DEPARTMENT OF PUBLIC SAFETY AND CORRECTIONS

Public Safety Services

V. J. BELLA
STATE FIRE MARSHAL

M. J. "MIKE" FOSTER, JR.
GOVERNOR

MEMO

INTERPRETATION

TO: ALL FIRE & SAFETY INSPECTION PERSONNEL, PLAN REVIEW ARCHITECTS

DATE: APRIL 28, 1999

RE: FIRESTOPPING AROUND ELECTRICAL OUTLETS AND SWITCHES IN FIRE WALLS AND SMOKE BARRIER WALLS

Question: Is firestopping material required to be installed around electrical boxes (light switches, outlet boxes) in fire rated walls and smoke barrier walls?

Answer: No: As long as they are installed on opposite sides of the wall and meet the installation requirements as set forth in the UL Fire Resistence Directory or other approved testing laboratory listing for electrical outlet boxes and switches. (See attached examples from the UL Directory.)

If spacing is closer than specified in the listing, use putty pads. (See page 982 & 983 attached.) Note that back to back installations are not allowed by any of these listed putty pads.

Question: Are electrical outlets and switches if installed as per UL Directory or other approved testing laboratory allowed to be installed in exit enclosure walls? (See attached examples from the UL Directory.)

Answer: Yes, as long as the outlet and switches only provide service within the exit enclosure. Note: NFPA 101:5-1.3.2 (E) does not allow electrical service to pass through the exit enclosure to provide service to another area of the building. The circuit serving an outlet in the exit enclosure can not serve outlet or switches on the outside of the exit enclosure.

SHG:tp

firestop

3064

METAL ROOF DECK PANELS (CETW)—*Continued*

a hat-shaped member+ (Minimum depth 1") or a bearing plate++.
For use in Design Nos. P224, P225, P227, P230, P237, P508, P510, P512, P701, P711, P715, P717, P720, P722, P724, P726, P731, P734, P736, P803, P814, P815, P819, P821 and P823.

+Hat-shaped member to be a minimum of 16 gage. The member will be fastened through the roof insulation to the steel roof deck with No. 14 self-drilling and/or self-tapping fasteners. Spacing to be determined by the structural loading requirements. In addition any compressible UL Classified glass fiber blanket insulation with or without a vapor-retarder facing may be used between the specified roof insulation and the metal roof panels.

++Bearing plate to be a minimum of 16 gage. Member will be fastened through the roof insulation to the steel deck with No. 14 self-drilling and/or self-tapping fasteners.

R9697 (N)

METAL SALES MFG CORP
7800 STATE RD 60, SELLERSBURG IN 47172

Mechanically attached metal roof panels—Types "Seam-Loc 24", "Master-Span", "Vertical Seam", "Low-Mini-Batten Panel", "Low Mini-Batten Panel Cap", "Pro-Loc I", "Pro-Loc II", "Pro-Loc III" secured by steel anchor clips. Anchor clips are attached to a hat shaped member+ (minimum depth 1 in.) or a bearing plate++.

For use in Design Nos. P224, P225, P227, P230, P237, P508, P510, P512, P701, P711, P712, P713, P715, P717, P720, P722, P723, P724, P726, P731, P734, P736, P803, P814, P815, P818, P819, P821, P823, P824.

+Hat shaped member to be a minimum of 16 gauge. The member will be fastened through the roof insulation to the steel roof deck with min. No. 14 self-drilling and/or self-tapping fasteners. Spacing to be determined by the structural loading requirements. In addition any compressible UL Classified glass fiber blanket insulation with or without a vapor retarder facing may be used between the specified roof insulation and the metal roof panels.

++Bearing plate to be a minimum of 16 gauge. Member will be fastened through the roof insulation to the steel deck with min. No. 14 self-drilling and/or self-tapping fasteners.

R10299 (N)

NUCOR BUILDING SYSTEMS, DIV OF NUCOR CORP
305 INDUSTRIAL PKY PO BOX 70, WATERLOO IN 46793

1. **Mechanically Attached Metal Roof Deck Panel**—Type Nucor Building Systems metal roof panel (24 MSG min gauge coated steel) placed over specified insulation and/or roof covering for the respective Design. Panels secured using Nucor Building Systems Standing Seam Roof Clip and bearing plate (used under each clip and over the specified roof insulation) and secured through insulation to steel deck with No. 14 Type A self-tapping screws at various lengths.

For use in Design Nos. P224, P225, P227, P230, P237, P508, P510, P512, P701, P711, P715, P717, P720, P722, P724, P726, P731, P734, P736, P803, P814, P815, P818, P819, P821 and P823.

R14293 (N)

PETERSEN ALUMINUM CORP
1005 TONNE RD, ELK GROVE VILLAGE IL 60007

1. **Mechanically Attached Metal Roof Panels**—Type "Snap-Clad" roof deck panels (No. 24 MSG min gauge coated steel or 0.032 min gauge coated aluminum) placed over specified insulation and/or roof covering for respective designs. Type "Snap-Clad" panels are secured by "Snap-Clad Clips" with the upper portion of the clip engaging the panel rib. A 4-1/2 by 6 in. bearing plate fabricated from No. 26 MSG coated steel is used under each panel clip (the bearing plate shall be placed over the specified insulation).

Panel clips are attached to the steel deck with No. 14 steel screws having a No. 3 Phillips-drive truss head with an offset "drill type" point. Two fasteners per clip are used.

For use in Design Nos. P224, P225, P227, P230, P233, P237, P259, P263, P508, P510, P512, P514, P701, P711, P717, P720, P722, P723, P724, P726, P731, P734, P736, P801, P803, P814, P815, P819 and P821.

2. **Mechanically Attached Metal Roof Panels**—Types "High Snap-On Standing Seam", "Snap-On Standing Seam", "Integral Batten", "Integral Standing Seam", "Redi-Roof Standing Seam", "Redi-Roof Batten" roof deck panels (No. 24 MSG min gauge coasted steel) placed over specified insulation and/or roof covering for respective designs. Panels secured to a top layer of 7/16 in. APA-Rated oriented strand board (OSB) laminated to rigid insulation or 5/8 in. plywood over rigid insulation. Panels secured to oriented strand board or plywood at side ribs with panel clips designed specifically for these panels. Panel clips spaced 18 in. OC using No. 10 by 1-1/4 in. long self-drilling, self tapping wafer head. Zinc plated carbon steel screws. The oriented strand board laminated insulation or plywood covered rigid insulation are mechanically fastened to steel roof deck and covered with a 30 lb. felt.

For use in Design Nos. P224, P225, P227, P230, P233, P237, P259, P263, P508, P510, P512, P514, P701, P711, P717, P720, P722, P723, P724, P726, P731, P734, P736, P801, P803, P814, P815, P819 and P821.

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METAL ROOF DECK PANELS (CETW)—*Continued*

R5430 (N)

STEELOX SYSTEMS INC
SUITE 300 5412 COURSEVIEW DR PO BOX 8181, MASON OH 45040

Mechanically attached Metal Roof Panels—identified as "Steelox" panels or "AP-1", "DL-1" roof panels. Both types are to be fabricated from No. 26 MSG minimum gauge coated steel. Panels placed over specified insulation and/or roof covering for the respective Design. The roof panels are secured during installation to coated steel panel clips, manufactured specifically for the panels, with a lock tap mechanism which is lock seamed in place with an electric seamer. No. 12-14, 1/4-14 or No. 18 self-drilling, self-tapping screws are used to fasten the panel clips to the steel spanning members. The spanning members may be either hat sections or Zee sections. Fasteners used for attaching spanning members to the steel roof deck shall be a minimum No. 11 self-drilling, self-tapping, plated steel screw. The fasteners shall penetrate the roof deck a minimum of 1/2 in. and shall be spaced 30 in. OC. An optional extruded polystyrene foam spacer block may be used over the spanning member between panel clips. In addition, any compressible Underwriters Laboratories' Classified glass fiber blanket insulation with or without a vapor retarder facing may be used under the metal roof deck panels. For use in Design Nos. P224, P225, P227, P230, P233, P237, P508, P510, P512, P701, P711, P720, P722, P724, P726, P731, P734, P736 and P803.

MOLDED PLASTICS (CEVT)

Molded plastics in the form of sheets, panels or formed units intended for use in Wall and Partition Designs. The weatherability, washability, color stability, toxicity of the products of combustion and related properties have not been investigated.

For Surface Burning Characteristics, see the Building Materials Directory. The basic standard used to investigate products in this category is UL263 "Fire Tests of Building Construction and Materials".

LOOK FOR CLASSIFICATION MARKING ON PRODUCT

The Classification Marking of Underwriters Laboratories Inc. (shown below) on the product or carton is the only method provided by Underwriters Laboratories Inc. to identify Molded Plastics produced under its Classification and Follow-Up Service.

UNDERWRITERS LABORATORIES INC.
CLASSIFIED
MOLDED PLASTICS
FIRE RESISTANCE CLASSIFICATION
DESIGN NOS. _____
SEE UL FIRE RESISTANCE DIRECTORY

R14214 (

ASSOCIATED MATERIALS INC ALSIDE, DIV OF
PO BOX 2010, AKRON OH 44309

R11670

GENTEK BUILDING PRODUCTS LTD
1001 CORPORATE DR, BURLINGTON ON CANADA
L7L 5V5

R15956

GENTEK BUILDING PRODUCTS LTD
1001 CORPORATE DR, BURLINGTON ON CANADA
L7L 5V5

R1518

NAPCO INC
125 MCFANN RD PO BOX 208, VALENCIA PA 16059

R1523

VYTEC CORP
25 MIDPARK CRESCENT, LONDON ON CANADA
N6N 1A9

OUTLET BOXES AND FITTINGS CLASSIFIED F(FIRE RESISTANCE (CEYY)

General - This category covers special purpose boxes for installation i and nonmetallic outlet boxes for installation in floors, walls and pa and/or ceilings in accordance with provisions of the National Electric They have shown a degree of fire resistance when installed in the p floor(s), wall(s) and/or ceiling(s) described for each Classified compar of the type Listed in the Electrical Construction Materials Directory h investigated and found to comply with established electrical requiren are so Listed.

