## SECTION 16130 RESOURCE RFB FLOOR BOX SERIES

## PART 1 GENERAL

### 1.1 SCOPE

The floor box provides the interface between power and communication cabling in an on grade or above grade concrete floor where power and/or communication services are required.

### 1.2 CLASSIFICATION AND USE

This floor box shall have been examined and tested by Underwriters Laboratories Inc. to Standard UL514A and/or UL514C and Canadian Standard C22.2, No. 18-92 and bear the U.S. and Canadian UL Listing Mark. This floor box shall also conform to the standards set in the National Electrical Code, Section 300-21. This floor box shall also have been evaluated by UL to meet the applicable U.S. and Canadian safety standards for scrub water exclusion when used on tile, terrazzo, wood, and carpet covered floors.

## PART 2 PRODUCT

### 2.1 MANUFACTURER

The Walker floor box described shall be manufactured by The Wiremold Company. Floor boxes of other manufacturers may be considered, if equal in functionality and quality, by written approval of the specifying engineer and shall meet all the performance standards specified herein. In addition, the contractor shall have ten days to submit to the specifying engineer a working sample from any other manufacturer.

### 2.2 MATERIALS

### 2.2.1 Floor Boxes

### 2.2.1.1 RFB2 Series Floor Box

The floor box shall be manufactured from stamped steel and be approved for use on above grade floors. The box shall be $131 / 8$ " L x $6 \frac{112 " \mathrm{~W}}{} \mathrm{~W} \times 37 / 16^{\prime \prime} \mathrm{H}$ [333mm $\times 165 \mathrm{~mm} \times 87 \mathrm{~mm}$ ]. There shall be two independent wiring compartments that allow capacity for up to two duplex receptacles and/or communication services. The RFB2 Series Box shall permit tunneling from end power compartment to end power compartment. Each of the two compartments shall have a minimum wiring capacity of 50 cu in. [822 mi3]. The box shall provide the following number of conduit knockouts: two $1 / 2^{\prime \prime}$
[ 12.7 mm ], six $3 / 4^{\prime \prime}$ [ 19.1 mm ], two 1 " [ 25 mm ] and four $11 / 4^{\prime \prime}$ [ 32 mm ]. The box shall be fully adjustable, providing a maximum of $13 / 8$ " [ 35 mm ] pre-pour adjustment, and a maximum of $3 / 4$ " [19.1mm] afterpour adjustment. The box shall provide a series of device mounting plates that will accept both duplex power devices, as well as plates that will accommodate Ortronics workstation connectivity outlets and modular inserts, the Pass \& Seymour Network Wiring System, and other open system devices.

### 2.2.1.2 RFB2-SS Series Floor Box

The floor box shall be manufactured from stamped steel and be approved for use on above grade floors. The box shall be $131 / 8^{\prime \prime} \mathrm{L} \times 61 / 2^{\prime \prime} \mathrm{W} \times 25 / 8^{\prime \prime} \mathrm{H}$ [ $333 \mathrm{~mm} \times 165 \mathrm{~mm} \times 67 \mathrm{~mm}$ ]. There shall be two independent wiring compartments that allow capacity for up to two duplex receptacles and/or communication services. The RFB2-SS Series Box shall permit tunneling from end power compartment to end power compartment. Each of the two compartments shall have a minimum wiring capacity of 38 cu in. [ 622 ml 3 ]. The box shall provide the following number of conduit knockouts: Two $1 / 2$ " $[12.7 \mathrm{~mm}$ ] and twelve $3 / 4$ " [ 19.1 mm ]. The box shall be fully adjustable, providing a maximum of

1 3/8" [35mm] pre-pour adjustment, and a maximum of 3/4" [19.1mm] after-pour adjustment. The box shall provide a series of device mounting plates that will accept both duplex power devices, as well as plates that will accommodate Ortronics workstation connectivity outlets and modular inserts, the Pass \& Seymour Network Wiring System, and other open system devices.

