

**SPEC NOTE DESCRIPTION:** This section contains Smart-Light Control system for multi-control of lighting circuits, mechanical control integration and/or remote grouping of up to six ballasts. Connections completed with modular wiring systems to power source, luminaires, ambient light sensors, low voltage switches, occupancy sensors, light controls, mechanical control equipment, building automation systems or central computer.

## **PART 1 - GENERAL**

### **1.1 Shop Drawings**

**SPEC NOTE:** Use the following paragraph for federal government projects.

**.1 Submit shop drawings in accordance with Section [ 01340 - Shop Drawings, Product Data, Samples and Mock-ups ] .**

**SPEC NOTE:** Use the following paragraph for private sector projects.

**.2 Submit shop drawings in accordance with Section [ 01300 - Submittals ]**

**.3 Indicate:**

- .1 Complete assembly.**
  - .2 Contact surfaces.**
  - .3 Construction features.**
  - .4 Wiring diagrams.**
  - .5 Catalogue information.**
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## 1.2 Samples

**SPEC NOTE: Use the following paragraph for federal government projects**

**.1 Submit samples in accordance with Section [ 01340 - Shop Drawings, Product Data, Samples and Mock-ups ].**

**SPEC NOTE: Use the following paragraph for private sector projects.**

**.2 Submit samples in accordance with Section [ 01300 - Submittals ]**

## PART 2 - PRODUCTS

### 2.1 Components

**.1 Designed for lighting and mechanical control integration up to and including 600 V 20 amp.**

**.2 Integrally moulded thermoplastic, colour coded black for normal and red for emergency circuits.**

**.3 Certified to make or break under full rated load.**

**.4 Quick change frames with pre-assembled relays, transformer rectification, multi-recessed control ports, and one power-in plug and five power-out receptacles.**

**.5 Cable sets consisting of starter cables, joiner cables, and control cables.**

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**.6 Low Voltage Switch Kit.**

**.7 Occupancy Sensor Kit.**

**.8 Ambient Light Sensor Kit.**

**.9 Mechanical Control Kits**

**.10 Central Control or Building Automation System Kits.**

## **2.2 Enclosures**

**.1 Enclosures designed for ceiling or wall mounting with stand-off uni-directional brackets. Hinged fail safe cover with interceptor openings. Constructed of metal with safety blue paint, ventilated back with side air inlets, and complete with sixteen receptacle knockouts. Capable of mounting up to 6-six lamp ballasts.**

## **2.3 Frames**

**.1 Quick change frames are pre-installed into the enclosure and complete with up to ten control ports, one power-in plug and five power-out receptacles. Power-out receptacles 4 of 5 are controlled by internal low voltage relays connected to the control ports. One power out receptacles is for circuit feeding unswitched. Each of 4 power-out receptacles is controlled using one low voltage switch kit and/or one sensor kits. The remaining two control ports are for connection to the building automation system or central computer.**

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**Additional ports for 24/15 volts are available for feeding the VAV's and or additional equipment.**

**2.4 Cable Sets**

- .1 Two to nine conductor - No. 12 to 18 stranded Ultralx-105 armoured cable c/w integrally moulded male and/or female caps.**
- .2 Factory assembled and integrally moulded.**
- .3 Four meter minimum lengths. Allow 2 meter extra cable for relocation of fixtures and equipment where required.**
- .4 Starter cables: complete with 1 end prepared for field installation and other end complete with integrally moulded female cap. Field prepared end: armour moved 150 mm and complete with locknutless connector and suitable for circuit connection to standard outlet box.**
- .5 Joiner cables: integrally moulded male cap on one end and integrally moulded female cap on the other end.**
- .6 Low voltage cables: one end prepared for field installation with a locknutless box connector and six inch tails with mini-quick connector prepared for connection to a low voltage switch kit or sensors kit. Other end complete with mini quick-connector for connection to the Smart-Light enclosure control ports.**

**2.5 Low Voltage Switch Kits**

- .1 Complete with low voltage push button switch, three position backplate, and single cover plate. Low voltage switch is provided with six inch tails and mini quick-connector ready for connection to low voltage cable.**

**2.6 Sensor Kits**

- .1 Complete with a bar hanger and outlet box pre-assembled**
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for insertion of low voltage cable locknutless box connector into outlet box. Ceiling mounting sensor with mini quick-connector for connection through a 7/8 tile hole to the low voltage control cable inserted in outlet box.

**2.7 Mechanical Control Kits** .1 Complete with one end connected with mini quick-connector to Smart-Light Enclosure control port. Other end complete with locknutless box connector and prepared with 6 inch tails or mini plugs for connection to mechanical devices or other equipment.

**2.8 Central Control Kits** .2 Complete with one end connected with mini quick-connector for connection to Smart-Light enclosure control port. Other end complete with locknutless box connector and prepared with 36 inch tails for connection to central control panel.

## **PART 3 - EXECUTION**

- 3.1 Installation**
- .1 Install system and components in accordance with manufacturer' s instructions.
  - .2 Install starter cables to circuit outlet boxes and connect to power circuit and energize.
  - .3 Install Smart-Light enclosures as shown on drawings and connect starter cable to power-in plug.
  - .4 Connect joiner cables to each of the power-out receptacles to the first luminaire of controlled circuit as shown.
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- .5 Install joiner cables between interceptors in fixtures or equipment. Allow extra cable to facilitate removal and relocation of fixtures or equipment.**
- .6 Install blanking plugs in unconnected receptacles.**
- .7 Integrally moulded thermoplastic components to match colour identification system (ie. black for normal power, red for emergency power).**
- .8 Install low voltage switch kits and low voltage cables as shown on drawings and connect to control ports of the controlled circuits.**
- .9 Install sensor kits and low voltage cables as shown on drawings and connect to control ports of the controlled circuits.**
- .10 Install central control kit from each or grouped Smart-Light enclosure to central control panel as shown on drawings. Connect to control port of Smart-Light as indicated. Connections within the central control panel as instructed by the control manufacturer.**
- .11 On completion of the installation, the manufacturer representative shall be notified to carry out a site inspection and report any inconsistencies to the Engineer. Corrections are to be implemented to comply with manufacturers report.**

**END OF SECTION**

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