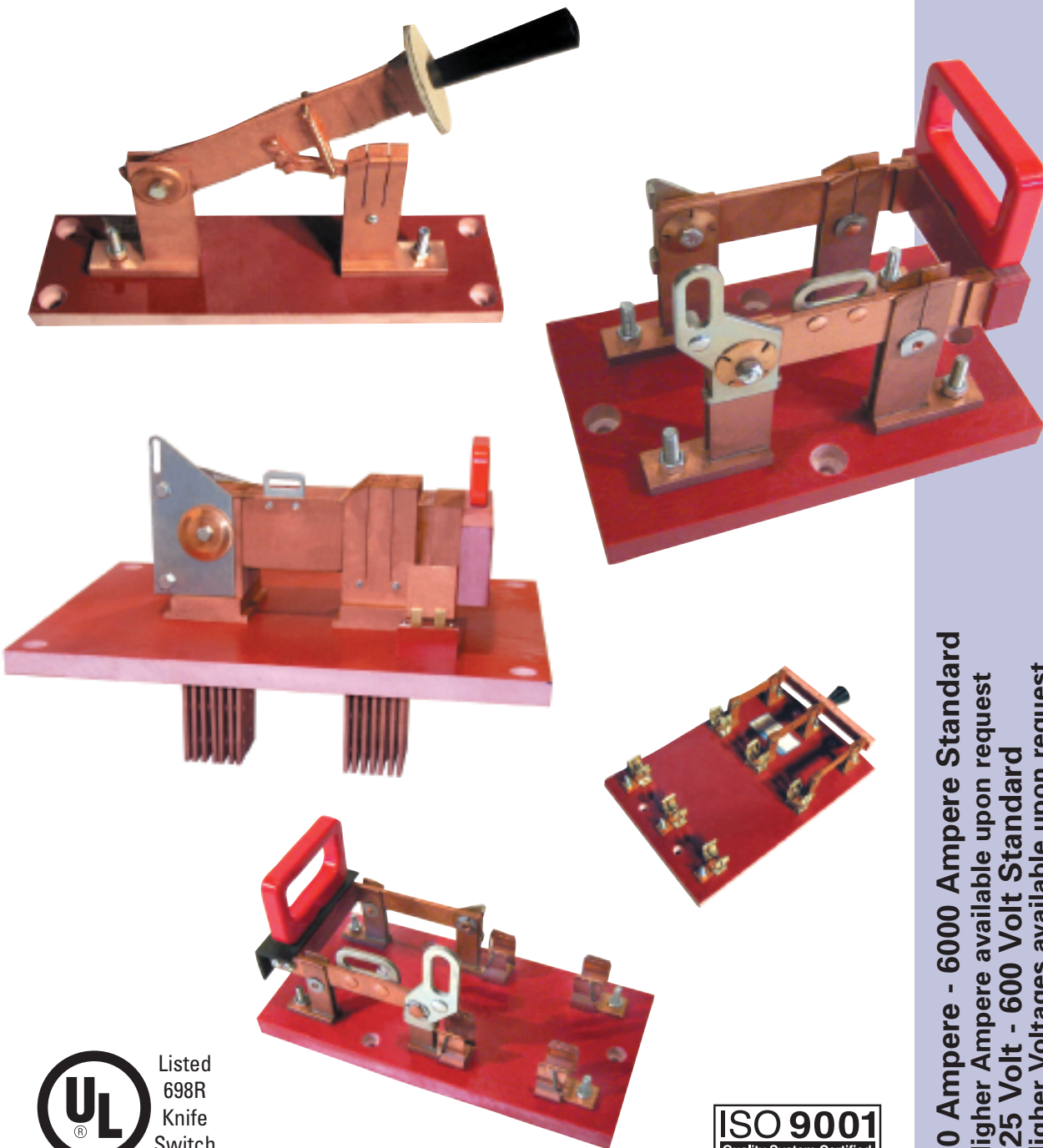




## Knife Switch Product Catalog



Listed  
698R  
Knife  
Switch

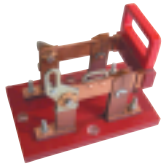


**30 Ampere - 6000 Ampere Standard**  
Higher Ampere available upon request  
**125 Volt - 600 Volt Standard**  
Higher Voltages available upon request

# Knife Switches



## Knife Switch Product Catalog



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**SECTION B - Class 9851 - TYPE D - Back Connected Knife Switches**