Floor Boxes - Boxes for use with floors have been investigated for electrical receptacles fabricated of melamine, phenolic or urea unless specified otherwise in the installation instructions and Cla information. Floor boxes and fittings shall be installed in accord installation instructions provided with the product.

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

or partition area with no opening exceeding 10.0 sq in. Outlet boxes on opposite sides of wall or partition shall be separated by a horizontal distance of not less than 24 in.

Types P181, P201 nonmetallic outlet boxes not intended for fixture support. For use in fire resistance floor-ceiling assemblies consisting of wood floor, wood joists and gypsum wallboard ceiling with Classification periods of 2h or less. Clearance between boxes and cutouts in ceiling shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 26.5 sq in. per 100 sq ft of ceiling area, with no opening exceeding 12.5 sq in. No box shall be shall be located within 4.5 ft of another box. The boxes shall be installed in compliance with the National Electrical Code.

BHP STEEL BUILDING PRODUCTS USA INC R13951 (N)
2110 ENTERPRISE BLVD, WEST SACRAMENTO CA 95691

Type ASC3I pre-set electrical insert with Types ASC-FM, ASC-RM, ASC-SF, or ASC-4-Floor activation fittings for use in Design Nos. D739, D743, D755, D759, D832, D858, D859.

BOWMAN METAL DECK/WHEELING CORRUGATING CO, DIV OF WHEELING-PITTSBURGH STEEL CORP R10878 (N)
1134 MARKET ST, WHEELING WV 26003

Isolation trough, cover plates, end closures are furnished as Types 208VS, 212VS, 258VS, 312VS Servicell raceway fittings. Types PDC-250, -325 RM, PO, SO or TI, LPDC-250, -325, KO preset electrical inserts and Types ADC-250, -325 RM or F/R activating fittings for use in Floor-Ceiling Design Nos. D748, D866.

CARLON ELECTRICAL PRODUCTS A LAMSON & SESSIONS CO R8326 (N)
25701 SCIENCE PARK DR, CLEVELAND OH 44122

Types A521DE, A5215ER, A5217DE, A5329DE, A5836DR, A52151-D, -DE, -E, A52171-D, -DE, -E, -F, A58361, A58381-D, -E, -F, B116-A, -B, -F, B118-A, -B, -B2, -F, B120-A, -B, -F, B122A, B232-A, -B, -B2, -F, B344-A, -F, B418A, B432A, E972-NN, -NNB nonmetallic outlet and switch boxes. For use in Design No. U351 incorporating staggered studs and mineral wool cavity infill or in fire resistance walls constructed of wood or nonbearing steel studs and gypsum wallboard with 2 hrs or less Classification periods. Clearance between boxes and cutouts in wall shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 100 sq in. per 100 sq ft of wall or partition area, with no opening exceeding 21.20 sq in. Outlet and switch boxes on opposite sides of a wall or partition shall be separated by a horizontal distance of not less than 24 in.

In walls containing min 3-1/2 in. thick, min 2.5 pcf mineral wool batt insulation in the stud cavities, the min horizontal separation between outlet and switch boxes on opposite sides of the wall may be reduced to 7 in.

Types A400, A410, A411, A412, A413, A414, A419, A420, A421, A422, A423, A429, E410, E420, E460 nonmetallic covers for use with above boxes.

Types A615D, -DE, -DEH, -DEJ, -DEL, -DH, -DL, -DJ, -E, -EH, -EJ, -EL, B518A, -P, B520A, -P, B618L, -G, -J, -JG, -H, -HG, -K, -KG, B620L, -LG, -J, -JG, -H, -HG, -K, -KG, B708-SHK, nonmetallic outlet boxes intended for fixture support. For use in fire resistance floor-ceiling assemblies constructed with wood joists, wood flooring and gypsum wallboard ceilings with 2 hrs or less classification periods. Clearance between boxes and cutouts in ceiling shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 31.0 sq in per 100 sq ft of ceiling area with no opening exceeding 13.0 sq in. No box shall be located within, 4-5 ft. of another box.

Types A862D, -E, A864D, -E, -F nonmetallic outlet boxes intended for fixture support. For use in fire resistance floor-ceiling assemblies constructed with normal weight concrete with minimum of 1-7/8 in. of concrete cover over the top of the box and with 2 hrs or less classification periods. The spacing between boxes shall be a minimum of 2 ft. OC with not more than one box per each 65 sq. ft. of floor area in each span.

Types B116A, -B, B118A, -B, -B2, B120A, B122A nonmetallic outlet boxes not intended for fixture support. For use in fire resistance floor-ceiling assemblies constructed with wood joists, wood flooring and gypsum wallboard ceilings with 2 hrs or less classification periods. Clearance between boxes and cutouts in ceiling shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 31.0 sq in. per 100 sq ft of ceiling area with no opening exceeding 13.0 sq in. No box shall be located within 4.5 ft of another box.

Types A470, A470D, A471, A472 nonmetallic covers for use with above boxes. The boxes to be installed in compliance with the National Electrical Code.

CENTRIA R7442 (N)
1005 BEAVER GRADE RD, MOON TOWNSHIP PA 15108

Type Tapmate II or II-EA, Series KEB pre-set electrical inserts for use in Floor-Ceiling Design Nos. D703, D712, D722, D739, D743, D755, D759, D767, D832, D858, D859, D871.

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Type Tapmate II-FN or II-EAFN, Series KEB pre-set electrical inserts for use in Floor-Ceiling Design Nos. D216, D502, D703, D712, D739, D743, D755, D759, D767, D832, D858, D859, D871.

Type Tapmate II EAFN-FC1, Series KEB pre-set electrical insert for use in Floor-Ceilng Design Nos. D703, D712, D722, D739, D755, D759, D767, D832, D858.

Type Tapmate II-FS-1 or II-FS-2, Series KEB pre-set electrical insert for use in Floor-Ceiling Design Nos. D914, D916.

Type Tapmate III-FN or III-EAFN, Series KEC pre-set electrical inserts for use in Floor-Ceiling Design Nos. D703, D712, D722, D739, D743, D755, D759, D767, D832, D858, D859.

Type Tapmate III-EAFN-FC1, Series KEC pre-set electrical inserts for use in Floor-Ceiling Design Nos. D703, D712, D722, D739, D755, D832, D858.

Type Tapmate IV, IV-EA, IV-H, IV-H-M or IV-S, Series KED pre-set electrical inserts for use in Floor-Ceiling Design Nos. D703, D712, D722, D739, D755, D759, D767, D832, D858, D871.

Type Tapmate IV-FN-S, IV-FN-H or IV-EAFN, Series KED preset electrical inserts for use in Floor-Ceiling Design Nos. D216, D703, D712, D722, D739, D755, D759, D767, D832, D858, D871.

Type Tapmate IV-EA-FC1, Series KED pre-set electrical inserts for use in Floor-Ceiling Design No. D871.

Type Tapmate IV-FN-AS or IV-EAFN-AS after set electrical inserts for use in Floor-Ceiling Design No. D871.

Type Tapmate KED-MSA after set electrical inserts for use in Floor-Ceiling Design Nos. D703, D739, D759, D767, D832, D858, D871.

Type Tapmate V pre-set electrical inserts for use in Floor-Ceiling Design Nos. D739, D759, D858, D871.

CERTAINTEED CORP R11961 (N)
PIPE & PLASTICS GROUP 1400 UNION MEETING RD, BLUE BELL PA 19422

Types 61180, 61200 nonmetallic outlet and switch box. For use in fire resistance walls constructed of wood or nonbearing steel studs and gypsum wallboard with 2 hrs or less Classification periods. Clearance between boxes and cutouts in wall shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 100 sq in. per 100 sq ft of wall or partition area with no opening exceeding 10.0 sq. in. Outlet boxes on opposite sides of wall or partition shall be separated by a horizontal distance of not less than 24 in. The boxes shall be installed in compliance with the National Electrical Code.

DUAL-LITE INC R8263 (N)
90 FIELDSTONE CT, CHESIRE CT 06410

Types PT-P-S-1, -2, -4; PT-PP-S-1, -2, -4; PT-PT-M-1, -2, -4; PT-PT-S-1, -2, -4; PT-T-S-1, -2, -4; PT-TT-S-1, -2, -4 outlet boxes and poke-through fittings for use with 1, 1-1/2, 2, 3, or 4 hr rated floors employing unprotected steel floor units and concrete topping (D900 series designs), or unprotected reinforced concrete, or concrete floors with suspended ceilings. The poke-through assembly will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the poke-through assembly is installed as specified:

1. **Concrete**—Minimum thickness of concrete topping of 2-1/4 in. over steel floor units or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 117 to 155 pcf.

2. **Installation**—Mounted in 3 in. diameter drilled holes in concrete per instructions accompanying outlet boxes and poke-through fittings. The Types PT-(P, PP, PT, T or TT)-S-1 and PT-PT-M-1 fittings shall be installed in 2-1/4 through 3-1/4 in. thick floors. Types PT-(P, PP, PT, T, or TT)-S-2 and PT-PT-M-2 fittings shall be installed in 3-1/2 in. thick floors. Types PT-(P, PP, PT, T, or TT)-S-4 and PT-PT-M-4 fittings shall be installed in 3-3/4 through 6 in. thick floors.

3. **Spacing**—Minimum of 2 ft O.C. and not more than one unit per each 6 sq ft of floor area in each span.

4. **Abandonment**—Outlet box remains in place. Remove all wiring. Replace telephone grommet with new grommet if old grommet has holes in it.

