

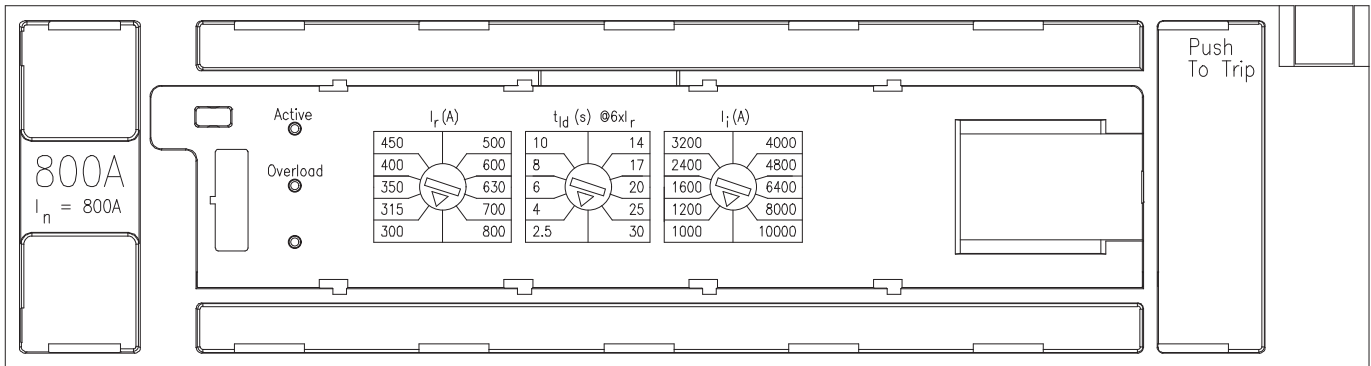


## Electronic Trip Unit, LI Model

Switch 1	$I_n$ - Maximum trip unit rating (amps)	$I_r$ - Continuous current rating (amps)									
	600	200	225	250	300	315	350	400	450	500	600
	700	250	300	315	350	400	450	500	600	630	700
	800	300	315	350	400	450	500	600	630	700	800

Switch 2	$I_n$ - Maximum trip unit rating (amps)	$t_{ld}$ - Long time delay (seconds @ $6 \times I_r$ )									
	500, 600	2.5	4	6	8	10	14	17	20	25	30

Switch 3	$I_n$ - Maximum trip unit rating (amps)	$I_i$ - Instantaneous pickup (amps)									
	600	750	900	1200	1800	2400	3000	3600	4800	6000	7500
	700	875	1050	1400	2100	2800	3500	4200	5600	7000	8750
	800	1000	1200	1600	2400	3200	4000	4800	6400	8000	10000



## References

$I_n$  = Maximum circuit breaker ampere rating

$I_r$  = Continuous current rating expressed in amperes

$I_i$  = Instantaneous pickup expressed in amperes

$I_{sd}$  = Short time pickup expressed in multiples of  $I_r$

$I_g$  = Ground fault pickup expressed in amperes

$t_{sd}$  = Short time delay - either fixed or  $I^2t$  time delay function

$t_{ld}$  = Long time delay -  $I^2t$  time delay function

$t_g$  = Ground fault delay -  $I^2t$  time delay function

### Electronic Trip Unit, LIG Model

Switch 1	$I_n$ - Maximum trip unit rating (amps)	$I_r$ - Continuous current rating (amps)									
	600	200	225	250	300	315	350	400	450	500	600
	700	250	300	315	350	400	450	500	600	630	700
	800	300	315	350	400	450	500	600	630	700	800

