

# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

Selection

### Features

- 16–250 Ampere, to 100 hp, 480V & 600V
- Rotary and Toggle actuation models
- LBR Type switches are padlockable in the OFF position and are cUL & UL listed under File No. E191706 as manual motor controllers per UL Standard UL508
- 3LD2 Type switches are padlockable in the OFF position and are CSA certified under file No. 203576 and are UL listed under file No. E47705
- Base, DIN-rail and door mounting
- Multiple conductor, distribution terminal type rating LBR & LBT Type (40A -100A only)
- IEC 947-1 rated, CE marked
- Listed and marked “suitable as motor disconnect” per NEC Section 430-109

### Application

Siemens Load Break Switches are listed as manual motor controllers and are suitable as motor disconnects. They are load break rated and act as enclosure disconnects when short circuit protection is provided upstream of the switch. If upstream over current protection is not provided, use a Siemens fusible Type VBII, CFS or MCS Disconnect Switch.

### Ordering Information

**Door Mounted Switches (Rotary Type Only)** — Order either complete “3LD2” assemblies or individual “LBR” components as follows:

**Complete Assemblies** include switch, handle, and shaft. Certain 25 and 32A assemblies are also available with factory installed neutral blocks and/or aux. contacts. These accessories can also be ordered as field installed kits.

**Individual Components** are ordered as follows:

**25A** — LBR3025D switch + LBRH3 or 4 handle.

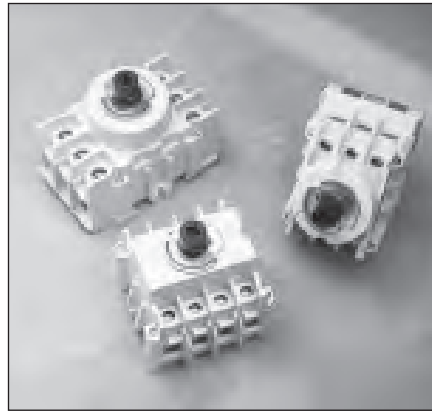
**40–100A** — LBR switch + LBRH3 or 4 handle + LBRD1.

Notes: (LBR Type switches only)

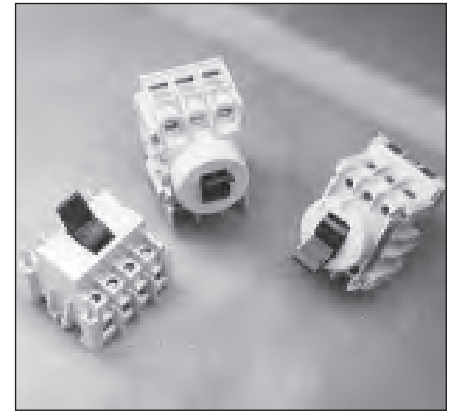
1. Aux contacts are available as field installed kits on 25A units only.
2. Lugs on 25A units face to the rear and lugs on 40–100A units face toward the front.

③ Includes auxiliary contacts (1 NO and 1 NC).

② Handles are IP65 rated and are also UL Listed for Type 1, 4X and 12 applications.



Type LBR Rotary Switches



Type LBT Toggle Switches



3LD2254-0TK51

**Base/DIN Rail Mounted Switches (Rotary or Toggle Type)** — Order individual components as follows:

**Toggle** — Order the LBT switch required and a toggle switch cover plate if needed.

**Rotary, Base Mounted with Door Mounted Handle** — Order “LBR” switch + door mounted handle + shaft + any accessories.

**Rotary, Base Mounted with Direct Mounted Handle** — Order “LBR” switch + direct mounted handle.

### Door Mounted Complete Assemblies (Operator, Shaft, & Switch) 600V AC Max. ②

Shaft Mounted	4 Hole Mounted	Number of Poles	Ampere Rating	AC Horsepower Ratings				
				120V 1Ø	240V 1Ø 3Ø		480V 3Ø	600V 3Ø
—	3LD2003-1TP53③	3	16	½	1½	3	7½	10
3LD2154-0TK 3LD2154-1TP 3LD2154-1TL 3LD2154-2EP	3LD2103-0TK 3LD2103-1TP 3LD2103-1TL 3LD2103-2EP	3 3③ 3 + N 3 + N④	25	2	3	7½	10	15
3LD2254-0TK 3LD2254-1TL	3LD2203-0TK 3LD2203-1TL	3 3 + N	32	2	3	10	20	20
3LD2555-0TK	3LD2504-0TK	3	63	—	10	15	40	50
—	3LD2704-0TK	3	100	—	—	30	60	75
—	3LD2804-0TK	3	125	—	—	40	75	100

③ Add 51 for a black handle or 53 for a red & yellow handle to the end of the catalogue number.

