Components

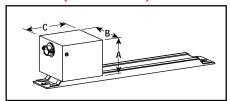
Strip & Ring Heaters

Accessories

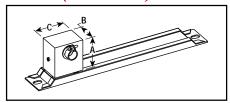
- Protective Terminal Covers
- Shims
- Ceramic Post Terminal Insulators
- Porcelain Hi-Temp Insulation

Protective Terminal Covers — Types OT, PT, SE, WS and Seamless Types SSE, SSEM, SSNH and SSNHM. Helps guard terminals from spillovers, dripping. Removable sheetmetal cover, with Bx fitting, is shipped separately.

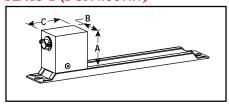
OT-AC-1 (PCN 129242)



PT-AC-1 (PCN 255724)



SE-AC-1 (PCN 256727)



Protective Terminal Covers

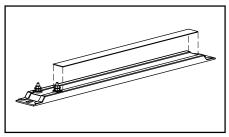
		Dimensions (In.)			
	Model	Α	В	С	
	OT-AC-1	2	2-1/2	2-1/2	
	PT-AC-1	1-7/8	1-1/8	1-3/4	
	SE-AC-11	2-1/16	1-1/2	2	
Used on type WS (mounted)					

Used on type WS (mounted sideways).

Shims

Shims — Types OT, PT, S, SE and TH. Provide same advantage as flush-top construction and can be used with stock heaters. Shims are 0.031" thick, 29/32" wide and lengths to fit heater.

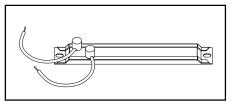
Shims



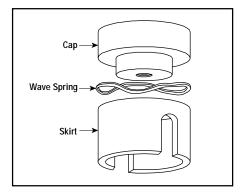
Ceramic Post Terminal Insulaters

Ceramic Post Terminal Insulators — All types except NS and SN. Use with insulated wire to help protect against electrical shock. Wires can leave terminal at any angle. For strip heaters only.

Ceramic Post Terminal Insulators



PCN 259805 (Nickel plated steel hardware) PCN 255732 (Stainless steel hardware)



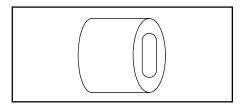
Porcelain Beads

Bead Size	Dir A	mensions (I B	n.)	Wire Size Solid	No. Beads Per Ft.	No. Beads Per Lb.	PCN
2 3 4 5	0.17 0.2 0.26 0.33	0.068 0.092 0.156 0.124	0.17 0.2 0.26 0.33	14 B&S 12 B&S 8 B&S 10 B&S	88 69 51 45	4,535 2,900 1,500 650	263880 263900 263927 263943
5 0.33 0.124 0.33 10 B&S 45 650 263943 6 0.4 0.156 0.4 8 B&S 38 360 263960 To Order— Specify PCN, number of pounds and quantity.							

Porcelain Hi-Temp Insulation

Porcelain Hi-Temp Insulation —

For insulating buss bars spec. 51 porcelain insulators 1/2 L x 13/16" W with 1/8 x 9/16" slot. 95 pieces per lb.



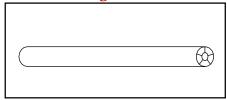
To Order — Specify pounds, PCN 269780 and porcelain insulators.

For Insulating Bare Wires — Two types available:

Porcelain Tubing — 3/8" O.D. x 1/8" I.D. x 6" L (may be broken for shorter lengths). Suitable for 10-gauge or smaller; 8-gauge takes No. 6 porcelain bead.

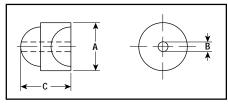
To Order — Specify quantity and PCN 263863.

Porcelain Tubing



Porcelain Beads — Listed in table below. Can be used when wiring does not permit straight tubing.

Porcelain Beads



3. When selecting porcelain beads for stranded wire, use next larger gauge wire and use bead for that size (i.e., 10 gauge stranded wire requires a No. 6 bead).

Components

Strip & Ring Heaters

Wire & Accessories *(cont'd.)*

- High Temperature (Bare) Wire
- Insulated Wire
- Buss Bar
- Silicone Boot Termination Kit
- Silicone Boot Termination Kit with Thermostat

Ambient Temperature Corrections for Insulated Wires — Multiply ampacity values, in tables below, by the following correction factors to determine current-carrying capacity at higher ambient temperatures.

