

GENERAL INFORMATION

STANDARDS, 2014 NATIONAL ELECTRICAL CODES®

Applications: Steel Boxes

RACO® high-quality steel boxes:

- Are used in branch circuit wiring
- Accommodate wiring devices, such as switches and receptacles
- Most may also serve as fixture supports
- Provide excellent protection for wiring system or devices
- Must be closed with a cover, light fixture canopy or wallplate
- Permit access to conductors for maintenance
- Allow for branch circuit runs
- Provide two-hour fire rating for 4x4 or smaller wall opening

Product Features: Outlet Boxes for Fixture or Fan Support

These high-quality boxes:

- Are listed to support lighting fixture canopies or fans
- Feature oversized #10 screws to provide strength and rigidity

Product Features: TKO® Knockouts

- TKO® knockouts offer greater flexibility with RACO® combination 1/2" and 3/4" knockout
- Stock just one product instead of two or three
- One product for the installer to carry

TKO® Provides Reliable Grounding Path

- Independent tests conducted by UL prove that the TKO passes the same high-current fault test used to test grounding bushings and ground lugs
- RACO® TKO knockout is UL Listed, providing bonding without the use of bonding jumpers
- Suitable for bonding without any additional bonding means around concentric (or eccentric, TKO) knockouts where used in circuits above or below 250V
- This knockout does not impair the electrical connection to ground

Most RACO® Boxes Have At Least One Tapped #10-32 Grounding Hole

- The products that do not have a grounding screw hole are: plenum boxes catalog numbers 226 and 239

Product Features: Combination Screw Heads

- Cover and clamp screws have combination slotted/Phillips heads
- Self-tapping screws provide for 100% thread engagement

Metallic Boxes: Fire Resistance Rating Wall Penetrations*

Listed single- and double-gang metallic outlet and switch boxes with metallic or nonmetallic cover plates, also 4x4 and octagon boxes may be used in bearing and non-bearing wood stud and steel stud walls with ratings not exceeding two hours.

The surface area of individual metallic outlet or switch boxes shall not exceed 16 square inches through a fire rated wall. The aggregate surface area of the boxes shall not exceed 100 square inches per 100 square feet. Boxes located on opposite sides of walls or partitions shall be separated by a horizontal distance of 24 inches.

The metallic outlet or switch boxes shall be securely fastened to the studs, and the opening in the wallboard facing shall be cut so that the clearance between the box and the wallboard does not exceed 1/8 inch.

* Reference: UL Fire Resistance Directory (Orange Book)

Standard Material: Steel Covers, Outlet And Switch Boxes

- Steel boxes and covers are made of .0625 inch thick pre-galvanized sheet steel
- Handy Box covers are made of .030 inch thick galvanized sheet steel

Compliances

RACO® steel boxes and covers generally carry the following compliance ratings. Check specific catalog pages for individual compliances.

- UL Listed – Standard 514-A, file E195978 ("QCIT" Category)
- Boxes and covers are listed for their Electrical Applications (electrical codes), UL Electrical Construction Equipment Online Directory (electrical codes).
- Boxes are listed for Fire Resistance Directory, including the Two-Hour Fire Rating, (building codes) UL Orange Book
- UL Classified Standard – UL263 file R16536, CEYY, QBWY
- CSA Certified – C22.2 #18, CSA File LR-1082
- ANSI/NEMA OS1
- Federal Manufacturer's number 28488



For installation guidelines and to learn more about RACO® products, visit the NEMA website at <http://www.nema.org>.

The National Electrical Manufacturers Association (NEMA) website is a valuable electrical resource providing the information you need - quickly.

RACO® UL Guide Cards

You can download and print out any or all UL Guide Cards issued to RACO®. Just go to the RACO website at www.hubbell-raco.com and click on the UL symbol. Every RACO UL guide card is listed by product category. Click on the live link (right hand column in blue type) and the UL Guide Card will appear. Save to your computer or print it out.

UL Guide Information Pages

UL publishes the most frequently asked questions concerning product ratings, configurations, installations, uses allowed or not allowed, grounding and bonding, and much more. Each UL category has a unique Guide Information Page. Live links to each UL Guide Information Page appears just below the RACO UL guide card for each product category.