**SECTION C - Class 9852 - TYPE L - Back Connected Knife Switches**



**SECTION D - Class 9854 - TYPE B - Fuse Blocks**



**SECTION E - Dimensional Information**



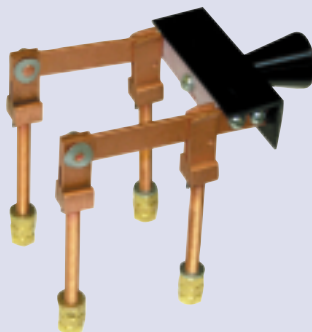
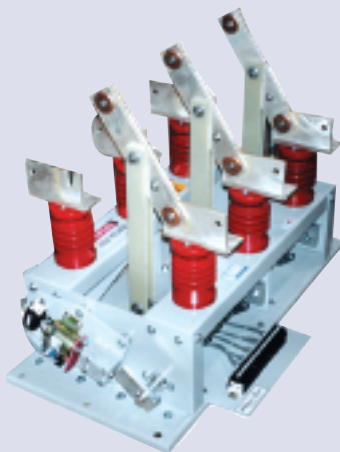
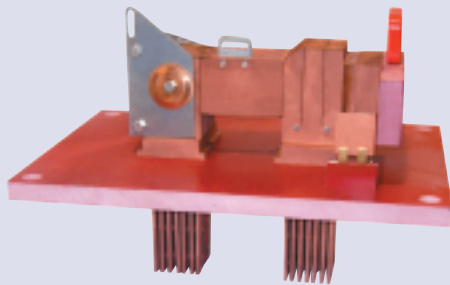
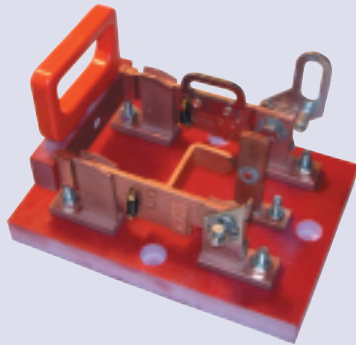
**SECTION F - Maintenance and Installation**



**30 Ampere - 6000 Ampere Standard**  
Higher Ampere available upon request  
**125 Volt - 600 Volt Standard**  
Higher Voltages available upon request

# Knife Switches

## KNIFE SWITCH PRODUCT INTRODUCTION



Filnor's Knife Switch product line was purchased from the Square D Company in 1974, and began production of switches in June of that year. The switch line was formerly the Barkelew Electric Company.

We have over 700 standard switches listed in our catalog. The electrical ratings on the switches range from 30 Amperes at 125 Volts AC/DC to 6000 Amperes at 600 Volts AC/DC. Construction styles are a front-connected (steel panel mounting) or back-connected (insulated panel mounting). All of these switches carry the Underwriters Laboratories Listing.

In conjunction with the standard switch line, we also build many special switch arrangements per our customers' specification. Our special switch units range in current size from 30 Amperes up through 20,000 Amperes, and Voltages up to 38,000 Volts.

Filnor is a switch supplier to a number of different industries such as transportation, utility, telecommunications, and heavy industry just to name a few. Our industry coverage lies from the large steel producers to the small marine diving companies.

With our many years of experience building standard and special switch units, Filnor is highly capable of fulfilling your switch needs.





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# **Class 9852 Back Connected Knife Switches Type L With Bus Bar Laminations For Terminations**

---

## **ORDERING INFORMATION REQUIRED**

1. Class, Type Number, and Part Letters (if any) of Switch.
2. Voltage and Ampere Rating.
3. Special direction of laminations of the terminal studs, if other than all horizontal.
4. If special features other than listed in Section L4 of the Price List are desired, order as Class 9852 similar to Type \_\_\_\_\_, Part # \_\_\_\_\_, except \_\_\_\_\_ (clearly describe special feature).

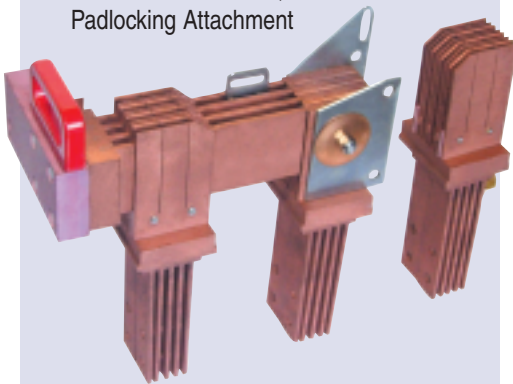
**SECTION C**

Receive Quotes Online

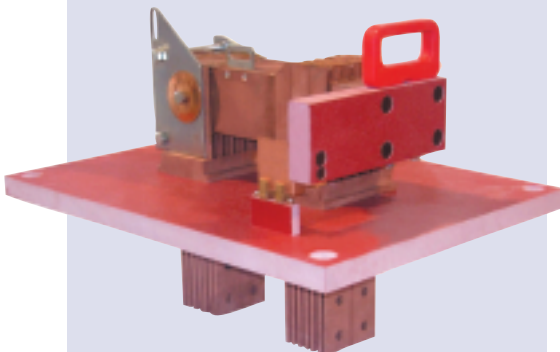
**TYPE L BACK-CONNECTED KNIFE SWITCHES**

