



Z-LYNK control and monitoring system for 415V systems

We all appreciate and accept the need for efficient use of energy. The question then is how to best manage the usage of electrical equipment to reduce unnecessary or excessive consumption. In a typical commercial building for example, there are many individual pieces of equipment for heating, cooling, lighting etc which if used only when required or set at an appropriate level can quickly provide energy savings by reducing unnecessary active periods. Commercial and domestic properties can also benefit from intelligent control as part of efficiency, demand side management or off peak incentive schemes. Public lighting can also be efficiently managed to reduce unnecessary on times.

Intelligent control of heating and cooling alone can reduce consumption by up to 30%.

So we appreciate the need to be efficient with energy use, we can identify which devices could be used more efficiently but how can this be achieved considering there may be many devices across many levels?

The key element is being able to intelligently remotely control existing devices using a user friendly but powerful software interface accessible over an internet connection.

Laying new control wires to all devices could be prohibitively expensive and disruptive, wireless communications cannot always guarantee good signal reception particularly when devices are in basements or closed off areas. However, every single device is in fact already connected by the mains power wires in the building.

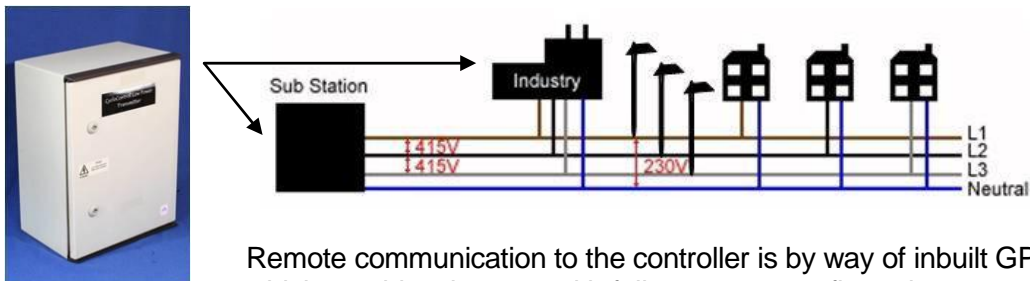
Z-LYNK technology is unique from all other systems which use the power cables for communication and can reliably and effectively use every part of the existing wiring without any changes to the power cables. Any device that requires control simply needs a switching module fitted allowing the power to be interrupted to that device. There is no limit to the number of devices that can be controlled and new devices can be added at any time.

A small intelligent LPT controller can be fitted at the local substation to cover all connected devices across all phases fed from the substation. If used solely in a commercial building connection is usually where the mains power enters the building after which the entire buildings power cables can be used to control any mains powered and connected equipment. Multiple controllers do not interfere with each other.

The technology that allows this to happen has been proven over many years and has a reliability record second to none. Prestigious companies such as EDF Energy trust the system to control many devices throughout London. The City of London's 'square mile' business district is illuminated 365 days a year using this technology!

The LPT Controller

The LPT is a small industrial quality controller which will automatically control all energy saving and monitoring elements downstream of a distribution substation or specifically within a building or across a campus. This sophisticated controller will autonomously manage various energy saving time schedules while continuously monitoring real time external and internal inputs re-acting automatically to those control variables without further intervention by the user. The sensor inputs allow for dynamic response to real time environmental variables such as temperature, light levels or power frequency etc. The controller continuously monitors transmission quality to ensure faultless control of end points and will automatically report by email and / or SMS, any system alarms or alerts to designated users.



Remote communication to the controller is by way of inbuilt GPRS which provides the user with full access to configuration parameters, manual control and all real time input data such as temperature, light levels or other sensor inputs such as a pulsed meter output. The controller also provides a suite of historical data and full audit trail.

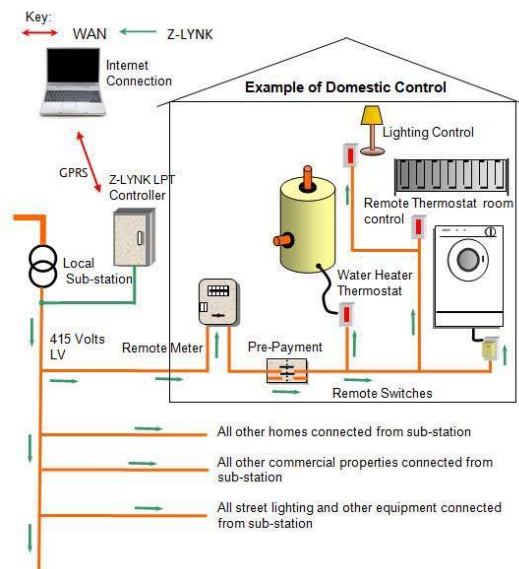
Once configured with all energy saving and monitoring parameters the controller will run automatically without further intervention. No maintenance is required. There is no practical limit to the number of devices that can be controlled, from a single device to many thousands.

Just some typical control variables:

- External and internal air temperature
- External and internal light levels
- Time of day, week, month, year schedules
- Solar switch or photocell
- Remote user intervention

Typical devices to be controlled:

- Internal lighting, display lighting
- External lighting, signage, car parks, public lighting
- Room heaters, storage heaters
- Air conditioning, coolers





The Z-LYNK Remote Control Centre with inbuilt Web Server

The Z-LYNK software is designed to configure, monitor and manage an unlimited number of LPT controllers and their associated control points. You can create a mesh network managing and controlling potentially millions of end points. Access to the Z-LYNK software suite is via your web browser, small 'apps' can be created for quick configuration on your portable device.

Once password and security is complete you have access to a comprehensive suite of configuration, control and monitoring options. Communication parameters to each LPT controller need only be configured one time after which the software will then take care of all communication variables no matter how many LPT controllers are fitted.

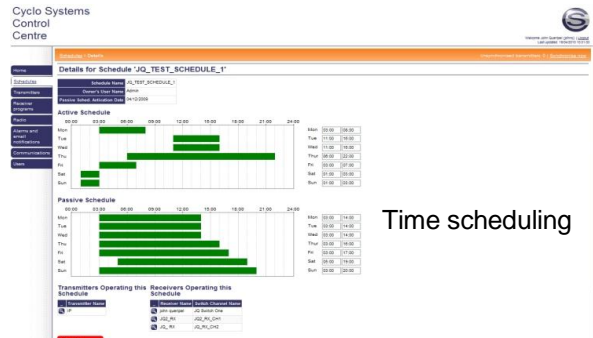
The user can define end points to be switched, time pattern scheduling for power saving, environmental and other sensor input parameters and profiles which will affect power saving modes.

At any time the user may request real time readings of temperature, light levels or other variables from each controller. Manual switching can also be implemented at any time.

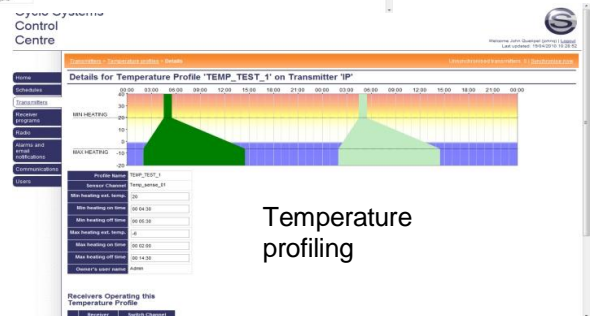
After each controller is configured the LPT controller will run autonomously, only needing to contact the Z-LYNK Control Centre with alarms or alerts should they occur which are logged and then sent by email or SMS message to designated users.



Portable 'App'



Time scheduling



Temperature profiling