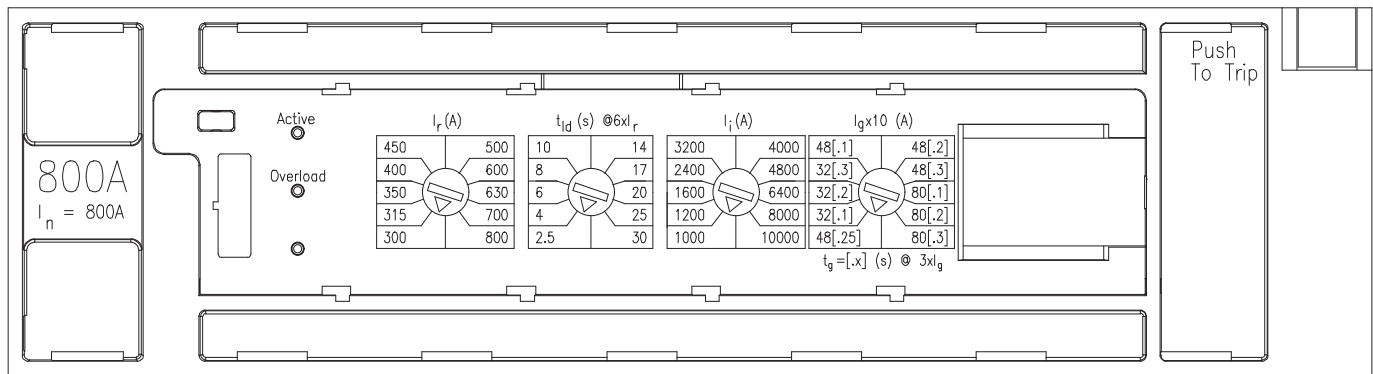
Switch 2	$I_n$ - Maximum trip unit rating (amps)	$t_{ld}$ - Long time delay (seconds @ $6 \times I_r$ )									
	600, 700, 800	2.5	4	6	8	10	14	17	20	25	30

Switch 3	$I_n$ - Maximum trip unit rating (amps)	$I_i$ - Instantaneous pickup (amps)									
	600	750	900	1200	1800	2400	3000	3600	4800	6000	7500
	700	875	1050	1400	2100	2800	3500	4200	5600	7000	8750
	800	1000	1200	1600	2400	3200	4000	4800	6400	8000	10000

Switch 4	$I_n$ - Maximum trip unit rating (amps)	$I_g$ - Ground fault pickup (amps)									
	600	360	240	240	240	360	360	360	600	600	600
	700	420	280	280	280	420	420	420	700	700	700
	800	480	320	320	320	480	480	480	800	800	800

Switch 4	$I_n$ - Maximum trip unit rating (amps)	$t_g$ - Ground fault delay (seconds)									
	600	0.22	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.3
	700, 800	0.25	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.3



### References

$I_n$  = Maximum circuit breaker ampere rating

$I_r$  = Continuous current rating expressed in amperes

$I_i$  = Instantaneous pickup expressed in amperes

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$I_g$  = Ground fault pickup expressed in amperes

