Relay Control through TCP/IP protocol

Raspberry Pi 3 computer-based controller

It allows the control of up to 3 Bollards via TCP/IP. The raspberry computer runs a special version of Linux configured for handling IoT devices. This way you can control up to 3 Bollards. The control is both local through an external keypad, as well as remote via wired ethernet network or via WiFi.

1. **DHCP**
   - It supports DHCP protocol, to dynamically obtain the IP address.

2. **WIFI**
   - It has the option to connect via WiFi network.

3. **WEB BROWSER**
   - Control of IoT devices via a friendly network interface.
IoT based Control Software

The relay control is implemented through the famous IBM IoT software: Node-Red.

Node-RED is a programming tool to connect hardware devices, APIs and online services quickly and easily. This software is used to create relay control via a web page. Two relays are required for the control of a Bollard. The system is programmed to operate each Bollard individually or as a group. The internal wiring of the system allows each Bollard to also be controlled externally through a keypad.

“Manual and remote bollard control”

The system is housed inside an EATON IP65 cabinet. Internally, the Raspberry Pi 3 controller is located with a small Touch LCD display, as well as the relay card and wiring terminals that allow the connection of up to 3 Bollards with their respective keypads. The supply is 110 VAC and has a 110VAC / 5 VDC 3 AMP wall plug power supply inside.

INSTALLATION REQUIREMENTS

EATON IP65 ABS cabinet. External measurements are 225mm wide, 175mm high and 100mm deep.

It has three heavy-duty 1 "PVC pipe connectors at the bottom, each for the Bollard connection.

On the side walls it has 3/4 "heavy-duty PVC connectors, for the 110 VAC power connection, Ethernet network and Buttons.