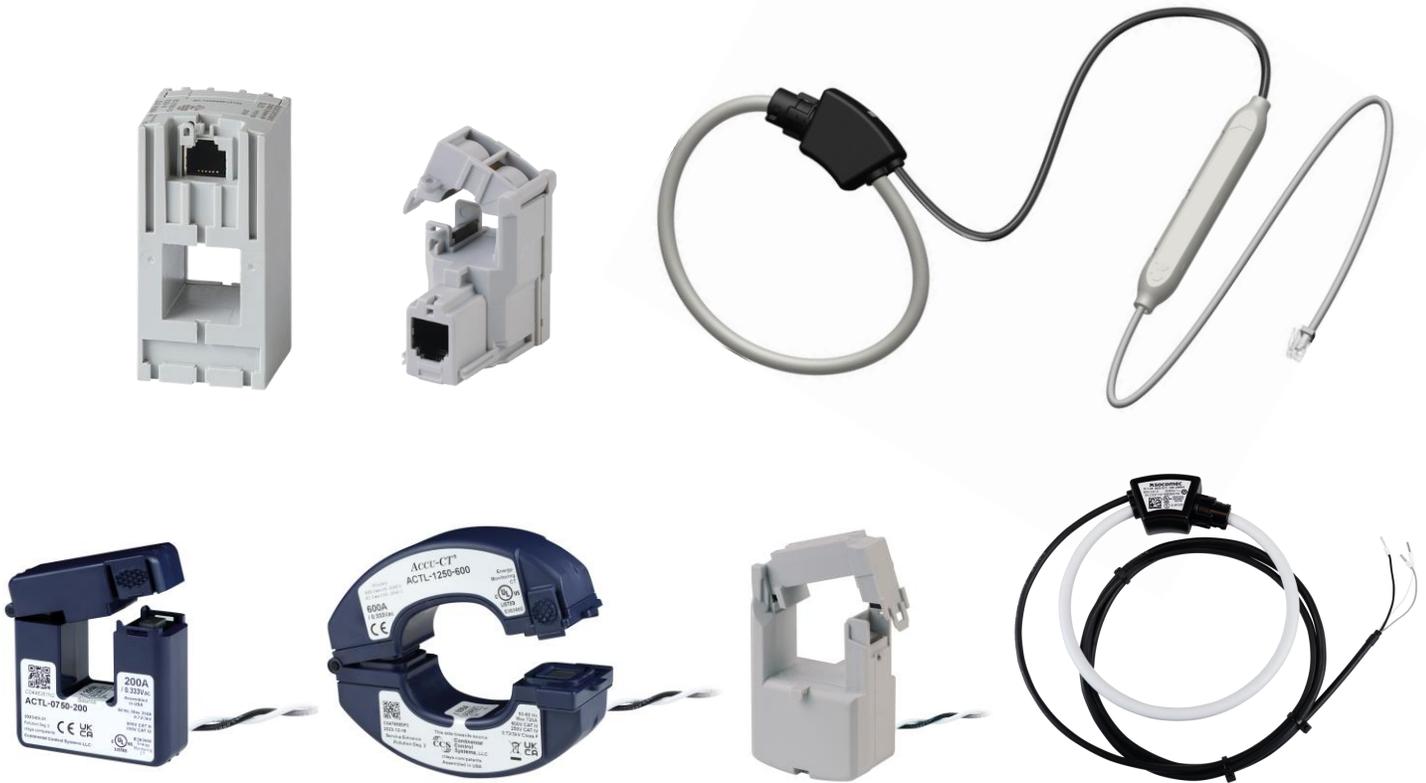


# Socomec Current Sensors – Conductor Sizing



## 1. RJ12 Smart current sensors

TE current sensors .....	Page 2 – 8
TR/iTR current sensors .....	Page 9 – 11
TF current sensors .....	Page 12 – 15

## 2. 333 mV current sensors

TR-W 333 mV current sensors .....	Page 16 – 19
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## 3. ACTL 333 mV current sensors

ACTL-0750 & -1250 current sensors .....	Page 20 – 23
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## 4. Rogowski current sensors

ROG 131mV current sensors .....	Page 24 - 27
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# 1. RJ12 Smart current sensors



Suitable for new installations  
match the pitch of protective  
devices

## Solid-core current sensors

									
	<i>TE-18</i>		<i>TE-25</i>	<i>TE-35</i>	<i>TE-45</i>	<i>TE-55</i>	<i>TE-90</i>		
Nominal current In (A)	5 ... 2000		5 ... 20	25 ... 63	40 ... 160	63 ... 250	160 ... 630	400 ... 1000	600 ... 2000
Real range covered (A)	0.1 ... 2400		0.1 ... 24	0.5 ... 75.6	0.8 ... 192	1.26 ... 300	3.2 ... 756	8 ... 1200	12 ... 2400
Window (in/mm)	Ø 0.33 / 8.4		Ø 0.33 / 8.4	0.53 x 0.53 13.5 x 13.5	0.82 x 0.82 21 x 21	1.22 x 1.22 31 x 31	1.61 x 1.61 41 x 41	2.52 x 2.52 64 x 64	
Connection	RJ12		RJ12	RJ12	RJ12	RJ12	RJ12	RJ12	
Reference	4829 0500		4829 0501	4829 0502	4829 0503	4829 0504	4829 0505	4829 0506	

Suitable for existing installations

## Split-core current sensors

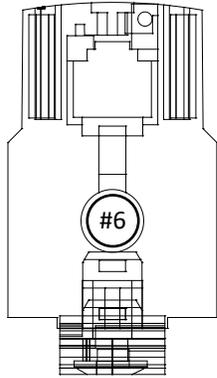
						
	<i>TR/iTR-10</i>		<i>TR/iTR-14</i>	<i>TR/iTR-21</i>	<i>TR/iTR-32</i>	
Nominal current In (A)	25 ... 600		25 ... 63	40 ... 160	63 ... 250	160 ... 600
Real range covered (A)	0.5 ... 720		0.5 ... 90	0.64 ... 120	1.26 ... 200	4 ... 720
Window (in/mm)	Ø 0.39 / 10		Ø 0.55 / 14	Ø 0.83 / 21	Ø 1.26 / 32	
Connection	RJ12		RJ12	RJ12	RJ12	
Reference	4829 0555 / 4829 0655		4829 0556 / 4829 0656	4829 0557 / 4829 0657	4829 0558 / 4829 0658	

Suitable for existing installations  
with space constraints or  
with high currents

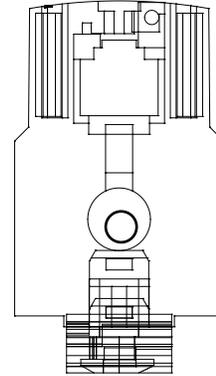
## Flexible current sensors

								
	<i>TF-40</i>	<i>TF-80</i>	<i>TF-120</i>	<i>TF-200</i>	<i>TF-300</i>	<i>TF-600</i>		
Nominal current In (A)	100 ... 6000		150...600	15...600	400...2000	600...4000	1600...6000	1600...6000
Real range covered (A)	2 ... 7200		3...720	3...720	8...2400	12...4800	32...7200	32...7200
Window (in/mm)	Ø 1.57 / 40		Ø 3.15 / 80	Ø 4.72 / 120	Ø 7.87 / 200	Ø 11.81 / 300	Ø 23.62 / 600	
Connection	RJ12		RJ12	RJ12	RJ12	RJ12	RJ12	
Reference	4829 0573		4829 0574	4829 0575	4829 0576	4829 0577	4829 0578	

TE-18 – Ref. 4829 0500  
Min. 0.1 A – Max. 24 A

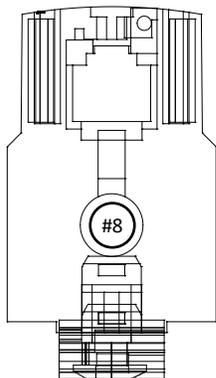


1-#6 AWG

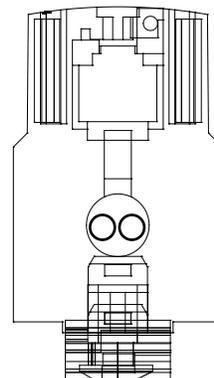


1-#12 AWG

TE-18 – Ref. 4829 0501  
Min. 0.5 A – Max. 75.6 A

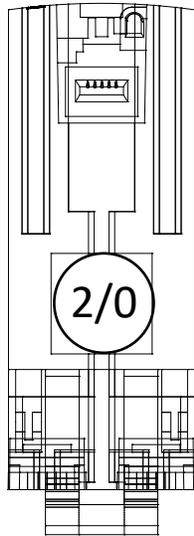


1-#8 AWG

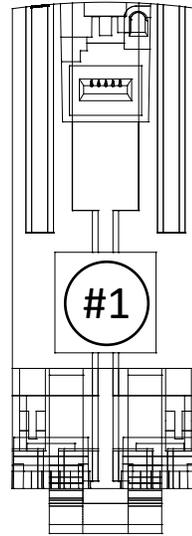


2-#14 AWG

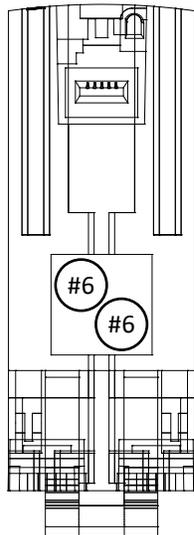
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



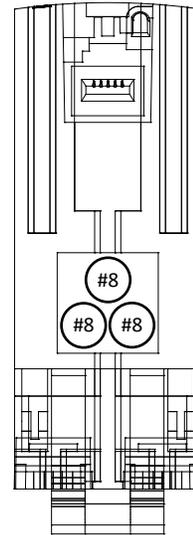
1-2/0 AWG



1-#1 AWG

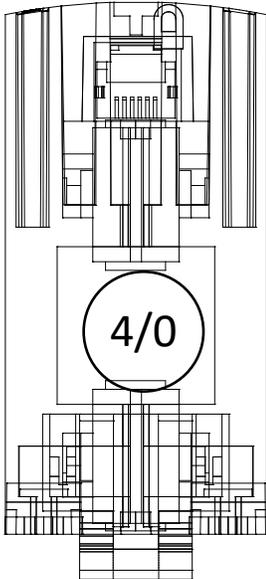


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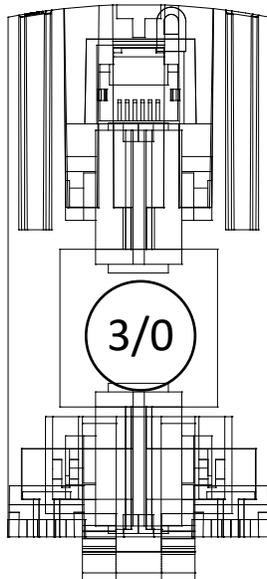


3-#8 AWG

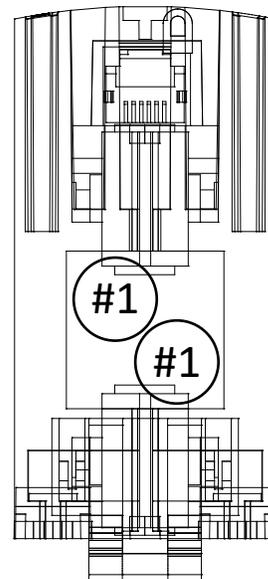
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