$t_{sd}$  = Short time delay - either fixed or  $I^2t$  time delay function

$t_{ld}$  = Long time delay -  $I^2t$  time delay function

$t_g$  = Ground fault delay -  $I^2t$  time delay function

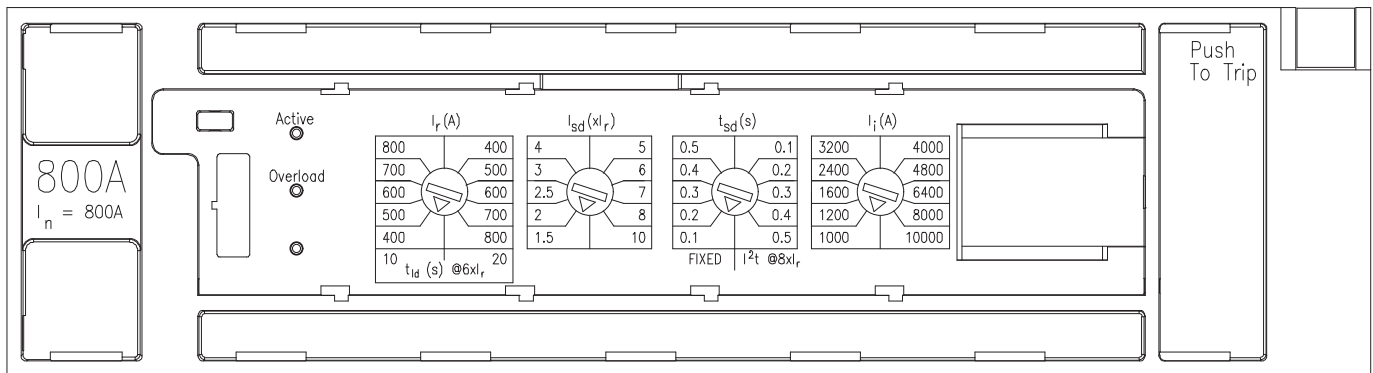
### Electronic Trip Unit, LSI Model

Switch 1	$I_n$ - Maximum trip unit rating (amps)	$I_r$ - Continuous amp (amps)									
	600	300	400	450	500	600	300	400	450	500	600
	700	350	450	500	600	700	350	450	500	600	700
	800	400	500	600	700	800	400	500	600	700	800
Switch 1	$I_n$ - Maximum trip unit rating (amps)	$t_{ld}$ - Long time delay (seconds @ $6 \times I_r$ )									
	600, 700, 800	10	10	10	10	10	20	20	20	20	20

Switch 2	$I_n$ - Maximum trip unit rating (amps)	$I_{sd}$ - Short time pickup (amps) x $I_r$									
	600, 700, 800	1.5	2	2.5	3	4	5	6	7	8	10

Switch 3	$I_n$ - Maximum trip unit rating (amps)	$t_{sd}$ - Short time delay (seconds)									
	600, 700, 800	0.1-FIXED	0.2-FIXED	0.3-FIXED	0.4-FIXED	0.5-FIXED	0.1-8xI <sub>r</sub>	0.2-8xI <sub>r</sub>	0.3-8xI <sub>r</sub>	0.4-8xI <sub>r</sub>	0.5-8xI <sub>r</sub>

Switch 4	$I_n$ - Maximum trip unit rating (amps)	$I_i$ - Instantaneous pickup (amps)									
	600	750	900	1200	1800	2400	3000	3600	4800	6000	7500
	700	875	1050	1400	2100	2800	3500	4200	5600	7000	8750
	800	1000	1200	1600	2400	3200	4000	4800	6400	8000	10000



### References

$I_n$  = Maximum circuit breaker ampere rating

$I_r$  = Continuous current rating expressed in amperes

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$I_g$  = Ground fault pickup expressed in amperes