Types PTC-, PTR- or PTS—(P, PP, PPT, PT, PTT, T, TT or -X)—(Floor thickness In.) —(12AWG, 15AT, 20A, 20AT, 30A, 30AT, A, B, C, CSF, CT, D, E, F, F3, F-F5, H, I1, I2, IG4, IG5, IG15, IG15T, IG20, IG20T, M2, M3, RS, TC, XX or XX-X outlet boxes and poke-through fittings for use with 1, 1-1/2, 2, 3, or 4 hr rated unprotected reinforced concrete floors and for use with 1, 1-1/2, 2 or 3 hr rated floors employing unprotected steel floor units and concrete topping (D900 series designs) or concrete floors with suspended ceilings (fire resistance designs should have provisions for accessibility in the ceiling area below the poke-through fittings). When outlet box is removed and replaced with Type F abandonment fittings or when Types (P, PP, PPT, PT, PTC, PTR, PTT, T, TT -X)—(Floor thickness, In.) —PTF abandonment plate and poke-through fittings are used, the rating of the floor will be no greater than 2 hr.

The assembled outlet box and poke-through fittings will not reduce ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the device is installed as specified:

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OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
-4L16, -4L18	-FR-22	2	—
	-FR-25	2	50
	-FR-33	2	—
	-FR-35	2	50
	-FR-44	2	—
	-FR-45	2	50
	-FR-55	—	100
PT-7	-PPR	2	—
	-PTR	2	50
	-PTS	2	—
FP-1, -2, -3, -4, -PT7	-PP2	2	—
	-P2T	2	50
	-P2TS	2	50
	-TT	—	50
	-G2T	2	50
	-G2TS	2	50
	-GPS	2	—
	-GTS	2	50
	-GP2S	2	—
PT-7, -8, -10, -12	-FR-11	2	—
	-FR-15	2	50
	-FR-33	2	—
	-FR-35	2	50
	-FR-80	—	—
PT-7	-PT	2	50
	-P2T	2	50
	-G2T	2	200
PT7XC	-FR-11A	9	200
	-FR-15A	9	200
	-FR-33A	9	200
	-FR-35A	9	200
	-FR-55A	9	200
	-FR-80A	9	200
	-PPA	9	200
	-PTA	9	200
	-PP2A	9	200
	-P2TA	9	200
	-G2TA	9	200
	-TTA	9	200

(a)- Maximum number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting in addition to integral ground wire.

(b)- Maximum number of No. 22 AWG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

Each poke-through fitting must be provided with an outlet box or abandonment fitting. The poke-through fittings are for use in concrete floors as shown below:

Poke-Thru Fitting Type	Concrete Slab Thickness Or Concrete Topping Thickness Over Deck
FP1 or FP1PB	2-1/4 to 2-3/4
FP2 or FP2PB	3 to 3-3/4
FP3 or FP3PB	4 to 4-1/2
FP4 or FP4PB	4-3/4 to 7
PT7, PT7-PPR, PT7-PTR	2-1/4 to 7
FP4L8, FP4L8PB or PT8	7-1/4 to 9
FP4L10, FP4L10PB or PT10	9-1/4 to 11
FP4L12, FP4L12PB or PT12	11-1/4 to 13
FP4L14, FP4L14PB or PT14	13-1/4 to 15
FP4L16, FP4L16PB or PT16	15-1/4 to 17
FP4L18, FP4L18PB or PT18	17-1/4 to 19

Type FRP250 closure plug is for use with all of above floor thicknesses. Maximum size of telephone cable shall be 100 pair when using Type FR56 outlet box and 25 pair when using other outlet box types.

3. Spacing-Minimum of 2 ft O.C. and not more than one unit per each 65 sq ft of floor area in each span.

Type PFT-1 poke-through fittings for use with Type PFP1-1 floor plate (service fitting) and Type FRP250 abandonment fitting. The service fitting and poke-through fitting, or abandonment fitting are for use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors or in 1, 1-1/2, 2 or 3 hr rated floors employing steel floor units and concrete toppings (D900 Series Designs) or concrete floors with suspended ceilings. (Fire resistance designs with suspended ceilings should have provisions for accessibility in the ceiling area below poke-through fittings.)

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

The assembled poke-through device and fitting will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specified rating) are within the specified limits and the device is installed as specified:

1. **Concrete** - Minimum thickness of structural concrete topping of 2-1/4 in. over metal deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 113 to 155 pcf.

2. Installation - Mounted in 3 in. diameter drilled holes in concrete per instructions accompanying poke-through fittings, service fitting or abandonment fitting. Each poke-through fitting must be provided with service fitting or abandonment fitting. The poke-through fitting and service fitting are to be installed with Catalog No. PTS (steel shield), PC-4 (flat power cable) and PTA-1 (cloth tape) flat cable components.

3. Spacing - Minimum of 2 ft OC and not more than 1 device per 65 sq ft of floor area in each span between supports.

Type PT7-FBL, -FBR, -FBRS, -FBRS2, -FBRS3, -FFGY, -FFI, -FGY, -FI, -3FFI, -3FFGY, -IGFBRS, -IGFGY, -IGFI, FF-3I, FF-3GY, -FSDBL, -FSDBR, -FSDBRS, -FSDBRS2, -FSDBRS3, -FFSDGY, -FFSDI, -3FFSDI, -3FFSDGY, -IGFSDBRS, -IGFSDG -IGFSDI, -FFSD3I, -FFSD3GY flush outlet boxes and poke-through fittings ar Types FR-FBL, -FBR, -FBRS, -FBRS2, -FGY, -FI, -IGFI, -IGFGY flush servi fittings (for use with PT7-F or PT7-FSD poke-through fittings). Poke-throug fitting, Types PT71 or PT71SD for use with FR-FIGY or FT-F1I service fitting Poke-through fitting Type PT73 or PTF3SD for use with FRF3GY or FRF3I serv fittings and Type AP-2GY, -2I abandonment fittings. For use in 1-1/2, 2, 3 4 hr rated unprotected reinforced concrete floors or in 1, 1-1/2, 2 or 3 hr rat floors employing steel floor units and concrete topping (D900 Series Desig or concrete floors with suspended ceiling. (Fire resistance designs w suspended ceiling should have provisions for accessibility in the ceiling a below poke-through fittings.)

The assembled poke-through device and fitting will not reduce the ratings the floor assembly when the thickness and type of concrete (required fo specific rating) are within the specified limits and the device is installed specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/2 on steel deck or a minimum 3 in. thick reinforced concrete slab. Unit wei of concrete to be 110 to 155 pcf.

2. **Installation**—Mounted in 3 in. diameter core-drilled holes in the conc per installation instructions accompanying poke-through fittings abandonment fittings. For use with power circuits, data cables and maxi 50 pair size telephone cables as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b
PT-7	-FBL	2	100
	-FBR	2	100
	-FBRS	2	100
	-FBRS2		
	-FBRS3		
	-FFGY	9	—
	-FFI	9	—
	-FGY	2	100
	-FI	2	100
PT-7	-3FFI	9	100
	-3FFGY	9	100
	-IGFGY	2	100
	-IGFBRS	3	100
	-FF3I	9	100
	-FF3GY	9	100
	-IGFI	2	100
	-FSDBL	2	100
	-FSDBR	2	100
	-FSDBRS	2	100
	-FSDBRS2	2	100
	-FSDBRS3	2	100
	-FFSDGY	9	—
	-FFSDI	9	—
	-3FFSDI	9	100
	-3FFSDGY	3	100
	-IGFSDBRS	2	100
	-IGFSDGY	2	100
	-IGFSDI	2	10
	-FFSD3I	9	10
	-FFSD3GY	9	10

(a) Maximum number of No. 12 AWG Type THHN conductors compartment of poke-through fitting in addition to integral gr

(b) Maximum number of No. 22 AWG conductors in low-voltage co of poke-through fitting (25 pair telephone cable has 50 co When conductors larger than No. 22 AWG are used, the cross-sectional area of the copper conductors shall not e aggregate cross-sectional area of No. 22 AWG copper conductor in the low-voltage compartment.

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OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

Each poke-through fitting must be provided with an outlet box or abandonment fitting. The poke-through fittings are for use in concrete floors as shown below:

Poke-Thru Fitting Type	Concrete Slab Thickness Or Concrete Topping Thickness Over Deck
FP1 or FP1PB	2-1/4 to 2-3/4
FP2 or FP2PB	3 to 3-3/4
FP3 or FP3PB	4 to 4-1/2
FP4 or FP4PB	4-3/4 to 7
PT7, PT7-PPR, PT7-PTR	2-1/4 to 7
FP4L8, FP4L8PB or PT8	7-1/4 to 9
FP4L10, FP4L10PB or PT10	9-1/4 to 11
FP4L12, FP4L12PB or PT12	11-1/4 to 13
FP4L14, FP4L14PB or PT14	13-1/4 to 15
FP4L16, FP4L16PB or PT16	15-1/4 to 17
FP4L18, FP4L18PB or PT18	17-1/4 to 19

Type FRP250 closure plug is for use with all of above floor thicknesses.

Maximum size of telephone cable shall be 100 pair when using Type FR56 outlet box and 25 pair when using other outlet box types.

3. Spacing-Minimum of 2 ft O.C. and not more than one unit per each 65 sq ft of floor area in each span.

Type PFT-1 poke-through fittings for use with Type PFP1-1 floor plate (service fitting) and Type FRP250 abandonment fitting. The service fitting and poke-through fitting, or abandonment fitting are for use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors or in 1, 1-1/2, 2 or 3 hr rated floors employing steel floor units and concrete toppings (D900 Series Designs) or concrete floors with suspended ceilings. (Fire resistance designs with suspended ceilings should have provisions for accessibility in the ceiling area below poke-through fittings.)

The assembled poke-through device and fitting will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specified rating) are within the specified limits and the device is installed as specified:

1. **Concrete** - Minimum thickness of structural concrete topping of 2-1/4 in. over metal deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 113 to 155 pcf.