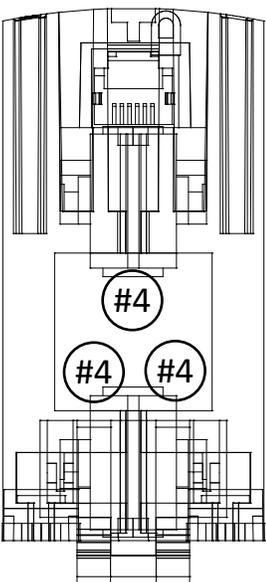
1-4/0 AWG



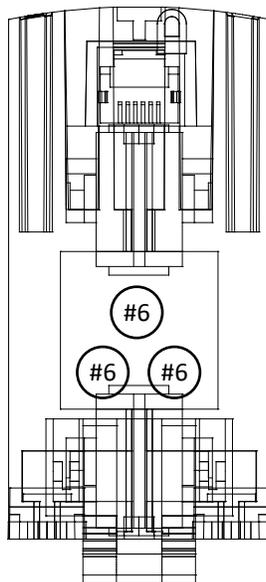
1-3/0 AWG



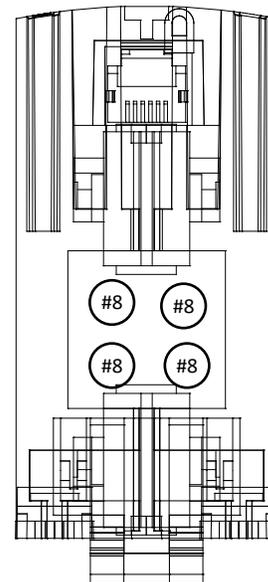
2-#1 AWG



3-#4 AWG

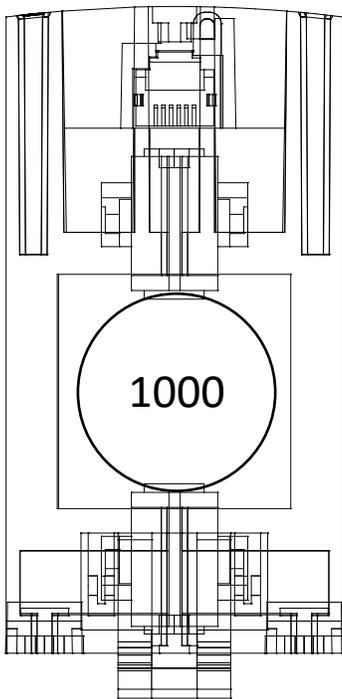


3-#6 AWG

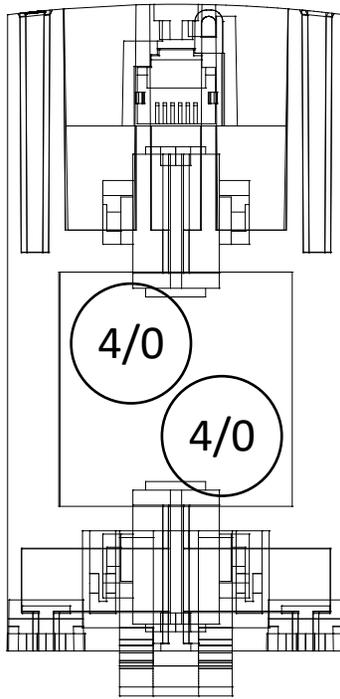


4-#8 AWG

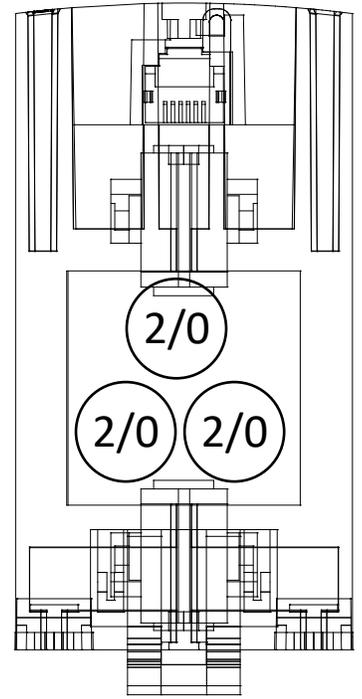
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



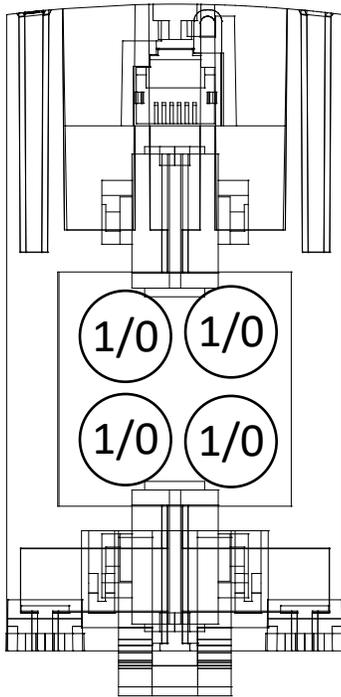
1-1000 kcmil



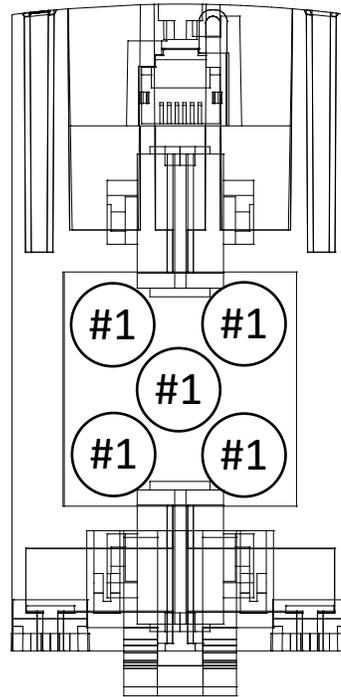
2-4/0 AWG



3-2/0 AWG

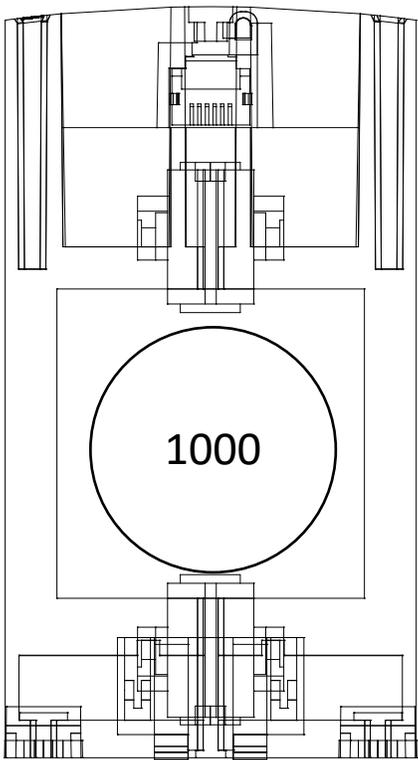


4-1/0 AWG

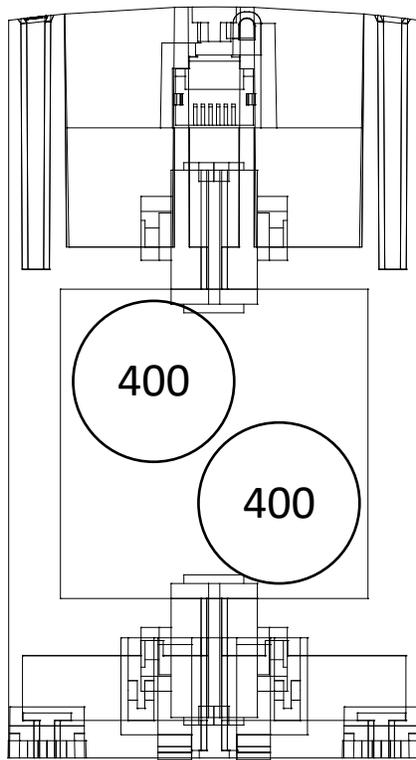


5-#1 AWG

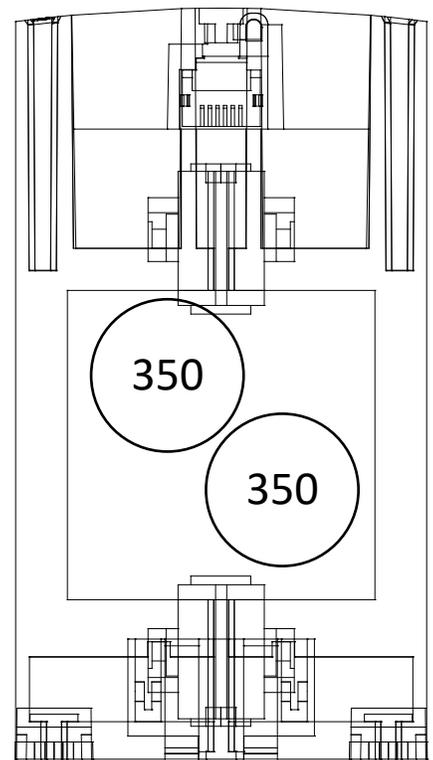
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