### 2.2.1.3 RFB2-OG Series Floor Box

The floor box shall be manufactured from stamped steel and be painted with a fusion-bonded epoxy designed for use on metal reinforcement bar and related accessories before encapsulation in concrete, and be approved for use on grade and above grade floors. The box shall be 13 1/8" $L \times 6$ $1 / 2^{" ~ W ~ x ~} 37 / 16^{\prime \prime} \mathrm{H}$ [333mm x $165 \mathrm{~mm} \times 87 \mathrm{~mm}$ ]. There shall be two independent wiring compartments that allow capacity for up to two duplex receptacles and/or communication services. The RFB2 Series Box shall permit tunneling from end power compartment to end power compartment. Each of the two compartments shall have a minimum wiring capacity of $50 \mathrm{cu} \mathrm{in}. \mathrm{[822} \mathrm{ml3]}$. following number of conduit knockouts: two $1 / 2^{\prime \prime}$ [12.7mm], six 3/4" [19.1mm], two 1" [25mm] and four $11 / 4$ " [32mm]. The box shall be fully adjustable, providing a maximum of $13 / 8$ " [35mm] pre-pour adjustment, and a maximum of $3 / 4$ " [19.1mm] after-pour adjustment. The box shall provide a series of device mounting plates that will accept both duplex power devices, as well as plates that will accommodate Ortronics workstation connectivity outlets and modular inserts, the Pass \& Seymour Network Wiring System, and other open system devices.

### 2.2.1.4 RFB4 and RFB4-4DB Series Floor Boxes

The floor box shall be manufactured from stamped steel and be approved for use on above grade floors. The box shall be $123 / 4 " L \times 10 " \mathrm{~W} \times 37 / 16^{\prime \prime} \mathrm{H}$ [324mm $\times 254 \mathrm{~mm} \times 87 \mathrm{~mm}$ ]. There shall be four independent wiring compartments that allow capacity for up to four duplex receptacles and/or communication services. The RFB4 Series Box shall permit tunneling from end power compartment to end power compartment. The RFB4-4DB Series Box shall permit tunneling from adjacent or opposite compartments. Two of the four compartments shall have a minimum wiring capacity of 16.4 cu in. [269cu cm], one compartment shall have a minimum capacity of $32.3 \mathrm{cu} \mathrm{in}. \mathrm{[529cu} \mathrm{cm]}$, one compartment shall have a minimum capacity of 50 cu in. [820cu cm$]$. The box shall provide the following number of conduit knockouts: one 1/2" [12.7mm], three 1" [25mm], six 3/4" [19.1mm], and six 1 1/4" [32mm]. The box shall be fully adjustable, providing a maximum of $17 / 8$ " [47.7mm] prepour adjustment, and a maximum of $3 / 4^{\prime \prime}[19.1 \mathrm{~mm}$ ] after-pour adjustment. The box shall provide a series of device mounting plates that will accept both duplex power devices, as well as plates that will accommodate Ortronics® workstation connectivity outlets and modular inserts, the Pass \& Seymour Network Wiring System, and other open system devices.

### 2.2.1.5 RFB4-Cl-1 Series Floor Box

This box shall be manufactured from cast-iron and be approved for use on grade and above grade floors. The box shall be 14 1/2" L x $117 / 8^{\prime \prime} \mathrm{W} \times 37 / 16^{\prime \prime} \mathrm{H}$ [368mm $\times 302 \mathrm{~mm} \times 87 \mathrm{~mm}$ ]. There shall be four independent wiring compartments that allow capacity for up to four duplex receptacles and/or communication services. The RFB4-CI-1 Series Box shall permit tunneling from adjacent or opposite compartments. Two of the four compartments shall have a minimum wiring capacity of 27 cu in. [443cu cm], and two compartments shall have a minimum wiring capacity of 36 cu in. [590cu cm]. The box shall provide the following number of conduit hubs: four 1" [25mm] and four $11 / 4$ " [32mm]. The box shall be fully adjustable, providing a maximum of $17 / 8$ " [48mm] pre-pour adjustment, and a maximum of 3/4" [19.1mm] after-pour adjustment.

### 2.2.1.6 RFB4-SS Series Floor Box

This box shall be manufactured from stamped-steel and be approved for use on above grade floors. The box shall be $135 / 8^{\prime \prime} \mathrm{L} \times 10 \mathrm{CW} \times 27 / 16^{\prime \prime} \mathrm{H}$ [346mm $\times 254 \mathrm{~mm} \times 62 \mathrm{~mm}$ ]. There shall be four independent wiring compartments that allow capacity for up to four duplex receptacles and/or communication services. The RFB4-SS Series Box shall permit feed through tunneling from adjacent compartments. Two of the four compartments shall have a minimum wiring capacity of 15.7 cu in. [257cu cm], and two compartments shall have a minimum wiring capacity of 31.2 cu in. [511cu cm]. The box shall provide the following number of conduit knockouts: two $1 / 2^{\prime \prime}$ [ 12.7 mm ], six $3 / 4^{\prime \prime}$ [19.1mm], and eight $1^{\prime \prime}$ [ 25 mm ]. The box shall be fully adjustable, providing a maximum of $17 / 8^{\prime \prime}$ [48mm] pre-pour adjustment, and a maximum of 3/4" [19.1mm] after-pour adjustment.

