DALI

Definition:

DALI network consists of a controller and one or more lighting devices that have DALI interfaces. The controller can monitor and control each light by means of a bi-directional data exchange.

Addressing:

Each lighting device is assigned a unique static address in the numeric range 0 to 63, making possible up to 64 devices in a standalone system. Addresses may be arbitrarily assigned and devices need not be mapped to contiguous addresses (gaps may exist in the address map). Data is transferred between controller and devices by means of an asynchronous, half-duplex, serial protocol over a two-wire bus.

Limitation: one DALI network can only use up to 64 DALI devices.

Solution: By using multiple DALI gateways, the whole system can have more than 64 devices.

Physical requirement:

DALI requires a single pair of wires to form the bus or communication to all devices on a single DALI network. The network can be arranged in a bus or star topology or a combination of these. DALI devices include fluorescent HF ballasts, low voltage transformers, PE cells, motion detectors, wall switches and gateways to other protocols.

Control:

A DALI device can be controlled individually via its short address. DALI devices can be grouped into groups so that them can operate like an individual, be controlled or communicate with other groups.

Emergency:

In case of emergency, if a new device is added, or a device is in a lost of information, other devices can tell the particular devices the information it needs