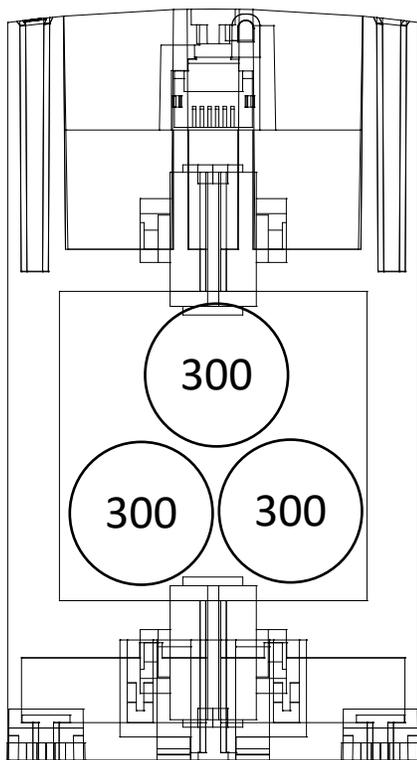
1–1000 kcmil



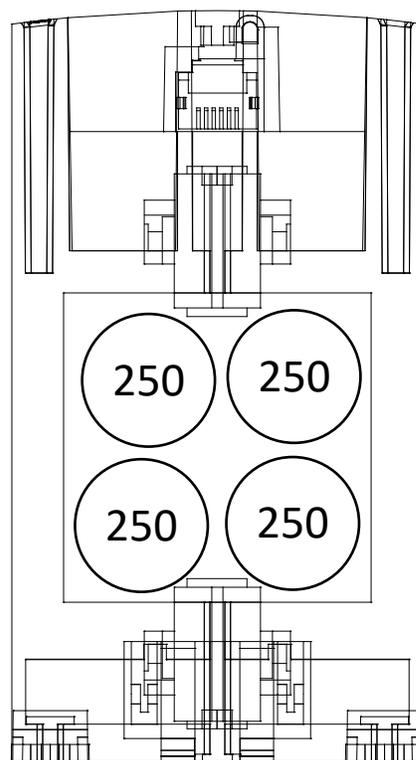
2–400 kcmil



2–350 kcmil

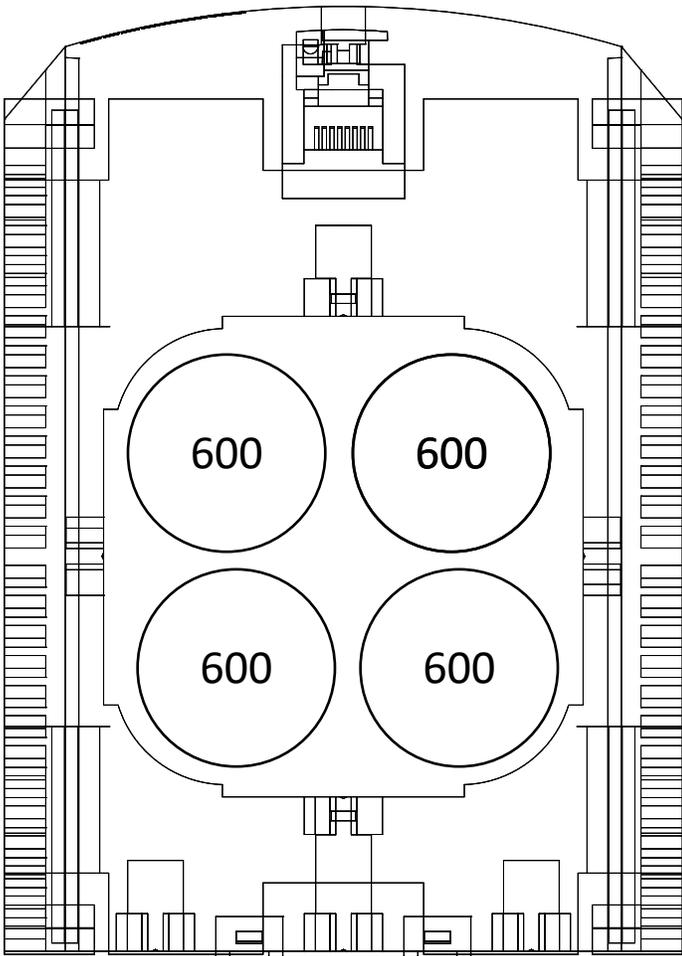


3–300 kcmil

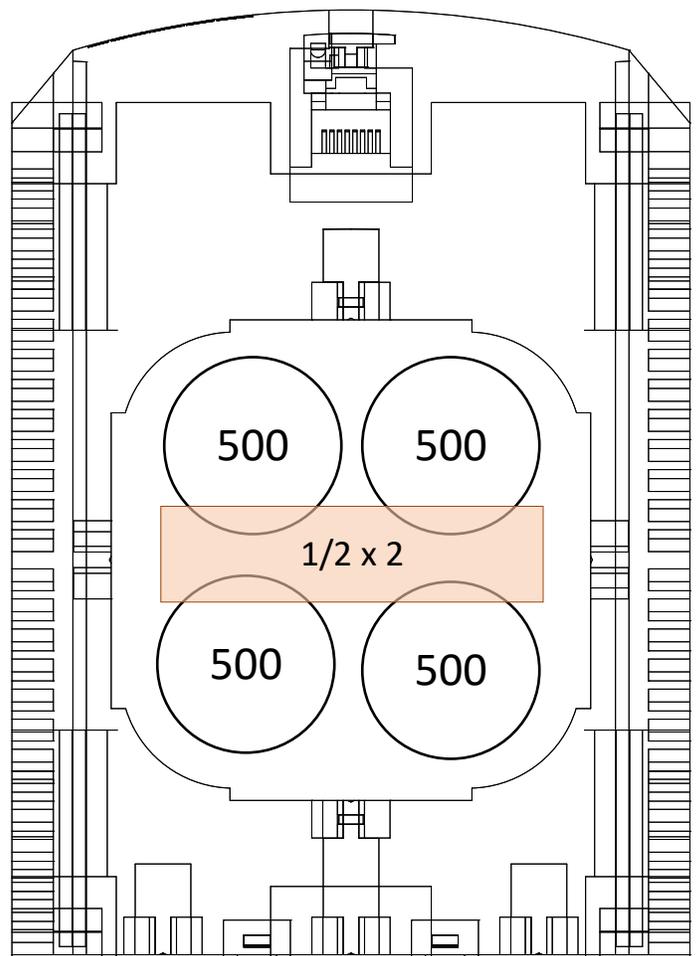


4–250 kcmil

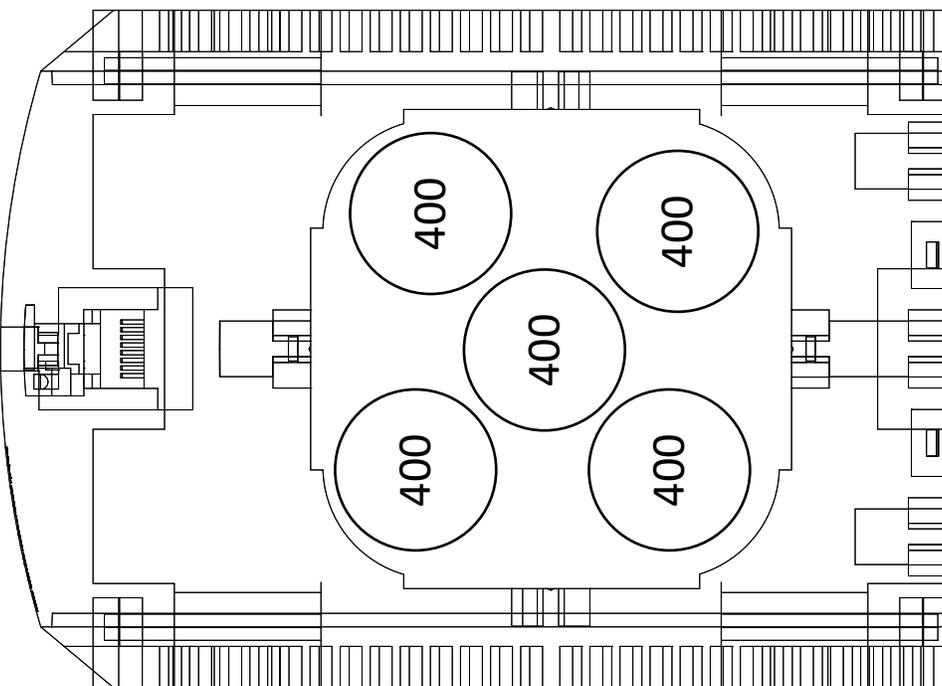
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stranded copper wire diameters and  
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4–600 kcmil



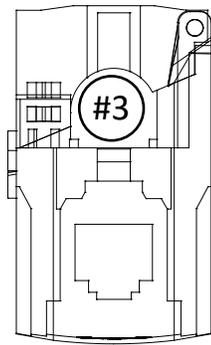
4–500 kcmil



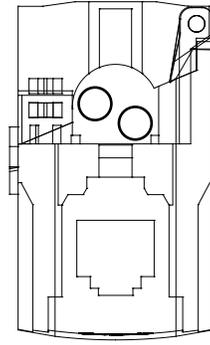
6–400 kcmil

*Note: Based on Southwire THHN  
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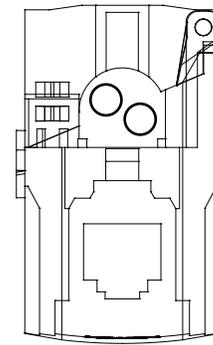
TR-10 – Ref. 4829 0555  
Min. 0.5 A – Max. 75 A



1-#3 AWG

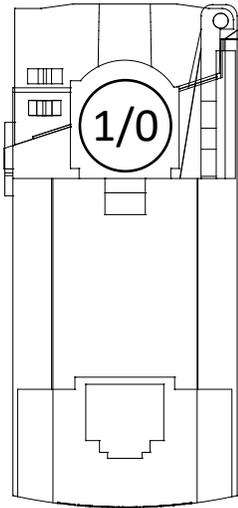


2-#10 AWG

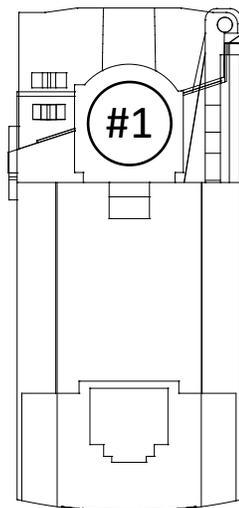


2-#12 AWG

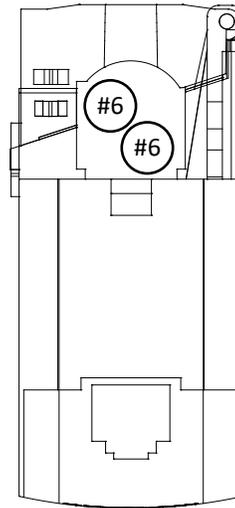
TR-14 – Ref. 4829 0556  
Min. 0.8 A – Max. 192 A



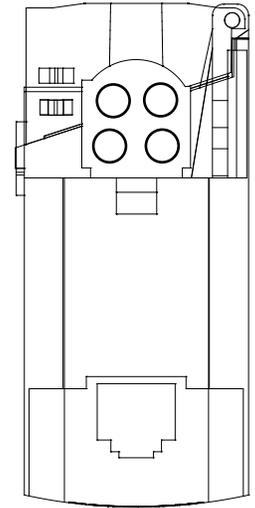
1-1/0 AWG



1-#1 AWG

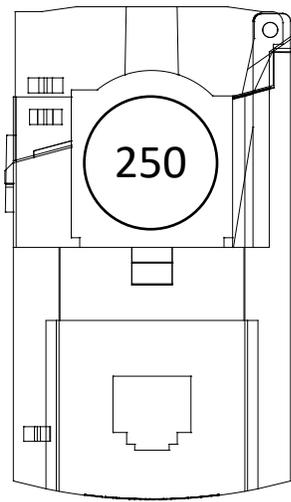


2-#6 AWG

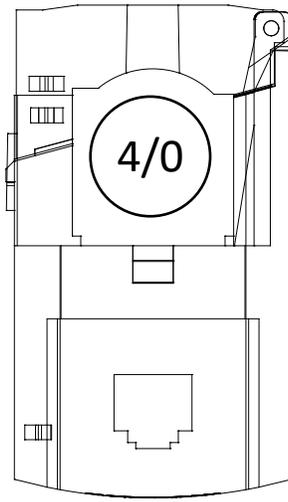


4-#10 AWG

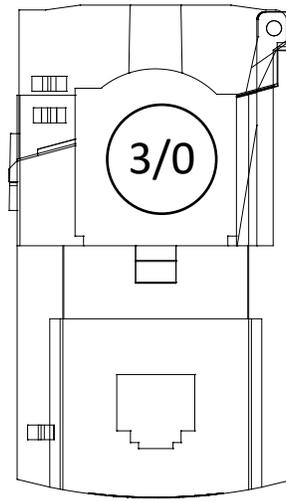
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



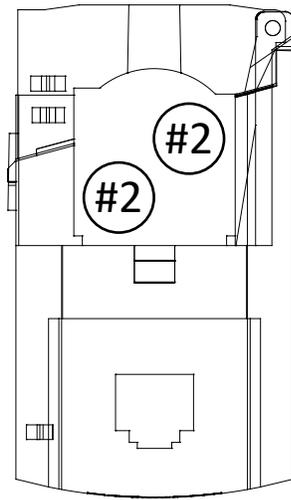
1–250 kcmil



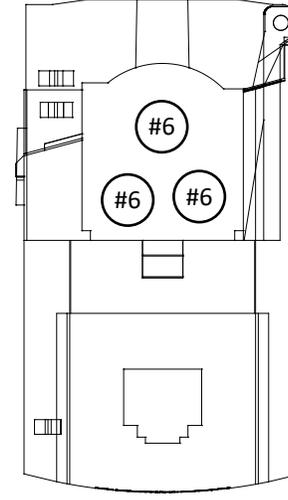
1–4/0 AWG



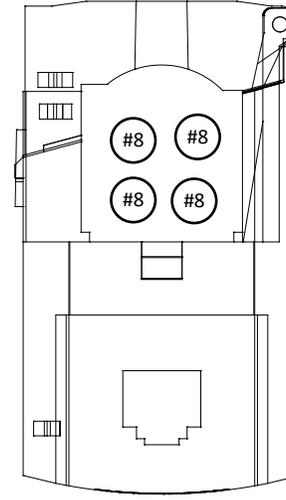
1–3/0 AWG



2–#2 AWG

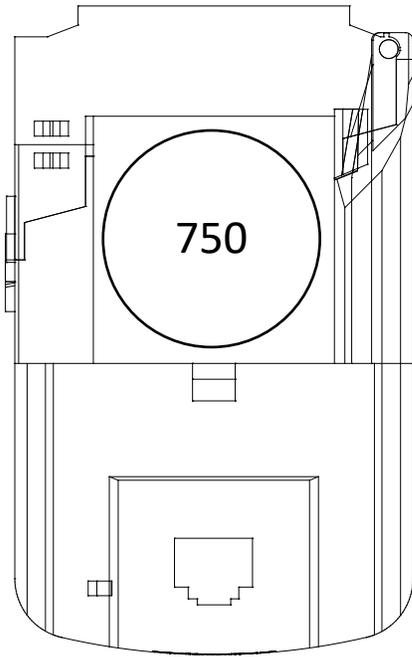


3–#6 AWG

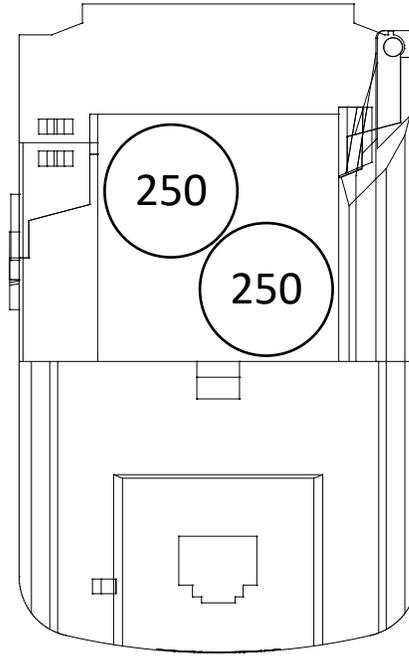


4–#8 AWG

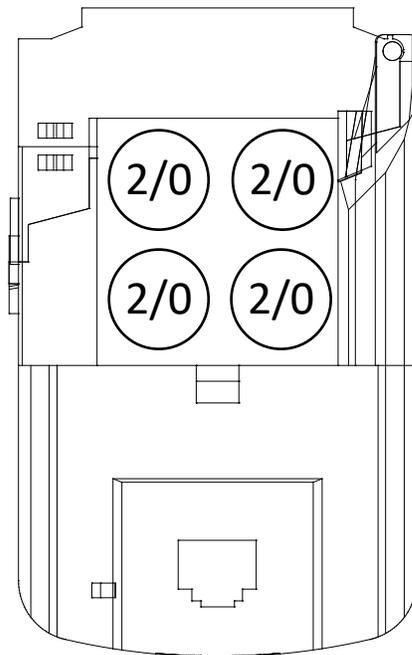
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stranded copper wire diameters and  
90°C allowable ampacities.*



