

# Switches

## Disconnect Switches

### Compact Non-Fusible — Rotary and Toggle

#### Features

- 25 -125 Ampere, to 75 hp 480V and 600V
- Rotary and Toggle actuation models
- LBR Type switches are padlockable in the OFF position and are UL & CUL listed under File No. E191706 as manual motor controllers per UL Standard UL508
- 3LD2 Type switches are padlockable in the OFF position and are UL listed under File No. E47705 per UL508 and are CSA certified under File No. 203576
- 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.

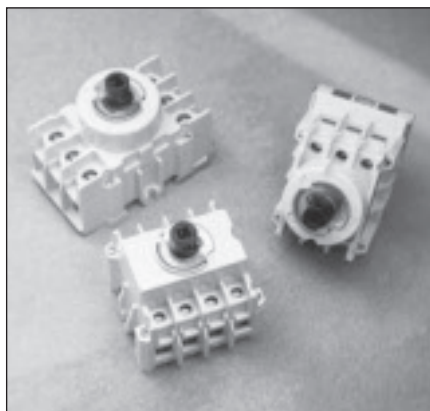
**Individual Components** are ordered as follows:

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

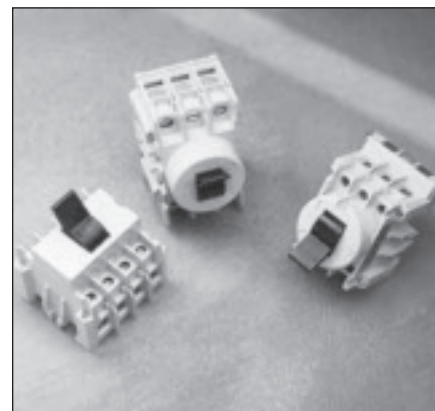
**40–100A** — LBR switch + LBRH3 or 4 handle + LBRD1.

Notes: (LBR Type switches only)

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



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.

#### 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 Fuses

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.

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

Shaft Mounted		4 Hole Mounted		Number of Poles	Ampere Rating	AC Horsepower Ratings				
Catalog Number <sup>③</sup>	List Price \$	Catalog Number <sup>③</sup>	List Price \$			120V 1Ø	240V 1Ø 3Ø	480V 3Ø	600V 3Ø	
—	—	3LD2003-1TP53 <sup>①</sup>		3	16	½	1½	3	7½	10
3LD2154-0TK__		3LD2103-0TK__		3	25	2	3	7½	10	15
3LD2154-1TP__		3LD2103-1TP__		3 <sup>①</sup>						
3LD2154-1TL__		3LD2103-1TL__		3 + N						
3LD2154-2EP__		3LD2103-2EP__		3 + N <sup>①</sup>						
3LD2254-0TK__		3LD2203-0TK__		3	32	2	3	10	20	20
3LD2254-1TL__		3LD2203-1TL__		3 + N						
3LD2555-0TK__		3LD2504-0TK__		3	63	—	10	15	40	50
—	—	3LD2704-0TK__		3	100	—	—	30	60	75
—	—	3LD2804-0TK__		3	125	—	—	40	75	100

■ Built to order. Allow 6–8 weeks for delivery.

① 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.

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

### 3LD Type Base Mounted Complete Assemblies (Operator, Shaft, & Switch) 600V AC Max.②

Handle mounting <sup>②</sup>						Number of Poles	Ampere Rating	AC Horsepower Ratings				
Shaft (center hole)		4 Hole (no defeat)		4 Hole (with defeat)				120V	240V	480V	600V	
Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$	1Ø	1Ø	3Ø	3Ø	3Ø		
—	—	3LD2103-0TK5_	—	3LD2017-0TK1_	—	3	16	1/2	1 1/2	3	7 1/2	10
—	—	—	—	3LD2017-1TL1_	—	3 + N	—	—	—	—	—	—
3LD2144-0TK5_	—	3LD2113-0TK5_	—	—	—	3	25	2	3	7 1/2	10	15
3LD2144-1TL5_	—	3LD2113-1TL5_	—	—	—	3 + N	—	—	—	—	—	—
3LD2244-0TK5_	—	3LD2213-0TK5_	—	3LD2217-0TK1_	—	3	32	2	3	10	20	20
3LD2244-1TL53	—	3LD2213-1TL53	—	3LD2217-1TL1_	—	3 + N	—	—	—	—	—	—
3LD2545-0TK5_	—	3LD2514-0TK5_	—	3LD2517-0TK1_	—	3	63	—	10	15	40	50
—	—	—	—	3LD2517-1TL1_	—	3 + N	—	—	—	—	—	—
—	—	3LD2714-0TK5_	—	—	—	3	100	—	—	30	60	75
—	—	3LD2814-0TK5_	—	—	—	3	125	—	—	40	75	100

