|  |  |  |
| --- | --- | --- |
| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | February 19, 2010 | Modified ‘Related Sections’ and approved suppliers |
| 3 | March 15, 2011 | Minor changes from Legal |
| 4 | June 3, 2013 | Final Draft – Consolidated Comments Spec Update Project |
| 5 | June 18, 2013 | Incorporation of new Commissioning Specification cross references. Incorporated several aspects of the NL building specifications. |
| 6 | July 29, 2014 | Changes to reflect renaming of commissioning specification and final review (AV) |
| **7** | **November 17, 2014** | **Updated, Finalized Specification – Reference eDOCS #5630490 v4 (AV)** |
| 8 | February 2, 2015 | Updated standards (CSA C22.2 No. 111-10, fourth edition , UL 20, thirteenth edition) and typo corrections |
|  |  |  |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

# GEneral

## Related Sections

### [Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.

### Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.

### Contractor is responsible for coordination of the Work. Contractor is responsible for being familiar with and incorporating all required elements of cross-referenced Specifications cited.

### This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]

### [List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### [List Sections specifying products installed but not supplied under this Section and indicate specific items.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### [List Sections specifying related requirements.]

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

### Sections:

#### Section 01300 – Submittals

#### Section 01250 – Substitutions

#### Section 01810 – Equipment Testing and Facility Commissioning

#### [Division 13 – SCADA and Instrumentation- insert applicable specifications]

#### Section 16010 – Electrical General Requirements

#### Product requirements for [item]... for installation under this Section.

## References

### Canadian Standards Association (CSA)

#### CSA-C22.2 No.42-10 General Use Receptacles, Attachment Plugs and Similar Wiring Devices.

#### CAN/CSA-C22.2 NO. 144-M91 (R2011), Ground Fault Circuit Interrupters.

#### C22.2 NO. 182.3-M1987 (R2014), Special Use Attachment Plugs, Receptacles and Connectors.

#### CSA-C22.2 No.42.1-13, Cover Plates for Flush-Mounted Wiring Devices (Bi-national standard, with UL 514D).

#### CSA-C22.2 No.55-M1986 (R2012), Special Use Switches.

#### CSA-C22.2 No.111-10, fourth edition, General-Use Snap Switches (Bi-national standard, with UL 20, thirteenth edition).

## Measurement and Payment

*[Choose one of the following payment language provisions that best suits the individual project.*

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

## Shop Drawings and Product Data

### Submit shop drawings and Product data in accordance with Section 01300 – Submittals.

# PRODUCTS

## Switches

### 15 A, 120 V, single pole, double pole, three-way, four-way switches as indicated in the Contract Documents in accordance with CSA-C22.2 No.55-M1986 (R2012) and CSA-C22.2 No.111-10.

### Manually-operated general purpose alternating current switches with the following features:

#### Terminal holes approved for No. 14 AWG wire.

#### Silver alloy contacts.

#### Urea or melamine molding for parts which are subject to carbon tracking.

#### Suitable for back and side wiring.

#### Ivory toggle – office areas.

#### Brown toggle – non office areas.

### Use switches from the same manufacturer throughout the Work.

### Acceptable products:

#### Hubbell Incorporated, HBL 1201 W

#### Leviton Manufacturing Co. Inc., 1201-2W

#### Pass and Seymour supplied by numerous suppliers

#### Approved Equivalent

## Receptacles

### Duplex receptacles, CSA type 5-15 R, 125 V, 15 A, U ground, in accordance with CSA-C22.2 No.42-10 with the following features:

#### Ivory, brown urea molded housing.

#### Suitable for No. 14 AWG for back and side wiring.

#### Break-off links for use as split receptacles.

#### Eight back wired entrances, four side wiring screws.

#### Triple wipe contacts and riveted grounding contacts.

#### Manufacturer’s specification grade.

### Single receptacles CSA type 5-15 R, 125 V, 15 A, U ground with the following features:

#### Ivory, brown urea molded housing.

#### Suitable for No. 14 AWG for back and side wiring.

#### Four back wired entrances, 2 side wiring screws.

#### Manufacturer’s specification grade.

### Other receptacles with the amperage and voltage as indicated in the Contract Documents.

### Use receptacles from the same manufacturer throughout the Work.

### Receptacles shall be sized according to the related lighting panel branch circuit breaker.

### Acceptable products:

#### Hubbell Incorporated, 5262-W

#### Leviton Manufacturing Co. Inc., 5262-W

#### Pass and Seymour 5262-W

#### Approved Equivalent.

## Selector Switch

### Approved Suppliers:

#### Rockwell Automation Canada Ltd (Allen-Bradley).

#### Schneider Canada Inc. (Square D).

#### Approved Equivalent.

## Special Wiring Devices

### Ground fault receptacles shall be supplied and installed as shown on the Contract Drawings and in accordance with the Ontario Electrical Code for wet areas.

### Ground fault receptacles shall in accordance with CAN/CSA-C22.2 NO. 144-M91 (R2011), Ground Fault Circuit Interrupters.

### Supply and install 240/208V receptacles where shown on the Drawings. Breaker style GCCI or short cord with GFCI incorporated.

### Special use switches shall be in accordance with CSA-C22.2 No.55-M1986 (R2012), Special Use Switches.

## Cover Plates

### Cover plates for wiring devices shall be in accordance with CSA-C22.2 No.42.1-13, Cover Plates for Flush-Mounted Wiring Devices (Bi-national standard, with UL 514D).

### Use cover plates from the same manufacturer throughout the Work.

### Sheet steel utility box cover for wiring devices installed in surface-mounted utility boxes.

### Stainless steel, 1 mm thick cover plates, with a thickness of 2.5 mm for wiring devices mounted in flush-mounted outlet boxes.

### PVC cover plates for wiring devices mounted in surface-mounted FS (Fitting Shallow) or FD (Fitting Deep) type conduit boxes.

### Receptacles and switches in unfinished areas shall be complete with cover plates to match related boxes.

### Cover plates shall be provided for all blanked off outlets.

### One piece gang plates shall be used at locations where more than one device is to be mounted adjacent to each other.

### Weatherproof, double lift, spring-loaded cast aluminum cover plates, complete with gaskets for duplex receptacles as indicated in the Contract Documents.

### Weatherproof cover plates complete with gaskets for single receptacles or switches. Cover plates shall be by:

#### Scepter Corp., T type VSC 15/10

#### Rexel Canada Electrical Inc., Westbourne, Model WDR 15/10

#### Approved Equivalent.

# EXECUTION

## Installation

### Switches:

#### Install single throw switches with handle in the "UP" position when the switch is closed.

#### Install switches in gang type outlet box when more than one switch is required in one location.

### Mount toggle switches at the height specified in Section 16010 - Electrical General Requirements or as otherwise indicated on the Drawings.

### Receptacles:

#### Install receptacles in a gang type outlet box when more than one receptacle is required in one location.

#### Mount receptacles at the height specified in Section 16010 - Electrical General Requirements or as otherwise indicated on the Drawings.

#### Where the split receptacle has one portion switched, mount vertically and switch the upper portion.

## Cover plates:

### Protect the stainless steel cover plate finish with paper or plastic film until painting and all other work has been completed.

### Install suitable common cover plates where wiring devices are grouped.

### Do not use cover plates meant for flush outlet boxes on surface-mounted boxes.

## Commissioning

### For all commissioning activities on systems where components of this Section are integral to functionality, refer to Section 01810 – Equipment Testing and Facility Commissioning. All inspection and testing activities shall be completed in accordance with the documentation required as part of the commissioning plan that shall be provided to the Consultant prior to the commencement of commissioning activities.

**END OF SECTION**