$t_{sd}$  = Short time delay - either fixed or  $I^2t$  time delay function

$t_{ld}$  = Long time delay -  $I^2t$  time delay function

$t_g$  = Ground fault delay -  $I^2t$  time delay function

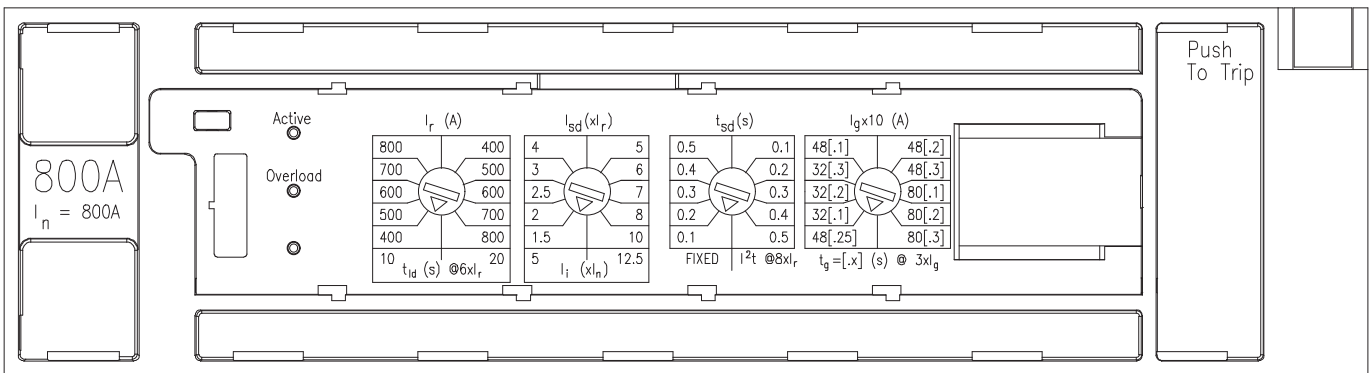
### Electronic Trip Unit, LSIG Model

Switch 1	$I_n$ - Maximum trip unit rating (amps)	$I_r$ - Continuous amp (amps)									
	600	300	400	450	500	600	300	400	450	500	600
	700	350	450	500	600	700	350	450	500	600	700
	800	400	500	600	700	800	400	500	600	700	800
Switch 1	$I_n$ - Maximum trip unit rating (amps)	$t_{ld}$ - Long time delay (seconds @ $6 \times I_r$ )									
	600, 700, 800	10	10	10	10	10	20	20	20	20	20

Switch 2	$I_n$ - Maximum trip unit rating (amps)	$I_{sd}$ - Short time pickup (amps) $\times I_r$									
	600, 700, 800	1.5	2	2.5	3	4	5	6	7	8	10
Switch 2	$I_n$ - Maximum trip unit rating (amps)	$I_i$ - Instantaneous pickup (amps)									
	600	3000	3000	3000	3000	3000	7500	7500	7500	7500	7500
	700	3500	3500	3500	3500	3500	8750	8750	8750	8750	8750
	800	4000	4000	4000	4000	4000	10000	10000	10000	10000	10000

Switch 3	$I_n$ - Maximum trip unit rating (amps)	$t_{sd}$ - Short time delay (seconds)									
	600, 700, 800	0.1-FIXED	0.2-FIXED	0.3-FIXED	0.4-FIXED	0.5-FIXED	0.1 - 8xI <sub>r</sub>	0.2 - 8xI <sub>r</sub>	0.3 - 8xI <sub>r</sub>	0.4 - 8xI <sub>r</sub>	0.5 - 8xI <sub>r</sub>

Switch 4	$I_n$ - Maximum trip unit rating (amps)	$I_g$ - Ground fault pickup (amps)									
	600	360	240	240	240	360	360	360	600	600	600
	700	420	280	280	280	420	420	420	700	700	700
	800	480	320	320	320	480	480	480	800	800	800
Switch 4	$I_n$ - Maximum trip unit rating (amps)	$t_g$ - Ground fault delay									
	600	0.22	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.3
	700, 800	0.25	0.1	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.3



### References

$I_n$  = Maximum circuit breaker ampere rating

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$I_{sd}$  = Short time pickup expressed in multiples of  $I_r$

$I_g$  = Ground fault pickup expressed in amperes

$t_{sd}$  = Short time delay - either fixed or  $I^2t$  time delay function

$t_{ld}$  = Long time delay -  $I^2t$  time delay function

$t_g$  = Ground fault delay -  $I^2t$  time delay function

## Shipping Weights

Breaker Type	Number per Carton	Shipping Weight (lbs)
SMD6	1	61.5
SHMD6	1	61.5
SCMD6	1	61.5

## Accessories

### Shunt Trip Combinations

Control Voltage		1 Shunt Trip	1 Shunt Trip and 1 Auxiliary Switch
AC	DC	Catalog Number	Catalog Number
120		S01MN6	S01MN64A
208		S02MN6	-
240		S03MN6	S03MN64A
277		S15MN6	S15MN64A
480		S04MN6	S04MN64A
600		S06MN6	-
	12	S16MN6	S16MN64A
	24	S07MN6	S07MN64A
	48	S09MN6	-
	125	S11MN6	S11MN64A
	250	S13MN6	S13MN64A

### Lugs for 75°C Wire

Catalog Number	No of Cables per Connector	Wire Range
TA2K500	2	#1-500 kcmil Cu/Al
TA3K500	3	#1-500 kcmil Cu/Al
TC2K500	2	#1-500 kcmil Cu
TC3K350	3	#1-350 kcmil Cu
Kits (3 lugs / kit)		
3TA4N8500	4	250-500 kcmil Cu/Al
3TA4P8500 <sup>①</sup>	4	250-500 kcmil Cu/Al
3TA2N8750	2	500-750 kcmil Cu/Al
3TA3N8750	3	500-750 kcmil Cu/Al
Compression Lugs		
CCM800K2	(6 pcs)	500 kcmil Cu/Al
CCM800K3 <sup>①</sup>	(9 pcs)	500 kcmil Cu/Al

<sup>①</sup> For 100% rated breakers, use 3TA4P8500 or CCM800K with 90°C rated wire sized at 75°C ampacity.