④ 100-250A 3LD2 switches are rated 10kA when protected by 200A Max. Class RK5 fuses.

### Short Circuit Withstand Ratings

Switch Rating & Type	Max. Line Side Fuse Rating
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#### 5kA with Line Side Class H, K, or RK5 Fuses

25 & 32A 3LD2	80A Max. at 600V AC Max.
63A 3LD2	175A Max. at 600V AC Max.

#### 10kA with Line Side Class H, K, or RK5 Fuses④

25A LBR	30A Max. at 480V AC Max.
40A, 4P LBR & LBT	60A Max. at 480V AC Max.
40 & 60A, 3P LBR & LBT	100A Max. at 480V AC Max.
80 & 100A LBR & LBT	150A Max. at 480V AC Max.

#### 18kA with Line Side Class J, T, or CC Fuses

40–100A, 3P LBR & LBT	100A Max. at 480V AC Max.
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Note: 3LD2 switches are also rated 5kA at 600V AC Max. when protected by a 3RV motor starter with a FLA rating equal to or less than the switch ampere rating.

# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle

Selection

### 3LD Type Base Mounted Complete Assemblies

(Operator, Shaft, & Switch) 600V AC Max.Ⓜ

Handle mounting <sup>Ⓜ</sup>			Number of Poles	Ampere Rating	AC Horsepower Ratings				
Shaft (center hole)	4 Hole (no defeat)	4 Hole (with defeat)			120V	240V	480V	600V	
Catalogue Number	Catalogue Number	Catalogue Number	1Ø	1Ø	3Ø	3Ø	3Ø		
—	3LD2013-0TK5	3LD2017-0TK1 3LD2017-1TL1	3 3 + N	16	½	1½	3	7½	10
3LD2144-0TK5 3LD2144-1TL5	3LD2113-0TK5 3LD2113-1TL5	—	3 3 + N	25	2	3	7½	10	15
3LD2244-0TK5 3LD2244-1TL53	3LD2213-0TK5 3LD2213-1TL53	3LD2217-0TK1 3LD2217-1TL1	3 3 + N	32	2	3	10	20	20
3LD2545-0TK5	—	3LD2517-0TK1 3LD2517-1TL1	3 3 + N	63	3	10	15	40	50
—	3LD2714-0TK5	—	3	100	—	—	30	60	75
—	3LD2814-0TK5	—	3	125	—	—	40	75	100
—	3LD2318-0TK1	—	3	160	—	—	40	75	75
—	3LD2318-1TK1 <sup>Ⓜ</sup>	—	3 + N						
—	3LD2418-0TK1	—	3						
—	3LD2418-1TK1 <sup>Ⓜ</sup>	—	3 + N	250	—	—	50	100	75



3LD2217-0TK13

### Accessories for Front Mounted 3LD2 Switches

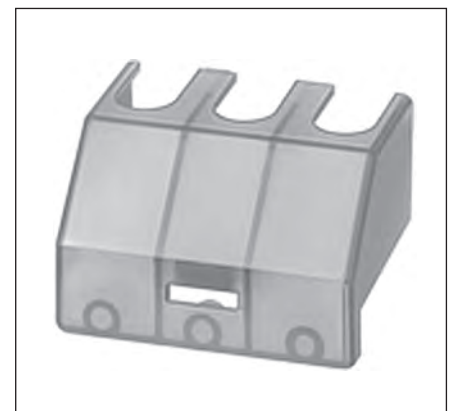
Catalogue Number	Description	Switches Used With
3LD9200-5B <sup>Ⓜ</sup> 3LD9200-5BF <sup>Ⓜ</sup>	1 NO, 1 NC Aux. Contact 1 NO, 1 NC Aux. with Gold Plated Contacts	25-125A 25-125A
3LD9220-2B 3LD9250-2BA 3LD9280-2B	Neutral/Ground Terminal Neutral/Ground Terminal Neutral/Ground Terminal	25 & 32A 63A 100 & 125A
3LD9220-0B 3LD9250-0BA 3LD9280-0B	4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF)	25 & 32A 63A 100 & 125A
3LD9224-1B <sup>Ⓜ</sup> 3LD9284-1B <sup>Ⓜ</sup> 3LD9224-3B <sup>Ⓜ</sup> 3LD9284-3B <sup>Ⓜ</sup>	Black Handle (4 hole mtg.) Black Handle (4 hole mtg.) Red/Yellow Handle (4 hole mtg.) Red/Yellow Handle (4 hole mtg.)	25 & 32A 63-125A 25 & 32A 63-125A
3LD9224-1D <sup>Ⓜ</sup> 3LD9284-1D <sup>Ⓜ</sup> 3LD9224-3D <sup>Ⓜ</sup> 3LD9284-3D <sup>Ⓜ</sup>	Black Handle (shaft mtg.) <sup>Ⓜ</sup> Black Handle (shaft mtg.) <sup>Ⓜ</sup> Red/Yellow Handle (shaft mtg.) <sup>Ⓜ</sup> Red/Yellow Handle (shaft mtg.) <sup>Ⓜ</sup>	25 & 32A 63-125A 25 & 32A 63-125A
3LD9221-2A <sup>Ⓜ</sup> 3LD9221-0A <sup>Ⓜ</sup> 3LD9251-0A <sup>Ⓜ</sup>	Terminal Cover 1P (Pack of 4) Terminal Cover 3P (Pack of 4) Terminal Cover 3P (Pack of 4)	25 & 32A 25 & 32A 63A