2. Installation - Mounted in 3 in. diameter drilled holes in concrete per instructions accompanying poke-through fittings, service fitting or abandonment fitting. Each poke-through fitting must be provided with service fitting or abandonment fitting. The poke-through fitting and service fitting are to be installed with Catalog No. PTS (steel shield), PC-4 (flat power cable) and PTA-2 (cloth tape) flat cable components.

3. Spacing - Minimum of 2 ft OC and not more than 1 device per 65 sq ft of floor area in each span between supports.

Type PT7, -FBL, -FBR, -FBRS, -FBRS2, -FBRS3, -FFGY, -FFI, -FGY, -FI, -3FFI, -3FFGY, -IGFI, -IGFGY, FF-3I, FF-3GY flush outlet boxes and poke-through fittings and Types FR-FBL, -FBR, -FBRS, -FBRS2, -FGY, -FI, -IGFI, -IGFGY flush service fittings (for use with PT7 poke-through fittings) and Type AP-2GY, -2I abandonment fittings. For use in 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors or in 1, 1-1/2, 2 or 3 hr rated floors employing steel floor units and concrete topping (D900 Series Designs) or concrete floors with suspended ceiling. (Fire resistance designs with suspended ceiling should have provisions for accessibility in the ceiling area below poke-through fittings.)

The assembled poke-through device and fitting will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the device is installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/2 in. on steel deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 110 to 155 pcf.

2. **Installation**—Mounted in 3 in. diameter core-drilled holes in the concrete per installation instructions accompanying poke-through fittings or abandonment fittings. For use with power circuits, data cables and maximum 50 pair size telephone cables as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
PT-7	-FBL	2	100
	-FBR	2	100
	-FBRS	2	100
	-FBRS2		
	-FBRS3		
	-FFGY	9	—
	-FFI	9	—
	-FGY	2	100

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
PT-7	-FI	2	100
	-3FFI	9	100
	-3FFGY	9	100
	-IGFGY	2	100
	-FF3I	9	100
	-FF3GY	9	100
	-IGFI	2	100

(a) Maximum number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting in addition to integral ground wire.

(b) Maximum number of No. 22 AWG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

3. Spacing—Minimum of 2 ft OC and not more than 1 unit per 65 sq ft of floor area in each span.

Type PT-27A poke-through fitting for use with Types FR-233, -235, -255, -280, -RTR, -3 and -480 outlet boxes and Type AP-22 abandonment fitting. Each outlet box and poke-through fitting or abandonment fitting and poke-through fitting are for use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors or in 1, 1-1/2, 2 or 3 hr rated floors employing steel floor units and concrete topping (D900-Series Designs) or concrete floors with suspended ceilings (Fire Resistance Designs with suspended ceilings should have provisions for accessibility in the ceiling area below the poke-through fittings.)

The assembled poke-through device and fitting will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the device is installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/2 in. on steel deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 110 to 155 pcf.

2. **Installation**—Mounted in 2 in. diameter core-drilled holes in the concrete per installation instructions accompanying poke-through fittings or abandonment fittings. For use with power circuits, data cables and maximum 50 pair size telephone cables as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
PT27A	-FR-233	3	—
	-FR-235	3	—
	-FR-255	—	50
	-FR-280	7	100
	-RTR	7	100
	-FR-480	7	100

(a)- Maximum number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting in addition to integral ground wire.

(b)- Maximum number of No. 22 AWG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

3. Spacing—Minimum of 2 ft OC and not more than 1 unit per 65 sq ft of floor area in each span.

Type PT-7XC poke-through fitting for use with Types FR-480 and FR-3 service fittings and Type AP-42 abandonment fitting. The service, poke-through and abandonment fittings are for use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors or in 1, 1-1/2, 2 or 3 hr rated floors employing steel floor units and concrete topping (D900-Series Designs) or concrete floors with suspended ceilings (Fire Resistance Designs with suspended ceilings should have provisions for accessibility in the ceiling area below poke-through fittings.)

The assembled poke-through device and fittings will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the device is installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/2 in. on steel deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 110 to 155 pcf.

2. **Installation**—Mounted in 3 in. diameter core-drilled holes in the concrete per installation instructions accompanying poke-through fittings or abandonment fittings. For use with power circuits, data cables and maximum 50 pair size telephone cables as tabulated below:

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OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
TF, TF2	G2BA, G2CA, G2BF,	2	—
	G2BL, G2CL,	2	50
	G2BB, G2CC	2	—
	G2LA	—	50
	G2LL	—	100
	G2BLL, G2CLL	2	100
	G2DA, G2FA, G2BF	3	—
	G2DL	2	50
TF	G8AAI	—	50
	G8AAL	—	100
	G8BAL, G8BBL, G8BFI, G8DAF, G8BCL, G8BCI, G8BFL	4	50
TF2	G2BA, G2BB, G2CC,	2	—
	G2BL, G2CA, G2CL,	2	50
	G2LA	—	50

(a) Max number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting in addition to integral ground wire.

(b) Max number of No. 24 AWG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 24 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 24 AWG copper conductors permitted in the low voltage compartment.

3. Spacing—Minimum of 2 ft O.C. and not more than one device per each 65 sq ft of floor area in each span.

Type G2 flush outlet box and poke-through fittings for use with 1, 1-1/2 or 2 hr rated unprotected, reinforced concrete floors, floors employing unprotected steel floor units and concrete toppings (D900 Series Designs) or concrete floors with suspended ceilings. (Fire resistive designs with suspended ceilings should have provisions for accessibility in the ceiling area below poke-through fittings.)

The assembled outlet box and poke-through fitting will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the fittings are installed as specified.

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/4 in. on steel deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 100 to 155 pcf.

2. **Installation**—Mounted in 3 in. diameter core-drilled hole in concrete per installation instructions accompanying fittings or abandonment fittings. For use with power circuits, data cables and maximum 50 pair size telephone cables as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
G2	PTD or PTDU	3	100
	MJ8, MJ6 or MJ4	3	16
	PTC or PTCU	8	—

(a) Maximum number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting.

(b) Maximum number of No. 22 AWGG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-section area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

A. Modular telephone jack assembly per telephone opening used with Type G2MJ8, G2MJ6 or G2MJ4.

B. Two 1/2 in. and one 3/4 in. flexible conduits and fittings per conduit adaptor plate opening may be used with Type RC-700-6 outlet box and fittings.

3. Spacing—Minimum of 2 ft. O.C. and not more than one insert per 65 sq. ft. of floor area in each span.

STEEL CITY THOMAS & BETTS CORP R9158 (N)

1555 LYNNFIELD RD, MEMPHIS TN 38119

Types 1310, 131, 131-S-1/4, -S-1/2; -V, 14, -B1, -B2, BG1, -BG2, -G, -L, -LG, -V, -VG; 1610, -K, 161, -S-1/4, -S-1/2, -V; 18, -B1, -B2, -BG1, -BG2, -G; 1810, -K, 181-2-1/4, 181-S-1/2, -V; 2010, -K; 22, -B1, -B2, -BG1, -BG2, -G, -L, -LG, -V, -VG; 25, -B1, -B2, -BG1, -BG2, -G, -L, -LG, -V, -VG; 228-V, -VK; 272-V; 342-V; 403-V, nonmetallic outlet and switch boxes. For use in fire resistance walls constructed of bearing or nonbearing wood or nonbearing steel studs and gypsum wallboard for 2 hrs. or less classification periods. Clearance between boxes and cutouts in wall shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 100 sq. in. per 100 sq. ft. of wall or partition area with no opening exceeding 21.5 sq. in. Outlet and switch boxes on opposite sides of a wall or partition shall be separated by a horizontal distance of not less than 24 in.

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Types 14, -B1, -B2, -BG1, -BG2, -G, -L, -LG, -V, -VG; 18, -B1, -B2, -BG1, -BG2, -G; 22, -B1, -B2, -BG1, -BG2, -G, -L, -LG, -V, -VG; 25, -B1, -B2, -BG1, -BG2, -G, -L, -LG, -V, -VG, nonmetallic outlet boxes for fixture support. Types 1310, 131, 131-S-1/4, -S-1/2, -V, 1610, -K, 161, 161-S-1/4, -S-1/2, -V, 1810, -K, 181-S-1/4, -S-1/2, -V, 2010, -K, OWS nonmetallic outlet boxes not intended for fixture support. For use in fire resistance assemblies consisting of wood floors, wood joists and gypsum wallboard ceilings with 2 hrs or less classification periods. Clearance between boxes and cutouts in ceiling shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 20 sq in. per 100 sq ft of ceiling area with no opening exceeding 12.5 sq in. No box shall be located within 4.5 ft of another box.

The boxes are to be installed in compliance with the National Electrical Code.

Type PT-200 poke-through fitting for use with Types PT-301, -302, -303, -304, -305 outlet boxes (service fittings) and the Types PT-425 and PT-425T abandonment fittings for use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors and in 1, 1-1/2, 2 or 3 hr rated floors employing unprotected steel floor units and concrete topping (D900-series designs), or concrete floors with suspended ceilings (Fire resistive designs with suspended ceilings should have provisions for accessibility in the ceiling area below the poke-through fittings.)

The assembled outlet box and poke-through fittings or abandonment fittings will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the fittings are installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2 1/2 in. over metal deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 115 to 155 pcf.

2. **Installation**—Mounted in 2 in. diameter core-drilled holes in concrete per instructions accompanying the fittings or abandonment fittings. For use with power circuits, data cables and maximum 50 pair size telephone cables as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
PT200	-PT-304	3	—
	-PT-302	6	—
	-PT-301	3	100
	-PT-305	—	100
	-PT-303	—	100
	-PT-309	8	—

(a) Maximum number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting.

(b) Maximum number of No. 22 AWG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

One 50 pair or smaller size telephone cable or two 25 pair or smaller size telephone cables used with Types PT-301, -303 and -305 outlet boxes.

