

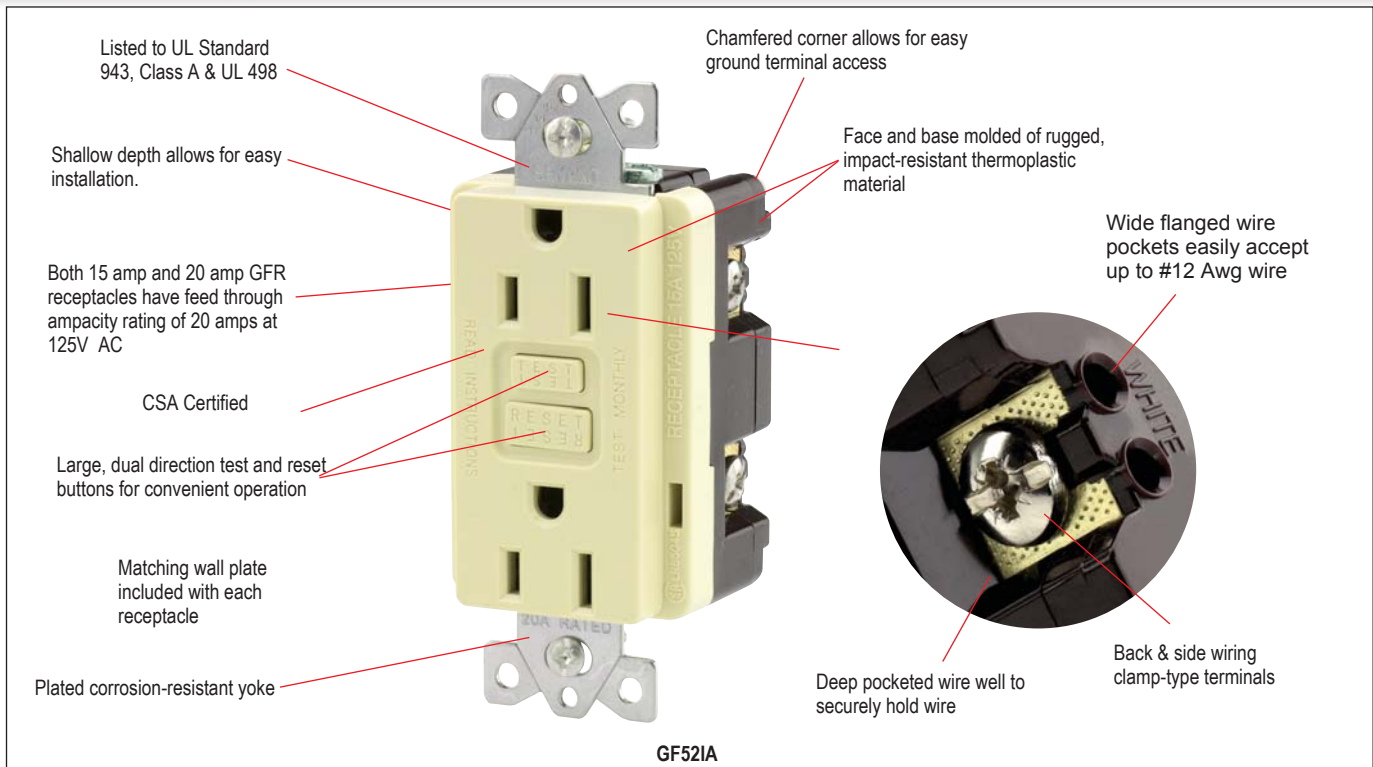


Section F Index

PEOPLE PROTECTIVE DEVICES

Ground Fault Receptacle Product Features.....	F1
Ground Fault Hospital Grade Receptacle Product Features.....	F2
Ground Fault Cord Sets, Plugs & In-Line GFCI Product Features.....	F3
Receptacles	F4
Circuit Watch Ground Fault Devices	F5
Ground Fault Receptacle Technical Specifications	F6

Product Features Ground Fault Receptacle Devices



GF52IA

WHY GROUND FAULTS ARE DANGEROUS

Electricity normally flows into a tool or appliance through a hot wire and returns through a neutral wire normally grounded. A ground fault occurs when worn or damp insulation or faulty wiring in electrical equipment allows current to leak to ground through an unintended path. If a human is in that path, he can complete the circuit. Shock, injury or electrocution can result, depending on the age and health of the operator, how well-grounded he is, and the path of the current through his body.