**L-9355**

4000 Ampere, One Pole, Double-Throw Switch, With Padlocking Attachment

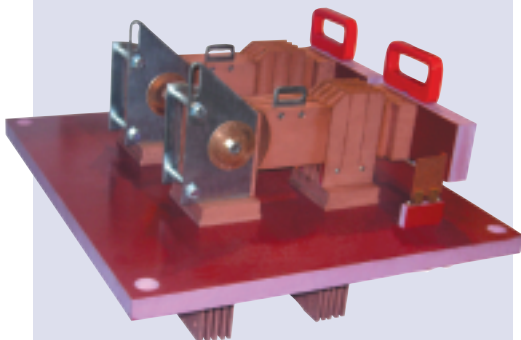


4000 Ampere, Single Pole, Single-Throw With Padlocking Attachment 90° Stops & Knife Type auxiliary Switch



**Special Design Switch**

4000 Ampere, 1500 V, Two Pole, Single Throw Switch, Padlocking Feature.



**Type L Back-Connected Knife Switches**

Type L Laminated Stud Switches are made in capacities of 800 ampere and larger, and are designed as isolation or disconnect switches. Designed for heavy-duty service on switchboards or individual panels, these switches comply with all requirements of the National Electric Code. auxiliary switches can be supplied if required.

For factory mounting on GPO-3 or other insulating panels, prices will be quoted on receipt of panel sizes and full information. Switches available 800 ampere through 6000 ampere on Standard design. Special designs available.

**Polarity Reversing Switches**

Another version of the Type L Knife Switch is the Polarity Reversing Switch. As shown in the illustration, this switch is two-pole, double throw. The cross-connections are used to provide the reversing action, and are made of copper bus mounted on the back of the switch. Back connections are made to horizontal laminated studs.

Due to the compactness of the switch, the terminals are available only in the horizontal direction. Standard designs for low voltage, while special designs available in higher voltages.

**SPARE PARTS**

Spare parts are available for all knife switches and fuse clips. Accessories are also available for adding to knife switches.

**SPECIAL SWITCHES**

Special designs are available. We may already have a design for what you require, if not our engineering department will investigate and inform you if we can build it. Please contact Filnor directly for your special switch requirements.

**Standard Knife Switches are designed to Underwriters Laboratories Standard U.L. 363 and are listed as**

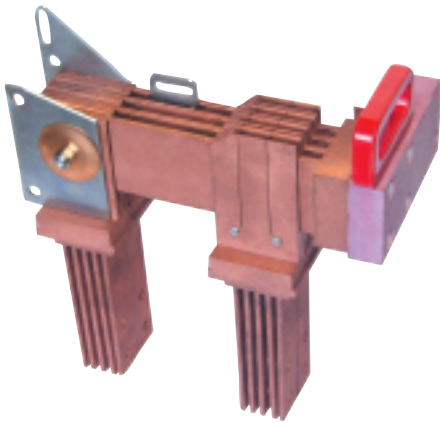


Listed  
698R  
Knife  
Switch

## TYPE L BACK-CONNECTED KNIFE SWITCHES Single-Throw, Not Fusible

### L-8155 P2E

4000 Ampere, One Pole, Single-Throw Switch, With Padlocking Attachment and Spade Handle



800 and 1200 Ampere 1 1/4"  
1600 - 3000 Ampere 1 1/2"  
4000 - 6000 Ampere 2"

Type L Laminated Stud Switches are made in capacities of 800 ampere and larger, and are designed as isolation or disconnect switches. Designed for heavy-duty service on switchboards or individual panels, these switches comply with all requirements of the National Electric Code.

Ampere ratings are based on a temperature rise of not over 30° C above an ambient of 40° C. Current carrying parts of rugged milled construction are made from hard drawn copper of 98% conductivity. Hinge clips and stud leaves are solidly pinned and soldered into slots milled in the base blocks.