3. Spacing—Minimum of 2 ft O.C. and not more than one unit per each 6 sq ft of floor area in each span.

Types PT-200 poke-through fittings for use with Types PT-306, PT-307 an PT-312-RTR outlet boxes (service fittings) for use in 1, 1 1/2 or 2 hr rate unprotected steel floor units and concrete topping (D900-series designs), concrete floors with suspended ceilings. (Fire resistive designs with suspend ceilings should have provisions for accessibility in the ceiling area below t poke-through fittings.)

The assembled outlet box and poke-through fittings or abandonment fittin will not reduce the ratings of the floor assembly when the thickness and ty of concrete (required for a specific ratings) are within the specified limit a the fittings are installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2 1/2 over metal deck or a minimum 3 in. thick reinforced concrete slab. Unit wei of concrete to be 120 to 155 pcf.

2. **Installation**—Mounted in 2 in. diameter core-drilled holes in concrete instructions accompanying the fittings. Each poke-through fitting must assembled with an outlet box. One 100 pair size telephone cable used Types PT-200-PT-306, -PT-307.

3. Spacing—Minimum of 2 ft. O.C. and not more than one unit per each sq. ft. of floor area in each span.

Type PT-315 outlet box (service fitting) and poke-through fitting and T PT-425, -425T abandonment fittings for use in 1, 1-1/2, 2, 3 or 4 hr unprotected reinforced concrete floors and 1, 1-1/2, 2 or 3 hr rated F employing unprotected steel floor units and concrete topping (D900-s designs) or concrete floors with suspended ceilings (Fire resistive designs suspended ceilings should have provisions for accessibility in the ceiling below the poke-through fittings).

The assembled outlet box and poke-through fitting or abandonment fi will not reduce the ratings of the floor assembly when the thickness an of concrete (required for a specific rating) are within the specific limits a fittings are installed as specified:

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

nonmetallic outlet and switch boxes. For use in fire resistance walls constructed of wood or nonbearing steel studs and gypsum wall board with 2 hrs or less Classification period. Clearance between boxes and cutouts in wall shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 100 sq in. per 100 sq ft of wall or partition area with no opening exceeding 22.0 sq in. Outlet boxes on opposite sides of wall or partition shall be separated by a horizontal distance of not less than 24 in.

Types 1009, 1010, 1013, 1014, 1020, 1023, 1024 nonmetallic covers intended for use with 4 in. square wall outlet and switch boxes.

All boxes shall be installed in compliance with the National Electrical Code.

R8442 (N)

THOMAS & BETTS CORP
1555 LYNNFIELD RD, MEMPHIS TN 38119

Type FCTRBCT concrete tight floor transition box with Type FCTRBCT-1, FCTRBCT-2 and FCTB fittings for use in Floor-Ceiling Design No. D712.

Type FPT400 poke-through fitting for use with Type FPT401, FPT421 or FPT430 service fitting or Type FPT415 abandonment kit.

Type FPT400A poke-through fitting for use with Type DLP1PT, DLP2PT, DLP3PT, FPT401A, FPT421 or FPT430 outlet box service fitting or Type FPT415 abandonment kit.

Type FPT400B poke-through fitting for use with Type DLP1PT, DLP2PT, DLP3PT, FPT401A, FPT421, FPT430, FPT441 or FPT442 service fitting or FPT415 abandonment kit.

Type FPT440 poke-through fitting with flush mount single duplex power plus tele/data service fitting. The Type FPT440 poke-through fitting lower unit (FPT400B) is also intended for use with Type DLP1PT, DLP2PT, DLP3PT, FPT401A, FPT421, FPT430 or FPT442 service fitting or Type FPT415 abandonment kit.

Type FPT409 extension tube kit for use with Type FPT400, FPT400A, FPT400B or FPT440 poke-through fitting.

Type FPT410 or FPT410A abandonment plug.

The above fittings are for use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors and in 1, 1-1/2, 2 or 3 hr rated floors employing unprotected steel floor units and concrete topping (D900 Series Designs), or concrete floors with suspended ceilings. (Fire Resistance Designs with suspended ceilings should have provisions for accessibility in the ceiling area below poke-through fittings.)

The assembled outlet box and poke-through fitting or abandonment plug will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the device is installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/2 in. over metal deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 110 to 155 pcf.

2. **Installation**—Mounted in core-drilled hole in concrete per instructions accompanying the poke-through fitting or abandonment plug. Diameter of core-drilled hole for Type FPT400 poke-through fitting, Type FPT400A poke-through fitting or Type FPT410 abandonment plug shall be 2-1/2 in. Diameter of core-drilled hole for Type FPT400B poke-through fitting or Type FPT440 poke-through fitting shall be 3 in. Diameter of core-drilled hole for Type FPT410A abandonment plug shall be in the range of 2 in. to 3 in. For use with power circuits, data cables and max 50 pair size telephone cable as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
FPT400	FPT401, FPT421	3	100
	FPT430		100
FPT400A, FPT400B	FPT401A	4	69
FPT400A, FPT400B	DLP2PT	4	69
FPT400A, FPT400B	DLP1PT, DLP3PT	8	100
FPT400A, FPT400B	FPT421, FPT430	12	54
FPT400B	FPT441	4	88
FPT400B	FPT442	8	54
FPT440	—	4	

(a) Max number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting in addition to integral ground wire.

(b) Max number of No. 24 AWG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 24 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 24 AWG copper conductors permitted in the low voltage compartment.

3. **Spacing**—Minimum of 2 ft O.C. and not more than one unit per each 65 sq ft of floor area in each span.

R9140 (R)

THOMAS & BETTS CORP
1555 LYNNFIELD RD, MEMPHIS TN 38119

Types 3051, 4041, 4022-12, 4042-12, -14, -34, 4043, 4051, 4052, 4061, 4062, 5052, 5053, 5054, 5055 accessories.

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OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Types 1010, 1030, 1030-F, -FT, 1032, 1032-C, -F, -FT, -FTC, -F-C, 1040, 1040-
-FT, 1043, 1043-C, -FTC, 1050, 1050-F, -FT, 1052, 1052-C, -FT, -FTC, 106
1063-C, 1072, 1072-C, 1140, 1240, 1250, 1250-FT, -112, -114, -138, 125
1260-138, 2000, 2000-6, -112-02FT, -38, 114-02-FT, -138, -283, -3
2000-11-02, -112-02, -114-02, -738, 2000-F, -FT, -F-11-02, -F-114-02, 2002
-R02, -138, -738, -738C, 2022, 2022-112, -112C, -114, -114C, -R, 2C
2030-F, -FT, -502, -502F, -502FT, -702, -702F, -702FT, -38, 2050, 2050-N
2060, 2070, 2070-F, -FT, -N02, -2080; 3000, 3000-02, -40, -02-40, 3C
3020-C, -40, -C-40, 3030, 3030-02, -40, -02-40, 3040, 3060, 3080, -02, -
-02-40, 3090, 3090-02, -02-40, -3, -3-40, -6, -6-40, -40, -94, -94-40, -
-95-40, -302, -302-40, -602, -602-40, -9402, -9402-40, -9502, -9502-40,
-N-40, -N02, -N02-40, -CFB, -02-CFB, -3-CFB, -302-CFB, 3160, -C, -40, -C-
-94, -94-40, -C-94, -C-94-40, -95, -95-40, -C-95, -C-95-40, -CFB, -02-C
-3-CFB, -302-CFB, -3190, -C, -40, -C-40, -94, -94-40, -C-94, -C-94-40, -
-95-40, -C-95, -C-95-40, -CFB, -02-CFB, -3-CFB, -302-CFB, 4000-1, -1-02,
-N02, -R-02, -02, -2, -2-40, -302, -602, -94, -95, -9402, -9502, 4020, -02
-R02, 4022-12, 4030, 4030-40, 4040, 4040-1, -1-02, -2, -3, -4, -6, -94,
-602, -9402, -9502, 4060, 4060-40, 4060-3, -3-40, -02, -02-40, -94, -94
-95, -95-40, -302, -302-40, -9402, -9402-40, -9502, -9502-40, -N02, -N02
-N, -N-40, -R, -R-40, -R02, -R02-40, -CFB, -02-CFB, -3-CFB, -302-CFB, 4
4070, 4070-02, -3, -40, -94, -95, -302, -302-40, -02-40, -3-40, -6-40, -94
-95-40, -602-40, -9402, -9402-40, -9502, -9502-40, -N, -N02, -N-40, -N02
-R02, -CFB, -02-CFB, -3-CFB, -302-CFB, 4100, -02, 4160, 4160-40, 41
4160-C-40, 4160-C-94, -C-94-40, -94, -94-40, -C-95, -C-95-40, -95, -9
-CFB, -02-CFB, -3-CFB, -302-CFB, 4170, 4170-40, -C, -C-40, -CFB, -02-
-3-CFB, -302-CFB, 6063, -02, 5020, 5060, 5070, 6010, -02, -4, -402, 60
-402, -402F, -402FT, -412, 6022-4, -402, -422, 6023, 6023-02, -4,
6030-2, -202, 6040, 6050, -01, -02, -4, -4012, -402, 6060-02, -4, -402,
-402FT, -402-114, 6062, 6062-02, -4, -402, -402F, -402FT, 6063, -02, -4,
-402FT, 6070, -02, -4, -402, 6080, -02, -4, -402, -402F, 6090, 6090-4,
-402F, -402FT, 7000-202, 7002-2, -202, -11-02, 7010, -02, -8, -C, -C-8,
-02, -8, -2 -81, -81-02, -802, -C, -C-8, -C-81, 7022, -02, -4, -402, -4022,
7032, 7032-02, -4, -402, 7040, 7052-202, -502, -702, -112-02, -114-02,
-R02, 7060, 7062-2, 7072, 7072-01, -02, -102, -138, -2, -202, -238,
-111-02, -112, -112-02, -114, -114-02, -211, -211-02, -212, -212-02,
-214-02, -N, -N02, -R, -R02, -138-02, -238-02, -111-02, -114-02, -2
-214-02, 7073, 7073-2, -202, -211, -211-02, -212, -212-02, -214, -2
-238-02, 211-2, -238-02, -11-02-BH, -114-02-BH, -112-02-BH, -1
-138-02-BH, 7074, 7074-02, -211, -211-02, -214, -212, -11-02-BH, -1
-112-BH, -BH, -02-BH, -212-02, -214-02, -238, -238-02, -11-BH, -114-
-112-02-BH, -138-BH, -138-02-BH, 7080-202, 7082-02, -2, 7090, 804
-4, -402, 8050, 8050-402, 8060, 8090, 8090-402, 9010-7, -702, 9030-
9040-702, 9050-702, 9060-7, -702, 9070-7, -702 nonmetallic out
switch boxes.