HOW THE GFR® RECEPTACLE MINIMIZES GROUND FAULT HAZARDS

Bryant's GFR ground fault receptacle constantly monitors the current flowing through a circuit. When a ground fault current leakage in excess 4-6 milliamperes is detected (a level approaching a potentially hazardous condition), the GFR's sensitive electronic circuitry automatically trips a switch, interrupts the circuit and cuts off the power. It acts within 25 milliseconds or less – faster than a heartbeat – preventing possible injury to a normally healthy person.

Ground fault current levels in the range of 4-6 milliamperes will not affect the heart rhythm of a healthy adult. Heart fibrillation generally occurs between 50-100 milliamperes.

The ability of the GFR to sense low-level ground faults assures optimum protection for people in homes . . . industrial plants . . . offices . . . and hospitals . . . wherever electricity is used.

UL STANDARD 943, THIRD EDITION

All Bryant GFR's are engineered and manufactured in accordance with UL Standard 943. As of January 1, 2003, the third edition of the standard increased the performance requirements for ground fault circuit interrupters. Bryant ground fault products manufactured after this date conform to these standards. The main changes associated with the third edition are as indicated:

- Miswiring of a GFCI by reversing line-load can cause a lack of GFCI protection. When energized, the Bryant GFR reset button will "pop-out" if one tries to reset the GFR when miswired. This indicates that power is present, but GFR protection is not. Wiring must be corrected before the reset button will properly engage.
- Transient voltage surges can damage the sensitive electronics associates with all ground fault products. To minimize surge damage, all Bryant GFR's are built with protection to test at peak voltage of (2 KV, 1 KA), (4 KV, 2 KA) & (6 KV, 3 KA).

- Moisture can cause corrosion internal to the ground fault mechanism, especially because of its use in and around wet environments. Bryant GFR's feature conformal coated" PC boards to resist humidity and corrosion.
- In today's world, environmental noise is everywhere, from radio communications to cell phones. Bryant GFR's are designed with immunity to RF of 0.5V over a frequency range of 150 kHz to 230 MHz, minimizing negative effects.

All Bryant GFR's undergo stringent quality review. Each product manufactured is tested, numbered and labeled before ever leaving our factory to assure optimal performance and customer satisfaction.

NATIONAL ELECTRICAL CODE REQUIREMENTS FOR GROUND FAULT CIRCUIT INTERRUPTERS

For information regarding the application of ground fault circuit interrupters, consult the following articles of the National Electrical Code:

ARTICLE 210 -BRANCH CIRCUITS

210.8 Ground Fault Protection for Personnel

ARTICLE 527 -TEMPORARY INSTALLATIONS

527.6(A) Ground Fault Protection for Personnel

ARTICLE 527 -COMMERCIAL GARAGES, REPAIR AND STORAGE

527.6(A) Ground Fault Circuit Interrupter Protection for Personnel

ARTICLE 517 -HEALTH CARE FACILITIES

517.17 Ground Fault Protection

ARTICLE 680 - SWIMMING POOL, FOUNTAINS AND SIMILAR INSTALLATIONS

680.51(A) Transformers and Ground Fault Circuit Interrupters

680.56(A) Ground Fault Circuit Interrupter

Consult your local electrical authorities for additional information and guidance.

Product Features Hospital Grade Ground Fault Receptacle Devices

Brass yoke

CSA Certified

Both 15 amp and 20 amp GF receptacles have an ampacity rating of 20 amps at 125V AC

Recessed test and reset buttons to prevent accidental tripping from oversized molded plugs

Reinforced contact terminals to assure maximum plug retention

Large, combination back & side wiring clamp-type terminals accept up to #12 Awg wire

Face and base molded of a rugged impact-resistant thermoplastic material

PC Board is conformal coated to resist humidity and corrosion.