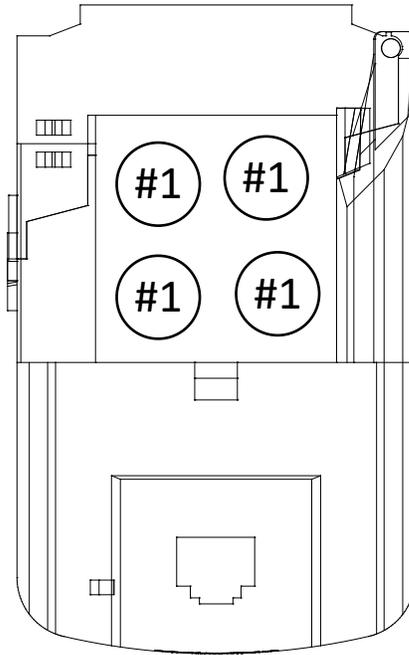
1–750 kcmil



2–250 kcmil

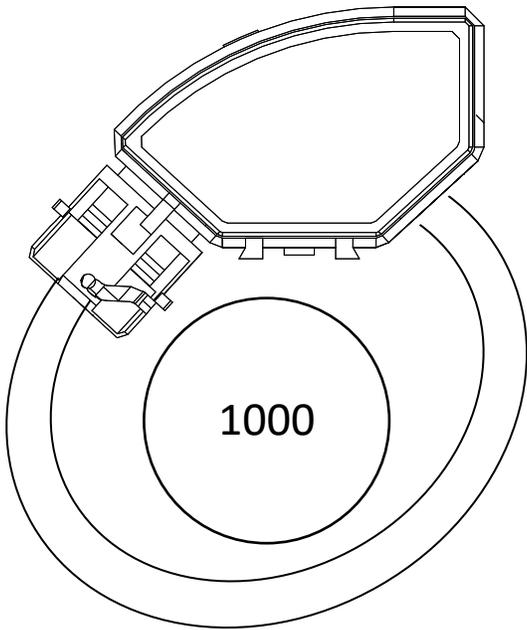


4–2/0 AWG

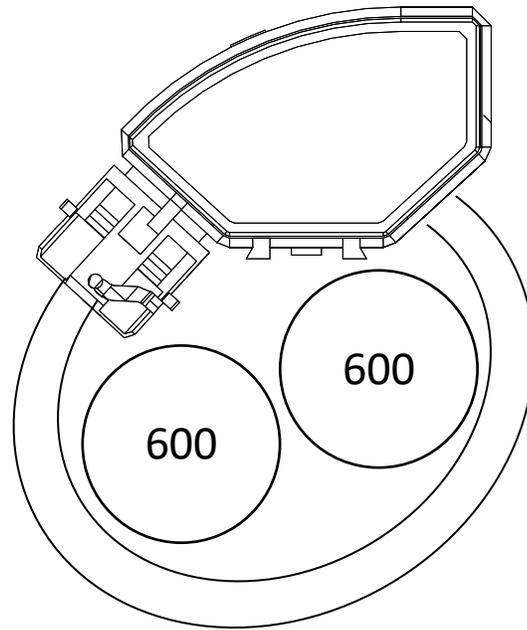


4–#1 AWG

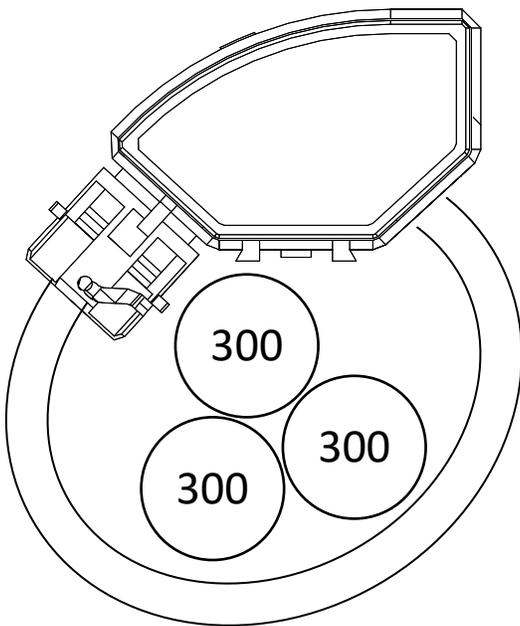
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stranded copper wire diameters and  
90°C allowable ampacities.*



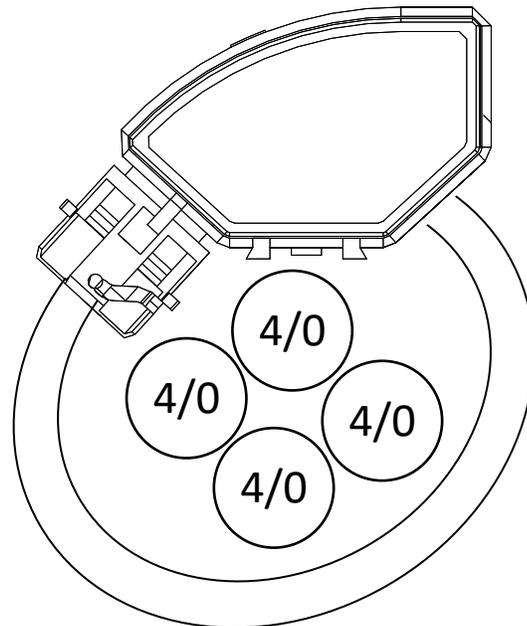
1–1000 kcmil



2–600 kcmil

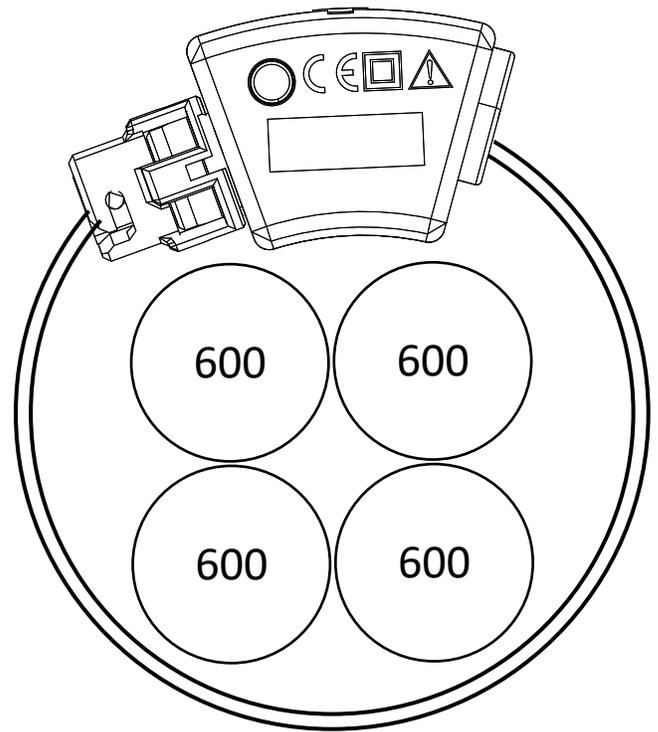
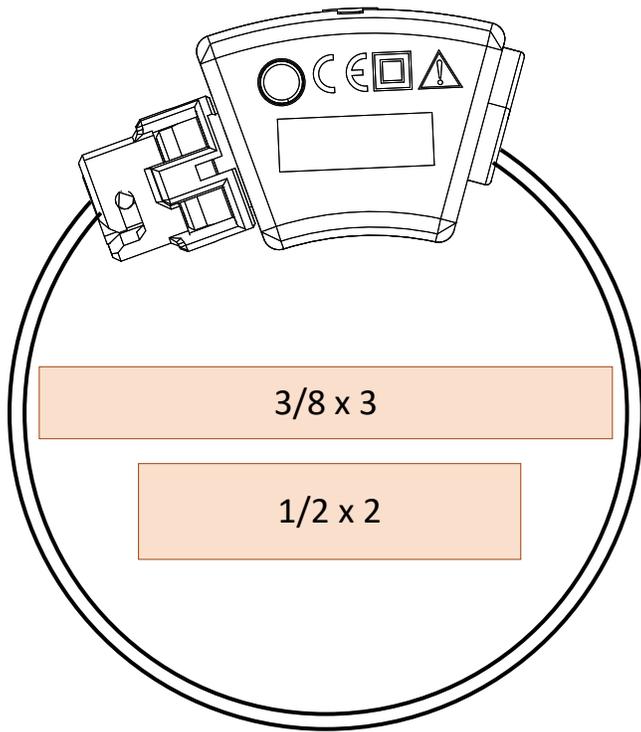