Outlet boxes, Models NH40-712 all followed by C, -16C, -24C, -G16C, -
MRC; N40-712, -1412, NS30-914, all followed by -C or -GC; N40-7
N40-712-RC. Models N-321, -423, all followed by C, GC, C-94, GC-9
GC-95.

The above catalog numbers may or may not contain the suffix "BP" o
the prefix "P" which may be followed by one or more numeric charac
above catalog numbers may or may not contain the suffix "K". For u
resistance assemblies, with 2 hr or less classification period, con
wood joists and gypsum wallboard ceilings or walls constructed of
nonbearing steel studs and gypsum wallboard. Clearance between
cutouts in ceiling shall not exceed 1/8 in. The area of openings for b
not aggregate more than 20 sq in. per 100 sq ft of ceiling area with n
exceeding 13.0 sq in. No box shall be located within 6 ft of anothe
of openings for boxes used in wall or partition assemblies shall not
more than 100 sq in per 100 sq ft of wall or partition area with n
exceeding 25.0 sq in. Outlet and switch boxes on opposite sides o
partition shall be separated by a horizontal distance of not less t
Types SB-18, -18FS, -18FT, -236, -236-FS, -241, -241-FS, -346, -3
-357-FS, SN-16, -16F, -16FS, -16FT, -16R, -16R-FS, -18, -18F, -1
-18R, -18R-FS, -21, -21FS, -21FT, -21R, -21R-FS, -232, -232FS, -2
-236FS, -236-FT, -241, -241-FS, -343, -343FS, -343FT, -346, -346
-357, -357-FS, -418, -418FS, -418B, -418B-FS, SB2-236, -236FS, -2
-241-FS, -346, -346FS, -346-FT, -357, -357-FS, SS-16, -16-F, -16-FT
-18-F, -18-FT, 18-R, -21, -21-FT, -21-R, -236, -236-FT, -241, -2
-346-FT, -357, -357-FS nonmetallic outlet and switch boxes. T
numbers may or may not contain the suffix "BP" or "UB" or the pre
may be followed by one or more numeric characters. Also,
RDS-30, RN-18, -18FS, -18-M, -18FS-M; MB-18, MB-18FS, RN-21,
-21FS-M, -23, -23-M, -23FS, -23FS-M, RS-18, -18FS, -18-M,
-21-M, -21FS, -21FS-M, -23, -23-M, -23FS, -23FS-M, E-14-4, E-1
E-16-8, E16-8-1, E-21, E-21-4 nonmetallic outlet and switch bo
fire resistance walls constructed of wood or nonbearing steel stu
wallboard with 2 hr or less Classification periods. Clearance betw
cutouts in wall shall not exceed 1/8 in. The area of openings
not aggregate more than 100 sq in. per 100 sq ft of wall or part
no opening exceeding 20.6 sq in. Outlet and switch boxes on o
a wall or partition shall be separated by a horizontal distance

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

UNITED STEEL DECK INC R12206 (N)
475 SPRINGFIELD AVE P O BOX 662, SUMMIT NJ 07901

Type 350 after set electrical insert with activating fittings or with suffix -DG or DK abandonment fittings for use for in **Floor-Ceiling** Design Nos. D739, D767.

Type 325 preset electrical insert with Types I, III, V, VI and VII activation fittings in Floor-Ceiling Designs Nos. D739, D767 and D858.

Type 325-M1 and Type 325-M2 preset electrical inserts with Type X activation fittings in **Floor-Ceiling** Design Nos. D739, D767, D858.

VECO PRODUCTS INC R18346 (N)
394 OLD HWY PO BOX 692, LYLE WA 98635

Type ADJ-121 single gang nonmetallic outlet boxes not intended for fixture support. For use in the ceiling of fire resistance floor-ceiling assemblies constructed with wood joists, wood flooring and gypsum wallboard ceilings with 2 hr or less classification periods. Clearance between boxes and cutouts in ceiling shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 31.0 sq in. per 100 sq ft of ceiling area with no opening exceeding 13.0 sq in. No box shall be located within 4.5 ft of another box.

Types ADJ-121 single gang and ADJ-232 R double gang nonmetallic outlet boxes. For use in fire resistance walls constructed of wood or nonbearing steel studs and gypsum wallboard with 2 hrs or less classification periods. Clearance between boxes and cutouts in wall shall not exceed 1/8 in. The area of openings for boxes shall not aggregate more than 100 sq in. per 100 sq ft of wall or partition area with no opening exceeding 22.0 sq. in. Outlet boxes on opposite sides of wall or partition shall be separated by a horizontal distance of not less than 24 in.

The boxes shall be installed in compliance with the National Electrical Code.

WALKER SYSTEMS INC R8209 (N)
1000 INNOVATION DR, WILLIAMSTOWN WV 26187

Types 1355-1, -1C, -2, -2C, -3, -3C poke-thru fittings for use with Types 1301, 1302, 1313AL, -ALD, 1323AL, 1323P, -T, 1325P/B, -T/B, -T/P, -T/T, 1363, 1368, 1375, 1375-20 outlet boxes (service fittings), or Type 1376 abandonment parts. Also, preassembled Types 1355-1, -1C, -2, -2C, -3, -3C poke-thru fittings with aforementioned outlet boxes (service fittings). For use in 1, 1 -1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors and in 1, 1-1/2, 2 or 3 hr rated floors employing unprotected steel floor units and concrete topping (D900 Series designs), or concrete floors with suspended ceiling. (Fire resistance designs with suspended ceilings should have provisions for accessibility in the ceiling area below the poke-thru fittings.)

The assembled outlet box or abandonment parts and poke-thru fittings will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the device is installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/4 in. over metal deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 110 to 155 pcf.

2. **Installation**—Mounted in 2 1/2 in. diameter core-drilled holed in concrete per instructions accompanying outlet boxes or abandonment parts and poke-thru fittings. For use with 25 pair maximum size telephone cable. The poke-thru fittings are for use in concrete floors as shown below:

Poke-Thru Fitting Type	Concrete Slab Thickness Or Concrete Topping Thickness Over Deck
1355-1, -1C	2 1/4 to 2- 3/4 in.
1355-2, -2C	3 to 3 1/4 in.
1335-3, -3C	3 1/2 in. or greater

3. **Spacing**—Minimum of 2 ft O.C. and not more than one device per each 65 sq ft of floor area in each span.

Types 1456-1 PTD, 1456-2 PTD, 1456-3 PTD, WFT1 and WFT2 poke-thru fittings for use with Types 1427PB, -PP, -PT, PTD, -TB, -TT outlet boxes (service fittings), or Type 1477 abandonment parts. For use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors and in 1, 1-1/2, 2 or 3 hr rated floors employing unprotected steel floor units and concrete topping (D900 Series designs), or concrete floors with suspended ceiling. (Fire resistance designs with suspended ceilings should have provisions for accessibility in the ceiling area below the poke-thru fittings.)

The outlet boxes (service fittings), abandonment parts and poke-thru fittings will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific rating) are within the specified limits and the device is installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/2 in. over metal deck or a minimum of 3 in. thick reinforced concrete slab. Unit weight of concrete to be 108 to 155 pcf.

2. **Installation**—Mounted in 2 in. diameter core-drilled holes in concrete per instructions accompanying outlet boxes or abandonment parts and poke-thru fittings. For use with 25 pair maximum size telephone cable. The poke-thru fittings are for use in concrete floors as shown below:

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Poke-Thru Fitting Type	Concrete Slab Thickness Or Concrete Topping Thickness Over Deck
1456-1 PTD or WFT1	2 1/2 to 3 1/4 in.
1456-2 PTD	3 1/8 to 4 1/4
WFT2	3 1/2 in. or greater
1456-3 PTD	4 1/8 in. or greater

3. **Spacing**—Minimum of 2 ft O.C. and not more than one device per each 65 sq ft of floor area in each span.

Type 1501 poke-thru fitting for use in 2 hr rated unprotected reinforced concrete floors and in 2 hr rated floors employing unprotected steel floor units and concrete topping (D900-Series designs) or concrete floors with suspended ceiling. (Fire resistance designs with suspended ceilings should have provisions for accessibility in the ceiling area below the poke-thru fittings.)

The assembled poke-thru fitting will not reduce the 2 hr rating of the floor assembly when the thickness and type of concrete are within the specified limits and the device is installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 3 1/4 in over metal deck or a minimum 3 3/4 in. thick reinforced concrete slab. Uni weight of concrete to be 110 to 155 pcf.

2. **Installation**—Mounted in 4 in. diameter core-drilled hole in concrete pe instructions accompanying poke-thru fittings. For use with 4 pair maximur size telephone cable.

3. **Spacing**—Minimum of 2 ft O.C. and not more than one device per each 6 sq ft of floor area in each span.

Type PK Series preset electrical inserts with Type RAK, FAK150-200 or FCCT (with suffix -P, -PA, -T or -D) activating fittings for use in **Floor-Ceiling** Desig No. D865.

Type PK Series preset electrical inserts with Type RAKM activation fittings f use in **Floor-Ceiling** Design Nos. D739, D767, D858, D871.