Hi conductive brushes

Back wired terminations

Large contacts for excellent conductivity and reliable performance

Plaster-cleaning captive mounting screws

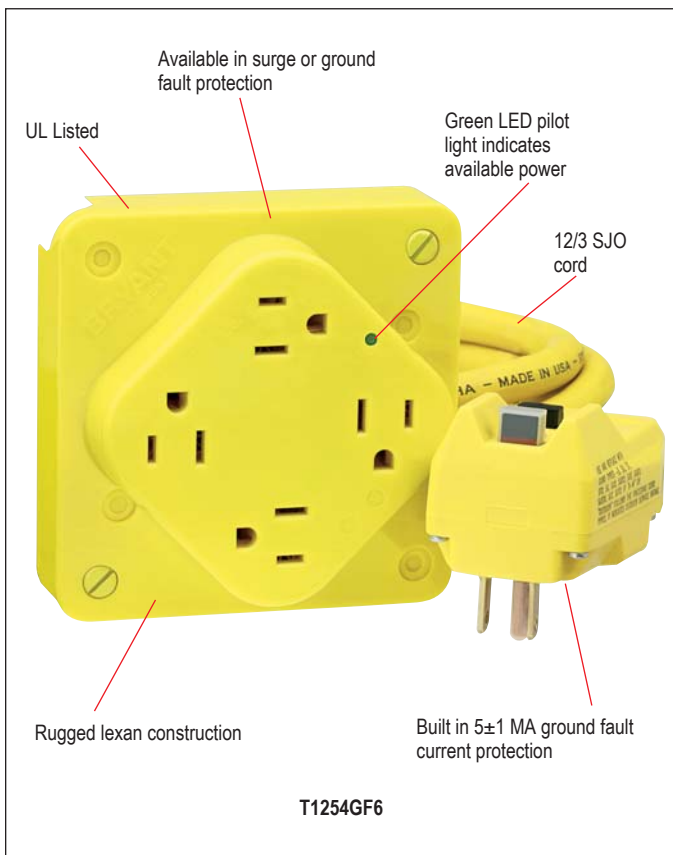
Listed to UL Standards 943, Class A & 498 Hospital Grade

