In the case of simple control systems these are generally configured as some form of automated switching in the power supply to a luminaire or group of luminaires. However, more complex systems are generally configured as a network of devices including luminaires, sensors and control inputs. In most systems the devices are physically connected using some form of cabled network but, in principle, devices can be controlled using wireless or infrared communication.

There are several systems in common use for lighting systems and care needs to be taken to specify the correct type for each component in the system. Two of the most common systems available are DALI (**D**igital **A**ddressable **L**ighting **I**nterface) and DMX 512 (**D**igital **M**ultiple**x**).

The basic specification for DALI systems is contained in BS EN 60929: 2006:
AC-supplied electronic ballasts for tubular fluorescent lamps — Performance requirements.

The DALI system is largely used for lighting systems in buildings but has been extended so that it can be used more widely. It controls luminaires via the ballast used to control the lamps. The system is designed to run multiple luminaires on one circuit but there are devices that can control a series of different DALI clusters thus making it possible to control all the lights in a large building.

2.3.2 DSI / DALI Lighting Control / Dimming System Description

Based on IEC 60929 and IEC 62386 as these are technical standards for network based systems that control lighting in building automation, they were established as a successor of 0-10 V lighting control systems, and as an open standard alternative to Digital Signal Interface (DSI), on which it is based.

IEC 60929 is the first version of the standard and will be withdrawn by the 23rd June 2014. Members of the AG DALI are allowed to use the Digital Addressable Lighting Interface (DALI) trademark on devices that are compliant with the current standard.

Each lighting device is assigned a unique static address in the numeric range from 0 to 63, making possible up to 64 devices in a standalone system. Alternatively, DALI can be used as a subsystem via DALI gateways to address more than 64 devices.

Data is transferred between controller and devices by means of an asynchronous, half-duplex, serial protocol over a two-wire bus, with a fixed data transfer rate of 1200 bit/s.