CEILING BOXES AND COVERS

RACO

CEILING FAN AND FIXTURE SUPPORT PRODUCTS

APPLICATIONS

- RACO® Ceiling Support Boxes are specifically designed for ceiling fan and ceiling or wall light fixture support

PRODUCT FEATURES

- 1/2" side knockouts (294, 294-1, 296, 296-1 and 299)
- No protruding ground screw or fan mounting screws allows easy installation
- #10-32, 1" long ceiling fan screws provided and provision for #8-32 fixture mounting screw (291-1, 294-1, 294, 296-1, 296 and 299)
- Setback tab allows for easy box installation of different wall thickness (294-1, 294)
- Metal protection plate eliminates debris or damage to wiring
- Easy to follow instructions and mounting hardware included
- Graduated markings for 1/2" to 1-1/4" thick sheetrock (Cat. No. 291-1)

GORILLA RING® CONCRETE RING APPLICATION

- Concrete rings are used with poured deck (floor) in high-rise construction
- GORILLA RING features mounting screws that allow for safe and secure mounting of any chandeliers, or lighting fixtures 70 lbs. or less
- Double row of KO's allow greater installation flexibility with a minimum of bends or offsets for working around reinforcing rods

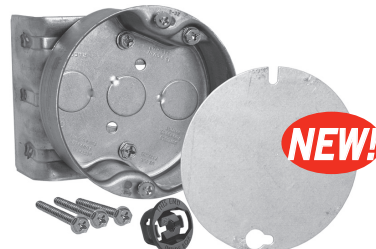
COMPLIANCE

-  File E195978

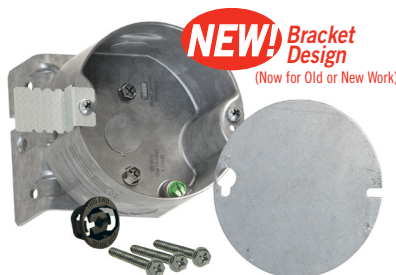
U.S. Patents 7,148,420, 7,211,744



295-1, 295



291-1



294-1, 294



296-1, 296



299



GORILLA-RING® 284

CAT. #	DESCRIPTION	CUBIC INCHES (CM ³)	KNOCKOUTS			RECOMMENDED MAX. LOADS		STD. PKG.	BAR CODE
			CABLE PRIOUTS	SIDES CONDUIT	BOTTOM CONDUIT	CEILING FAN (DYNAMIC) LBS.	FIXTURE (STATIC) LBS.		
4" Round Ceiling Fan Pan – Drawn with Conduit KO's									
295-1	1/2" Depth	6.0 (98.3)	INSIDER	—	(5) 1/2"	70	150	10	—
295*	1/2" Depth	6.0 (98.3)	INSIDER	—	(5) 1/2"	70	150	10	
4" Round Ceiling Box – Drawn with Conduit KO's									
291-1	1-1/2" Depth	15.8 (258.9)	INSIDER	—	(3) 1/2"	70	150	20	—
294-1	2-1/8" Depth, Old and New Work	22.3 (365.4)	INSIDER	(2) 1/2"	(1) 1/2"	70	70/150**	10	—
294*	2-1/8" Depth, Old and New Work	22.3 (365.4)	INSIDER	(2) 1/2"	(1) 1/2"	70	70/150**	10	
296-1	1-1/2" Depth	15.8 (258.9)	INSIDER	(2) 1/2"	(3) 1/2"	70	150	20	—
296*	1-1/2" Depth	15.8 (258.9)	INSIDER	(2) 1/2"	(3) 1/2"	70	150	8	
299*	2-1/8" Depth	22.4 (367.1)	INSIDER	(2) 1/2"	(3) 1/2"	70	150	6	
GORILLA-RING® – Concrete Ring for Ceiling Fan Support									
284	4" Deep, Double Row Side Knockouts	49.3 (807.9)	—	(4) 3/4" (6) 1/2"	—	35	70	6	—

* Packaged in a stackable, individual chipboard display cartons. Sold in master carton quantities only.
Hubbell® RACO® does not break carton quantities on these items.
4714, THE INSIDER® will secure nonmetallic sheathed cable in 1/2" KO (See pg. B75).