GF83WA

Product Features

Ground Fault Devices

Cord Sets, Plugs and In-Line GFCI



Available in surge or ground fault protection

Green LED pilot light indicates available power

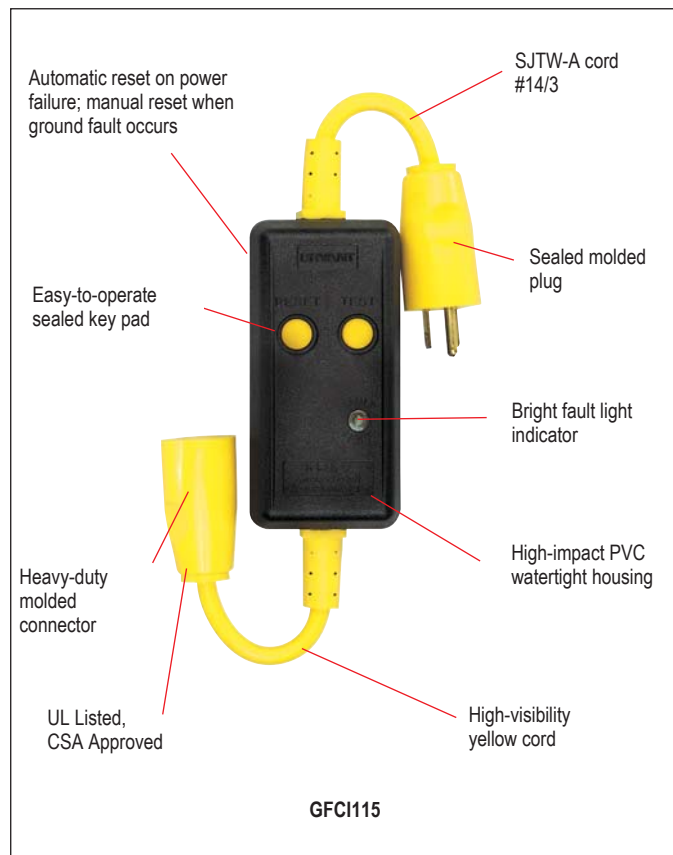
12/3 SJO cord

UL Listed

Rugged lexan construction

Built in 5±1 MA ground fault current protection

T1254GF6



Automatic reset on power failure; manual reset when ground fault occurs

SJTW-A cord #14/3

Sealed molded plug

Easy-to-operate sealed key pad

Bright fault light indicator

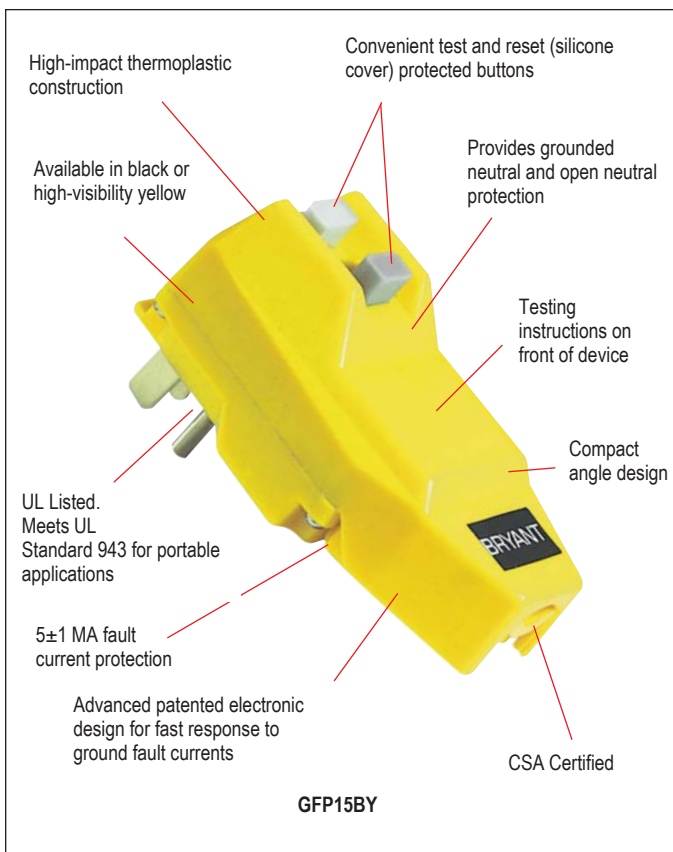
High-impact PVC watertight housing

Heavy-duty molded connector

UL Listed, CSA Approved

High-visibility yellow cord

GFCI115



High-impact thermoplastic construction

Convenient test and reset (silicone cover) protected buttons

Provides grounded neutral and open neutral protection

Testing instructions on front of device

Compact angle design

UL Listed. Meets UL Standard 943 for portable applications

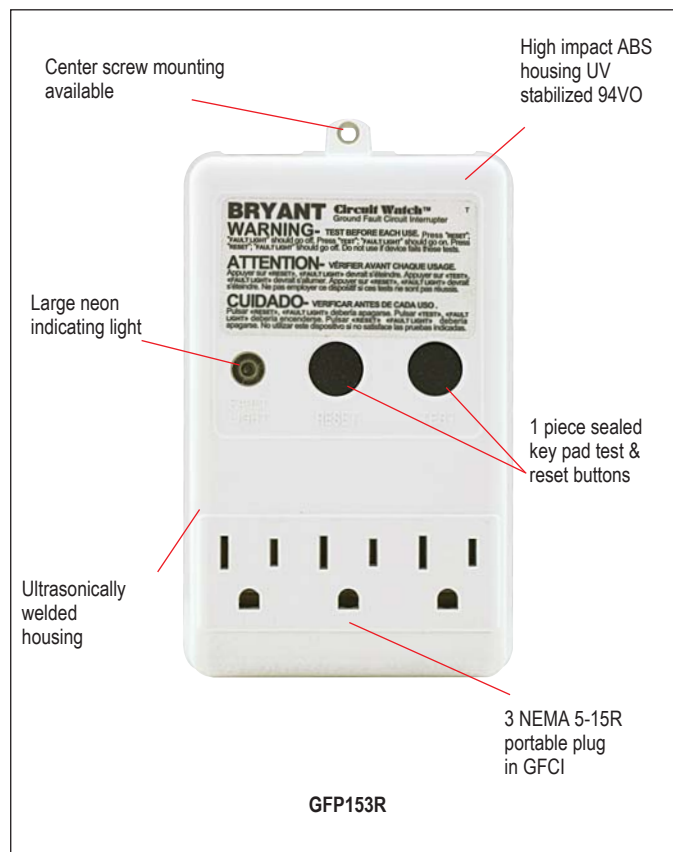
5±1 MA fault current protection

Advanced patented electronic design for fast response to ground fault currents

CSA Certified

Available in black or high-visibility yellow

GFP15BY



Center screw mounting available

High impact ABS housing UV stabilized 94VO

Large neon indicating light

1 piece sealed key pad test & reset buttons

Ultrasonically welded housing

3 NEMA 5-15R portable plug in GFCI

GFP153R

Specifications are subject to change without notice.