Note: Shaft length allows a maximum depth from switch mounting surface to the outside of the cover of 15.25" on 25 & 32A switches and of 15.75" on 63-125A switches.



3LD2217-0TK13

### Accessories for Front Mounted 3LD2 Switches

Catalog Number	Description	Switches Used With	List Price \$
3LD9200-5B <sup>③</sup>	1 NO, 1 NC Aux. Contact	25-125A	
3LD9200-5BF <sup>③</sup>	1 NO, 1 NC Aux. with Gold Plated Contacts	25-125A	
3LD9220-2B	Neutral/Ground Terminal	25 & 32A	
3LD9250-2BA	Neutral/Ground Terminal	63A	
3LD9280-2B	Neutral/Ground Terminal	100 & 125A	
3LD9220-0B	4th Pole (leading ON, lagging OFF)	25 & 32A	
3LD9250-0BA	4th Pole (leading ON, lagging OFF)	63A	
3LD9280-0B	4th Pole (leading ON, lagging OFF)	100 & 125A	
3LD9224-1B <sup>①</sup>	Black Handle (4 hole mtg.)	25 & 32A	
3LD9284-1B <sup>①</sup>	Black Handle (4 hole mtg.)	63-125A	
3LD9224-3B <sup>①</sup>	Red/Yellow Handle (4 hole mtg.)	25 & 32A	
3LD9284-3B <sup>①</sup>	Red/Yellow Handle (4 hole mtg.)	63-125A	
3LD9224-1D <sup>①</sup>	Black Handle (shaft mtg.) <sup>④</sup>	25 & 32A	
3LD9284-1D <sup>①</sup>	Black Handle (shaft mtg.) <sup>④</sup>	63-125A	
3LD9224-3D <sup>①</sup>	Red/Yellow Handle (shaft mtg.) <sup>④</sup>	25 & 32A	
3LD9284-3D <sup>①</sup>	Red/Yellow Handle (shaft mtg.) <sup>④</sup>	63-125A	
3LD9221-2A <sup>①</sup>	Terminal Cover 1P (Pack of 4)	25 & 32A	
3LD9251-2A <sup>①</sup>	Terminal Cover 1P (Pack of 4)	63A	
3LD9281-2A <sup>①</sup>	Terminal Cover 1P (Pack of 4)	100-125A	
3LD9221-0A <sup>①</sup>	Terminal Cover 3P (Pack of 4)	25 & 32A	
3LD9251-0A <sup>①</sup>	Terminal Cover 3P (Pack of 4)	63A	



3LD9220-2C

### Accessories for Base Mounted 3LD2 Switches

Catalog Number	Description	Switches Used With	List Price \$
3LD9200-5C <sup>③</sup>	1 NO, 1 NC Aux. Contact	25-125A	
3LD9200-5CF <sup>③</sup>	1 NO, 1 NC Aux. with Gold Plated Contacts	25-125A	
3LD9220-2C	Neutral/Ground Terminal	25 & 32A	
3LD9250-2CA	Neutral/Ground Terminal	63A	
3LD9280-2C	Neutral/Ground Terminal	100 & 125A	
3LD9220-0C	4th Pole (leading ON, lagging OFF)	25 & 32A	
3LD9250-0CA	4th Pole (leading ON, lagging OFF)	63A	
3LD9280-0C	4th Pole (leading ON, lagging OFF)	100 & 125A	
3LD9224-1B <sup>①</sup>	Black Handle (4 hole mtg. no defeat)	25 & 32A	
3LD9284-1B <sup>①</sup>	Black Handle (4 hole mtg. no defeat)	63-125A	
3LD9224-3B <sup>①</sup>	Red/Yellow Handle (4 hole mtg. no defeat)	25 & 32A	
3LD9284-3B <sup>①</sup>	Red/Yellow Handle (4 hole mtg. no defeat)	63-125A	
3LD9224-1D <sup>①</sup>	Black Handle (shaft mtg.)	25 & 32A	
3LD9284-1D <sup>①</sup>	Black Handle (shaft mtg.)	63-125A	
3LD9224-3D <sup>①</sup>	Red/Yellow Handle (shaft mtg.)	25 & 32A	
3LD9284-3D <sup>①</sup>	Red/Yellow Handle (shaft mtg.)	63-125A	
3LD9221-2A <sup>①</sup>	Terminal Cover 1P (Pack of 4)	25 & 32A	
3LD9251-2A <sup>①</sup>	Terminal Cover 1P (Pack of 4)	63A	
3LD9281-2A <sup>①</sup>	Terminal Cover 1P (Pack of 4)	100-125A	
3LD9221-0A <sup>①</sup>	Terminal Cover 3P (Pack of 4)	25 & 32A	
3LD9251-0A <sup>①</sup>	Terminal Cover 3P (Pack of 4)	63A	