3–300 kcmil

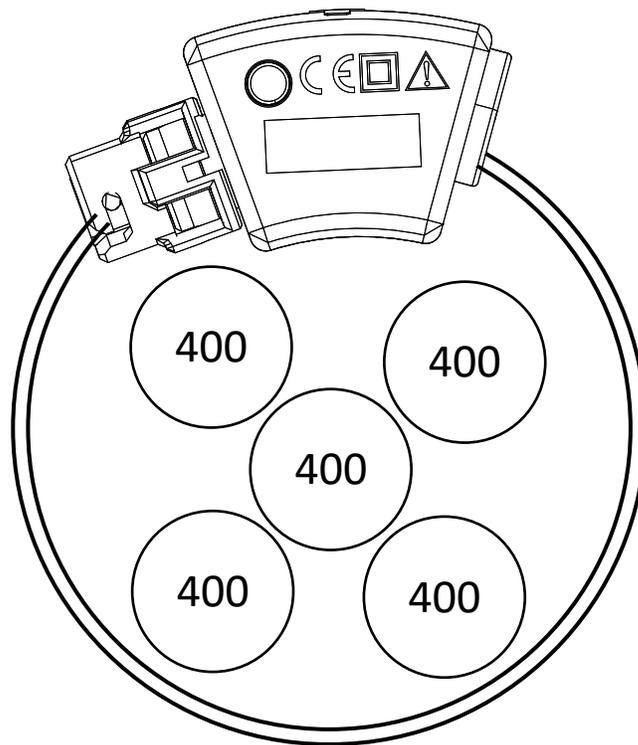


4–4/0 AWG

*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



4–600 kcmil

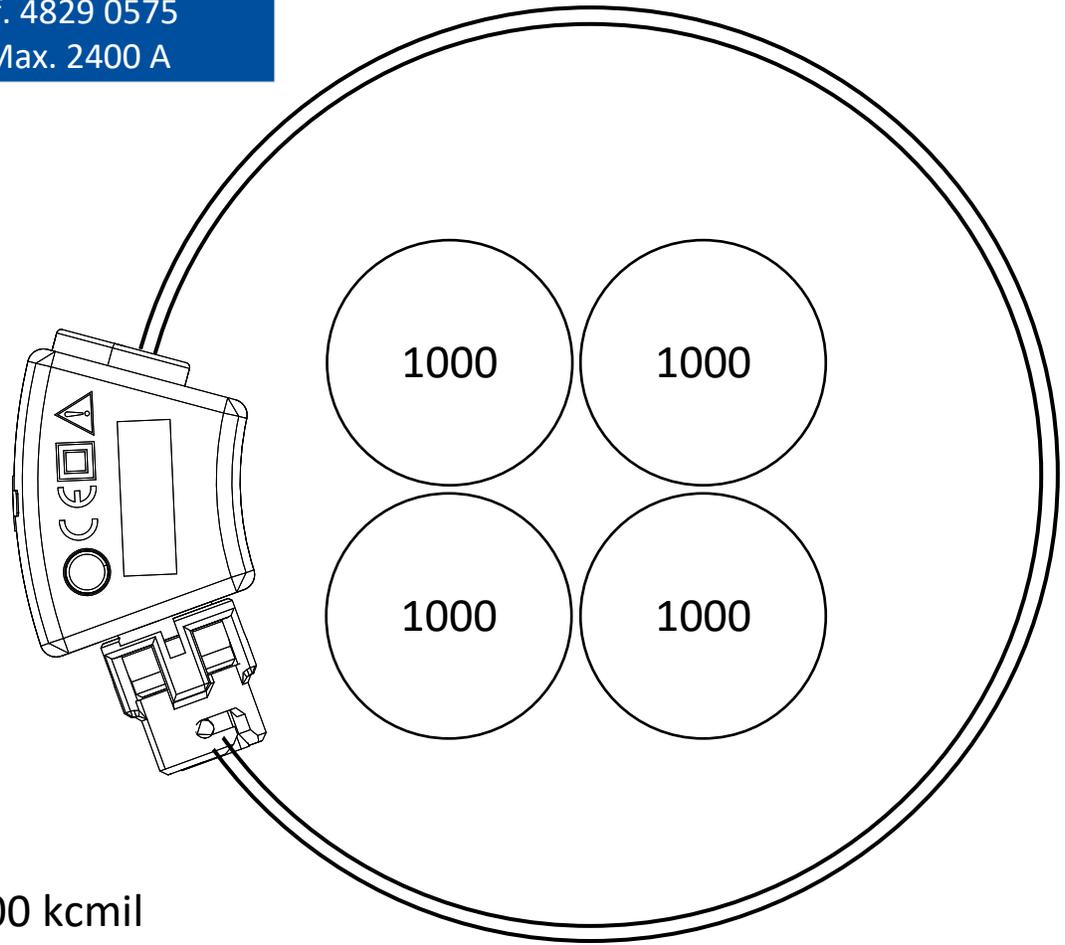


5–400 kcmil

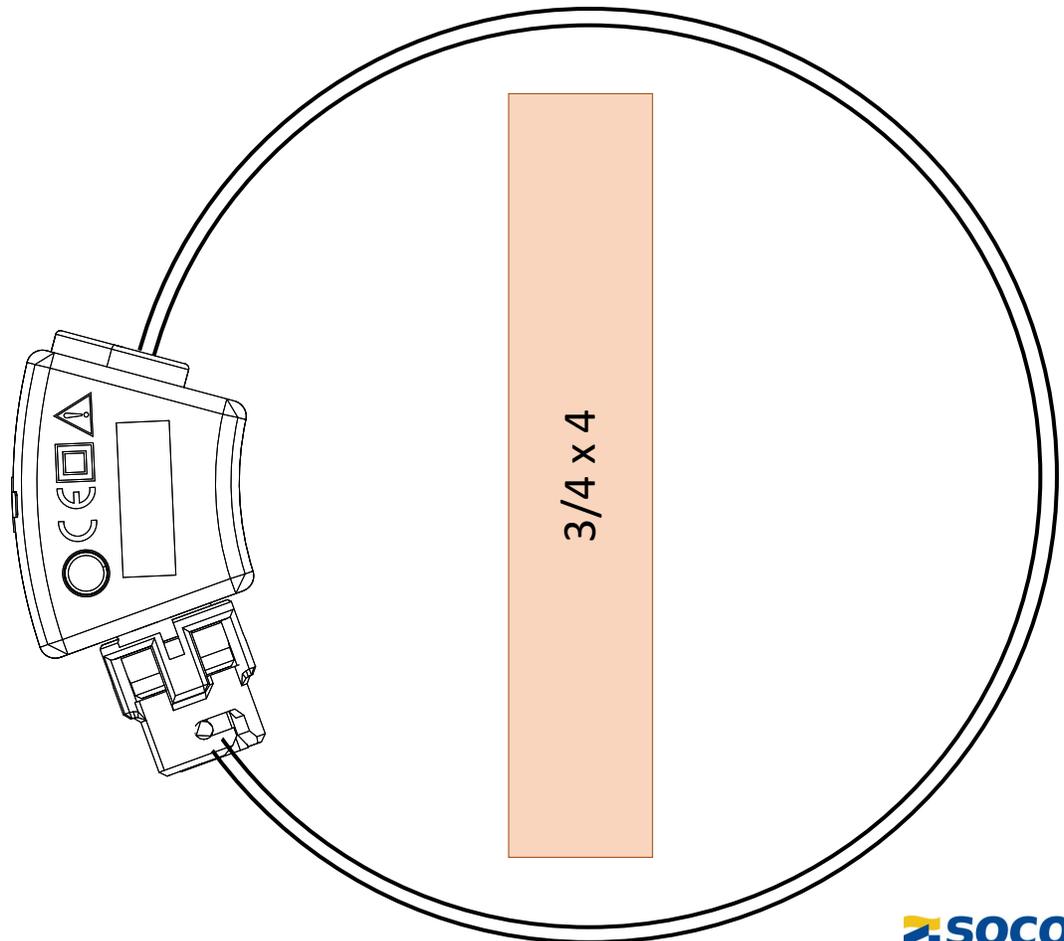
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*

TF-120 – Ref. 4829 0575  
Min. 8 A – Max. 2400 A

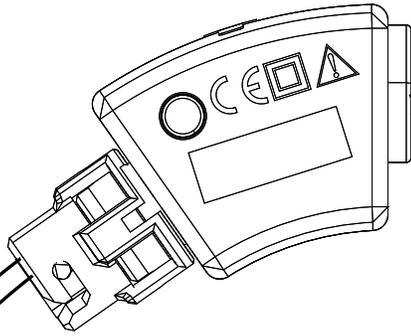
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



4–1000 kcmil



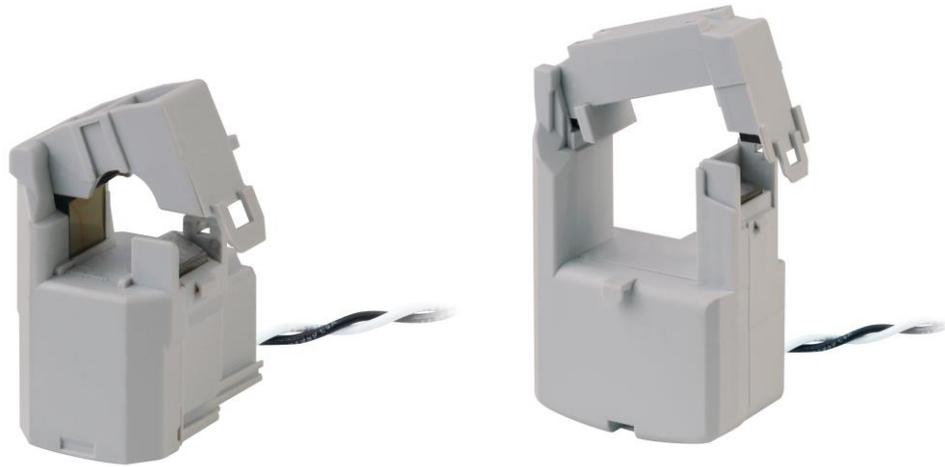
TF-200 – Ref. 4829 0576  
Min. 12 A – Max. 4800 A



$3/4 \times 8$

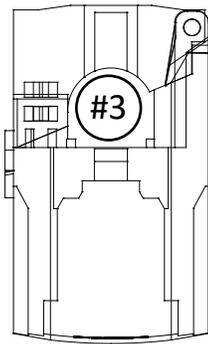
$3/4 \times 6$

## 2. TR-W 333 mV current sensors

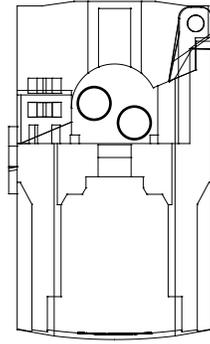


Ideal for for retrofit applications - compact space	Split-core 333 mV current sensors			
				
	TR-10W	TR-14W	TR-21W	TR-32W
Primary (A)	63	160	250	600
Secondary	333 mV	333 mV	333 mV	333 mV
Lead length (ft / m)	22 / 7	22 / 7	22 / 7	22 / 7
Window size (in / mm)	Ø 0.39 / 10	Ø 0.55 / 14	Ø 0.83 / 21	Ø 1.26 / 32
Reference	194S 5010	194S 5014	194S 5021	194S 5032

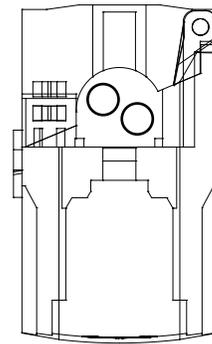
TR-10W – Ref. 194S 5010



1-#3 AWG

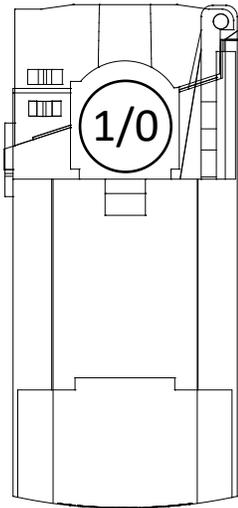


2-#10 AWG

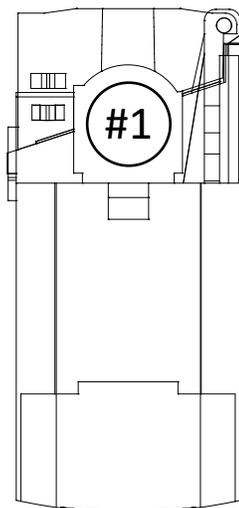


2-#12 AWG

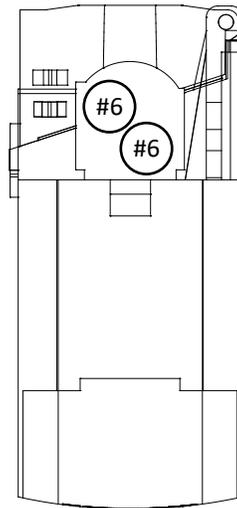
TR-14W – Ref. 194S 5014



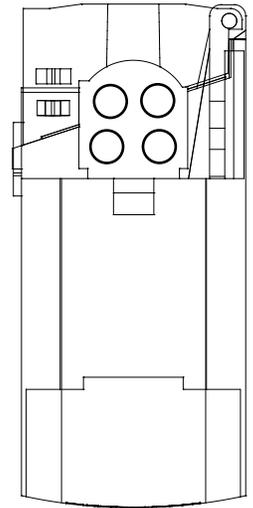
1-1/0 AWG



1-#1 AWG

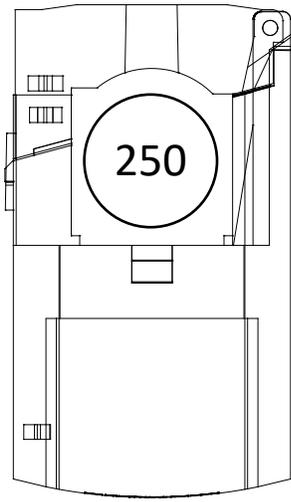


2-#6 AWG

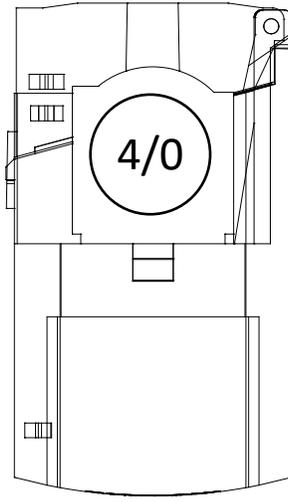


4-#10 AWG

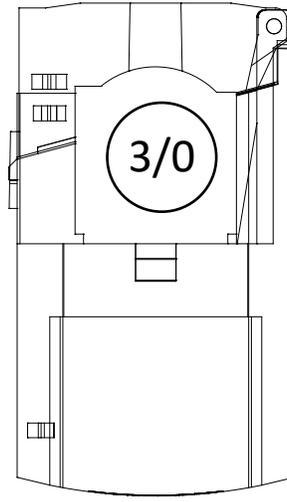
*Note: Based on Southwire THHN stranded copper wire diameters and 90°C allowable ampacities.*