3LD9220-2C

### Accessories for Base Mounted 3LD2 Switches

3LD9200-5C <sup>Ⓜ</sup> 3LD9200-5CF <sup>Ⓜ</sup>	1 NO, 1 NC Aux. Contact 1 NO, 1 NC Aux. with Gold Plated Contacts	25-250A 25-250A
3LD9220-2C 3LD9250-2CA 3LD9280-2C 3LD9240-2C	Neutral/Ground Terminal Neutral/Ground Terminal Neutral/Ground Terminal Neutral/Ground Terminal	25 & 32A 63A 100 & 125A 160 & 250A
3LD9220-0C 3LD9250-0CA 3LD9280-0C 3LD9240-0C	4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF) 4th Pole (leading ON, lagging OFF)	25 & 32A 63A 100 & 125A 160 & 250A
3LD9224-1B <sup>Ⓜ</sup> 3LD9284-1B <sup>Ⓜ</sup> 3LD9224-3B <sup>Ⓜ</sup> 3LD9284-3B <sup>Ⓜ</sup>	Black Handle (4 hole mtg. no defeat) Black Handle (4 hole mtg. no defeat) Red/Yellow Handle (4 hole mtg. no defeat) Red/Yellow Handle (4 hole mtg. no defeat)	25 & 32A 63-125A 25 & 32A 63-125A
3LD9224-1D <sup>Ⓜ</sup> 3LD9284-1D <sup>Ⓜ</sup> 3LD9224-3D <sup>Ⓜ</sup> 3LD9284-3D <sup>Ⓜ</sup>	Black Handle (shaft mtg.) Black Handle (shaft mtg.) Red/Yellow Handle (shaft mtg.) Red/Yellow Handle (shaft mtg.)	25 & 32A 63-125A 25 & 32A 63-125A
3LD9221-2A <sup>Ⓜ</sup> 3LD9221-0A <sup>Ⓜ</sup> 3LD9251-0A <sup>Ⓜ</sup>	Terminal Cover 1P (Pack of 4) Terminal Cover 3P (Pack of 4) Terminal Cover 3P (Pack of 4)	25 & 32A 25 & 32A 63A



3LD9251-0A

<sup>Ⓜ</sup> Handles and line side terminal covers are supplied as standard with 3LD2 switches.

<sup>Ⓜ</sup> Add suffix 1 for a black or 3 for a red & yellow handle to the catalogue number (except 3LD2244-1TL53 & 3LD2213-1TL53). Handles are IP65 rated and are also listed by UL for Type 1, 4X and 12 applications.

<sup>Ⓜ</sup> Aux. contacts break about 30 Ms before and make about 3 Ms after main switch contacts.

Ratings	10A	6A	1.4A
at 120V AC			
at 240V AC			
at 480V AC			

<sup>Ⓜ</sup> Can be used as replacement handles on enclosed 3LD2 switches.

<sup>Ⓜ</sup> Base mounted switches with direct mount handles are also available (3LD2330-0TK1\_Ⓜ rated 160A and 3LD2430-0TK1\_Ⓜ rated 250).

