U–Line® Factory Sealed 20 Amp Plugs and Receptacles

Explosionproof, Dust-Ignitionproof

Dead-Front Safety Construction. Choice of Aluminum or Thermoplastic Polyester Plug.

NEC/CEC:
Class I, Division 1 and 2 Groups B◆, C, D
Class II, Division 1 and 2 Groups F, G
Class III
NEMA 3, 3R, 7BCD, 9FG

Applications

- Locations where receptacles are used with stationary or portable electrically operated devices such as:
  - — Lighting systems
  - — Conveyors
  - — Heaters
  - — Motor-generator sets
  - — Air conditioners
  - — Compressors
  - — Pumps
- Locations with damp or corrosive conditions.
- Class I: classified locations where ignitable vapors or gases are present such as:
  - — Petrochemical plants
  - — Petroleum refineries
  - — Paint and chemical plants
- Class II: classified locations such as:
  - — Process industries where there are dust hazards from handling such products as flour, grain and starch or any location where ignitable amounts of dust are present or amounts which would adversely affect performance.

Features

- Intermateable with competitor's plugs of like configurations.
- Factory sealed, external seals not required in most areas. Arcing is safely confined to receptacle interior.
- Choice of aluminum receptacle with malleable iron mounting box or all malleable iron receptacle and box.
- Energized receptacle contacts deeply recessed to reduce danger of accidental touching.
- Unique blade-type, brass contacts exert constant pressure along entire contact surface and provide superior electrical contact.
- Insulators provide superior dielectric and mechanical strength and lowest arc tracking.
- ECP plug fits any standard non-explosionproof receptacle (NEMA 5-20R, or 6-20R) as well as U-Line explosionproof receptacles.

Standard Materials

- U-Line receptacle and cover: copperfree (4/10 of 1% max.) aluminum
- U-Line mounting box: malleable iron
- U-Line M Series receptacle and mounting box: malleable iron
- ECP plugs: copperfree (4/10 of 1% max.) aluminum housings
- Insulating blocks: glass-filled reinforced polyester

Standard Finishes

- Malleable iron mounting boxes: triple-coat—(1) zinc electroplate, (2) chromate and (3) epoxy powder coat
- U-Line receptacles: epoxy powder coat
- Cord connector housings and caps: epoxy powder coat

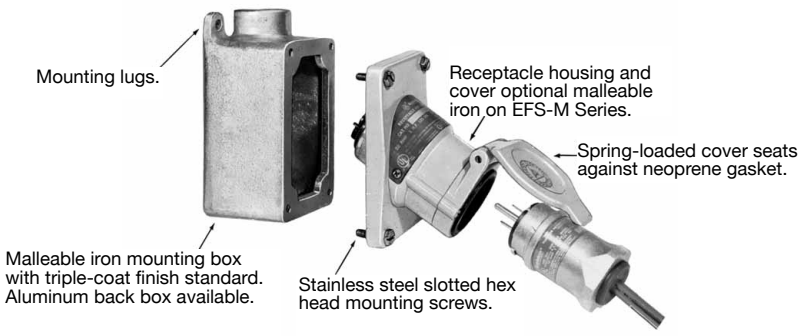
Options

- U-Line all-aluminum receptacle cover and box. Add suffix -**A**.

NEC/CEC Certifications and Compliances

- UL Listed: E10784, E81751
- UL Standard: 1203, 1010, 894
- CSA Standard: C22.2 No. 25, C22.2 No. 30, C22.2 No. 42, C22 No.159
- CSA Certified: 038644

Illustrated Features



U-Line NEMA 4X corrosion resistance screw cover kit available: **ULINEREC4XKIT**.

◆ *See Plugs and Receptacles: Hazardous Locations for items suitable for Class I, Group B, C and D; Class II, Groups F, G; and Class III.*

Special U-Line receptacles are UL Classified to mount on Killark SWB boxes. Killark is a registered trademark of Hubbell Incorporated.