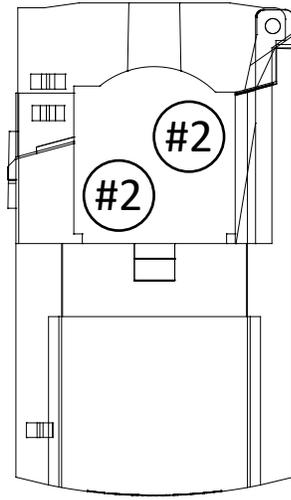
1–250 kcmil



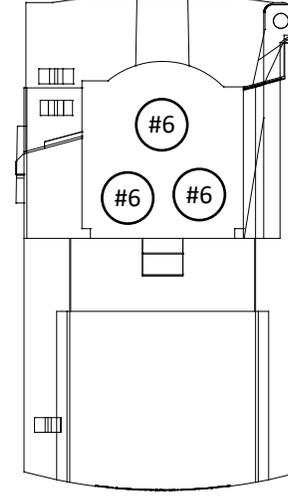
1– 4/0 AWG



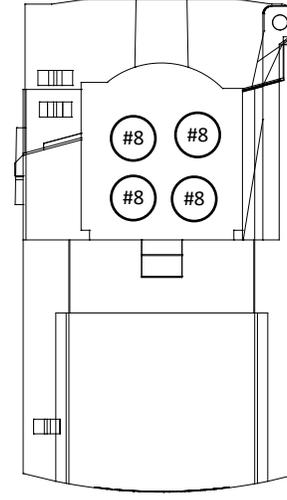
1–3/0 AWG



2–#2 AWG

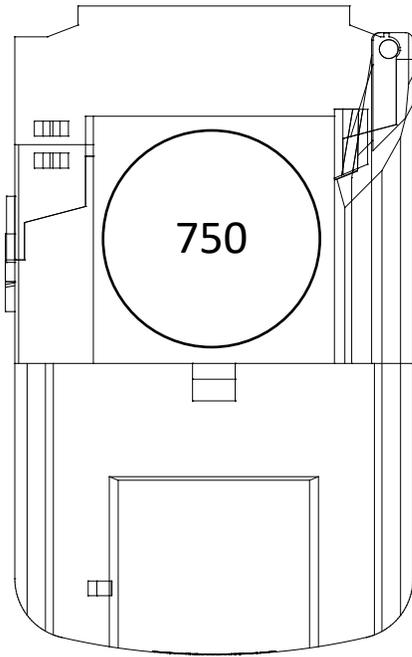


3–#6 AWG

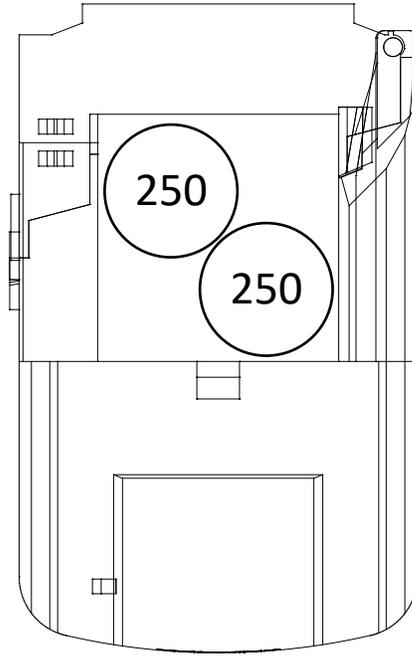


4–#8 AWG

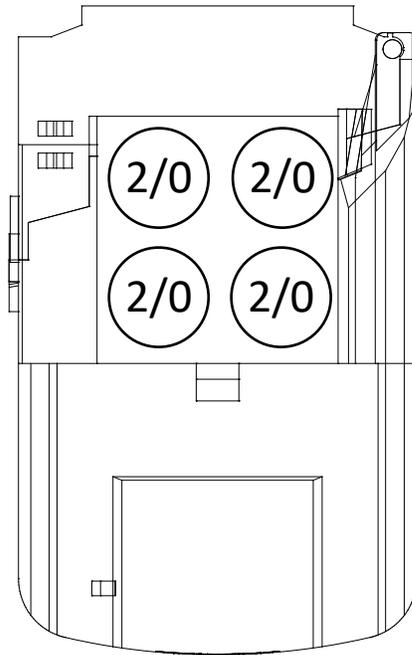
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



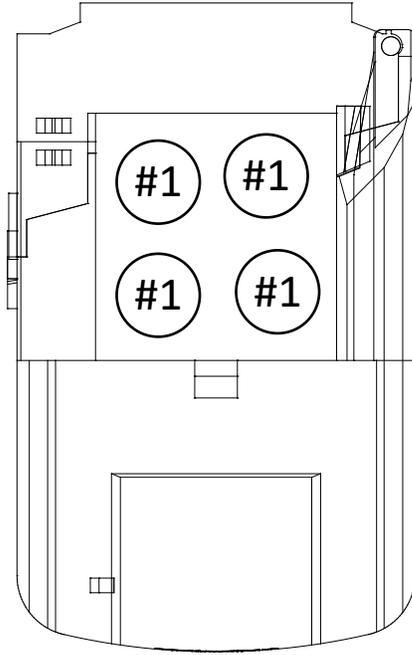
1-750 kcmil



2-250 kcmil



4-2/0 AWG



4-#1 AWG

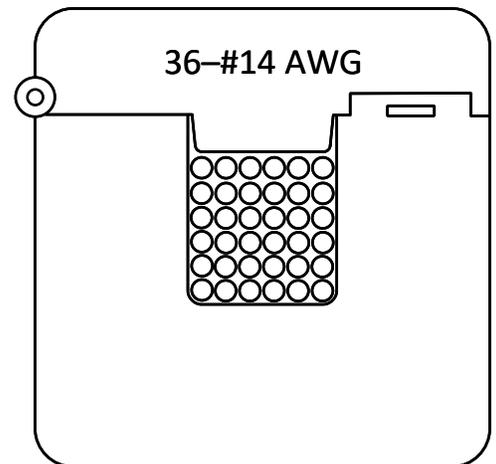
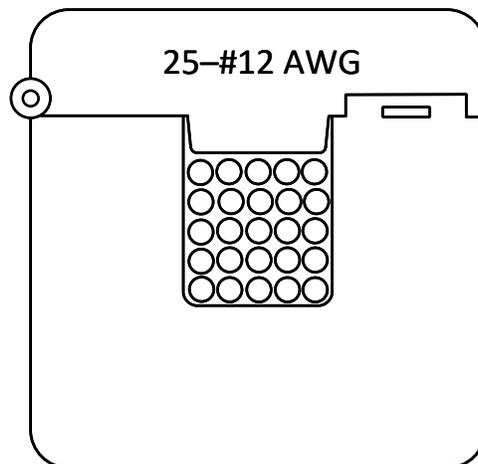
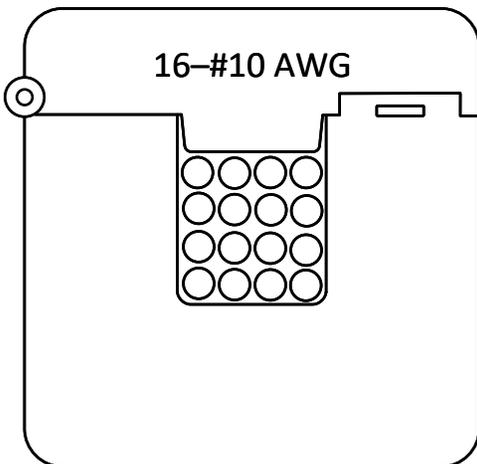
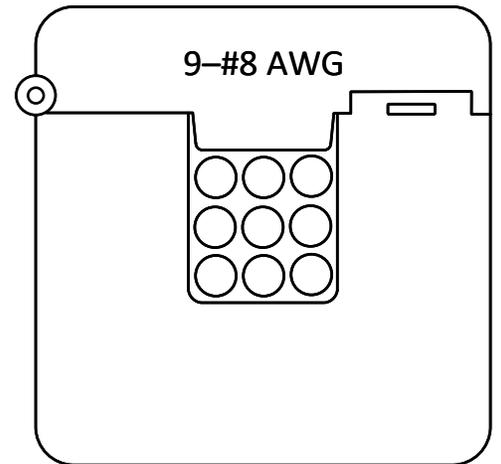
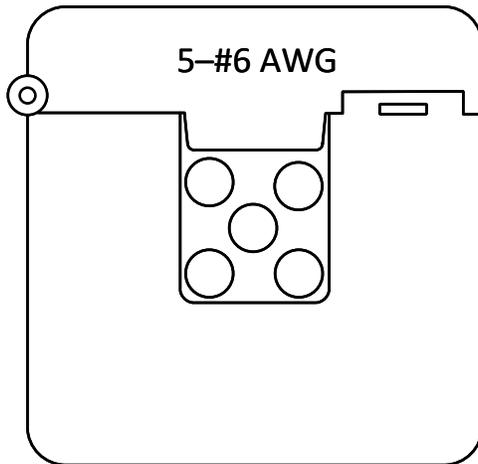
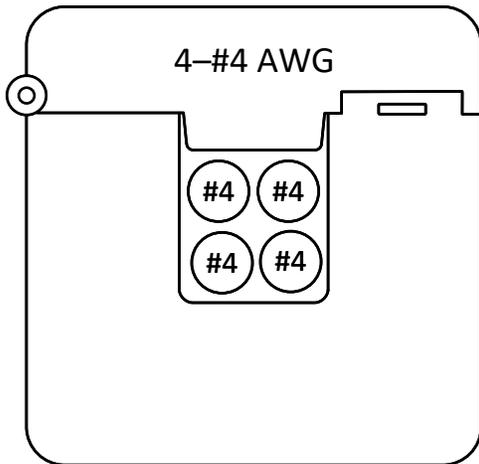
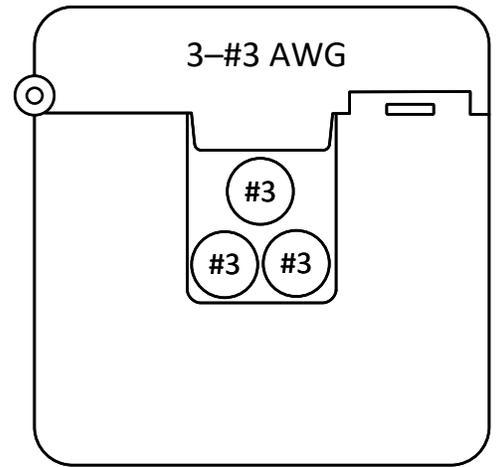
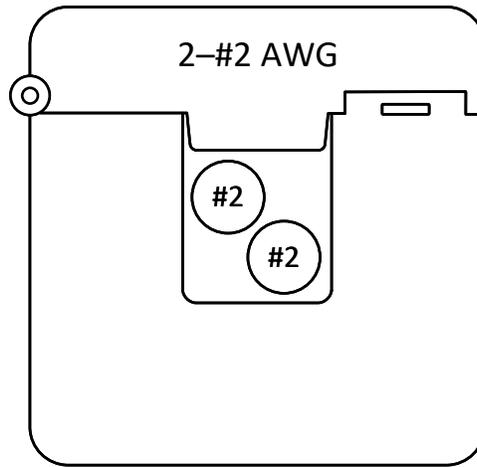
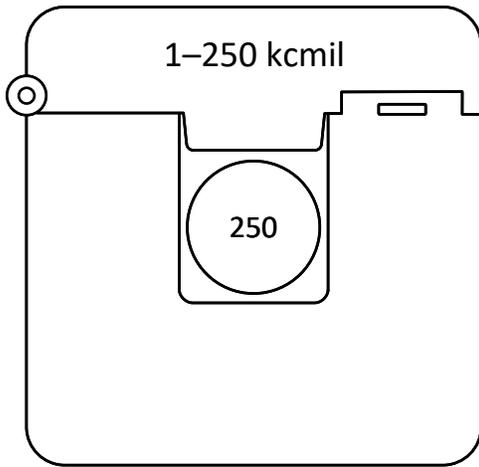
*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*