# Disconnect Switches

## Compact Non-Fusible — Rotary and Toggle Individual Components

Selection

### Rotary and Toggle Switches

Catalogue Number	Switch Type	No. of Poles	Ampere Rating	Max AC Volt	AC Horsepower Ratings					
					115V		240V		480V	600V
					1Ø	1Ø	3Ø	3Ø	3Ø	
LBR3025	Rotary	3	25	480	¾	2	5	10	—	
LBR3025D <sup>②</sup>	Rotary	3	25	480	¾	2	5	10	—	
LBR3040 <sup>②</sup>	Rotary	3	40	600	2	3	7½	20	25	
LBR3060 <sup>②</sup>	Rotary	3	60	480	2	5	10	25	—	
LBR3080 <sup>②</sup>	Rotary	3	80	600	3	10	20	40	50	
LBR3100 <sup>②</sup>	Rotary	3	100	480	5	15	25	50	—	
LBR4040	Rotary	4	40	480	2	3	7½	20	—	
LBT3040	Toggle	3	40	600	2	3	7½	20	25	
LBT3060	Toggle	3	60	480	2	5	10	25	—	
LBT3080	Toggle	3	80	600	3	10	20	40	50	
LBT3100	Toggle	3	100	480	5	15	25	50	—	
LBT4040	Toggle	4	40	480	2	3	7½	20	—	



Standard Duty Rotary Switch Door Handles



Heavy Duty Rotary Switch Door Handle

### LBR Type Handles

Catalogue Number	Used on Rotary Switches	NEMA Type	Mounting	Marking	Colour	Cover Interlock Supplied	Padlockable
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#### Standard Duty

LBRH2 <sup>②</sup>	All	1	Door	ON/OFF	Black	No	No
LBRH3 <sup>②</sup>	All	1, 3R, 12, 4X	Door	O/I, ON/OFF	Black	Yes <sup>①</sup>	Yes
LBRH4 <sup>②</sup>	All	1, 3R, 12, 4X	Door	O/I, ON/OFF	Red/Yel	Yes <sup>①</sup>	Yes
LBRH9 <sup>②</sup>	All (Pistol Grip Type)	1, 3R, 12, 4X	Door	O/I, ON/OFF	Black	Yes	Yes
LBRH10 <sup>②</sup>	All (Pistol Grip Type)	1, 3R, 12, 4X	Door	O/I, ON/OFF	Red/Yel	Yes	Yes
LBRH5	25 Amps	1	Direct Mount	O/I	Black	—	Yes
LBRH6	3-Pole, 40-60 Amps	1	Direct Mount	O/I	Black	—	Yes
LBRH7	3-Pole, 80-100 Amps	1	Direct Mount	O/I	Black	—	Yes
LBRH8	4-Pole, 40-60 Amps	1	Direct Mount	O/I	Black	—	Yes

#### Heavy Duty

CFSH10B12	All	1, 3R, 12	Door	O/I, ON/OFF	Black	Yes	Yes
CFSH10R12	All	1, 3R, 12	Door	O/I, ON/OFF	Red/Yel	Yes	Yes

### LBR Type Rotary Shafts

Catalogue Number	Length - In. (mm)
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#### For Standard Duty Handles

LBR5040	1.57 (40)
LBR5050	1.97 (50)
LBR5055	2.17 (55)
LBR5080	3.15 (80)
LBR5120	4.72 (120)
LBR5180	7.09 (180)
LBR5305	12.00 (305)



Rotary Shafts



Rotary Switch Direct Mount Handles



Toggle Switch Cover Plates

#### For Heavy Duty Handles

CFSS5200H	7.9 (200)
CFSS5400H	15.7 (400)

### 25 Amp, 4th Pole

Used on Catalogue No	Catalogue Number
LBR3025	LBRP25
LBR3025D	LBRP25D

### Auxiliary Switch Kits

Used on Rotary Switch	Catalogue Number	Contact Arrangement
LBR3025	LBRA25 <sup>③④</sup>	1 NO & 1 NC
LBR3025D	LBRA25D <sup>③④</sup>	1 NO & 1 NC
LBR3040, LBR3060	LBRA1 <sup>③④</sup>	1 NO/1 NC with common point
LBR3080, LBR3100	LBRA2 <sup>③④</sup>	1 NO/1 NC with common point

### LBR Type Toggle Switch Cover Plate

Used on Toggle Switches	Catalogue Number
LBT3040, LBT3060	LBTCP1
LBT3080, LBT3100	LBTCP2
LBT4040	LBTCP3

### LBR Type Rotary Switch Door Mounting Kit (For use with LBRH3 & LBRH4 only)

Used on Rotary Switch	Catalogue Number
40-100 Amps	LBRD1

### LBR/LBT Neutral Kit<sup>⑤</sup>

Used with Catalogue Number	Catalogue Number
All	HF63CX

① No cover interlock defeat mechanism provided. To eliminate cover interlock, order additional catalogue number LBRDC1.