3LD9251-0A

① Handles and line side terminal covers are supplied as standard with 3LD2 switches.

② Add suffix 1 for a black or 3 for a red & yellow handle to the catalog number (except 3LD2244-1TL53 & 3LD2213-1TL53). Handles are IP65 rated and are also listed by UL for Type 1, 4X and 12 applications.

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

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

④ Can be used as replacement handles on enclosed 3LD2 switches.

# Switches

## Disconnect Switches

### Compact Non-Fusible — Rotary and Toggle

#### Individual Components

#### Rotary and Toggle Switches

Catalog Number	Switch Type	No. of Poles	Ampere Rating	Max AC Volt	AC Horsepower Ratings					List Price \$	
					115V		240V		480V		600V
					1Ø	3Ø	1Ø	3Ø	3Ø		3Ø
LBR3025	Rotary	3	25	480	¾	2	5	10	—		
LBR3025D <sup>⑥</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

Catalog Number	Used on Rotary Switches	NEMA Type	Mounting	Marking	Color	Cover Interlock Supplied	Padlockable	List Price \$
<b>Standard Duty</b>								
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	
<b>Heavy Duty</b>								
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

Catalog No	Length In. (mm)	List Price \$
<b>For Standard Duty Handles</b>		
LBR040	1.57 (40)	
LBR050	1.97 (50)	
LBR055	2.17 (55)	
LBR080	3.15 (80)	
LBR120	4.72 (120)	
LBR180	7.09 (180)	
LBR305	12.00 (305)	
<b>For Heavy Duty Handles</b>		
CFSS200H	7.9 (200)	
CFSS400H	15.7 (400)	



Rotary Shafts



Rotary Switch Direct Mount Handles



Toggle Switch Cover Plates

#### 25 Amp, 4th Pole

Used on Catalog No	Catalog No	List Price \$
LBR3025	LBRP25	
LBR3025D	LBRP25D	

#### Auxiliary Switch Kits

Used on Rotary Switch	Catalog Number	Contact Arrangement	List Price \$
LBR3025	LBRA25 <sup>④</sup>	1 NO & 1 NC	
LBR3025D	LBRA25D <sup>④</sup>	1 NO & 1 NC	
LBR3040, LBR3060	LBRA1 <sup>④</sup>	1 NO/1 NC with common point	
LBR3080, LBR3100	LBRA2 <sup>④</sup>	1 NO/1 NC with common point	

#### LBR Type Toggle Switch Cover Plate

Used on Toggle Switches	Catalog Number	List Price \$
LBT3040, LBT3060 LBT3080, LBT3100 LBT4040	LBTCP1 LBTCP2 LBTCP3	

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

Used on Rotary Switch	Catalog Number	List Price \$
40-100 Amps	LBRD1	

#### LBR/LBT Neutral Kit<sup>⑤</sup>

Used with Catalog Number	Catalog Number	List Price \$
All	HF63CX	

① No cover interlock defeat mechanism provided. To eliminate cover interlock, order additional catalog 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.