### 3. ACTL 333 mV current sensors



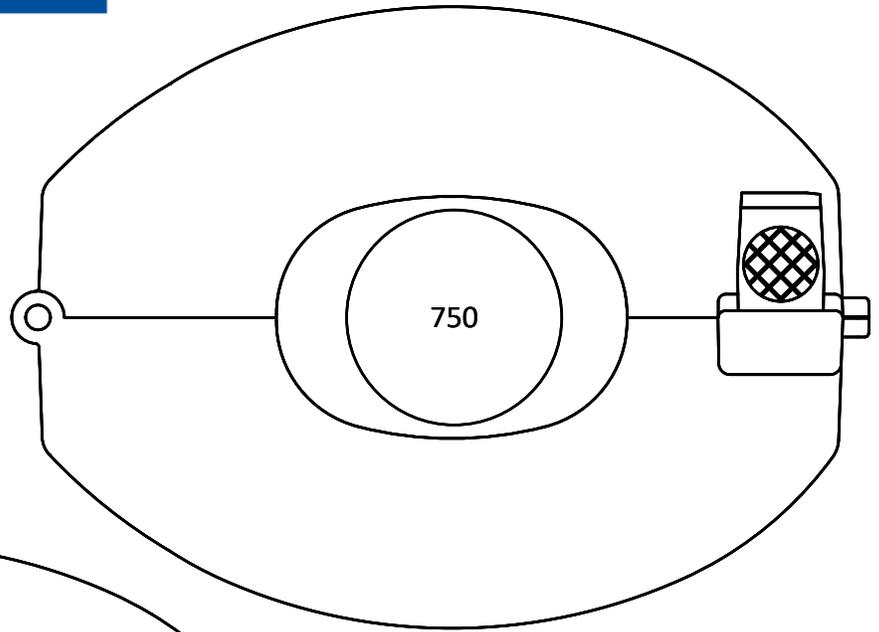
Ideal for retrofit applications - high accuracy	Split-core 333 mV current sensors								
									
	ACTL-0750						ACTL-1250		
Primary (A)	20	50	100	150	200	250	250	400	600
Secondary	333 mV	333 mV	333 mV	333 mV					
Lead length (ft / m)	8 / 2.4	8 / 2.4	8 / 2.4	8 / 2.4	8 / 2.4	8 / 2.4	8 / 2.4	8 / 2.4	8 / 2.4
Window size (in / mm)	Ø 0.78 / 20	Ø 1.77 / 45	Ø 1.77 / 45	Ø 1.77 / 45					
Reference	USACTL0750020C06	USACTL0750050C06	USACTL0750100C06	USACTL0750150C06	USACTL0750200C06	USACTL0750250C06	USACTL1250250C02	USACTL1250400C02	USACTL1250600C02

ACTL-0750 range

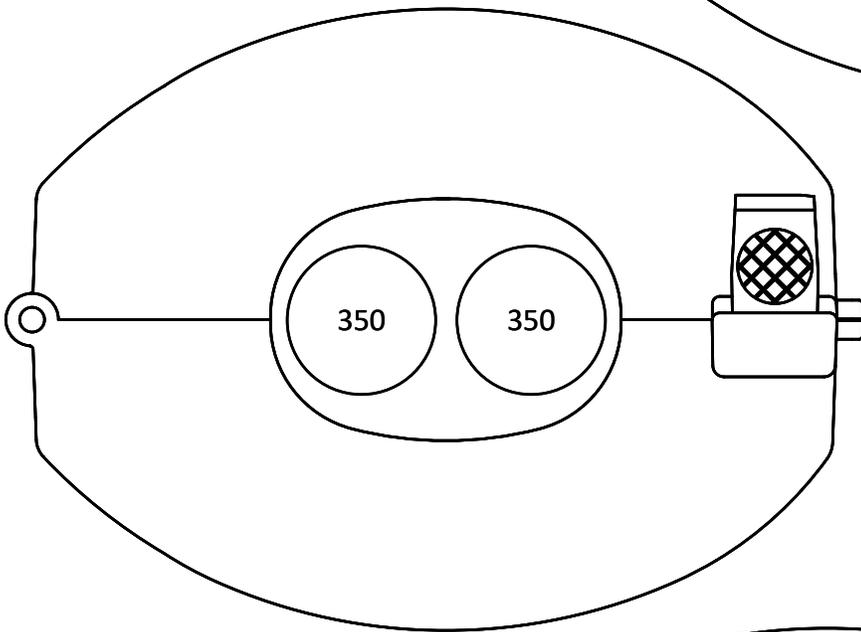


*Note: Based on Southwire THHN stranded copper wire diameters and 90°C allowable ampacities.*