All Type L switches are furnished unmounted as standard, but are shipped on throw away bases with all contacts fitted. When mounting on permanent panels, the parts must be carefully aligned to secure best performance. For factory mounting on GPO-3 or other insulating panels, prices will be quoted on receipt of panel sizes and full information.

Horizontal laminations of the studs are furnished as standard on the switches listed on this page. Direction of laminations can be furnished all vertical or part vertical and part horizontal to suit

customers' bus or cable arrangements. Assuming the switch to be mounted with the blades vertical, the direction of the laminated terminals must be specified for both single and double-throw switches, if other than all horizontal.

The customer's bus structure must be designed with adequate capacity to prevent feeding heat into the switch. On AC bus allowance must be made for skin effect, inductive heating and magnetic effects on nearby ferrous metal parts. When mounting in enclosures, adequate ventilation must be provided.

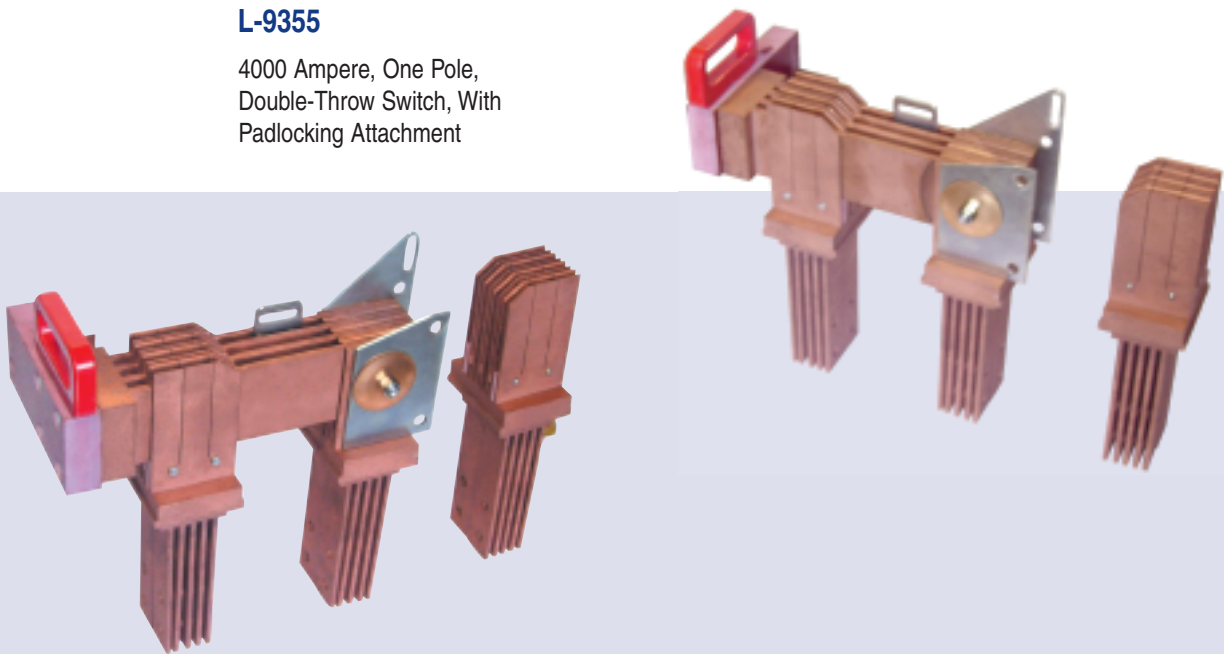
Switches listed below are manufactured to be mounted on customers' panel of the following thickness.

Ampere Rating		One Pole			Two Pole			Three Pole		
DC	AC	Type	Weight	Drawing	Type	Weight	Drawing	Type	Weight	Drawing
<b>250 VOLT DC &amp; 480 VOLT AC SINGLE-THROW</b>										
800	800	L-8317	10	Refer to Section E Figure 20	L-8327	21	Refer to Section E Figure 20	L-8337	32	Refer to Section E Figure 20
1200	1200	L-8319	15		L-8329	32		L-8339	48	
1600	1600	L-8151	22		L-8161	43		L-8171	63	
2000	1900	L-8152	35		L-8162	67		L-8172	92	
2500	2300	L-8153	64		L-8163	105		L-8173	160	
3000	2700	L-8154	68		L-8164	115		L-8174	180	
4000	3000	L-8155	86		L-8165	142		L-8175	210	
5000	-	L-8156	99		L-8166	198		L-8176	250	
6000	-	L-8157	115		L-8167	230		L-8177	340	
<b>600 VOLT DC &amp; AC SINGLE-THROW</b>										
800	800	L-8358	11	Refer to Section E Figure 20	L-8368	23	Refer to Section E Figure 20	L-8378	35	Refer to Section E Figure 20
1200	1200	L-8359	16		L-8369	34		L-8379	52	
1600	1600	L-8351	23		L-8361	47		L-8371	71	
2000	1900	L-8352	37		L-8362	76		L-8372	115	
2500	2300	L-8353	66		L-8363	134		L-8373	202	
3000	2700	L-8354	70		L-8364	142		L-8374	214	
4000	3000	L-8355	89		L-8365	180		L-8375	271	
5000	-	L-8356	103		L-8366	208		L-8376	313	
6000	-	L-8357	120		L-8367	242		L-8377	362	