U–Line® Factory Sealed 20 Amp Plugs and Receptacles

Explosionproof, Dust-Ignitionproof

Dead-Front Safety Construction. Choice of Aluminum or Thermoplastic Polyester Plug.

NEC/CEC:
Class I, Division 1 and 2 Groups B◆, C, D
Class II, Division 1 and 2 Groups F, G
Class III
NEMA 3, 3R, 7BCD, 9FG

Illustrated Features

Spring door cover keeps dust out of receptacle when plug is not in use, which may be rotated 180° or completely removed. Stainless steel cover spring-completely enclosed for protection from corrosive environments.

With plug in use, neoprene gasket in throat of receptacle "seals" around plug keeping out dirt, water, dust and other foreign matter.

With plug not in use, spring-loaded door seats against neoprene gasket to seal receptacle from corrosive atmospheres.

Factory sealed receptacle/switch interior. Switch is an integral part of receptacle interior, contained in an aluminum sleeve. Protective xylan coating on inside of sleeve provides smooth "rotating" action of internal switch, which is activated by rotating plug in receptacle. Entire aluminum sleeve is sealed at both ends with neoprene O-rings to protect receptacle/switch interior against moisture.

For safety... Ordinary location plug will NOT activate explosionproof U-Line receptacle.

Plug mechanical cable clamps on the plug prevent strain on cables and meet or exceed UL 150 lb. strain relief pull-out test for classified locations.

ECP Interchanger™ plug fits ordinary location receptacles (NEMA 5-20R and NEMA 6-20R) and explosionproof U-Line receptacle as well competitors comparable NEMA blade configured receptacles.

A twist of the plug produces audible "click" to indicate fast make and break of built-in switch contacts. Twisting plug locks it in place—cannot be accidentally pulled out.

Special neoprene watertight plug bushing accommodates flexible cord ranging from .538" to .639" in diameter.

Solderless lugs—all terminals are pressure type to facilitate wiring.

Longer plug housing for better gripping and easier plug insertion and withdrawal.

◆ *Shaded items on following pages indicate items suitable for Class I, Group B, C and D; Class II, Groups F, G; and Class III.*

U–Line® Factory Sealed 20 Amp Aluminum Receptacles

Explosionproof, Dust-Ignitionproof

125 Vac, 20 Amp, 1 HP; 250 Vac, 20 Amp, 2 HP. Dead-Front Safety Construction.

NEC/CEC:
Class I, Division 1 Groups B◆, C, D
Class I, Division 2 Groups B, C, D
Class II, Division 1 and 2 Groups F, G
Class III
NEMA 3, 3R

Aluminum Receptacle and Malleable Iron Mounting Box †

	Type	Wire/Pole	Hub Size (Inches)	Catalog Number 125 Vac, 1 HP	Catalog Number 250 Vac, 2 HP
Single Gang					
Class I, Division 1 and 2 Groups B◆, C, D; Class II, Division 1 and 2 Groups F, G; Class III.				*Suitable for use in Class I, Division 1, Group B when used with external seals. ‡*	
 Dead–End	Dead-End	2W, 3P	1/2	**EFS150-2023**	**EFS150-20232**
			3/4	**EFS175-2023**	**EFS175-20232**
			1	**EFS110-2023**	**EFS110-20232**
 Feed–Thru	Feed-Thru	2W, 3P	1/2	**EFSC150-2023**	**EFSC150-20232**
			3/4	**EFSC175-2023**	**EFSC175-20232**
			1	**EFSC110-2023**	**EFSC110-20232**
Two Gang					
Class I, Division 1 and 2 Groups C, D; Class I, Division 2, Groups B, C, D; Class II, Division 1 and 2 Groups F, G; Class III.					
 Dead–End	Dead-End	2W, 3P	1/2	**EFS250-2023**	**EFS250-20232**
			3/4	**EFS275-2023**	**EFS275-20232**
			1	**EFS210-2023**	**EFS210-20232**
 Feed–Thru	Feed-Thru	2W, 3P	1/2	**EFSC250-2023**	**EFSC250-20232**
			3/4	**EFSC275-2023**	**EFSC275-20232**
			1	**EFSC210-2023**	**EFSC210-20232**