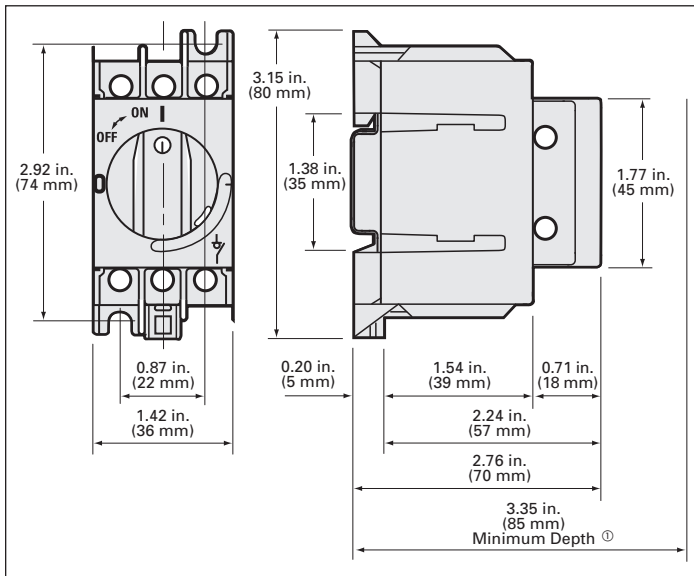
⑤ Lug wire ranges:

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.

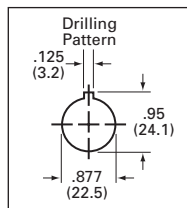
### Dimension Drawings and Wire Ranges



LBR 3025

### Wire Ranges 60/75°C Cu only

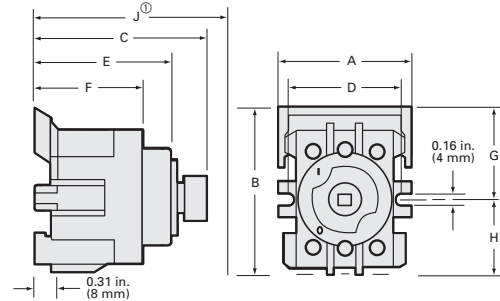
25 Amps LBR	(1) #14 - #10 AWG Solid (1) #14 - #8 AWG Stranded
40 & 60 Amps LBR & LBT	(1) #14 - #10 AWG Solid (1) #14 - #4 AWG Stranded Up to (4) #12 AWG Solid Up to (3) #12 AWG Stranded Up to (6) #14 AWG Stranded Up to (4) #14 AWG Stranded with (1) #10 AWG Stranded
80 & 100 Amps LBR & LBT	(1) #14 - #10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



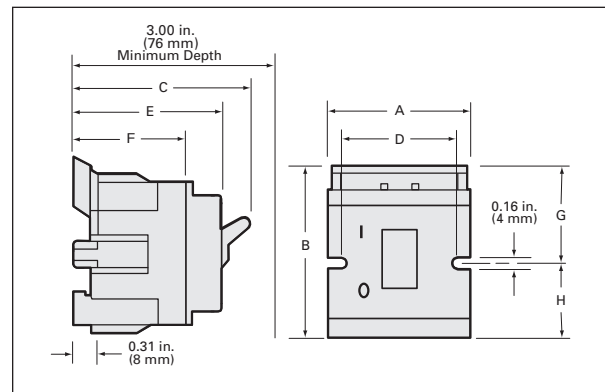
Shaft Mounted 3LD2 Handle Cutout

### Dimension J Minimum Depth<sup>①</sup>

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 25 & 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 25 & 32A Base w/4-hole Mtg. Handle	5.59 (142)
3LD2 63A Base w/4-hole Mtg. Handle	5.99 (152)
3LD2 100 & 125A Base w/hole Mtg. Handle	6.07 (154)



LBR 40-100 Amps & 3LD2 25-125A



LBT Toggle — 40-100 Amps

Switch Type	Switch Catalog Number	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.	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	2.40 (61)	3.27 (83)	2.40 (61)	—	—	—	—	—
Rotary Base Mtg.	3LD21 & 2	1.81 (46)	2.17 (55)	2.29 (58)	—	—	—	—	—
Rotary Base Mtg.	3LD25	2.36 (60)	2.52 (64)	2.68 (68)	—	—	—	—	—
Rotary Base Mtg.	3LD27 & 8	2.80 (71)	3.27 (83)	2.76 (70)	—	—	—	—	—
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:  
3LD21 & 2—2.64 inches square  
3LD25, 7 & 8—3.55 inches square