GFR® Ground Fault Receptacles 2-Pole 3-Wire Grounding 15 Amp 125V; 20 Amp 125V

Features - Specifications RECEPTACLE

- Bryant Ground Fault Receptacles conform to UL Standards 943, Class A and National Electrical Code requirements
- Feed-thru units can be wired to protect additional downstream receptacles on the same circuit
- Compact shallow design permits flush mounting in standard 2 1/2" (63.5) deep outlet box
- Wall Plate included with each receptacle
- One-piece triple-wipe brass line contacts
- Heavy zinc-plated steel rustresistant yoke, Hospital Grade has brass yoke
- Face and base molded of rugged impact-resistant thermoplastic material

- Combination back & side wiring clamp-type terminals accept up to #12 stranded or solid conductors.
- Both 15 amp and 20 amp GFR receptacles have ampacity interrupting rating of 20 amp at 125V AC
- Meets disconnect speed of 25 milliseconds at operating voltages 102-132 volt range for fault currents of 264ma based on UL formula $T=(\frac{20}{I})^{1.43}$
- Sensitive to fault currents as low as 5ma ± 1ma. From no load to full-rated load
- Large 10 mm, 50 joule, 250V rms MOV (metal oxide varistor)
- Withstand rating of 2000 amperes
- UL Listed File #E57705 – Guide #KCXS
- CSA Certified Class 1451 – File #LR65058
- Operating temperatures from -35°C to +66°C
- NOM



GF52IA



GF52WA



GF53INTIA

COMMERCIAL GRADE

CATALOG NUMBER		COLOR
15 AMP 125V NEMA 5-15 FEED-THRU	20 AMP 125V NEMA 5-20 FEED-THRU	
GF52A GF52BKA GF52GYA GF52IA GF52RA GF52WA	GF53A GF53BKA GF53GYA GF53IA GF53RA GF53WA	Brown Black Gray Ivory Red White

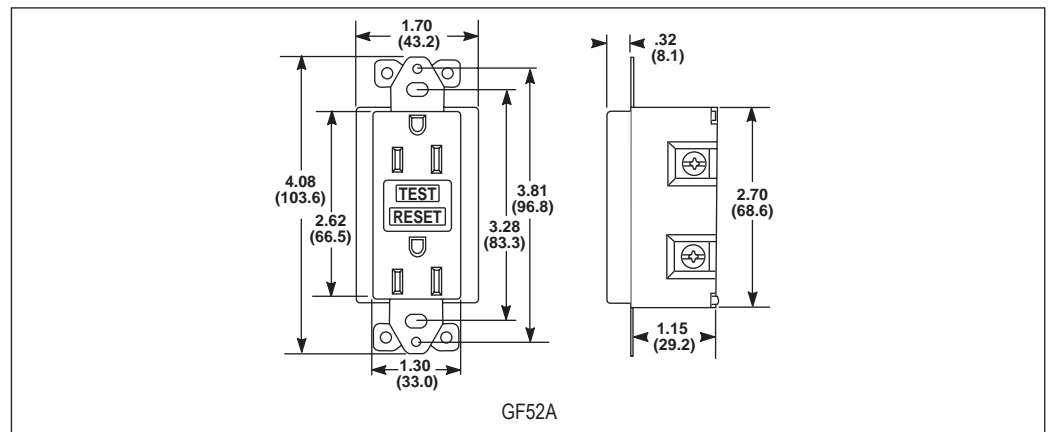
HOSPITAL GRADE

CATALOG NUMBER		COLOR
15 AMP 125V NEMA 5-15 FEED-THRU	20 AMP 125V NEMA 5-20 FEED-THRU	
GF82A GF82GYA GF82IA GF82RA GF82WA	GF83A GF83GYA GF83IA GF83RA GF83WA	Brown Gray Ivory Red White

"BLANK FACE"

CATALOG NUMBER	COLOR	DESCRIPTION
20 AMP 125V FEED-THRU		
GF53INTA GF53INTGRYA GF53INTIA GF53INTRA GF53INTWA	Brown Gray Ivory Red White	"Blank Face" Ground Fault Interrupter "Blank Face" Ground Fault Interrupter "Blank Face" Ground Fault Interrupter "Blank Face" Ground Fault Interrupter "Blank Face" Ground Fault Interrupter

PRODUCT DIMENSIONS – () Indicates mm dimensions



NOTE: GFCI type receptacles should not be used in critical care patient areas or for life support equipment applications due to the possibility of power interruption. Specifications are subject to change without notice.