Replacement Receptacles

	2W, 3P	**EFSR-2023**	**EFSR-20232**
	Spring Door Replacement Assembly (aluminum)	**ULSCA**	
	Receptacle for use on Killark ✧ SWB Boxes.	**EFSR-2023K**	**EFSR-20232K**
	NEMA 4X Corrosion Resistance Kit ▼	**ULINEREC4XKIT**	

*† Standard back box malleable iron. For aluminum back box, add suffix –**A** to catalog number.*
‡ Seals (not furnished—see Fittings Section) must be placed within 2 inches from each conduit opening. Seals are not required in Class I, Division 2 locations.
▼ NEMA Type 4X when the screw cover is installed and the cover is fully engaged.
◆ Shaded area indicates items suitable for Class I, Group B, C and D; Class II, Groups F, G; and Class III.
✧ Killark is a registered trademark of Hubbell Incorporated.

U–Line® Factory Sealed 20 Amp Malleable Iron Receptacles

Explosionproof, Dust-Ignitionproof

125 Vac, 20 Amp, 1 HP; 250 Vac, 20 Amp, 2 HP. Dead-Front Safety Construction.

NEC/CEC:
Class I, Division 1 Groups B◆, C, D
Class I, Division 2 Groups B, C, D
Class II, Division 1 and 2 Groups F, G
Class III
NEMA 3, 3R

Malleable Iron Receptacle and Malleable Iron Mounting Box

Type	Wire/Pole	Hub Size (Inches)	Catalog Number 125 Vac, 1 HP	Catalog Number 250 Vac, 2 HP
Single Gang — Class I, Group B				
Class I, Division 1 and 2 Groups B, C, D; Class II, Division 1 and 2 Groups F, G; Class III			*These models have separate factory sealed chamber— suitable for Class I, Group B as well as Class I, Groups C and D, Class II, Groups F ‡, G and Class III.* ***No external seals required.***	
Dead-End	2W, 3P	1/2	**EFSB150-2023M**	**EFSB150-20232M**
		3/4	**EFSB175-2023M**	**EFSB175-20232M**
Feed-Thru	2W, 3P	1/2	**EFSCB150-2023M**	**EFSCB150-20232M**
		3/4	**EFSCB175-2023M**	**EFSCB175-20232M**
Single Gang				
Class I, Division 1 and 2 Groups B◆, C, D; Class II, Division 1 and 2 Groups F, G; Class III			*Suitable for use in Class I, Division 1, Group B when used with external seals. ‡*	
Dead-End	2W, 3P	1/2	**EFS150-2023M**	**EFS150-20232M**
		3/4	**EFS175-2023M**	**EFS175-20232M**
		1	**EFS110-2023M**	**EFS110-20232M**
Feed-Thru	2W, 3P	1/2	**EFSC150-2023M**	**EFSC150-20232M**
		3/4	**EFSC175-2023M**	**EFSC175-20232M**
		1	**EFSC110-2023M**	**EFSC110-20232M**
Two Gang				
Class I, Division 1 and 2 Groups C, D; Class I, Division 2, Groups B, C, D; Class II, Division 1 and 2 Groups F, G; Class III.				
Dead-End	2W, 3P	1/2	**EFS250-2023M**	**EFS250-20232M**
		3/4	**EFS275-2023M**	**EFS275-20232M**
		1	**EFS210-2023M**	**EFS210-20232M**
Feed-Thru	2W, 3P	1/2	**EFSC250-2023M**	**EFSC250-20232M**
		3/4	**EFSC275-2023M**	**EFSC275-20232M**
		1	**EFSC210-2023M**	**EFSC210-20232M**

Dead–End

Feed–Thru

Separate Sealing Chamber
Factory Sealed

Dead–End

Feed–Thru

Dead–End

Feed–Thru

Malleable Iron Replacement Receptacle Only

2W, 3P — **EFSR-2023M** — **EFSR-20232M**

Spring door replacement assembly (iron) — **ULSCM**

‡ Seals (not furnished—see Fittings Section) must be placed within 2 inches from each conduit opening. Seals are not required in Class I, Division 2 locations.

