn irrigation, pressure-cycling is eliminated...another system stress reducer.

PENTEK INTELLIDRIVE Leading-edge technology for a premium residential water system that makes life better!



How PENTEK INTELLIDRIVE™ works



- 1 PENTEK INTELLIDRIVE** is connected to an Electronic Pressure Transducer, and to the submersible pump.
- 2 PRESSURE TANK** this properly sized tank is installed between the pump and the pressure transducer. The minimum size tank recommended is 2 gallons.
- 3 PRESSURE TRANSDUCER** measures changes in system pressure continuously, and sends electronic signals to **PENTEK INTELLIDRIVE**.
- 4 WHEN PRESSURE DROPS** **PENTEK INTELLIDRIVE** responds by increasing pump motor speed and water flow; first from the pressure tank, then directly from the well.

- 5 INCREASED WATER FLOW** maintains constant pressure wherever it is needed throughout the home.
- 6 DECREASED DEMAND** when signaled by the pressure transducer, the pressure tank is replenished, and **PENTEK INTELLIDRIVE** responds by reducing or shutting off water flow. Once water flow shuts off, the system returns to monitoring phase until the next demand for pressure adjustment.

PENTEK INTELLIDRIVE gives you the product range you need with just three models...

PUMP MOTOR	INPUT	OUTPUT	PENTEK INTELLIDRIVE Product Range
2-WIRE	1-PHASE	1-PHASE	UP TO 1.5 HP
3-WIRE	1-PHASE	1-PHASE	UP TO 2 HP
3-WIRE	1-PHASE	3-PHASE	UP TO 5 HP

ADVANCED TECHNOLOGY. SUPERIOR PERFORMANCE.

KEYHOLE MOUNT
For fast and easy installation

LCD INFORMATION CENTER
Displays installation, status and fault information in easy-to-understand language instead of codes

GROUND DETECTION
Message Center shows if there is a grounding problem

MULTIPLE ACCESSORY INPUTS
Additional inputs allow use of multiple drive accessories at the same time

BEST-IN-CLASS EMI/RFI FILTER
Superior noise and interference protection, including AM radio signals

SPACIOUS WIRING AREA
For fast and easy installation

PROGRAMMABLE INPUT/OUTPUT RELAYS
Provide application flexibility

EASY-ACCESS CONDUIT OPENINGS
Align with appropriate terminals for straight-in accessibility. Fits 1/2", 3/4" or 1-1/4"



ELECTRONIC PRESSURE TRANSDUCER
More accurate and reliable than mechanical pressure switch, with piezo resistive technology designed to resist water hammer

TEMPERATURE-SENSITIVE INTELLIGENT FAN
Operates when needed for quiet operation

SD CARD SLOT
For easy software updates when provided by manufacturer

SPRING TERMINALS
For secure connections and easy installation without special tools

REMOVABLE TERMINAL BLOCKS
For easy wiring of motor and power supply – field replaceable



AN INTELLIGENT CONTROL... SIMPLE TO OPERATE, EASY TO UNDERSTAND.

No other variable frequency drive provides such an effective operator interface with easy touchpad operation and a spectrum of features that allows easy configuration for most residential water control applications. And the LCD Information Center communicates clearly in words, instead of confusing light codes.

START-UP IS SIMPLE...

ENTER MOTOR PHASE



1

ENTER MOTOR TYPE



2

ENTER SERVICE FACTOR AMPS



3

ENTER CURRENT TIME



4

ENTER CURRENT DATE



5

6 CHOOSE "PUMP OUT" OR "AUTO START"

BACKLIT LCD DISPLAY

PUMP-OUT BUTTON

For cleaning of new wells and fixed frequency operation

PSI PRESET

Sets pressure to any value desired

LED STATUS INDICATION



DIAGNOSTICS INDICATOR

Self-diagnostic messaging for ease of service

FAULT LOG

Stores 15 faults with timestamps

KEYPAD LOCKOUT

For security against tampering and unintended adjustments

MULTI-LINGUAL OPTIONS

English, French or Spanish

AUTO-START

With automatic line-fill functionality, providing constant pressure operation

COMPETITIVE PRODUCT COMPARISON

OPERATING RANGE

2-Wire, 3-Wire and 3-Phase in same unit

3-Phase Output (60Hz/80Hz)**

COMPETITION:

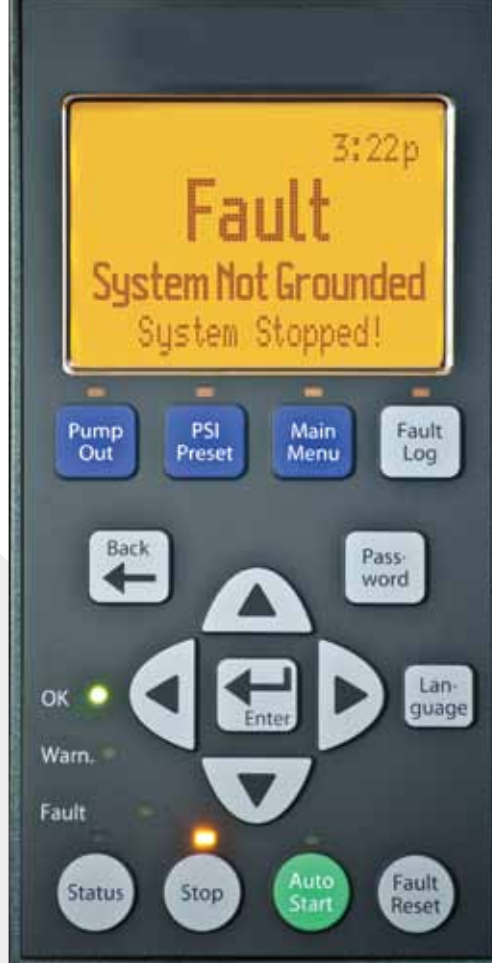
Most competitors offer separate units for 1-Phase and 3-Phase outputs.

NUMBER OF MODELS

NEW! Just three models will meet all your needs, reduce inventory requirements and simplify product selection.

COMPETITION:

Some competitors offer as many as 11 different models.



ADJUSTABLE PROGRAMMING PARAMETERS

34 different parameters can be adjusted. Provides ultimate flexibility to fine-tune system operation.

COMPETITION:

Competitors offer no more than 6 adjustable programming parameters.

GROUND DETECTION

Detects and displays when there is a grounding problem.

COMPETITION:

No competitor offers this technology.

FULLY PROGRAMMABLE DRIVE

Easily programmable for a variety of applications and specific settings. SD Card Slot for easy updating of software enhancements when provided by Pentair.

COMPETITION:

Most competitors offer factory-configured settings, which limit flexibility.

60Hz operation is recommended as the industry standard. Intermittent 80Hz operation is an acceptable option.

** Ongoing 80Hz operation may reduce the life of the pump and motor.

STATE-OF-THE-ART

MODEL NUMBER	MOTOR TYPE	HP RANGE	INPUT VOLTAGE	MAXIMUM OUTPUT AMPS	ENCLOSURE TYPE
PID10	2-WIRE* 1-PHASE	0.5-1 HP	190V - 265V	9.5A	NEMA 3R outdoor
	3-WIRE* 1-PHASE			7.5A	
	3-PHASE			5A	
PID20	2-WIRE* 1-PHASE	0.5-1.5 HP		11A	
	3-WIRE* 1-PHASE	0.5-2 HP		13.5A	
	3-PHASE			8.5A	
PID50	2-WIRE* 1-PHASE	0.5-1.5 HP		11A	
	3-WIRE* 1-PHASE	0.5 - 2 HP		13.5A	
	3-PHASE	0.5 - 5 HP		18A	



DIAGNOSTICS

LCD display provides easy-to-understand information for easy diagnostics and troubleshooting.

COMPETITION:

Flashing LED sequence provides unclear diagnostic information.

EMI/RFI FILTERS

Best in the industry, to eliminate potential interference.

COMPETITION:

Most competitors offer limited interference filtering capabilities.

TERMINAL BLOCKS

Removable/Replaceable terminal blocks for easy wiring of motor and power supply.

COMPETITION:

Fixed blocks require replacement of drive for stripped terminals.

CONNECTIONS

Conduit holes align with terminal blocks for easy accessibility.

COMPETITION:

Tight and cramped access makes connections more challenging.

SURGE PROTECTION

Increased surge protection covers both line and load side

PENTEK INTELLIDRIVE™ SPECIFICATIONS

Enclosure Dimensions

Width: 9.72" **Height:** 19" **Depth:** 6.93"

Carton Dimensions: 10.4" width, 22.3" height, 9.4" depth

Shipping Weight: 22 pounds

Ambient Temperature Range: -20°C (-4°F) to 50°C (122°F)

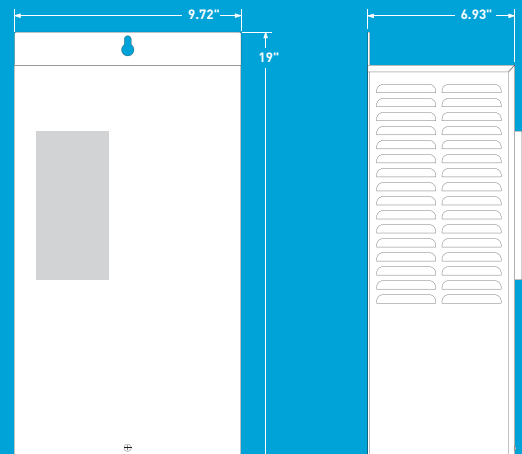
Ambient Humidity Range: 95% non-condensing

Includes:

Variable Frequency Drive

Transducer: 1/4" thread size, 18 NPT type

Transducer Cable: 10' length standard





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