			Nickel			
Ambient Temp.		Nickel-Plated Copper Teflon®	Silicone	Teflon®	MGS- Mica	
°C °F		İnsulated	Glass	Glass	Glass	
30	86	_	_	_	1.36	
50	122	0.98	0.97	0.98	_	
60	140	0.95	0.94	0.95		
70	158	0.93	0.9	0.93	_	
80	176	0.9	0.87	0.9		
90	194	0.87	0.83	0.87	_	
100	212	0.85	0.79	0.85	1.22	
120	248	0.79	0.71	0.79		
140	284	0.72	0.61	0.72		
149	300	0.65	0.5	0.65	1.12	
177	350	0.58	0.35	0.58		
204	400	0.49	_	0.49	1	
232	450	0.35	_	0.35	 	
260	500	_	—	—	0.87	
269	550	_	l —	—	_	
300	572	_	_	_	0.7	
	NI - 4 -	A £4 = 11 = 1.11 = 1				

Note — After exposure to high temperatures, all wire insulation becomes brittle and will not withstand repeated flexing.

Wire & Buss Bar

High-temperature wire and buss bar are recommended for connections to heater terminals and for runs in heated zones. When ambient temperature exceeds maximum allowed for insulated wire, use bare wire or buss bar with porcelain insulators. Current-carrying capacities should be carefully noted.

Buss bar is solid or perforated to facilitate wiring, especially when terminals are in line. Perforated buss bar, has 11/32 x 7/32" slots on 7/16" centers. When connecting elements with buss bar, provide expansion loops between elements. Buss bars may be used in multiples for higher ampacity (approx. 33-1/2% per buss bar) than listed below.

High Temperature (Bare) Wire

Size AWG	Solid/S Strand/F	Amp- acity ¹	Nom. O.D.	Model	PCN			
	550°F Max. Wire Temp. Nickel-plated Copper, Uninsulated							
14	S	41	.064	CSB-14	263839			
10	S	70	.102	CSB-10				
8	S	93	.128	CSB-8	263804			
	1000°F Max. Wire Temp.							
Mai	nganese	-nickel,	Unins	sulated				
14	F	12	.075	AFB-14	269317			
14	S	12	.064	ASB-14	269309			
12	F	15	.097	AFB-12	269296			
12	S	15	.081	ASB-12				
10	F	20	.12	AFB10	269270			
10	S	20	.102	ASB-10	269261			
	To Order — Specify PCN and quantity.							

Insulated Wire

Size AWG	Solid/S Strand/F	Amp- acity ¹	Nom. O.D. Insul In.	Model	PCN				
Sili	392°F Max. Wire Temp. Type A Nickel Wire Silicone Rubber Treated Glass Braid								
_	Insulated 600V UL Listed								
16 16 14	F S F	27 27 36	.224	3-CFI-16 3-CSI-16 3-CFI-14	263759 263740 263732				
1 14	s	36	.237	3-CSI-14	263724				
1 12	S	45	.263	3-CFI-12	263716				
12	S F	45	.263	3-CSI-12	263708				
10	F	60	.29	3-CFI-10	263695				
10	S F	60 83	.29 .31	3-CSI-10 3-CFI-8	263687 263679				
_			_	ype TGT,	203013				
Nic	r iviax. v kel-nlate	d Con	enip. i ner Te	eflon® Impre	hatenne				
Gla	ss Braid	Insula	ated 6	00V UL List	ed				
14 14	F S	39 39		6-CFI-14 6-CSI-14	263791 295398				
12	l F	54	.141	6-CFI-12	263783				
12	S F	54	.13	6-CSI-12	295400				
10	F	73	.17	6-CFI-10 6-CSI-10	263775				
10	S F	73 93	.156	6-CSI-10 6-CFI-8	295419 263767				
			•	eflon® Tape					
				lass Braid	and				
	ulated 60								
14	F	39	.121	3-AFI-14	269253				
12	F	54	.141	3-AFI-12	269237				
10	F	73	.17	3-AFI-10	269210				
	842°F Max. Wire Temp. Nickel-clad Copper, MGS-Mica Glass Insulated 600V								
16	F	33¹		6-CFIM-16					
14	F -	441		6-CFIM-14					
12	F	55 ¹	.118	6-CFIM-12	295371				

To Order — Specify PCN and quantity.

1. See note 1 in Buss Bar Table.

Buss Bar

Manganese-	DIM	(ln.)	Amp-		
Nickel	Width	Thick	acity1	PCN	
1100°F Max. Wire Temp.					
Solid	1/2	.032	26	263847	
Perforated	1/2	.032	23	263855	
To Order — Specify PCN and number					

 These current values will cause the conductor to operate at 100°F above surrounding ambient; values may also be used for bare wire with porcelain tubes or bead insulation.