◆ Shaded area indicates items suitable for Class I, Group B, C and D; Class II, Groups F, G; and Class III.

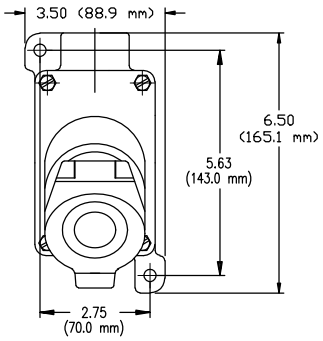
U–Line® Factory Sealed 20 Amp Receptacles

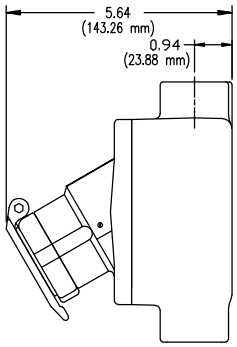
Explosionproof, Dust-Ignitionproof

125 Vac, 20 Amp, 1 HP; 250 Vac, 20 Amp, 2 HP. Dead-Front Safety Construction.

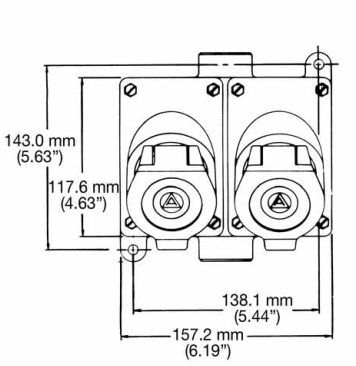
Dimensions in Millimeters (Inches)

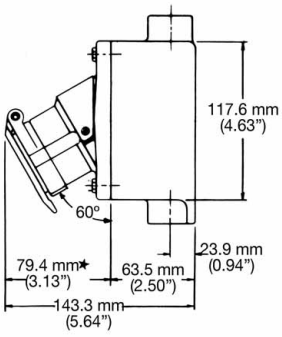
Single Gang Box





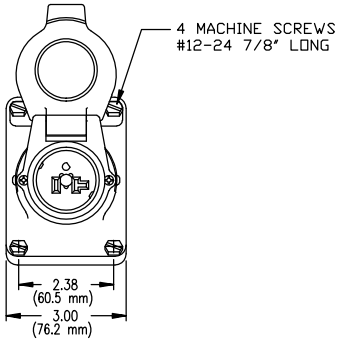
Two Gang Box

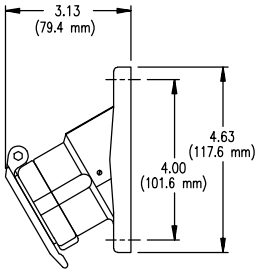




★Malleable iron receptacle: 85.6 mm (3.38")

Receptacle Cover





20 Amp Plugs

For U-Line® 20 Amp Receptacles. Explosionproof, Dust-Ignitionproof

These watertight plugs also fit NEMA 5-20R or 6-20R receptacles in nonclassified areas. Choice of Aluminum or Thermoplastic Polyester Plug.

NEC/CEC:
Class I, Division 1 and 2 Groups B, C, D
Class II, Division 1 and 2 Groups F, G
Class III
NEMA 3, 3R, 7BCD, 9FG

Applications

- U-Line® Interchanger™ ECP plug: suitable for use in such areas as refineries, petrochemical plants, and other areas subject to where ignitable gases are present.
- NCP Plug: ideal where moisture or corrosion is a constant problem, such as production facilities on marine platforms, and pipeline transportation facilities.