## TYPE L BACK-CONNECTED KNIFE SWITCHES Double-Throw, Not Fusible

### L-9355

4000 Ampere, One Pole,  
Double-Throw Switch, With  
Padlocking Attachment



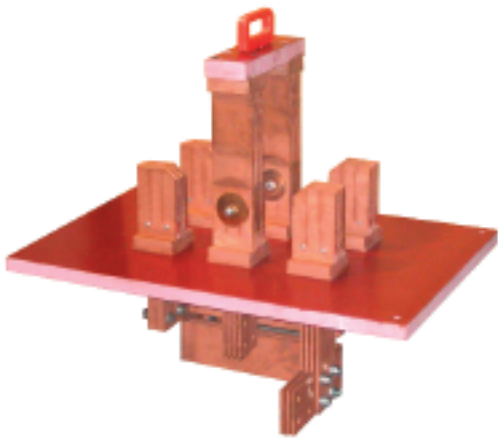
Ampere Rating		One Pole			Two Pole			Three Pole		
DC	AC	Type	Weight	Drawing	Type	Weight	Drawing	Type	Weight	Drawing
<b>250 VOLT DC &amp; 480 VOLT AC DOUBLE-THROW</b>										
800	800	L-9317	14	Refer to Section E Figure 20	L-9327	29	Refer to Section E Figure 20	L-9337	45	Refer to Section E Figure 20
1200	1200	L-9319	22		L-9329	46		L-9339	70	
1600	1600	L-9151	34		L-9161	80		L-9171	96	
2000	1900	L-9152	53		L-9162	110		L-9172	140	
2500	2300	L-9153	90		L-9163	170		L-9173	240	
3000	2700	L-9154	98		L-9164	188		L-9174	265	
4000	3000	L-9155	120		L-9165	216		L-9175	300	
5000	-	L-9156	150		L-9166	280		L-9176	360	
6000	-	L-9157	172		L-9167	345		L-9177	520	
<b>600 VOLT DC &amp; AC DOUBLE-THROW</b>										
800	800	L-9318	15	Refer to Section E Figure 20	L-9328	31	Refer to Section E Figure 20	L-9338	48	Refer to Section E Figure 20
1200	1200	L-9320	23		L-9330	48		L-9340	74	
1600	1600	L-9351	35		L-9361	72		L-9371	107	
2000	1900	L-9352	55		L-9362	114		L-9372	167	
2500	2300	L-9353	92		L-9363	175		L-9373	280	
3000	2700	L-9354	100		L-9364	193		L-9374	302	
4000	3000	L-9355	123		L-9365	248		L-9375	371	
5000	-	L-9356	154		L-9366	310		L-9376	466	
6000	-	L-9357	177		L-9367	365		L-9377	536	



**TYPE L BACK-CONNECTED KNIFE SWITCHES**

**L-2165**

1600 Ampere, Two Pole,  
Polarity Reversing Switch



**Polarity Reversing Switches**

Another version of the Type L Knife switch is the polarity reversing switch. As shown in the image to the left, the switch is two pole, double-throw. The cross connections used to give the reversing action are made of copper bus mounted on the back of the switch.

Back connections are made to horizontal laminated studs. Due to the compactness of the switch, the terminals are available only in the horizontal direction.