CIRCUIT WATCH

Ground Fault Devices 15 Amp 125V AC

Features - Specifications

QUADPLEX® GROUND FAULT CORD SET

- Rugged Lexan® construction
- Green LED pilot light indicates available power
- 12/3 SJO cord
- Compact design
- Nonmetallic, non-conductive box eliminates marred surfaces that often occur with heavy steel boxes
- UL Listed File #E57705
- Meets OSHA requirements
- NOM

PORTABLE GFCI

- Convenient portable GFCI protection
- Use with power tools, appliances, etc.
- Meets OSHA jobsite requirements
- UL Listed and CSA certified

IN-LINE GFCI CORD SET

- GFCI housing is watertight for outdoor use
- Rugged, high-impact PVC for long life
- Easy-to-operate sealed keypad
- Meets NEC for GFCI power at construction sites
- UL Listed and CSA Certified
- Provides protection for 2- and 3-wire grounded appliances and tools
- Bright fault indicator light

GROUND FAULT PLUG

- High-impact thermoplastic construction
- Color-coded terminals
- Clamp-type terminals
- Advanced patented electronic design
- Compact angle design
- UL Listed File #E57705 –Guide #KCXS
- CSA Certified

- Trip response time for ground fault and grounded neutral less than 25ms
- 3-pin grounding plug, NEMA 5-15P
- Mechanical trip indicator
- Requires manual reset after each trip, including loss of power



T1254GF6



GFCI115



GFP153R



GFP15BY

QUADPLEX® GROUND FAULT CORD SETS

CATALOG NUMBER	COLOR	DESCRIPTION
T1254GF6	Yellow	6 Ft., 12/3 SJO cord, pilot light, Lexan
T1254GF25	Yellow	25 Ft., 12/3 SJO cord, pilot light, Lexan

IN-LINE GFCI CORD SETS, OUTDOOR RATED

GFCI115	Yellow/Black	1½ Ft., 14/3 SJTW-A cord, trip light, PVC
GFCI615	Yellow/Black	6 Ft., 14/3 SJTW-A cord, trip light, PVC
GFCI2515	Yellow/Black	25 Ft., 14/3 SJTW-A cord, trip light, PVC

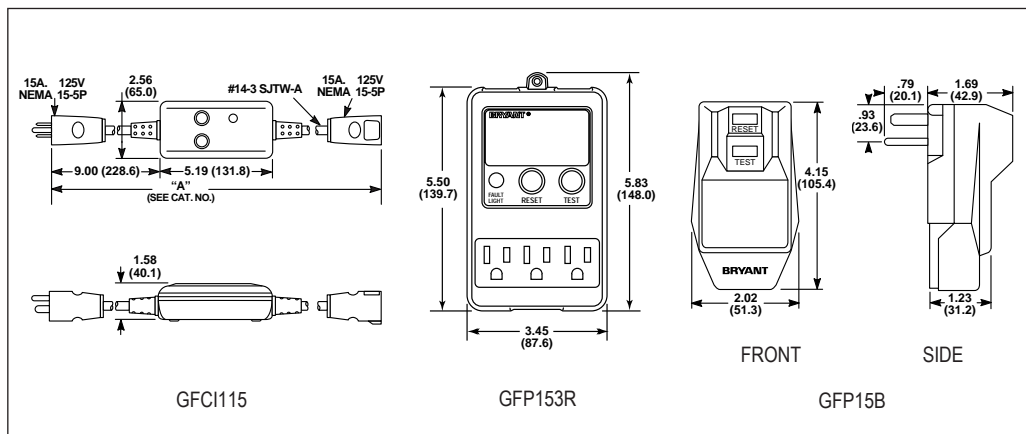
GROUND FAULT PLUGS, USER ATTACHABLE

GFP15B	Black	Compact, 2-pole 3-wire plug, thermoplastic
GFP15BY	Yellow	Compact, 2-pole 3-wire plug, thermoplastic

PORTABLE 3 OUTLET PLUG IN GFCI

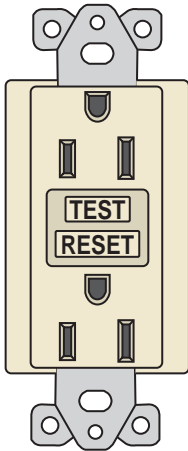
GFP153R	—	Portable GFCI class A 3 outlet plug-in module with manual set, 2-pole 3-wire, 15 Amp 120V AC
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PRODUCT DIMENSIONS – () Indicates mm dimensions



Specifications are subject to change without notice.