② LBRH2 is IP54 rated. All others are IP65.

③ Ratings

15.1A resistive at 250V AC max.  
.5A at 125V DC  
.25A at 250V DC  
.5 HP at 250V AC max.

④ Auxiliary switch contacts break about 30 Ms before and make about 3 Ms after main switch contacts.

⑤ Lug wire ranges:  
HF63CX — (1) #14-2 AWG 60/75°C Cu only

⑥ Only door mountable and for use with LBRH3 & 4 handles only.

⑦ For door mounting of 40-100A LBR switches use door mounting kit LBRD1 & LBRH3 or 4 handle.

# Disconnect Switches

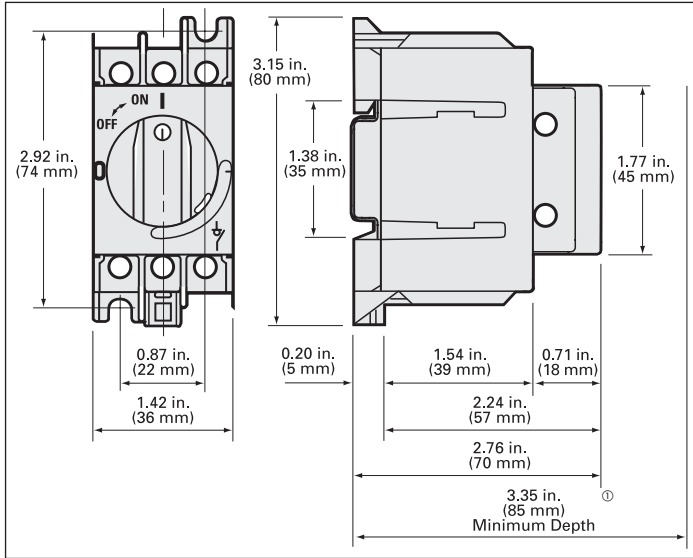
Compact Non-Fusible — Rotary and Toggle

Dimensions

Dimension Drawings and Wire Ranges

DISCONNECT SWITCHES

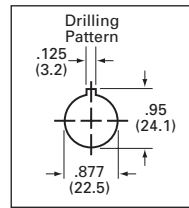
## LBR3025



### Wire Ranges 60/75°C Cu only

25 Amps LBR	(1) #14 - #10 AWG Solid (1) #14 - #8 AWG Stranded
40 & 60 Amps LBR & LBT	(1) #14 - #10 AWG Solid (1) #14 - #4 AWG Stranded Up to (4) #12 AWG Solid Up to (3) #12 AWG Stranded Up to (6) #14 AWG Stranded Up to (4) #14 AWG Stranded with (1) #10 AWG Stranded
80 & 100 Amps LBR & LBT	(1) #14 - #10 AWG Solid (1) #14 - #1 AWG Stranded (2) #6 AWG Stranded Up to (3) #8 AWG Stranded Up to (6) #10 AWG Stranded Up to (6) #12 AWG Solid
16A, 3LD20 25A, 3LD21 32A, 3LD22 63A, 3LD25 100, 125A, 3LD2 160, 250A, 3LD2	(1) #18-10 AWG (1) #14-8 AWG (1) #14-8 AWG (1) #14-6 AWG (1) #12-1 AWG (1) #1-400 MCM