Features

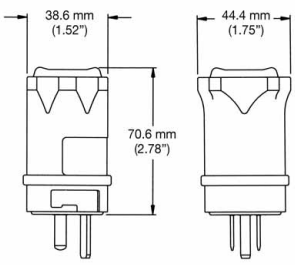
- Unique blade-type, brass contacts exert constant pressure along entire contact surface and provide superior electrical contact.
- Insulators provide superior dielectric and mechanical strength and lowest arc tracking.
- Longer plug housing for better gripping and easier plug insertion and withdrawal.
- Plugs fits any standard non-explosionproof receptacle (NEMA 5-15R, 5-20R, or 6-20R) as well as U-Line explosionproof receptacles.
- ECP plug: a twist of the plug produces audible “click” to indicate fast make and break of built-in switch contacts. Twisting plug locks it in place and cannot be accidentally pulled out.
- NCP plug: special neoprene watertight plug bushing accommodates flexible cord ranging from .538” to .639” diameter.

Standard Materials

- ECP plug: copperfree (less than 4/10ths of 1%) aluminum
- NCP plug: 30% glass-reinforced thermoplastic polyester

	Amp	Diagram	Wire/ Pole	Cable Dia., (Inches)	Catalog Number 125 Vac	Catalog Number 250 Vac
U-Line® Interchanger™ ECP Standard Plug						
	15		2W, 3P	.538 to .639	**ECP-1523**	—
	20		2W, 3P	.538 to .639	**ECP-2023**	—
	20		2W, 3P	.538 to .639	—	**ECP-20232**
NCP Plug						
	15		2W, 3P	.538 to .639	**NCP-1523**	—
	20		2W, 3P	.538 to .639	**NCP-2023**	—
	20		2W, 3P	.538 to .639	—	**NCP-20232**

Dimensions in Millimeters (Inches)



EFSR–GFI Factory Sealed Ground Fault Circuit Interrupter

For U-Line® 20 Amp Receptacles. Explosionproof, Dust-Ignitionproof

125 Vac branch circuits. Installs in standard EFD Mounting Box.

NEC:
Class I, Division 1 Groups B◆, C, D
Class I, Division 2 Groups B, C, D
Class II, Division 1 and 2 Groups E, F, G
Class III
NEMA 3, 3R, 7BCD, 9EFG

Applications

- Provides required ground fault protection for portable electrically-operated devices. Meets all UL and CSA requirements for ground fault protection in hazardous locations.
- Well suited for use in highly corrosive atmospheres and wet locations.
- Can be used in conjunction with U-Line® factory sealed receptacle on 20 Amp, 125 Vac 50/60 Hz branch circuits.

Features

- Factory sealed construction; **no external seals are required**. Arcing is confined within the device's interior sealed chamber.
- Rated 20 Amp, 125 Vac, 5 mA trip setting.
- Smooth-operating test and reset buttons.
- Can be installed in standard EFD Series mounting boxes. Choice of malleable iron or aluminum, dead-end or feed-thru styles.

Standard Materials

- Cover and sealing chamber: cast copperfree (less than 4/10ths of 1%) aluminum
- Cover bolts, test and reset buttons and shafts: stainless steel

Standard Finish

- Cover and sealing chamber: baked gray epoxy clad finish

NEC Certifications and Compliances

- UL Listed: E81751
- UL Standard: 943, 1203

EFSR–GFI cover mounted on single–gang EFD box. The GFI cover has separate factory sealed sealing chamber and is suitable for Class I, Group B as well as Class I, Groups C and D; Class II, Groups E, F, G and Class III.