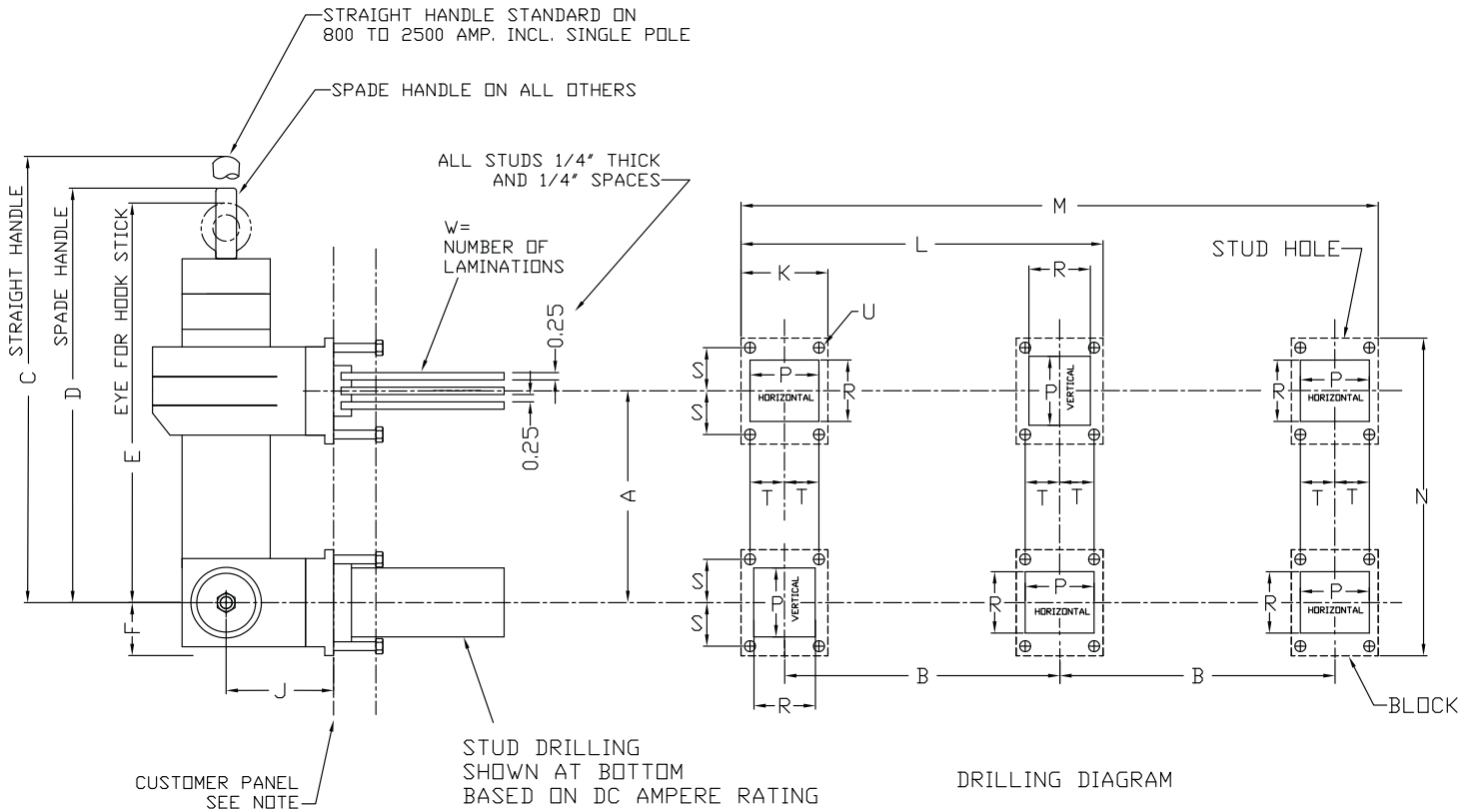
Ampere Rating	Type	Base Size (HxW)
800	L-2160	27 x 18 x 1 1/4"
1200	L-2161	24 x 20 x 1 1/4"
1600	L-2162	28 x 20 x 1 1/2"
2000	L-2163	35 x 20 x 1 1/2"
2500	L-2164	36 x 24 x 1 1/2"
3000	L-2165	36 x 24 x 1 1/2"
4000	L-2166	36 x 24 x 2"
5000	L-2167	38 x 24 x 2"
6000	L-2168	38 x 24 x 2"