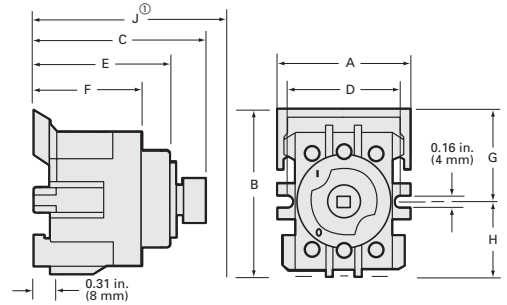
### Shaft Mounted 3LD2 Handle Cutout



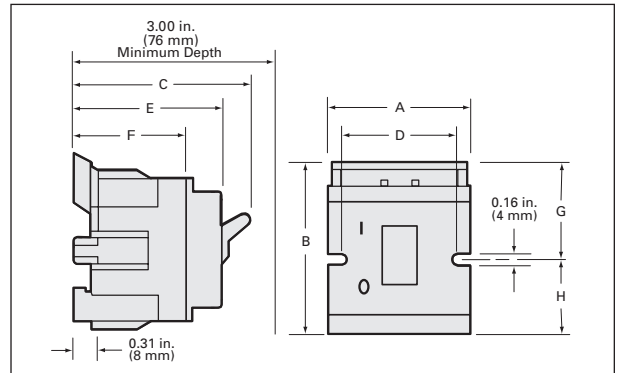
## LBR 40-100 Amps & 3LD2 16-250A

### Dimension J Minimum Depth<sup>①</sup> - Inches (mm)

Switch	Dimension J
LBR 40-100A	3.35 (85)
3LD2 25 & 32A Front Shaft Mounted	3.07 (78)
3LD2 63 Front Shaft Mounted	3.35 (85)
3LD2 16-32A Front 4-hole Mounted	2.13 (54)
3LD2 63A Front 4-hole Mounted	2.48 (63)
3LD2 100 & 125A Front 4-hole Mounted	2.56 (65)
3LD2 25 & 32A Base w/shaft Mtg. Handle	6.46 (164)
3LD2 63A Base w/shaft Mtg. Handle	6.77 (172)
3LD2 16-32A Base w/4-hole Mtg. Handle	5.59 (142)
3LD2 63A Base w/4-hole Mtg. Handle	5.99 (152)
3LD2 100-250A Base w/4-hole Mtg. Handle	6.07 (154)



## LBT Toggle — 40-100 Amps



Switch Type	Switch Catalog No.	Dimensions - Inches (mm)							
		A	B	C	D	E	F	G	H
Rotary	LBR3040	2.00 (51)	2.72 (69)	2.72 (69)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Rotary	LBR3060	2.00 (51)	2.72 (69)	2.72 (69)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Rotary	LBR3080	2.09 (53)	3.32 (84)	2.92 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Rotary	LBR3100	2.09 (53)	3.32 (84)	2.92 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Rotary	LBR4040	2.42 (61)	2.72 (69)	2.72 (69)	2.28 (58)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Rotary Front Mtg.	3LD20 <sup>②</sup>	1.89 (48)	1.97 (50)	1.97 (50)	—	—	—	—	—
Rotary Front Mtg.	3LD21 & 2 <sup>②</sup>	1.81 (46)	2.17 (55)	1.97 (50)	—	—	—	—	—
Rotary Front Mtg.	3LD25 <sup>②</sup>	2.36 (60)	2.52 (64)	2.32 (59)	—	—	—	—	—
Rotary Front Mtg.	3LD27 & 8 <sup>②</sup>	2.40 (61)	3.27 (83)	2.40 (61)	—	—	—	—	—
Rotary Base Mtg.	3LD20 <sup>②</sup>	1.89 (48)	1.97 (50)	2.29 (58)	—	—	—	—	—
Rotary Base Mtg.	3LD21 & 2 <sup>②</sup>	1.81 (46)	2.17 (55)	2.29 (58)	—	—	—	—	—
Rotary Base Mtg.	3LD25 <sup>②</sup>	2.36 (60)	2.52 (64)	2.68 (68)	—	—	—	—	—
Rotary Base Mtg.	3LD27 & 8 <sup>②</sup>	2.80 (71)	3.27 (83)	2.76 (70)	—	—	—	—	—
Rotary Base Mtg.	3LD23 & 4	4.41 (112)	5.83 (148)	4.10 (104)	—	—	—	—	—
Toggle	LBT3040	2.00 (51)	2.72 (69)	2.75 (70)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Toggle	LBT3060	2.00 (51)	2.72 (69)	2.75 (70)	1.78 (45)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)
Toggle	LBT3080	2.09 (53)	3.32 (84)	2.90 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Toggle	LBT3100	2.09 (53)	3.32 (84)	2.90 (74)	1.97 (50)	2.29 (58)	1.69 (42)	1.66 (42)	1.66 (42)
Toggle	LBT4040	2.42 (61)	2.72 (69)	2.75 (70)	2.28 (58)	2.16 (55)	1.67 (42)	1.50 (38)	1.22 (31)

① Depth from outside of cover to back of switch.

② Handle front plate dimensions:  
 3LD 16-32A—2.64 inches square  
 3LD 63-125—3.55 inches square