EFSR–GFI cover installed on two–gang EFD box together with U–Line 20 Amp, 125 Vac factory sealed receptacle. Receptacle listed for Class I, Groups C and D, Class II, Groups F and G, and Class III.

Description	Hub Size (Inches)	Catalog Number Malleable Iron	Catalog Number Aluminum
GFI Cover and Box — Single Gang			
Dead-End	1/2	**EFS150-GFI**	**EFS150A-GFI**
	3/4	**EFS175-GFI**	**EFS175A-GFI**
	1	**EFS110-GFI**	**EFS110A-GFI**
Feed-Thru	1/2	**EFSC150-GFI**	**EFSC150A-GFI**
	3/4	**EFSC175-GFI**	**EFSC175A-GFI**
	1	**EFSC110-GFI**	**EFSC110A-GFI**
GFI Cover, U-Line Receptacle and Box — Two Gang			
Dead-End	1/2	**EFS250-2023GFI**	**EFS250A-2023GFI**
	3/4	**EFS275-2023GFI**	**EFS275A-2023GFI**
	1	**EFS210-2023GFI**	**EFS210A-2023GFI**
Feed-Thru	1/2	**EFSC250-2023GFI**	**EFSC250A-2023GFI**
	3/4	**EFSC275-2023GFI**	**EFSC275A-2023GFI**
	1	**EFSC210-2023GFI**	**EFSC210A-2023GFI**
Aluminum Ground Fault Interrupter Cover/Device			
Cover may be used with other EFD boxes and U-Line® receptacles in this section.		**EFSR-GFI**	

◆ *Shaded area indicated items suitable for Class I, Group B.*

U–Line® 20 Amp Portable Receptacle with GFCI

Explosionproof, Dust-Ignitionproof

125 Vac. For use on Hazardous or Non-Hazardous Receptacles.

NEC/CEC:
Class I, Division 1 and 2 Groups C, D
Class II, Division 1 and 2 Groups F, G
Class III
NEMA 3, 3R, 7CD, 9FG

Applications

- Provides required portable ground fault protection for electrically-operated devices. Meets all UL and CSA requirements for ground fault protection in hazardous locations.
- Well suited for use in highly corrosive atmospheres and wet locations.

Features

- Arcing is confined within the device's interior.
- Rated 20 Amp, 125 Vac, 5 mA trip setting.
- Provides open neutral protection to maximize safety.
- High intensity LED pilot light rated at 100,000 hours
- Smooth operating test and reset buttons.
- Heavy duty 0.91 meter (3 foot) SO power cord with U-Line 20 Amp NEMA 5-20R plug.
- Lightweight design.
- Convenient carry/hanging handle.
- Plug mates with competitors comparable receptacles. The receptacle also accepts their respective plugs.

Standard Materials

- Covers and back box: cast copperfree (less than 4/10ths of 1%) aluminum
- Cover bolts, test and reset buttons and shafts: stainless steel
- Carry/hanging handle: nylon covered galvanized steel

Standard Finish

- Covers and back box: baked gray epoxy clad finish

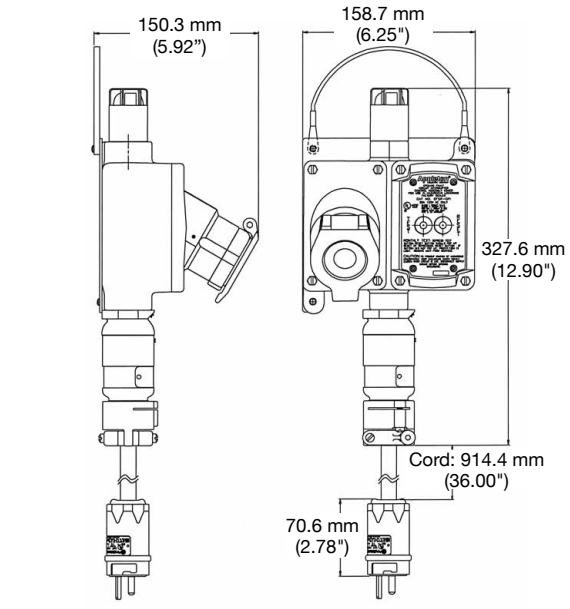
Options

- Incandescent pilot light available, contact local sales representative.

