

GUIDELINE SPECIFICATIONS - *OnePass*

Section 16152

MANUFACTURED WIRING SYSTEMS for lighting in open accessible ceilings

- Intent** The intent of this portion is to furnish a manufactured, relocatable, integrated electrical branch circuit wiring system with field circuit selection capabilities for lighting in open accessible ceilings as manufactured by Lithonia RELOC Wiring Solutions, a division of Lithonia Lighting.
- Scope** Furnish and install all components required for a totally integrated and operating relocatable branch circuit wiring system with field fixture circuit selection capabilities. The System shall begin at the *OnePass* Circuit Distributor and extend to the lighting fixtures. Furnish the proper *OnePass* Circuit Selector (OCS) fixtures with the flexible wiring system.
- Submittals** Submit catalog cuts of all components to be used. Submit samples if so requested.
- Drawings** If necessary, furnish a complete set of RELOC drawings indicating how the flexible system will be installed. If drawings are furnished, a diskette of the CAD RELOC drawing must be provided up to 10 years after project completion at no charge.
- The Basic System** The system must contain a fixture tap component which allows selection, in the field, of desired hot conductor(s) needed to energize the fixture. The system shall permit removal of any fixture from the branch without adding additional components or interrupting the branch circuit wiring.
- The System shall be pre-manufactured and supplied in accordance with N.E.C. Article 604 and UL Standard for Safety #183. All wires in the system shall be either #10 AWG or #12 AWG copper with 600V, 90°C insulation. All wires shall be voltage color-coded. The System grounding conductor shall be either bare or insulated #10 or #12 AWG copper.
- The System shall be totally integrated; conduit and wire shall not be required as a part of the system.
- The System shall contain pin and socket contacts which are crimped onto the branch circuit conductor. This will ensure a good electrical connection and long component life.
- The System shall be keyed to guarantee that no interconnection can occur between different voltages and that no connection can occur between devices not intended to be connected. The System shall be designed to prevent backfeeding. This design shall be permanent and difficult to defeat.
- The System shall have the capability of 5 wire (including a copper ground wire).
- All components must meet UL #183 requirements for connecting and disconnecting under load and be UL listed.

The System shall consist of, but not be limited to, the following three (3) basic components:

I. *OnePass* CIRCUIT DISTRIBUTOR (OCD)

- A. The OCD is the point at which conventional wiring is converted into flexible wiring.
- B. The OCD shall have #10 or #12 AWG copper conductors with 600V, 90°C insulation. Each wire shall be voltage color-coded and stripped 5/8".
- C. The OCD shall be designed to install through any 1/2" trade-size knockout.
- D. The quantity and types of OCD's shall be as required by the contract drawings.

II. *OnePass* CABLE 2-PORT (OC2)

- A. The OC2 has a male cable head on one end and a 2 port, female cable head on the other. It is used to feed the *OnePass* Circuit Selector.
- B. Each OC2 shall be "keyed" so that the components may only be used for extending in the prescribed manner within the System. The *OnePass* Circuit Selector must be designed to connect to any properly keyed "O" Series products.
- C. The OC2 shall contain #10 or #12 AWG copper wire with all but the ground conductor having 600V, 90°C insulation from one end to the other.
- D. The quantity and types of OC2's shall be as required by the contract drawings.

III. *OnePass* CIRCUIT SELECTOR (OCS)

- A. The OCS is a module that attaches to a fixture to provide a modular connection between the fixture and the modular wiring system. The OCS houses a slide action which allows selection, in the field, of desired hot conductor(s) needed to energize the fixtures. The OCS allows current to be fed to, but not through, the fixture.
- B. The OCS shall have a #16 AWG, 105°C insulated fixture tap leads, protected by a rubberized cord rated 600V feeding the light fixture.
- C. The OCS shall be permanently closed with only the appropriate fixture leads being exposed to facilitate wiring the component. In the fixture, the ballast leads shall be attached as follows:
 - "Hot" ballast lead to black lead on OCS
 - "Neutral" ballast lead to white lead on OCS
 - The green lead from the OCS shall be attached to an appropriate equipment grounding location.

- D. Every OCS shall have molded position identifiers. This identifier shall denote position of each conductor.
- E. The quantity and types of *OnePass* Circuit Selectors shall be as required by the electrical circuitry and fixtures on the contract drawings.

Guarantee The Wiring System shall be guaranteed to operate and perform for 5 years as described.

Special Note When requested, the flexible wiring manufacturer shall provide the services of a trained representative to assist and instruct the electrical contractor in the proper installation of the components and system.