Silicone Boot Termination Kit

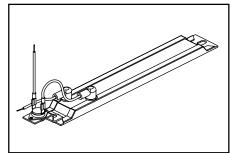
SBK — The silicone boot termination kit provides electrical insulation for strip heater terminals and leads with ring type insulated connector on one end for bringing power to the strip heaters.

Silicone Boot Termination Kit with Thermostat

SBKT — The silicone boot termination kit with thermostat used with strip heaters provides an inexpensive way to maintain temperature in control cabinets, panels and other small enclosures. In this application, strip heaters are used to prevent freezing and corrosion, and to control humidity in enclosures with humidity sensitive electronic components.

		Temperature (°F)	
Model	PCN	Closes	Opens
SBKT-1	386011	38	53
SBKT-2	386020	60	75
SBKT-3	386038	105	120
SBK	121890	N/A	N/A

SBKT





Components

Strip & Ring Heaters

Accessories (cont'd.)

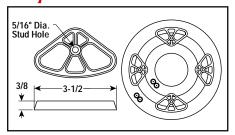
- Element Clamps
- Clamping Bands
- Mounting Studs

Element Clamps

Cast-iron clamps, for use with Chromalox strip and ring elements, retain their strength at elevated temperatures to assure maximum sheath-to-surface contact. Resulting uniform efficient heat transfer from internal resistance wire to the heated material minimize hot spots on the element, contributing to long service life.

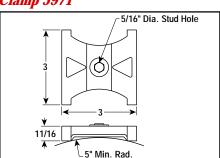
Clamp 6018 — Usually used in sets of two or more to clamp ring elements to flat surfaces. 5/16" flathead machine screws are normally used with head brazed or welded to work surface (PCN 263978).

Clamp 6018



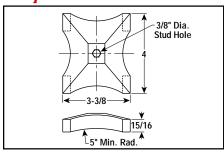
Clamp 5971 — Use to clamp two strip heaters on 2" centers using 5/16" studs spaced 5" apart (PCN 263636).

Clamp 5971



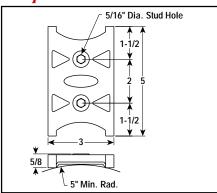
Clamp 6933 — Use to clamp two strip heaters on 3" centers using 3/8" studs at 5" intervals (PCN 263644).

Clamp 6933



Clamp 5970 — Use to clamp three strip heaters on 2" centers using 5/16" studs at 5" intervals (PCN 263652).

Clamp 5970

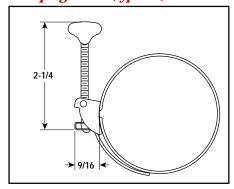


Clamping Bands

Type SC Clamping Bands — Provide permanently tight fit on cylinders, nozzles, pipes and other round surfaces. Stainless steel band with alloy screw. For small pipe diameters, strip elements should have cross-section curving (see Modifications in the Components section).

For Most Satisfactory Results, bands should be spaced about 5 inches apart and should be drawn up tight to assure good contact between heater or thermostat bulb and surface.

Clamping Bands (type SC)



Clamping Bands

1 0						
Max. Pipe Dia. (In.)	Model	Stock	PCN			
6-1/8	SC-820-20	S	265340			
7-1/8	SC-820-22	S	265359			
9-1/8	SC-820-26	S	265367			
11-1/8	SC-820-30	S	265375			
14-1/8	SC-820-34	S	265383			
16-1/8	SC-820-36	S	265391			
20-1/8	SC-820-40	S	265404			
26-1/8	SC-820-46	S	265412			
To Order Checify DCN and avantity						

To Order — Specify PCN and quantity.

Mounting Studs

Mounting Studs — For use with Chromalox clamps. For all clamps except No. 6933, studs are 5/16 — 18 x 1-1/2" Monel® (PCN 127845), steel washer (PCN 127853), Monel® nut (PCN 127861). For No. 6993 clamp; studs are 5/16" — 18 x 2" Monel® (PCN 127837).

Installation — Fasten studs to the work surface by welding, brazing or threading. Use correct size stud to fit clamp. See Selection & Installation Guidelines in the Components section. For temperatures over 750°F, stainless steel studs are recommended.

Note — When tightening nuts, torsion should not exceed 10 foot pounds maximum. Heaters must be allowed to expand. One clamp should hold heater. Nuts on other clamps should be backed off approximately 1/2 turn to allow for heater expansion.