### Undervoltage Trip Combinations

Control Voltage		1 Undervoltage Trip	1 Undervoltage Trip and 1 Auxiliary Switch	1 Undervoltage Trip and 2 Auxiliary Switches
AC	DC	Catalog Number	Catalog Number	Catalog Number
120		U01MN6	U01MN64A	U01MN64AA
208		U02MN6	U02MN64A	U02MN64AA
240		U03MN6	U03MN64A	U03MN64AA
277		U15MN6	U15MN64A	U15MN64AA
480		U04MN6	U04MN64A	U04MN64AA
600		U06MN6	-	-
	24	U07MN6	U07MN64A	U07MN64AA
	48	U09MN6	U09MN64A	U09MN64AA
	125	U11MN6	U11MN64A	U11MN64AA
	250	U13MN6	U13MN64A	U13MN64AA

### Neutral Transformers

Ampere Rating	Catalog Number
600	N06SMDA
700	N07SMDA
800	N08SMDA

## Accessories

### Auxiliary Switch Combinations

Maximum Voltage		1 Form C	2 Form C
AC	DC	Catalog Number	Catalog Number
480	250	<b>A01MN64</b>	<b>A02MN64</b>
-	12	<b>A01MNDLV</b>	<b>A02MNDLV</b>

### Alarm Switch Combinations

Maximum Voltage		1 Alarm Switch	1 Alarm Switch and 1 Auxiliary Switch	1 Alarm Switch and 2 Auxiliary Switches
AC	DC	Catalog Number	Catalog Number	Catalog Number
<b>480</b>	<b>250</b>	<b>B00MN64</b>	<b>A01MN64B</b>	<b>A02MN64B</b>

### ETU Testing Unit

Breaker Type	Description	Catalog Number
SJD, SLD, SMD, SND, SPD	Power Stick	<b>EPSP18V</b>
	Spare cable for Power Stick	<b>COMPCA</b>

The EPSP18V Power Stick is a hand-held, battery-operated power supply that can be used for trip testing the Sensitrip IV electronic trip units. Requires two 9V batteries.

### DAS / Maintenance Mode Option and ZSI

- Optional advanced trip units incorporate DAS (Dynamic Arc Flash Sentry) / Maintenance Mode capability and integrated ZSI (Zone Selective Interlocking)
- Advanced trip units are NEC 240.87 code compliant for arc energy reduction
- Activation of DAS / Maintenance Mode capability requires customer-supplied 24V class II power supply, remote maintenance switch and light
- Trip unit type (Basic or Advanced) is designated in the catalog number as follows:
  - B = Basic – standard ETU (example: SMD6B400LSIG)
  - A = Advanced – ETU with DAS / Maintenance Mode & ZSI (example: SMD6A400LSIG)