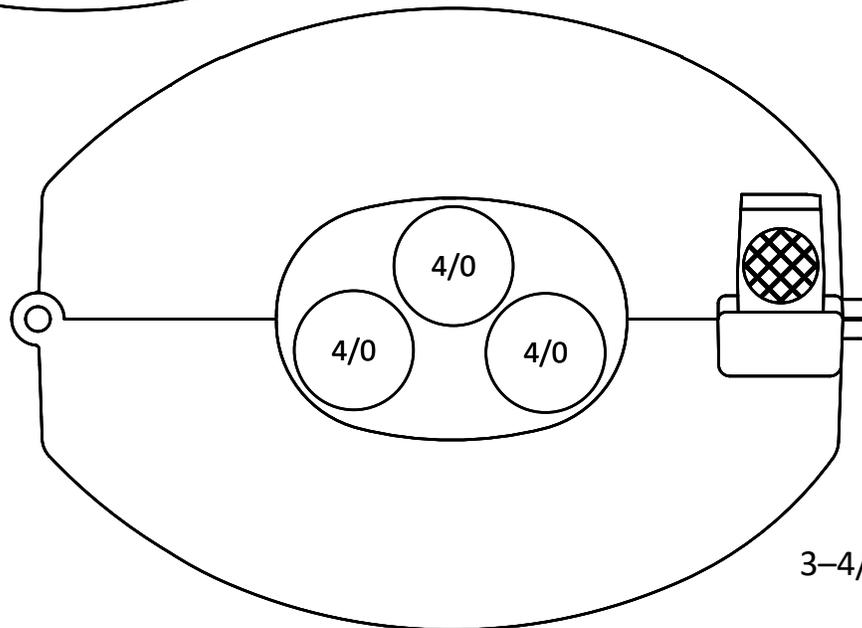
ACTL-1250 range



1-750 kcmil



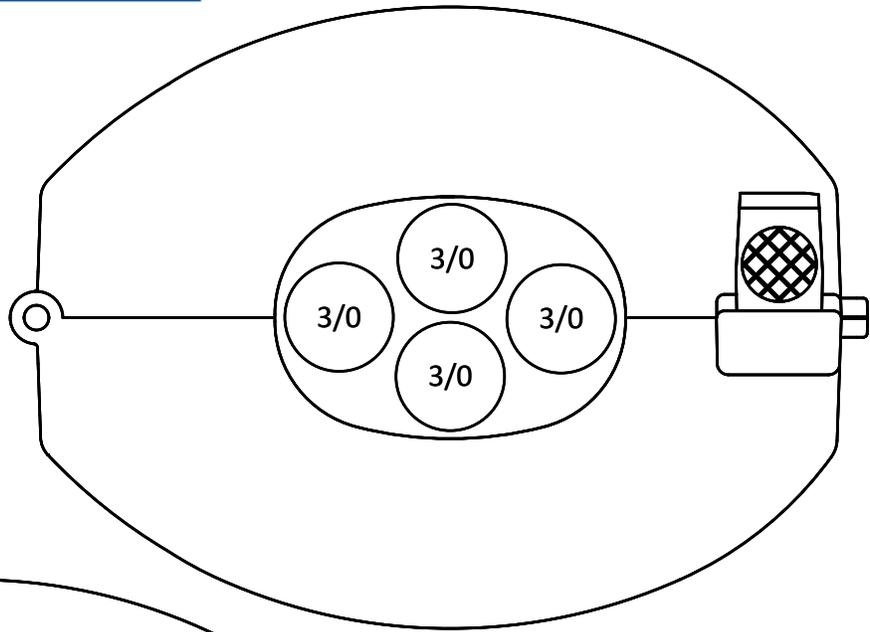
2-350 kcmil



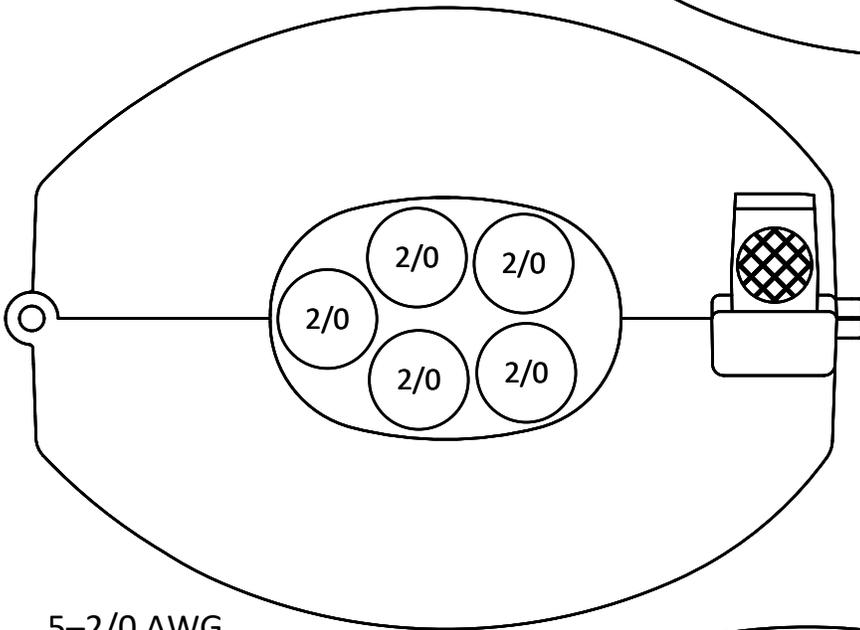
3-4/0 AWG

*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*

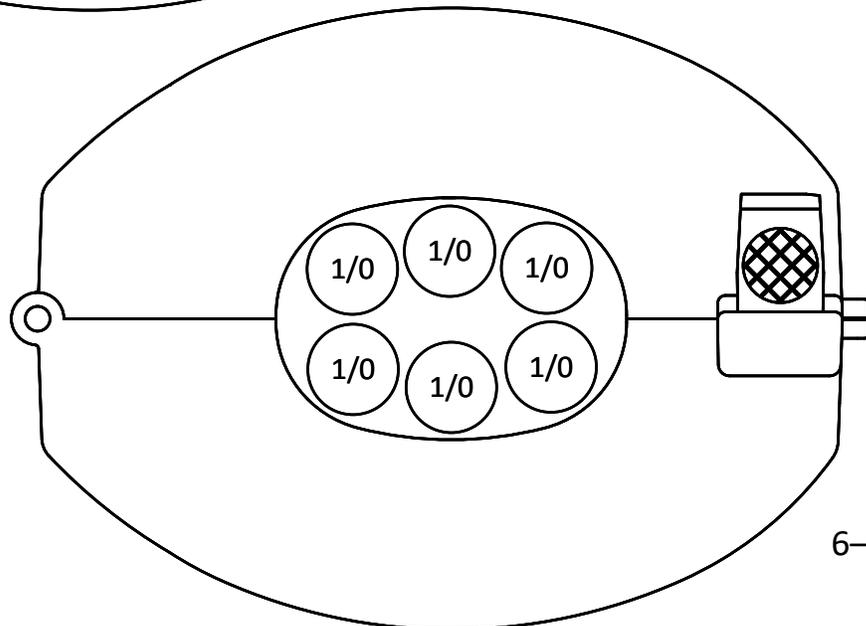
ACTL-1250 range – continued



4-3/0 AWG



5-2/0 AWG



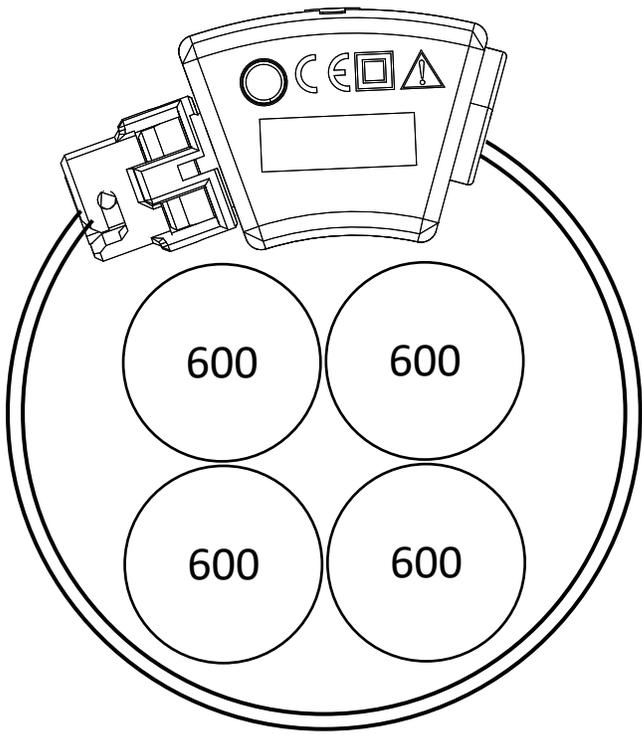
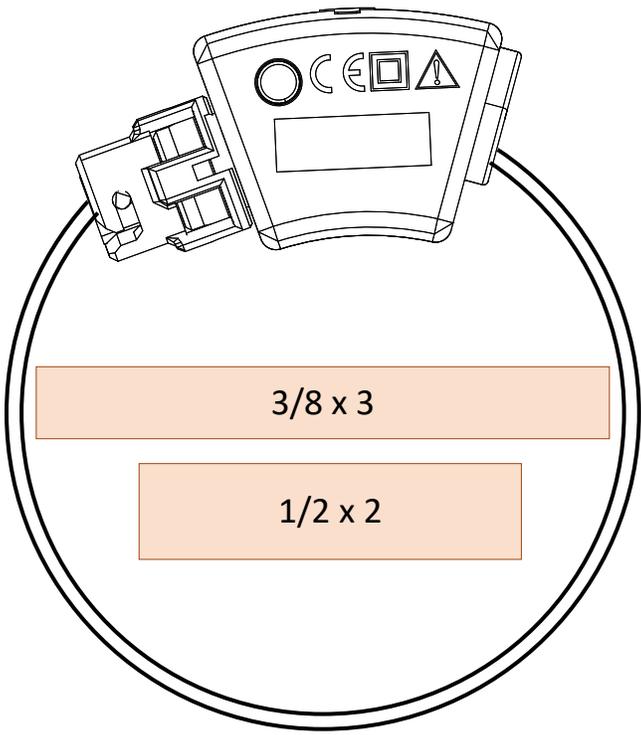
6-1/0 AWG

*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*

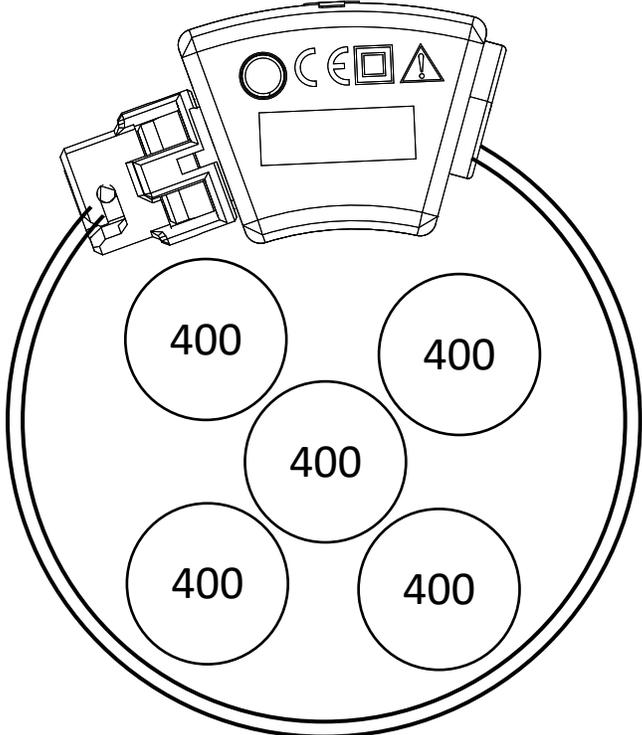
## 4. ROG 131 mV current sensors



	Rogowski 131 mV current sensors			
Ideal for busbars or higher currents				
Output signal	131 mV / kA @ 60Hz	131 mV / kA @ 60Hz	131 mV / kA @ 60Hz	131 mV / kA @ 60Hz
Lead length (ft / m)	22 / 7	22 / 7	22 / 7	22 / 7
Window size (in / mm)	Ø 3.15 / 80	Ø 4.7 / 120	Ø 7.8 / 200	Ø 11.8 / 300
Accuracy	0.5%	0.5%	0.5%	0.5%
Reference	194S 1080	194S 1120	194S 1200	194S 1300

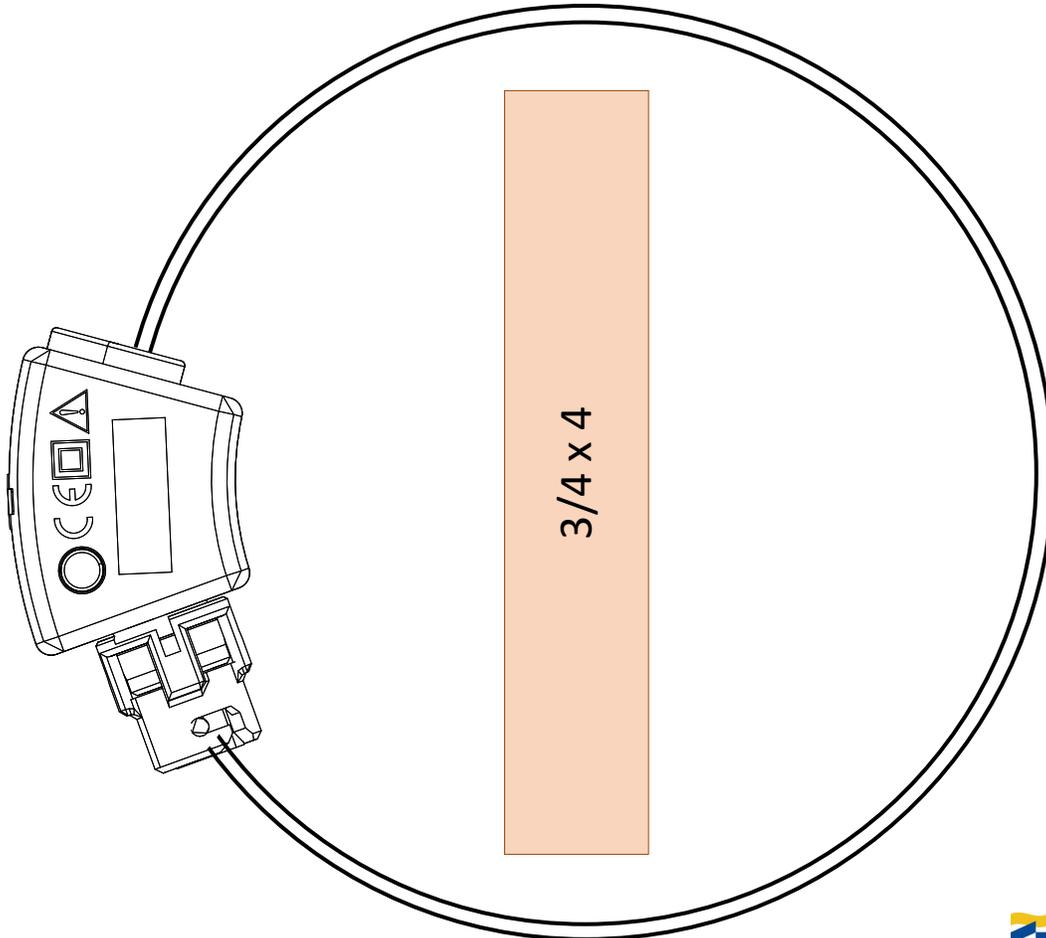
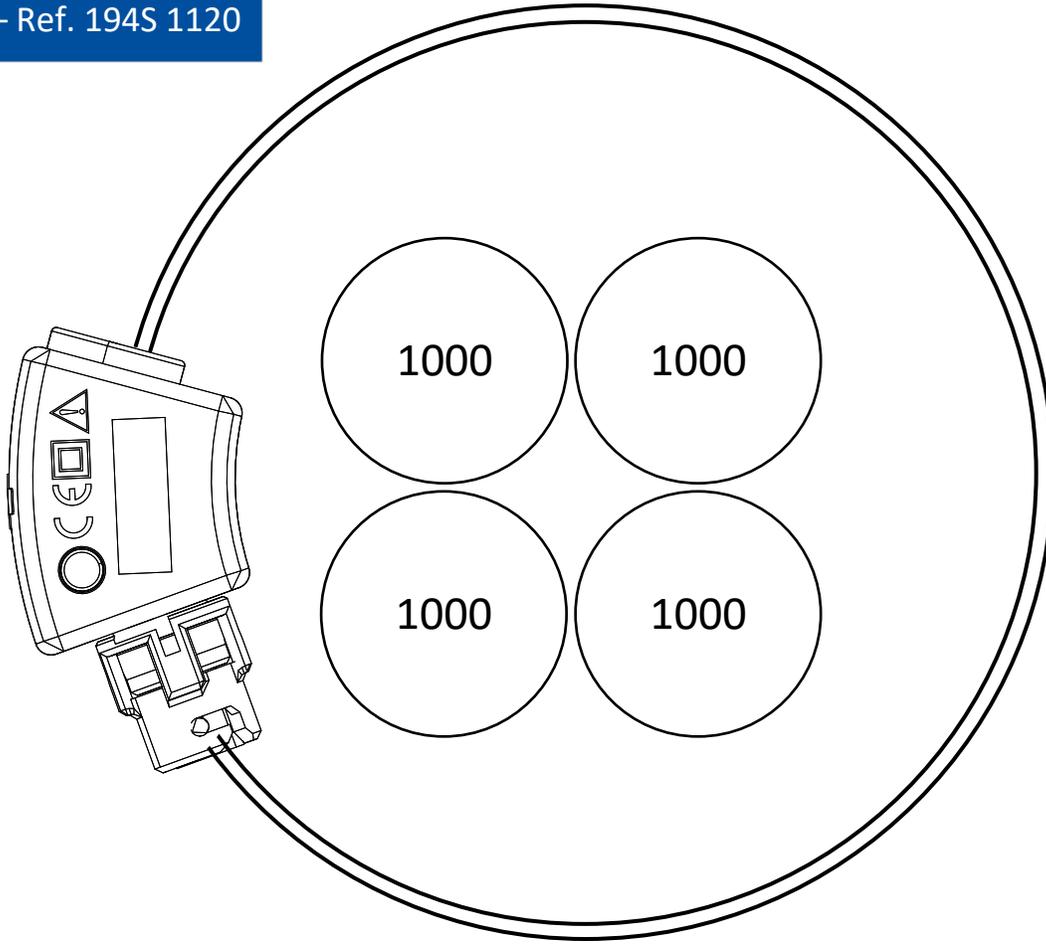


4–600 kcmil

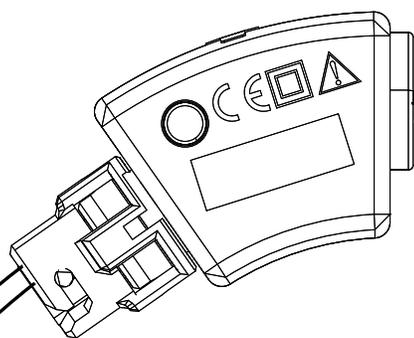


5–400 kcmil

*Note: Based on Southwire THHN stranded copper wire diameters and 90°C allowable ampacities.*



*Note: Based on Southwire THHN  
stranded copper wire diameters and  
90°C allowable ampacities.*



3/4 x 8

3/4 x 6