Type PK Series preset electrical inserts with Type RAKM-II or FAKM-II- activation fittings for use in **Floor-Ceiling Design Nos.** D216, D739, D76 D858, D871.

Type PK Series preset electrical inserts with Type RAKM-II-R activati fittings for use in **Floor-Ceiling** Design No. D858.

Type PK Series preset electrical inserts with Type FPF Series activating fittir for use in **Floor-Ceiling** Design Nos. D739, D767, D858.

Type PK Series preset electrical inserts with Type RPF Series activat fittings for use in **Floor-Ceiling** Design No. D858.

Type NRG Bloc IV preset electrical inserts with Type RAKM-II and FAKM-II activation fittings for use in **Floor-Ceiling** Design Nos. D216, D301, D5 D703, D712, D722, D739, D759, D767, D822, D831, D832, D847 and D85

Type NRG Bloc IV preset electrical inserts with Type FPF Series activa fittings for use in **Floor-Ceiling** Design Nos. D739, D767, D832, D858.

Type NRG Bloc IV preset electrical inserts with Type RAKM, FCCTK, RPF S and FPF Series activation fittings for use in **Floor-Ceiling** Design Nos. D D759, D767, D832, D858.

Type DFI underfloor electrical box for use in **Floor-Ceiling** Design Nos. D D767, D858, D871.

Type 436 Series after set inserts with internal protection and with Type M6- and M8- Series single-service activation fittings in **Floor-Ceiling** D No. D916.

Type 437 Series preset/after set inserts with S125R, S126R, S165B or S activating fittings for use in **Floor-Ceiling** Design Nos. D739, D767, D871.

Types TSAR, TSAR-IP, TSACR, TSACR-IP, TSATR and TSATR-IP after set ele inserts for use in **Floor-Ceiling** Design Nos. D739, D759, D767, D832, D865.

Type 446-X after set electrical inserts for use in **Floor-Ceiling** Desig D739, D759, D832, D858, D865.

WALKER SYSTEMS INC RACEWAY COMPONENTS DIV R73
208 19TH AVE, PATERSON NJ 07504

Type FI200-21 outlet box and poke-through fitting and Types 221-2 abandonment fittings for use with 1, 1-1/2, 2, 3 or 4 hr rated unpr reinforced concrete floors and in 1, 1-1/2, 2 or 3 hr rated floors em unprotected steel floor units and concrete topping (D900-series desi concrete floors with suspended ceilings. (Fire resistive designs with su ceilings should have provisions for accessibility in the ceiling area be poke-through fittings.)

The assembled outlet box and poke-through fittings or abandonmen will not reduce the ratings of the floor assembly when the thickness of concrete (required for a specific rating) are within the specified li the fittings are installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of over metal deck or a minimum 3 in. thick reinforced concrete slab. Ur of concrete to be 120 to 155 pcf.

2. **Installation**—Mounted in 2 in. diameter core-drilled holes in co instructions accompanying the fittings or abandonment fittings. Fo power circuits, data cables and maximum 50 pair size telephone tabulated below:

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OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
RC-700	-A	3	16
	-MJ-8	3	16

(a.) Maximum number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting.

(b.) Maximum number of No. 22 AWG conductors in low voltage compartment of poke-through fitting (4 pair telephone cable has 8 conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

A. Modular communication jack assembly Type MJ-8 intended for communication opening.

3. Spacing—Minimum of 2 ft OC and not more than one insert per 65 sq ft of floor area in each span.

Single service poke-through Type FIT-200 outlet box and poke-through fitting Type FIT-AP200, 221-21 or 221-21T abandonment fittings for use in 1, 1-1/2, 2, 3 or 4 hr rated unprotected reinforced concrete floors and 1, 1-1/2, 2 or 3 hr rated floors employing unprotected steel floor units and concrete topping (D900-series designs), or concrete floors with suspended ceilings. (Fire resistance designs with suspended ceilings should have provisions for accessibility in ceiling area below the poke-through fittings).

Double service poke-through Type FIT-241 outlet box and poke-through fitting Type FIT-AP200, 221-21 or 221-21T abandonment fittings for use in 1, 1-1/2 or 2 hr rated unprotected reinforced concrete floors and 1, 1-1/2 or 2 hr rated floors employing unprotected steel floor units and concrete topping (D900-series designs), or concrete floors with suspended ceilings. (Fire resistance designs with suspended ceilings should have provisions for accessibility in ceiling area below the poke-through fittings).

The assembled single or double service head outlet boxes and poke-through fittings or the abandonment fittings will not reduce the ratings of the floor assembly, when the thickness and type of concrete (required for a specific rating) are within the specified limits and the fittings are installed as specified:

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/2 in. over metal deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 120 to 155 pcf.

2. **Installation**—Mounted in 2 in. diameter core-drilled holes in concrete per instructions accompanying the fittings or abandonment fittings. For use with power circuits, data cables and maximum 50 pair size telephone cables as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
FIT-200	-RT	3	100
	-RR	6	—
	-TT	—	130
	-RB	3	—
	-RTR	5	80
	-TB	—	130
	-TPF-.50	7	60
	-TPF-.75	7	60
	-BPF-.50	13	—
	-BPF-.75	13	—
	-BPF-1.0	13	—
	-PF.50/.50	13	—
	-PF.75/.75	13	—
	-PF.50/.75	13	—
	-LAN-B	—	50
	-LAN-T	—	130
	-LAN-R	3	50
FIT-241	-2R/2T	7	100
	-4R	12	—
	-4T	—	170
	-2RB	8	—
	-4RT	7	100
	-B/B	7	100
	-4RJ11-LAN/4RJ11-LAN	—	100
	-2LAN/2LAN	—	100
	-4RJ11-2RJ45/-4RJ11-2RJ45	—	100
	-2R/LAN/T	6	100
	-2R/LAN	6	50

(a) Maximum number of No. 12 AWG Type THHN conductors in power compartment of poke-through fitting.

(b) Maximum number of No. 22 AWG conductors in low voltage compartment of poke-through fitting (25 pair telephone cable has 50 conductors). When conductors larger than No. 22 AWG are used, the aggregate cross-sectional area of the copper conductors shall not exceed the aggregate cross-sectional area of No. 22 AWG copper conductors permitted in the low voltage compartment.

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEYY)—*Continued*

A. 1/2, 3/4 and 1.0 in. flexible conduit and fittings may be used with Types -BPF.50, -BPF.75, -BPF1.0 -PF.50/.50, -PF.50/.75, -PF.75/.75, -TPF.50, -TPF.75.

B. One signal cable containing two or less pair database cable and four or less pair telephone cable with one large and one small modular signal connectors.

3. Spacing—Minimum of 2 ft OC and not more than one insert per 65 sq ft of floor area in each span.

Type RC-900 outlet box and poke-through fitting or Type RC-900-RAP-1 or -RAP-2 abandonment part for use with 1, 1-1/2 or 2 hr rated unprotected reinforced concrete floors, floors employing unprotected steel floor units and concrete toppings (D900 Series Designs) or concrete floors with suspended ceilings. (Fire resistive designs with suspended ceilings should have provisions for accessibility in the ceiling area below the poke-through fittings.)

The assembled outlet boxes and poke-through fittings will not reduce the ratings of the floor assembly when the thickness and type of concrete (required for a specific ratings) are within the specified limits and the fittings are installed as specified.

1. **Concrete**—Minimum thickness of structural concrete topping of 2-1/4 in. on steel deck or a minimum 3 in. thick reinforced concrete slab. Unit weight of concrete to be 100 to 155 pcf.

2. **Installation**—Mounted in 3 in. diameter core-drilled holes in concrete per installation instructions accompanying the fittings or abandonment fittings. For use with power circuits, data cables and maximum 50 pair size telephone cables as tabulated below:

Poke-Through Fitting Type	Service Fitting Type	Power Conductors(a)	Tele/Data Conductors(b)
RC-900	-A	3	100
	-A-CHI	3	100
	-RT	3	100
RC-900-FF or RC-900-FF-CHI	-RR	6	—
	-TT	—	130
	-RB	3	—
	-RTR	5	80
	-TB	—	130
	-TPF-.50	7	60
	-TPF-.75	7	60
	-BPF-.50	13	—
	-BPF-.75	13	—
	-BPF-1.0	13	—
	-PF-.50/.50	13	—
	-PF-.75/.75	13	—
	-PF-.50/.75	13	—
	-LAN-B	—	50
	-LAN-T	—	130
	-LAN-R	3	50
	-FF, -FF-3, -FF-4	10	100
	-341	10	219
	-USAA	10	100
	-.75-.50	10	100
	-.75-.75	10	100
	-.75-1.25	10	100
	-OSC-.50	10	100
	-OSC-.75	10	100
	-OSC-1.25	10	100
	-OSP-.75	10	100
	-A	3	100
	-A-CHI	3	100
	-TLR	3	100
RC-900-A-M	-SR	3	100
	-SU-8B	—	32
	-RJ45	—	32
	-2RJ45	—	32
	-4RJ45	—	32
	-LAN I	—	32
	-LAN II	—	32
	-DECORA	3	100

(a) Maximum number of No. 12 AWG Type THHN conductors in compartment of poke-through fitting.

(b) Maximum number of No. 22 AWG conductors in low voltage compa of poke-through fitting (25 pair telephone cable has 50 cond When conductors larger than No. 22 AWG are used, the ag cross-sectional area of the copper conductors shall not exce aggregate cross-sectional area of No. 22 AWG copper conductors pe in the low voltage compartment.

(c) 1/2, 3/4 and 1.0 in. flexible conduit and fittings may be used wi -BPF.50, -BPF.75, -BPF1.0, -PF.50/.50, -PF.50/.75, -PF.75/.75, -TPF.75.