Advanced ETU

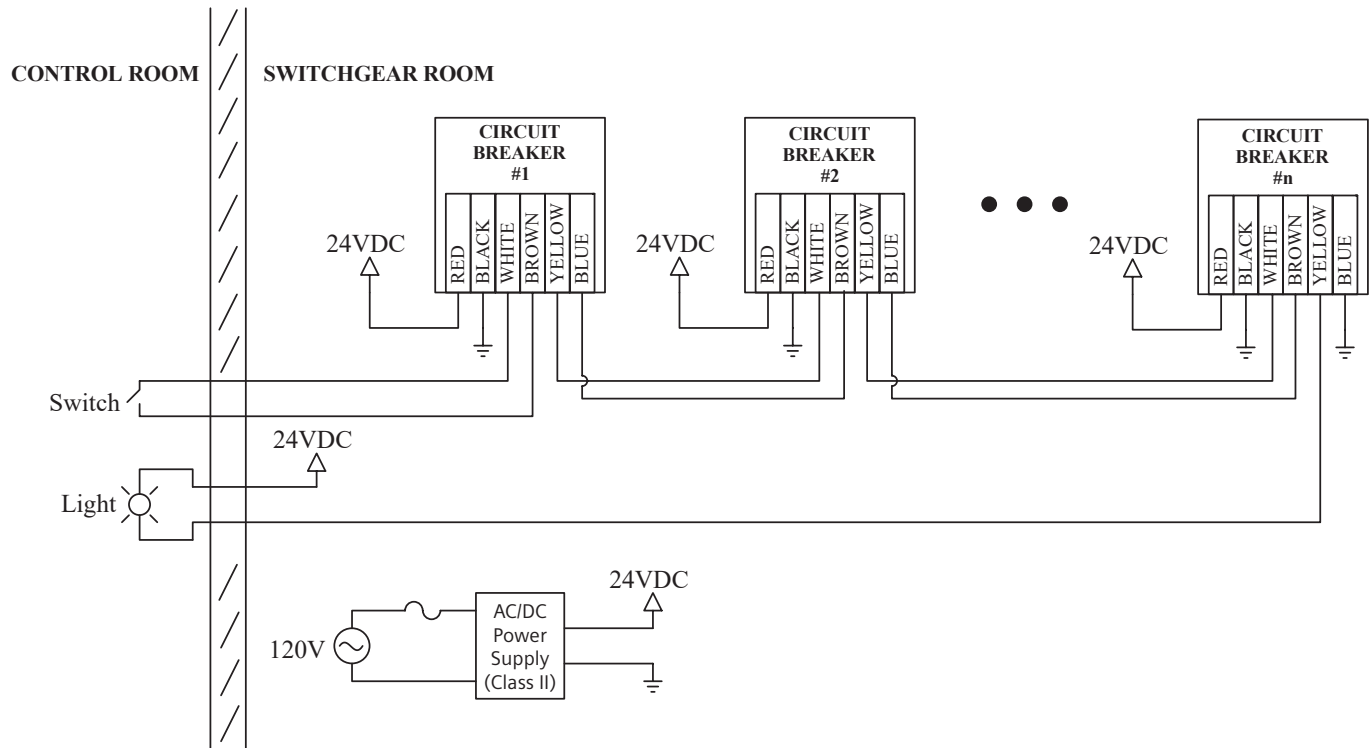


Basic ETU

### Recommended Components for DAS / Maintenance Mode

Component		Catalog Number
AC/DC Power Supply		6EP3331-6SB00-0AY0
Maintenance Light		3SU1102-6AA50-1AA0
Maintenance Switch	Keyed	3SU1100-4BF11-1BA0
	Non-keyed	3SU1100-2BF60-1BA0