Ground Fault Receptacle



DESCRIPTION

Typical Specification — Catalog No. GF521
Manufacturer's Identification — Bryant GF521A

Description — Straight Blade Duplex GFCI Receptacle

Type — 2-Pole, 3-Wire, Grounding

Rating — 20A, 125V AC Feed through 15A 125V AC FACE

CERTIFICATION

- UL Listed, File E57705, Guide #KCXS
- Complies with UL Standards 498 and 943
- CSA Certified to 22.2 No.144
- Meets all 2002 NEC® requirements

COMPONENTS	MATERIALS
Cover	Thermoplastic
Base	Thermoplastic
Line Contacts	Brass
Mounting Yoke	Plated Steel (Hospital Grade - Brass)
Terminal Screws	#8-32
Back Wire Clamp	Steel
Ground Screw	Steel (Green) #8-32
Test/Reset Buttons	Thermoplastic
Mounting Screws	Plated Steel

PERFORMANCE

Electrical

Surge Immunity Peak voltage 6 KV, peak current 3 KA
 Trip Level 4-6mA
 Trip Time 0.025 sec nominal
 Frequency 60Hz
 Voltage 120V AC +10% - 15%
 Voltage Range 102-132V AC
 Abnormal Overvoltage UL943

Mechanical

Terminal Identifications Terminals identified in accordance with UL 943 (Line, Load, Hot & White)
 Terminal Accommodations #14-#12 AWG Copper Conductor only
 Product Identifications Ratings are a permanent part of the device

Environmental

Flammability UL 94 V2
 Operating Temperatures -35°C to 66°C (-30°F to 150°F)
 Maximum Humidity 95%
 Corrosion Resistance UL 943
 Resistance to Environmental Noise UL 943 0.5V over a frequency range of 150 kHz to 230 MHz

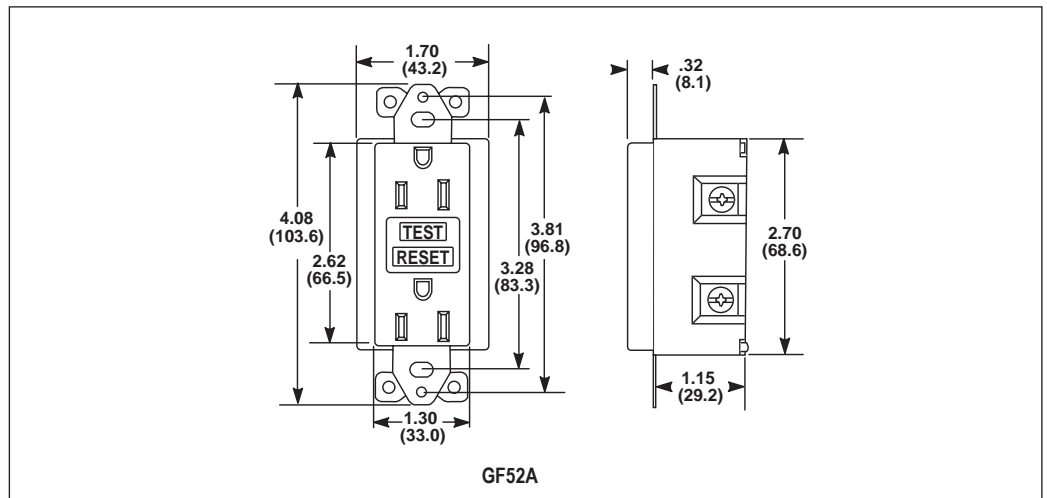
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Additional

GF53A
(see catalog page F-4)

GF82A
(see catalog page F-4)

GF83A
(see catalog page F-4)



See catalog page F-1, F-2 for catalog numbers, features, product descriptions and product photograph
 Specifications are subject to change without notice.