3. Spacing—Minimum of 2 ft O.C. and not more than one unit per sq ft of floor area in each span.

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WALLBOARD, GYPSUM (CKNX)—*Continued*

5/8 in. thick, 4 ft wide, Type FCV for use in Design Nos. U305, U353, U405, U411, U459, U504, V413, V419.
5/8 in. thick, Type FC-BAX for use in Design No. G520.
5/8 in. thick, 2 ft wide, Type FCM for use in Design Nos. U506, U513.
1/2 in. thick, 4 ft wide, Type B for use in Design Nos. L512, L514, U317.

WALL AND PARTITION FACINGS AND ACCESSORIES (CLBV)

Wall and Partition Facings and Accessories consist of metal facing units, accessory clips, coatings, and fasteners.

The basic standard used to investigate products in this category is UL 263, "Fire Tests of Building Construction and Materials".

LOOK FOR CLASSIFICATION MARKING ON PRODUCT

The Classification Marking of Underwriters Laboratories Inc. (shown below) on the units is the only method provided by Underwriters Laboratories Inc. to identify Wall and Partition Facings and Accessories produced under its Classification and Follow-Up Service.

WALL AND PARTITION FACINGS AND ACCESSORIES
CLASSIFIED BY
UNDERWRITERS LABORATORIES INC. ®
AS TO FIRE RESISTANCE ONLY
SEE UL FIRE RESISTANCE DIRECTORY

BHP STEEL BUILDING PRODUCTS USA INC — R18101 (N)
2110 ENTERPRISE BLVD, WEST SACRAMENTO CA 95691

CENTRIA — R4013 (N)
1005 BEAVER GRADE RD, MOON TOWNSHIP PA 15108

CORRUGATED METALS INC — R12224 (N)
4800 S HOYNE AVE, CHICAGO IL 60609

CUSTOM PANEL INDUSTRIES LLC — R14923 (N)
14213 WHITTRAM AVE, FONTANA CA 92335

ECI BUILDING COMPONENTS INC — R16135 (N)
13410 MURPHY RD PO BOX 968, STAFFORD TX 77497

FABRAL — R9281 (N)
3449 HEMPLAND RD, LANCASTER PA 17601

FLEXOSPAN STEEL BUILDINGS INC — R14110 (N)
253 RAILROAD ST PO BOX 515, SANDY LAKE PA 16145

GACO WESTERN INC — R5663 (N)
P O BOX 88698, SEATTLE WA 98138

MORIN CORP — R7019 (N)
685 MIDDLE ST PO BOX 3028, BRISTOL CT 06011

REYNOLDS METALS CO — R8343 (R)
P O BOX 27003, RICHMOND VA 23261

STAR BUILDING SYSTEMS, DIV OF ROBERTSON-CECO CORP — R18528 (N)
8600 S I-35 PO BOX 94910, OKLAHOMA CITY OK 74143
Type StarMark wall panel for use in Design No. U651.

UNITED STATES GYPSUM CO — R13514 (N)
125 S FRANKLIN ST, CHICAGO IL 60606
USG Exterior Stone Finish for use in Design Nos. U353, U407, U424, V413.
USG Exterior Textured Finish for use in Design Nos. U353, U407, U424, V413.
USG Exterior Basecoat for use in Design Nos. U353, U407, U424, V413.

WALL AND PARTITION FACINGS AND ACCESSORIES (CLBV)—*Continued*

UNITED STEEL DECK INC — R10048 (N)
475 SPRINGFIELD AVE P O BOX 662, SUMMIT NJ 07901

WALL OPENING PROTECTIVE MATERIALS (CLIV)

This category covers proprietary compositions which are used to maintain the hourly ratings of fire resistive walls and partitions containing flush mounted devices such as outlet boxes, electrical cabinets and mechanical cabinets. The individual Classifications indicate the specific applications and the method of installation for which the materials have been evaluated.

The basic standard used to investigate products in this category is ANSI/UL 263, "Fire Tests of Building Construction and Materials".

LOOK FOR CLASSIFICATION MARKING ON PRODUCT

The Classification Marking of Underwriters Laboratories Inc. (shown below on the product or container is the only method provided by Underwriters Laboratories Inc. to identify Wall Opening Protective Materials produced under its Classification and Follow-Up Service.

UNDERWRITERS LABORATORIES INC.®
CLASSIFIED
WALL OPENING PROTECTIVE MATERIAL
FIRE RESISTANCE CLASSIFICATION
SEE PRODUCT CATEGORY
IN UL FIRE RESISTANCE DIRECTORY

HILTI CONSTRUCTION CHEMICALS INC — R13240 (N
5400 S 122ND EAST AVE, TULSA OK 74146
FS Pads, for use with max 4 by 4 in. flush device UL Listed Metallic Outl Boxes in 1 and 2 hr. fire rated gypsum wallboard wall assemblies framed wit min 3-5/8 in. wide steel studs and constructed as specified in the individu U400 Series Wall and Partition Designs in the Fire Resistance Directory. Min 1/ in. thick moldable putty pads are to be installed to completely cover t exterior surfaces of the box within the stud cavity. When moldable putty pa outlet box protective material is used as directed, the horizontal separatic between outlet boxes on opposite sides of the wall may be less than 24 i provided that the boxes are not installed back to back.

INTERNATIONAL PROTECTIVE COATINGS CORP — R11636 (
725 CAROL AVE, OCEAN NJ 07712
Type 1077 Putty pads, for use with max 4 by 4 in. flush device UL Lis Metallic Outlet Boxes in 1 and 2 hr fire rated gypsum wallboard wall assemb framed with minimum 3-5/8 in. wide steel studs and constructed as specif in the individual U400 Series Wall and Partition Designs in the Fire Resista Directory. Min 1/8 in. thick moldable putty pads are to be installed completely cover the exterior surfaces of the box within the stud cavity w an additional 1/8 in. of putty formed around the end of each electrical meta tube or conduit at its connection to the box. When moldable putty pad ou box protective material used is as directed, the horizontal separation betw outlet boxes on opposite sides of the wall may be less than 24 in. provided t the boxes are not installed back-to-back.

MINNESOTA MINING & MFG CO — R9700 (
3M CENTER, ST PAUL MN 55144
Type MPP-4S+ moldable putty pads for use with max 4-11/16 by 4-11/16 flush device UL Listed Metallic Outlet Boxes in fire rated gypsum wallbo wall assemblies framed with min 3-1/2 in. wide wood or steel studs constructed as specified in the individual U300 or U400 Series Wall Partition Designs in the Fire Resistance Directory.

Type MPP-4S+ moldable putty pads for use with max 4 by 3-3/4 by 3 in. c UL Listed Nonmetallic Outlet Boxes manufactured by Carlon, made of PVC bearing a 2 hr rating under the Outlet Boxes and Fittings Classified for Resistance category in the FIre Resistance Directory. For use in fire r gypsum wallboard wall assemblies framed with min 3-5/8 in. wide wood s and constructed as specified in the individual U300 Series Wall and Part Designs in the Fire Resistance Directory.

Moldable putty pads are to be installed to completely cover the ex surfaces of the box within the stud cavity with a ball of the putty material to plug the end of each electrical metallic tube or conduit at its connecti the box. A min 1/8 in. thickness of putty material is required on the ex surfaces of flush device boxes in 1 and 2 hr fire rated Wall and Par Designs. When the moldable putty pad outlet box protective material is as directed, the horizontal separation between outlet boxes on opposite of the wall may be less than 24 in. provided that the outlet boxes a installed back to back.

NELSON FIRESTOP PRODUCTS — R1076
4041 S SHERIDAN PO BOX 726, TULSA OK 74101
Type FSP Firestop Putty Pads for use with max 4 by 4 in. flush dev Listed Metallic Outlet Boxes in 1 and 2 hr. fire rated gypsum wallboa

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WALL OPENING PROTECTIVE MATERIALS (CLIV)—*Continued*

assemblies framed with min 3-5/8 in. wide steel studs and constructed as specified in the individual U400 Series Wall and Partition Designs in the Fire Resistance Director. Min 1/4 in. thick moldable putty pads are to be installed to completely cover the exterior surfaces of the box within the stud cavity with an additional 1/4 in. of putty formed around the end of each electrical metallic tube or conduit at its connection to the box. When moldable putty pad outlet box protective material is used as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back to back.

SPECIFIED TECHNOLOGIES INC R14288 (N)
SUITE 2 200 EVANS WAY, SOMERVILLE NJ 08876

Type SpecSeal Putty Pads for use with max 4 by 4 in. flush device UL Listed Metallic Outlet Boxes in 1 or 2 hr. fire rated gypsum wall assemblies framed with minimum 3-5/8 in. steel studs and constructed as specified in the individual U400 Series Wall and Partition Designs in the Fire Resistance Directory. Min 3/16 in. thick moldable putty pads are to be installed to completely cover the exterior surfaces of the box within the stud cavity with

WALL OPENING PROTECTIVE MATERIALS (CLIV)—*Continued*

an additional 1/4 in. of putty formed around the end of each electrical metalli tube or conduit at its connection to the box. When moldable putty pad outle box protective material used as directed, the horizontal separation betwee outlet boxes on opposite sides of the wall may be less than 24 in. provided th. the boxes are not installed back to back.

THE RECTORSEAL CORP R14546 (
PO BOX 14669, HOUSTON TX 77221

Metacaulk Fire Rated Putty Pads or Biostop Fire Rated Putty Pads for u with max 4 by 4 in. flush device UL Listed Metallic Outlet Boxes in 1 and 2 h fire rated gypsum wallboard wall assemblies framed with min 3-5/8 in. wi steel studs and constructed as specified in the individual U400 Series Wall a Partition Designs in the Fire Resistance Directory. Min 1/8 in. thick moldal putty pads are to be installed to completely cover the exterior surfaces of t box within the stud cavity. When moldable putty pad outlet box protect material is used as directed, the horizontal separation between outlet boxes opposite sides of the wall may be less than 24 in. provided that the boxes not installed back to back.

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