### Wiring Diagram for DAS / Maintenance Mode



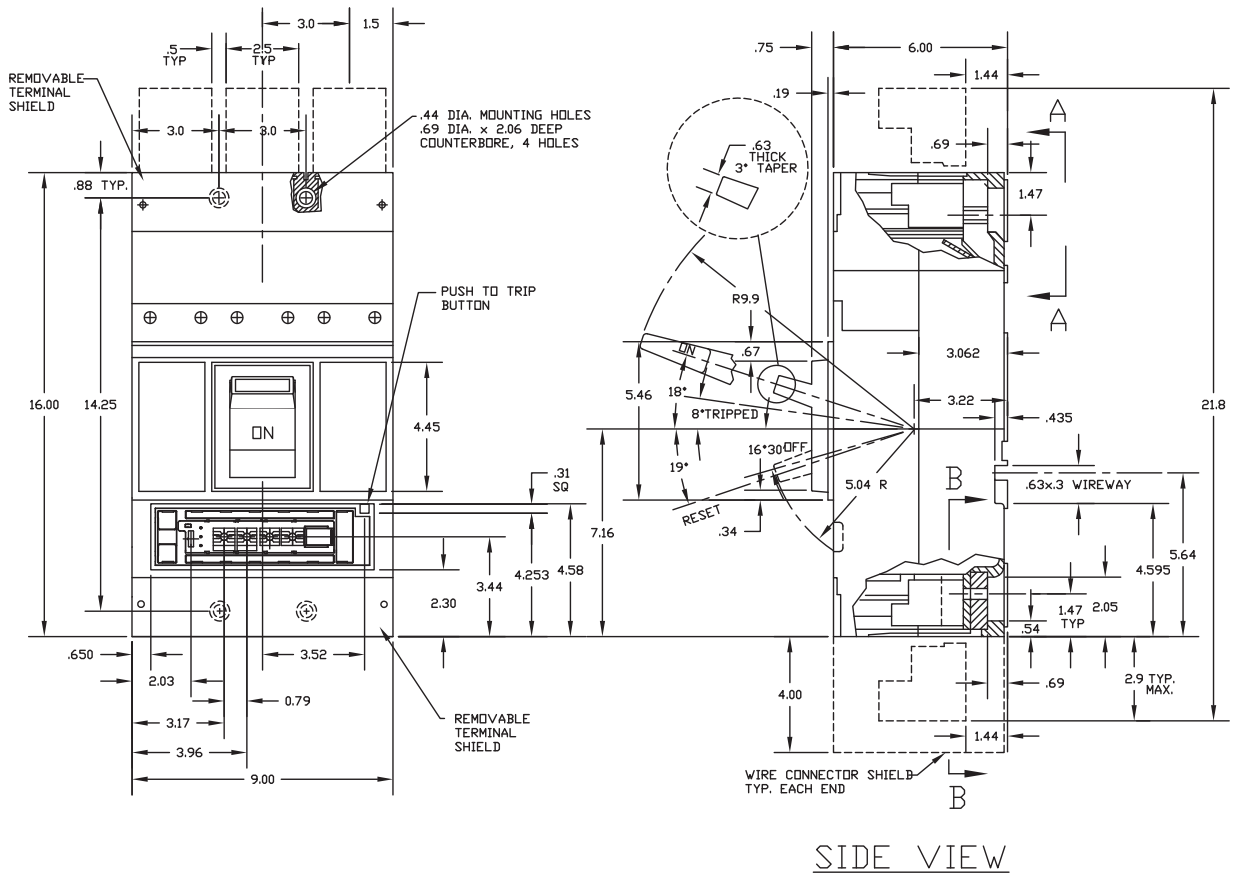
Note: See breaker instruction sheet for further information. Available at [www.usa.siemens.com/sensitrip](http://www.usa.siemens.com/sensitrip).



Dimensional Drawing

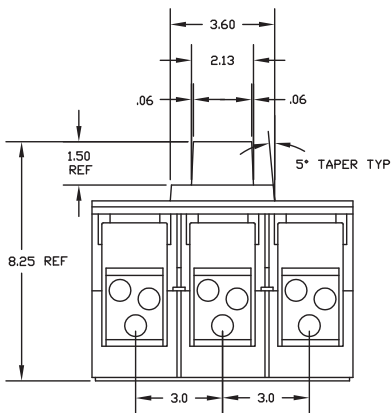
Sentron Sensitrip IV Outline Drawing

MD and ND Frame Types SMD6-B, SCMD6-B, SHMD6-B, SND6-B, SCND6-B, SHND6-B

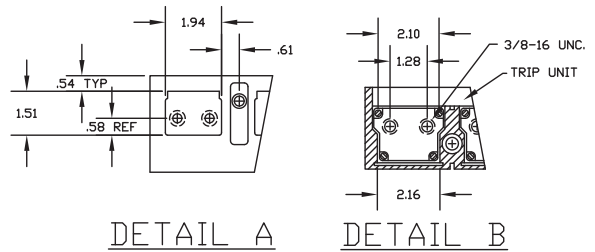


FRONT VIEW

SIDE VIEW



END VIEW



DETAIL A

DETAIL B

HANDLE OPERATING FORCES		
OPERATION	Lb. W/O EXT.	Lb. W/EXT.
OFF TO ON	75	40
ON TO OFF	85	46
TRIPPED TO RESET	130	70

① All drawing dimensions are shown in inches.





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