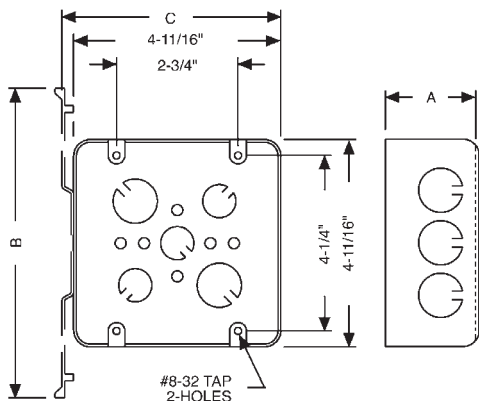
** New work applications rated at 150 lbs. Old work applications rated at 70 lbs.



SEE END OF SECTION (PG A68) FOR DETAILED DRAWINGS >>

SQUARE BOXES

4-11/16" SQUARE CONDUIT BOXES

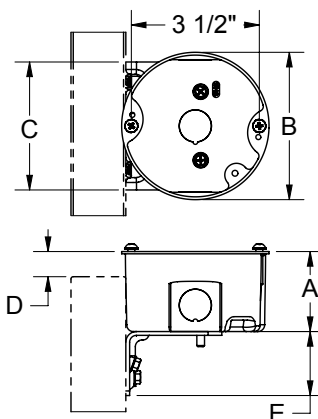


CAT. #	DIMENSIONS		
	A (INSIDE)	B	C
245	1-1/2"	-	-
246	1-1/2"	-	-
247	1-1/2"	-	-
250	1-1/2"	-	-
254	2-1/8"	7-5/8"	5-1/16"
258	2-1/8"	-	-
259	2-1/8"	-	-
260	3-1/4"	-	-
262	2-1/8"	-	-
266	2-1/8"	4-5/8"	6-3/16"
257, 8257	2-1/8"	-	-
257F	2-1/8"	-	-
257H	2-1/8"	-	-
257HS	2-1/8"	-	-
257M	2-1/8"	-	-
257SM	2-1/8"	-	-
258SM	2-1/8"	-	-
265, 8265	2-1/8"	-	-
911-12	2-1/8"	-	-
911-15	3-1/4"	-	-

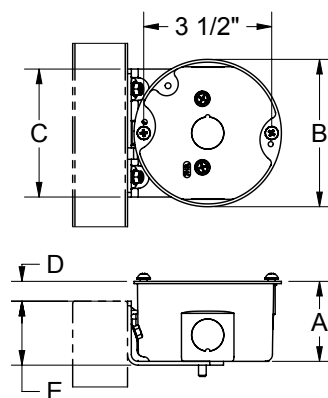
CEILING FAN SUPPORT PRODUCTS

CEILING FAN SUPPORT BOXES

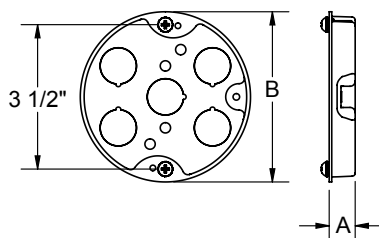
291-1, 294, 294-1 (New Work)



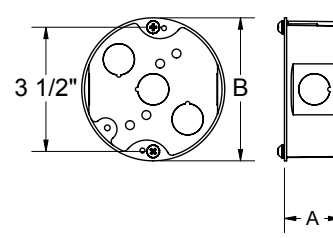
294, 294-1 (Old Work)



295 and 295-1



296 - 299

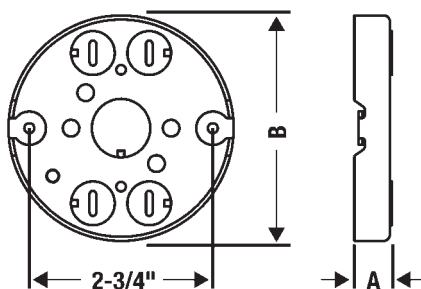


CAT. #	DIMENSIONS				
	A (INSIDE)	B	C	D	E
291-1	1-1/2"	4"	3-1/2"	1/2"	1-3/4"
294, 294-1	2-1/8"	4"	3-1/2"	1/2"	1-3/4"
295, 295-1	1/2"	4"	-	-	-
296, 296-1	1-1/2"	4"	-	-	-
299	2-1/8"	4"	-	-	-

CEILING PANS

CEILING PANS - 3-1/2"

287, 292 AND 8292



CAT. #	DIMENSIONS	
	A (INSIDE)	B
287	11/16"	3-3/8"
292	1/2"	3-3/8"
8292	1/2"	3-3/8"
293	1/2"	4"
8293	1/2"	4"

CEILING PANS - 4"

293 and 8293

