

FRANKLIN AID



Franklin Electric



Franklin Application/Installation Data (AID) ... For The Professional Driller-Installer

Vol. 23, No. 6 , November/December 2006

The New Pumptec – A Better Tool for the Water Systems Contractor

As much as we would like for all submersible installations to be perfect, some won't be, no matter how professional we are as water system contractors. Some things are simply out of our control. For example, some installations are low-producing, some have issues with electrical power, and sometimes, debris or sand is present in the well. Each of these conditions can damage a submersible motor or pump, and in turn, your reputation as a water systems professional.

That's where electronic protection products come in, and Franklin Electric's portfolio includes 4 distinct products:

- Pumptec
- QD Pumptec
- Pumptec Plus
- SubMonitor



In this issue of Franklin AID, we'll look at the improvements we have made to one of our most popular devices, Pumptec. The new Pumptec offers 3 major advancements:

INDICATOR LIGHTS

COMPREHENSIVE PROTECTION

MONITORING VIA A PALM DEVICE OR POCKET PC

Let's look at each of these:

INDICATOR LIGHTS – Located on the front of the unit, these indicators let you know "what's going on" without ever removing the cover. There are 3 lights – POWER, LOAD, AND VOLTAGE. If the system has power, the POWER light will be solid green. When the motor and pump are running, this light will flash green, indicating "Normal" operation.

If the "LOAD" load light is "on", an underload condition (dry well) has occurred. For an overload, this light will be flashing.

A voltage issue will cause the "VOLTAGE" light to illuminate: Solid for an undervoltage and flashing for an overvoltage.

By the way, the information above is on the Pumptec label, so there is no need to memorize.

These indicator lights can be a big timesaver. When your customer calls because they are "out of water", your first step may be to ask them to look at the Pumptec, and tell you what indicator lights are illuminated. This could go a long way in determining your course of action, and might even save you (and your customer) a service trip.

COMPREHENSIVE PROTECTION – Never before has Pumptec offered such complete protection. The new Pumptec protects against 5 scenarios that can damage a submersible installation: underload, overload, low voltage, high voltage, rapid cycling. Let's look at each:

Underload – This is what many would simply refer to as "dry well protection". However, this actually includes any condition which leads to the motor becoming "unloaded". Besides a dry well, this could be an air- or gas-locked pump, failed impellers, a line blockage, or a check valve that is stuck closed. Each of these will cause the motor to unload, and once the unloading reaches a predetermined threshold, Pumptec will remove power from the motor. Anytime this occurs, the LOAD light will come on steady and stay on until the reset time is achieved. This reset time can be set by you, the water systems contractor, all the way from 2 minutes to 4 hours. A manual reset can also be specified.

Overload – Of course, the opposite of an underload is an overload condition, such as when the pump becomes clogged with sand or other debris. If this happens, Pumptec will cut power to the motor, and the LOAD light will flash. Unlike an underload, there's no "reset time" for an overload condition. Pumptec assumes that it warrants investigation and probably won't "fix itself". The unit must be manually reset by removing power to the unit, then turning it back on.

High or Low Voltage – High or low voltage can create a multitude of problems, especially on the electrical side. The new Pumptec constantly monitors the installation's supply voltage.



Meet Bob Johnson, Technical Service Hotline

If you've called the Hotline recently, you may have heard a new voice. Bob Johnson joined our Technical Service Hotline last September. A life-long resident of Bluffton, Indiana, Bob has experience in the installation / maintenance of electrical generators, jet pumps, and submersible systems. His career in agriculture includes an extensive background as a crop duster / helicopter pilot. Bob has also worked in the retail automotive industry as a customer service advisor. It all adds up to a great background to help you, the water systems contractor.

If it drops below or exceeds 10% of the rated voltage (either 115 or 230 volts), Pumptec will automatically take the installation off-line. If the voltage is low, the "VOLTAGE" light will be steady. If the voltage is high, the "VOLTAGE" light will flash. Pumptec will then wait 2 minutes and recheck the voltage. If it has returned to normal, operation of the motor and pump will resume. If it hasn't, Pumptec will keep the installation off-line and continue to recheck the voltage indefinitely.

Rapid Cycling – Rapid cycling is most often caused by a failed pressure tank or pressure switch. In either case, rapid cycling can damage the entire installation. If Pumptec detects a rapid cycling condition, it will remove power until the system is reset. Both the LOAD and the VOLTAGE lights will be flashing.



MONITORING – The most exciting aspect of the new Pumptec is its ability to provide real time data, along with a run and fault history of the installation without connecting to the Pumptec itself.

This can be done with 2 common types of today's personal organizers and cell phones: 1) Palm-based devices, or 2) Microsoft Pocket PC devices. Infrared (IR) technology, much like your TV remote, is used to communicate between your device and the Pumptec. The software is simple to set-up and use, and provided at no-charge (you supply the device).

Voltage, current, power factor, and the amount of run time are all displayed. In addition, a history of the last 15 faults is stored in the Pumptec and can be displayed! This is especially useful for those installations that are hard to nail down or have intermittent problems.

Another feature that contractors will find especially useful is the ability to adjust the sensitivity of the Pumptec, both on underload and overload. This can be especially useful for deep sets. Once again, the software is very easy to use, and your Franklin Electric Field Service Engineer or Territory Manager can show you how. But, keep in mind, as handy as these features are, they are not required for the proper operation of Pumptec. Like all Franklin Electric electronic devices, it can be used "stand-alone", right out of the box.

The new Pumptec is designed for Franklin Electric single-phase motors, both 2- and 3-wire, from 1/2 to 1 1/2 horsepower. For larger installations, Pumptec-Plus protects single-phase installations all the way to 5 horsepower.

And, of course, SubMonitor is available for all Franklin Electric 3-phase motors, and all SubDrive/MonoDrive products come with a wide range of protection features already built-in.

So there you have it. It's our job as water systems professionals to do everything we can to insure the long and reliable life of our submersible installations. The new Pumptec is an ideal way to protect those installations that we just can't make perfect.

For more information or a demonstration, contact Franklin Electric or your water systems distributor.

TOLL-FREE HELP FROM A FRIEND

Phone Franklin's toll-free SERVICE HOTLINE for answers to your installation questions on submersible installations. When you call, a Franklin expert will offer assistance in troubleshooting submersible systems and provide immediate answers to your motor application questions.

Franklin Electric SERVICE HOTLINE 800-348-2420 FAX 260-827-5102
www.franklin-electric.com



PERMIT #11039
FORT WAYNE, IN
US POSTAGE PAID
PRESORT STANDARD