15 Volts DC maximum.

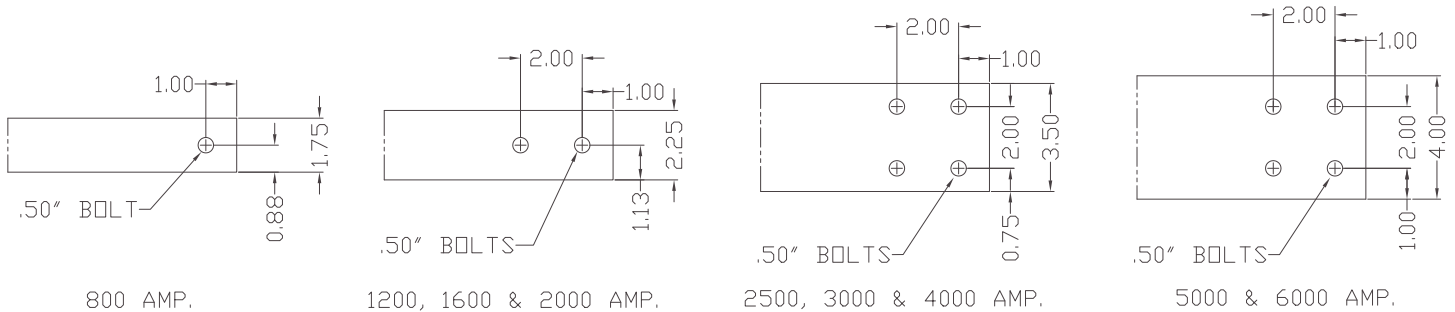
**FOR MODIFICATIONS AND SPECIAL FEATURES REFER TO SECTION L-4 OF PRICE LIST**

## TYPE L BACK-CONNECTED KNIFE SWITCHES Single or Double-Throw, Not Fusible

**NOT FOR CONSTRUCTION UNLESS ENDORSED**



### STUD DRILLING BASED ON DC AMPERE RATING



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# KNIFE SWITCHES

## TYPE L BACK-CONNECTED KNIFE SWITCHES Single or Double-Throw, Not Fusible

NOT FOR CONSTRUCTION UNLESS ENDORSED

250 VOLT DC & 480 VOLT AC																				
Ampere Rating		A	B	C*	D	E*	F	G	H	J	K	L	M	N	P	R	S	T	U	W
DC	AC																			
800	800	5 5/8	5 3/8	12 5/8	13 1/8	10 1/2	1 3/8	4 7/8	6	3	2 1/8	7 1/2	12 7/8	8 3/8	1 7/8	1 1/4	1	3/4	3/8	2
1200	1200	5 1/8	6 3/8	11 1/2	11 3/4	9 3/8	1 1/16	4 1/16	7	2 11/16	3 1/8	9 1/2	15 7/8	7 1/4	1 7/8	1 7/8	11/16	1 1/4	3/8	3
1600	1600	5 5/8	6 3/8	13 3/8	13 1/2	10 3/4	1 3/8	5 1/8	8	3 1/4	3 1/8	9 1/2	15 7/8	8 3/8	2 3/8	1 7/8	1 1/16	1 1/4	3/8	3
2000	1900	7	6 1/2	15 3/4	16 1/4	13 1/8	1 7/8	7 1/8	8 1/2	4 1/2	3	9 1/2	16	10 3/4	2 3/8	2 3/8	1 1/2	1 3/16	3/8	4
2500	2300	7 1/4	6 1/2	16 1/4	16 3/4	14 1/8	2	7 3/16	8 1/2	4 9/16	4	11 1/2	19	11 1/4	3 5/8	2 1/8	1 1/2	1 1/2	7/16	3
3000	2700	7 1/4	7 1/2	16 1/4	16 3/4	14 1/8	2	7 3/16	8 1/2	4 9/16	4	11 1/2	19	11 1/4	3 5/8	2 5/8	1 9/16	1 9/16	7/16	4
4000	3000	7 1/4	8 1/4	16 3/4	17 1/4	14 3/8	2	7 3/16	8 1/2	4 9/16	4 3/4	13	21 1/4	11 1/4	3 5/8	3 1/8	1 1/2	2 1/16	7/16	5
5000	-	7 3/4	9 3/8	18 1/4	17 3/4	15 1/4	2 1/4	7 3/16	8 1/2	4 9/16	5 7/8	15 1/4	24 5/8	12 1/4	4 1/8	3 5/8	1 1/2	2 9/16	9/16	6
6000	-	7 3/4	9 3/8	18 1/4	17 3/4	15 1/4	2 1/4	7 3/16	8 1/2	4 9/16	5 7/8	15 1/4	24 5/8	12 1/4	4 1/8	4 1/8	1 1/2	2 9/16	9/16	7

