

## SECTION 260534 – PULL, JUNCTION BOXES AND ENCLOSURES

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Pull Boxes
- B. Junction Boxes
- C. Accessories

#### 1.2 RELATED SECTIONS

- A. Section 260529 - Supporting Devices.

#### 1.3 REFERENCES

- A. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- B. NEMA ICS 4 - Terminal Blocks for Industrial Control Equipment and Systems.
- C. ANSI/NFPA 70 - National Electrical Code.

#### 1.4 SUBMITTALS

- A. Submit under provisions of general project requirements and Section 260500.
- B. Product Data: Provide manufacturer's standard data for boxes and enclosures.
- C. Junction box locations and details
  - 1. Terminal block layout
  - 2. Grounding

#### 1.5 REGULATORY REQUIREMENTS

- A. Conform to requirements of ANSI/NFPA 70.
- B. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Hoffman

B. Rittal

C. or equal

## 2.2 PULL BOXES

A. Construction:

1. Outdoors, Wet Damp areas, Corrosive areas. NEMA Type 4/4X, sunlight resistant fiberglass, polycarbonate or SS as specified on Drawings, enclosure with continuous hinge covers.
  - a. Covers: Continuous SS hinge, held closed by SS screws
2. Indoors exposed NEMA 12, 13 or as specified on Drawings.
3. Indoors flush wall mounted NEMA 1 w/ flush covers
4. Indoors concealed NEMA 1 w/ screw cover
5. Indoor wet and damp NEMA 4XSS
6. Indoor corrosive areas NEMA 4XSS or compatible with chemical
7. Hazardous locations NEMA 7

## 2.3 TERMINAL HINGED COVER ENCLOSURES

A. Construction:

1. Outdoor, Wet Damp areas, Corrosive areas: NEMA 4/4X, sunlight resistant fiberglass or polycarbonate or stainless steel (SS) as specified on Drawings, Type 4/4X enclosure with continuous hinge cover.
  - a. Covers: Continuous SS hinge, held closed by flush latch operable by screwdriver.
2. Indoors, exposed: NEMA 12, 13
3. Indoors, flush wall mounted: NEMA 1 w/ flush covers
4. Indoors, concealed: NEMA 1 w/ screw cover
5. Indoors, wet and damp: NEMA 4XSS
6. Indoors, corrosive areas: NEMA 4XSS or compatible with chemical
7. Hazardous locations: NEMA 7

B. Provide white enamel interior metal panel for mounting terminal blocks and electrical components.

## 2.4 CABINETS

A. Provide metal barriers to form separate compartments containing control wiring at less than 50 volts from power wiring.

B. Provide accessory feet for free-standing equipment.

## 2.5 TERMINAL BLOCKS

A. Manufacturers:

1. Weidmüller SAK 6, SAK 2.5, ASK 1.

2. Allen-Bradley
  3. Square-D
  4. or equal
- B. Terminal Blocks: ANSI/NEMA ICS 4.
- C. Power Terminals: Unit construction type with closed back and tubular pressure screw connectors, rated 600 volts.
- D. Signal and Control Terminals: Modular construction type, suitable for channel mounting, with tubular pressure screw connectors, rated 300 volts. Ground terminal shall be green.
- E. Provide ground bus terminal block, with each connector bonded to enclosure.
- F. Provide a typed legend of cables and terminal numbers with origin and destination.
- G. Boxes where water may drain from the attached conduits shall have drains installed in the bottom or the lowest point of the box. Conduit penetration at such boxes shall be located along the sides or top of the box. Conduits shall not be installed in a manner that water can enter attached pull conduits.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install Products in accordance with manufacturer's instructions.
- B. Install enclosures and boxes plumb. Anchor securely to wall and structural supports at each corner.
- C. Do not attach boxes directly to masonry, concrete, or brick walls but provide a ¼ inch spacer of PVC, nylon, or stainless steel.
- D. Install enclosures and boxes using stainless steel fasteners.
- E. Provide supports where required when no wall or other adequate support is available.

END OF SECTION 260534