NEC/CEC Compliances

- UL Standard: 943, 1203
- CSA Standard: C22.2 No. 30

Dimensions

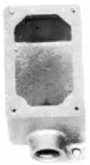
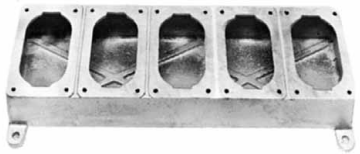


Amp	Pilot Light	Class I, Division 1 and 2
20	Green LED	**U2023PGFID1G3**
	Red LED	**U2023PGFID1R3**

EFD Cast Device Mounting Boxes

For U-Line® 20 Amp Receptacles

Single, Two, Tandem, and One through Five Gang Boxes.

	Type	Hub Size (Inches)	Catalog Number Malleable Iron	Catalog Number Aluminum
Single Gang				
	Dead-End	1/2	**EFD150-NL-Q**	**EFD150A-NL-Q**
		3/4	**EFD175-NL-Q**	**EFD175A-NL-Q**
		1	**EFD110-NL-Q**	**EFD110A-NL-Q**
	Feed-Thru	1/2	**EFDC150-NL-Q**	**EFDC150A-NL-Q**
		3/4	**EFDC175-NL-Q**	**EFDC175A-NL-Q**
		1	**EFDC110-NL-Q**	**EFDC110A-NL-Q**
Two Gang				
	Dead-End	1/2	**EFD250-NL-Q**	**EFD250A-NL-Q**
		3/4	**EFD275-NL-Q**	**EFD275A-NL-Q**
		1	**EFD210-NL-Q**	**EFD210A-NL-Q**
	Feed-Thru	1/2	**EFDC250-NL-Q**	**EFDC250A-NL-Q**
		3/4	**EFDC275-NL-Q**	**EFDC275A-NL-Q**
		1	**EFDC210-NL-Q**	**EFDC210A-NL-Q**
Tandem †				
	Dead-End	1/2	**EFDT50-NL-Q**	—
		3/4	**EFDT75-NL-Q**	—
		1	**EFDT10-NL-Q**	—
	Feed-Thru	1/2	**EFDCT50-NL-Q**	—
		3/4	**EFDCT75-NL-Q**	—
		1	**EFDCT10-NL-Q**	—
Blank Bodies for Brazed Hubs *Construct complete catalog number per following page. Hubs will be located in center of walls and evenly spaced unless otherwise specified. Where spacings are critical, submit sketch showing spacing requirements.*				
	1 Gang		**EFD-1-NL**	—
	2 Gang		**EFD-2-NL**	—
	3 Gang		**EFD-3-NL**	—
	4 Gang		**EFD-4-NL**	—
	5 Gang		**EFD-5-NL**	—

† For tandem bodies, eternal seals must be installed within 1.52 meters (5 feet) of each conduit entrance or Class I, Group C and D.

EFD Blank Cast Device Boxes

Drilling Information for Brazed Threaded and Union Hubs for U-Line® 20 Amp Receptacles

Single, Two, Three, Four and Five Gang Boxes.

Determine catalog number as follows:
(1) Select EFD device box catalog number.
(2) Select "Standard Hub Arrangement Diagram" number.
(3) Select symbols that represent hub sizes from "Symbol Table." (Use "0" where no hub is required, and separate the various divisions of the complete catalog number by dashes.)