600 VOLT DC & AC																				
Ampere Rating		A	B	C*	D	E*	F	G	H	J	K	L	M	N	P	R	S	T	U	W
DC	AC																			
800	800	6 7/8	6 7/8	13 7/8	14 3/8	11 3/4	1 3/8	4 7/8	6	3	2 1/8	9	15 7/8	9 5/8	1 7/8	1 1/4	1	3/4	3/8	2
1200	1200	6 3/8	7 7/8	12 3/4	13	10	1 1/16	4 1/16	7	2 11/16	3 1/8	11	18 7/8	8 1/2	1 7/8	1 7/8	11/16	1 1/4	3/8	3
1600	1600	6 7/8	7 7/8	14 5/8	14 3/4	12	1 3/8	5 1/8	8	3 1/4	3 1/8	11	18 7/8	9 5/8	2 3/8	1 7/8	1 1/16	1 1/4	3/8	3
2000	1900	8 1/4	8	17	17 1/2	14 3/8	1 7/8	7 1/8	8 1/2	4 1/2	3	11	19	12	2 3/8	2 3/8	1 1/2	1 3/16	3/8	4
2500	2300	8 1/2	9	17 1/2	18	15 3/8	2	7 3/16	8 1/2	4 9/16	4	13	22	12 1/2	3 5/8	2 1/8	1 1/2	1 1/2	7/16	3
3000	2700	8 1/2	9	17 1/2	18	15 3/8	2	7 3/16	8 1/2	4 9/16	4	13	22	12 1/2	3 5/8	2 5/8	1 9/16	1 9/16	7/16	4
4000	3000	8 1/2	9 3/4	18	18 1/2	15 5/8	2	7 3/16	8 1/2	4 9/16	4 3/4	14 1/2	24 1/4	12 1/2	3 5/8	3 1/8	1 1/2	2 1/16	7/16	5
5000	-	9	10 7/8	19 1/2	19	16 1/2	2 1/4	7 3/16	8 1/2	4 9/16	5 7/8	16 3/4	27 5/8	13 1/2	4 1/8	3 5/8	1 1/2	2 9/16	9/16	6
6000	-	9	10 7/8	19 1/2	19	16 1/2	2 1/4	7 3/16	8 1/2	4 9/16	5 7/8	16 3/4	27 5/8	13 1/2	4 1/8	4 1/8	1 1/2	2 9/16	9/16	7

\*C and \*E dimensions are for Single Pole only.

NOTE: Switches are manufactured to be mounted on customers' panels of the following thickness:

- 800 and 1200 Ampere 1 1/4"
- 1600 - 3000 Ampere 1 1/2"
- 4000 - 6000 Ampere 2"

FOR MODIFICATIONS AND SPECIAL FEATURES REFER TO SECTION L-4 OF PRICE LIST

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## Other Filnor Switch Products Available

### **Type BM Open Style Front Connected**

Bolted Pressure Contact Switches

### **Type EBM Switches**

Enclosed Bolted Pressure Switch with side operated manual handle, non-load break.

### **Type BPI Switches**

Enclosed Bolted Pressure Switch with side operated Quick Brake Mechanism and Arc Breaking capability.

### **Type DB Switches**

High Current Switch applications.

### **Medium Voltage Switches**

Isolation and grounding applications. 200 - 12,000 Ampere, 5 kV - 38 kV.

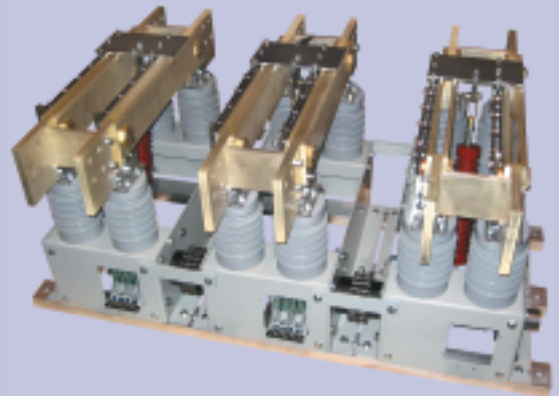
### **Custom Designed Switches**

Switches designed to suit your exact specifications.

### **Transfer Switches**

Open or enclosed.

Please contact Filnor, Inc. for complete information on the above products, as well as additional Resistor and Control Units not listed.



### **Special Design Medium Voltage Switch**

6300 A, 15 kV, 3-Pole, Single Throw, Motor Operated, Medium Voltage Bolted Pressure Switch



3000 A, 250 V DC, 2-Pole, Single Throw, Fusible, Type BPI Switch Crane Rail Disconnect





## Knife Switch Product Catalog

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info@filnor.com

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**30 Ampere - 6000 Ampere Standard**  
Higher Ampere available upon request  
**125 Volt - 600 Volt Standard**  
Higher Voltages available upon request

# Knife Switches