

## SECTION 262726 - WIRING DEVICES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Single and duplex receptacles, ground-fault circuit interrupters, integral surge suppression units, and isolated-ground receptacles.
  - 2. Single- and double-pole snap switches and dimmer switches.
  - 3. Device wall plates.
  - 4. Pin and sleeve connectors and receptacles.
  - 5. Floor service outlets and multioutlet assemblies.

#### 1.3 DEFINITIONS

- A. EMI: Electromagnetic interference.
- B. GFCI: Ground-fault circuit interrupter.
- C. PVC: Polyvinyl chloride.
- D. RFI: Radio-frequency interference.
- E. TVSS (SP): Transient voltage surge suppressor (Surge Protected).
- F. UTP: Unshielded twisted pair.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: List of legends and description of materials and process used for pre-marking wall plates.
- C. Samples: One for each type of device and wall plate specified, in each color specified.
- D. Field quality-control test reports.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of wiring device through one source from a single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with NFPA 70.

1.6 COORDINATION

- A. Receptacles for Owner-Furnished Equipment: Match plug configurations.
  - 1. Cord and Plug Sets: Match equipment requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Wiring Devices:
    - a. Hubbell Incorporated; Wiring Device-Kellems.
    - b. Leviton Mfg. Company Inc.
    - c. Pass & Seymour/Legrand; Wiring Devices Div.
  - 2. Wiring Devices for Hazardous (Classified) Locations:
    - a. Crouse-Hinds/Cooper Industries, Inc.; Arrow Hart Wiring Devices.
    - b. EGS/Appleton Electric Company.
    - c. Killark Electric Manufacturing Co./Hubbell Incorporated.
  - 3. Multioutlet Assemblies:
    - a. Hubbell Incorporated; Wiring Device-Kellems.
    - b. Wiremold Company (The).

2.2 RECEPTACLES

- A. Straight-Blade-Type Receptacles: Configuration 5-20R duplex receptacle, Comply with NEMA WD 1, NEMA WD 6, DSCC W-C-596G, and UL 498.
- B. Straight-Blade and Locking Receptacles: Heavy -Duty grade.
- C. Straight-Blade Receptacles: Specification grade.

- D. GFCI Receptacles: Straight blade, feed-through type, Heavy-Duty grade, with integral NEMA WD 6, Configuration 5-20R duplex receptacle; complying with UL 498 and UL 943. Design units for installation in a 2-3/4-inch- deep outlet box without an adapter.
- E. Isolated-Ground Receptacles: Straight blade, Heavy-Duty grade, duplex receptacle, with equipment grounding contacts connected only to the green grounding screw terminal of the device and with inherent electrical isolation from mounting strap.
  - 1. Devices: Listed and labeled as isolated-ground receptacles.
  - 2. Isolation Method: Integral to receptacle construction and not dependent on removable parts.
- F. Industrial Heavy-Duty Pin and Sleeve Devices: Comply with IEC 309-1.

### 2.3 PENDANT CORD/CONNECTOR DEVICES

- A. Description: Matching, locking-type plug and receptacle body connector, NEMA WD 6, Configurations L5-20P and L5-20R, Heavy-Duty grade.
  - 1. Body: Nylon with screw-open cable-gripping jaws and provision for attaching external cable grip.
  - 2. External Cable Grip: Woven wire-mesh type made of high-strength galvanized-steel wire strand, matched to cable diameter, and with attachment provision designed for corresponding connector.

### 2.4 CORD AND PLUG SETS

- A. Description: Match voltage and current ratings and number of conductors to requirements of equipment being connected.
  - 1. Cord: Rubber-insulated, stranded-copper conductors, with Type SOW-A jacket; with green-insulated grounding conductor and equipment-rating ampacity plus a minimum of 30 percent.
  - 2. Plug: Nylon body and integral cable-clamping jaws. Match cord and receptacle type for connection.

### 2.5 SWITCHES

- A. Single- and Double-Pole Switches: Comply with DSCC W-C-896F and UL 20.
- B. Snap Switches: Heavy -Duty grade, quiet type.
- C. Combination Switch and Receptacle: Both devices in a single gang unit with plaster ears and removable tab connector that permit separate or common feed connection.
  - 1. Switch: 20 A, 120/277-V ac.
  - 2. Receptacle: NEMA WD 6, Configuration 5-20R.

2.6 WALL PLATES

- A. Single and combination types to match corresponding wiring devices.
  - 1. Plate-Securing Screws: Metal with head color to match plate finish.
  - 2. Material for All devices in all Spaces: 0.035-inch- thick, satin-finished stainless steel .

2.7 MULTIOUTLET ASSEMBLIES

- A. Components of Assemblies: Products from a single manufacturer designed for use as a complete, matching assembly of raceways and receptacles.
- B. Raceway Material: Metal, with manufacturer's standard finish.
- C. Wire: No. 12 AWG.

2.8 FINISHES

- A. Color:
  - 1. Wiring Devices Connected to Normal Power System: As selected by Architect, unless otherwise indicated or required by NFPA 70.
  - 2. Wiring Devices Connected to Emergency Power System: Red.
  - 3. TVSS Devices: Blue.
  - 4. Isolated-Ground Receptacles: Orange.

2.9 Pre Selected Devices Table:

	Manufacturers	Receptacles Cat. No.	Switches Cat No.
a.	Hubbell Inc.	HBL5352-GY	1201-GY
b.	Leviton Mfg. Co. Inc.	5362-GY	1221-GY
c.	Pass & Seymour.	5362-GY	1201-GY

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install devices and assemblies level, plumb, and square with building lines.
- B. Install wall dimmers to achieve indicated rating after de-rating for ganging according to manufacturer's written instructions.
- C. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' written instructions.
- D. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical, and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.
- E. Remove wall plates and protect devices and assemblies during painting.
- F. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

### 3.2 IDENTIFICATION

- A. Comply with Division 26 Section "Common Work Results For Electrical."
  - 1. Receptacles: Identify panelboard and circuit number from which served. Use hot, stamped or engraved machine printing with black -filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

### 3.3 CONNECTIONS

- A. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."
- B. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."
- C. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

### 3.4 FIELD QUALITY CONTROL

- A. Perform the following field tests and inspections and prepare test reports:

1. After installing wiring devices and after electrical circuitry has been energized, test for proper polarity, ground continuity, and compliance with requirements.
2. Test GFCI operation with both local and remote fault simulations according to manufacturer's written instructions.

B. Remove malfunctioning units, replace with new units, and retest as specified above.

### 3.5 COMMISSIONING

- A. The equipment and systems referenced in this section are to be commissioned per Section 010800 – Commissioning General Requirements and Section 260800 – Commissioning Electrical Systems. The contractor has specific responsibilities for scheduling, coordination, start-up, test development, testing and documentation. Coordinate all commissioning activities with the Commissioning Authority.

END OF SECTION 262726