Example
The blank body device box selected is EFD3NL and the hub arrangement is diagram #8. Hub "a" is to be 3/4" brazed threaded; hub "b", 1" brazed threaded; hub "c", 3/4" brazed threaded; hub "d", no hub is required; and hub "e", 1" brazed union.
The complete catalog number will be:
EFD–3NL–8–23203E

If a "Standard Hub Arrangement" is not suitable for the application, or when hubs are to be more accurately spaced, submit sketch locating hubs (1) from centerlines of walls and (2) from outside back of box (or from mounting lug surface if lugs are supplied).

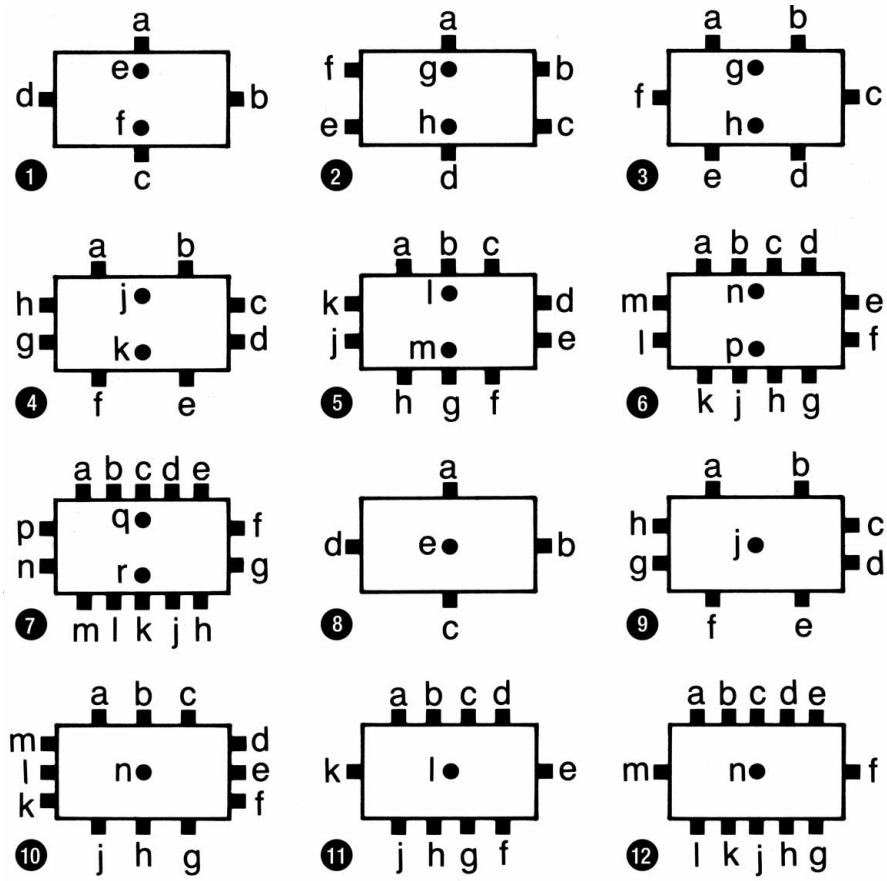
All hubs will be located in centerlines of walls and evenly spaced unless otherwise specified.

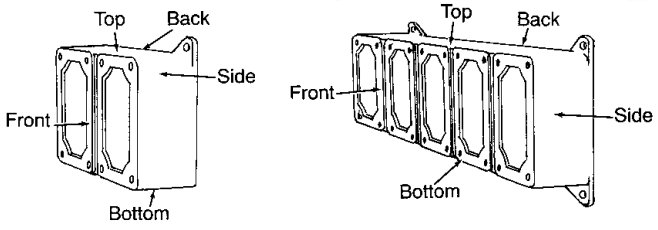
Symbol Table

Hub Size (Inches)	Brazed Threaded Hub Symbol	Brazed Union Hub Symbol
Blank	0	0
1/2	1	1E
3/4	2	2E
1	3	3E

Standard Hub Arrangement Diagrams
Hub "a" is always TOP of box

Two, Three, Four and Five Gang (Front View)





One Gang (Front View)