### 2.2.1.7 RFB6 Series Floor Box

The floor box shall be manufactured from stamped steel and be approved for use on above grade floors. The box shall be 13 1/8" L x 12 1/2" W x 3 1/4" H [333mm x 317mm x 83mm]. There shall be
six independent wiring compartments that allow capacity for up to six duplex receptacles and/or communication services. The RFB6 Series Box shall permit feed through tunneling from adjacent compartments. Two of the six compartments shall have a minimum wiring capacity of 23 cu in . [376cu $\mathrm{cm}]$, and four compartments shall have a minimum wiring capacity of 52 cu in. [850cu cm]. The box shall provide the following number of conduit knockouts: twelve $3 / 4$ " [ 19.1 mm ], four 1 " [ 25 mm ], twelve $11 / 4$ " [32mm]. The box shall be fully adjustable, providing a maximum of $13 / 8$ " [ 35 mm ] pre-pour adjustment, and a maximum of $3 / 4^{\prime \prime}[19.1 \mathrm{~mm}]$ after-pour adjustment. The box shall provide a series of device mounting plates that will accept both duplex power devices, as well as plates that will accommodate Ortronics workstation connectivity outlets and modular inserts, the Pass \& Seymour Network Wiring System, and other open system devices.

### 2.2.1.8 RFB6-OG Series Floor Box

The floor box shall be manufactured from stamped steel and be painted with a fusion-bonded epoxy designed for use on metal reinforcement bar and related accessories before encapsulation in concrete, and be approved for use on grade and above grade floors. The box shall be $131 / 8 \mathrm{~L} \times 12$ $1 / 2^{\prime \prime} \mathrm{W} \times 31 / 4^{\prime \prime} \mathrm{H}$ [333mm x $317 \mathrm{~mm} \times 83 \mathrm{~mm}$ ]. There shall be six independent wiring compartments that allow capacity for up to six duplex receptacles and/or communication services. The RFB6 Series Box shall permit feed through tunneling from adjacent compartments. Two of the six compartments shall have a minimum wiring capacity of 23 cu in. [ 376 cu cm ], and four compartments shall have a minimum wiring capacity of 52 cu in . [850cu cm]. The box shall provide the following number of conduit knockouts: twelve $3 / 4$ " [19.1mm], four 1 " [ 25 mm ], twelve $11 / 4$ " [ 32 mm ]. The box shall be fully adjustable, providing a maximum of $13 / 8$ " [35mm] pre-pour adjustment, and a maximum of $3 / 4$ " [19.1mm] after-pour adjustment. The box shall provide a series of device mounting plates that will accept both duplex power devices, as well as plates that will accommodate Ortronics workstation connectivity outlets and modular inserts, the Pass \& Seymour Network Wiring System, and other open system devices.

### 2.2.2 Activation Covers

Activation covers shall be manufactured of die-cast aluminum or die-cast zinc, and be available in a brushed aluminum finish, plated brass finish, or a powder-coated paint finish. Activation covers shall be available in flanged and flangeless versions. Covers shall be available with options for tile or carpet inserts, flush covers, or covers with one 1" trade size screw plug opening and one combination $11 / 4$ " and 2 " trade size screw plug openings for furniture feed applications.

Flanged covers shall be 7 3/4" L x 6 9/16" W [197mm x 167mm].
Flangeless covers shall be 6 3/4" L x 5 9/16" W [171mm x 142mm].
The activation cover shall have been evaluated by UL to meet the applicable U.S. and Canadian safety standards for scrub water exclusion when used on tile, terrazzo, wood, and carpet covered floors.

### 2.2.3 Communication Modules Mounting Accessories

The floor box manufacturer shall provide a complete line of faceplates and bezels to facilitate mounting of UTP, STP ( 150 ohm), fiber optic, coaxial, and communication devices. The box shall provide a series of device mounting plates that will accommodate Ortronics workstation connectivity outlets and modular inserts, the Pass and Seymour Network Wiring System, and other open system devices.

### 3.1 INSTALLATION

The minimum concrete pour depth shall be $37 / 16^{\prime \prime}[87 \mathrm{~mm}]$ plus $1 / 16^{\prime \prime}[1.6 \mathrm{~mm}]$ above the top of the box for the RFB4, RFB4-4DB, RFB2, and the RFB2-OG Series Boxes; $27 / 16$ " [62mm] plus $1 / 16^{\prime \prime}$ [ 1.6 mm ] for the RFB4-SS and RFB2-SS Series Boxes; and $37 / 16$ " [87mm] plus 13/16" [21mm] above the top of the box for the RFB4-CI-1 Box. The box shall contain four locations to accommodate leveling for pre-concrete pour adjustment and shall provide four leveling screws for the pre-pour adjustment.

