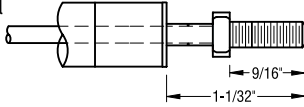
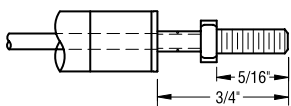
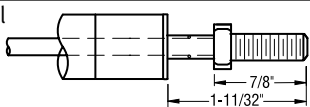
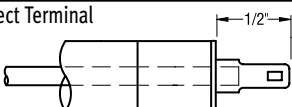
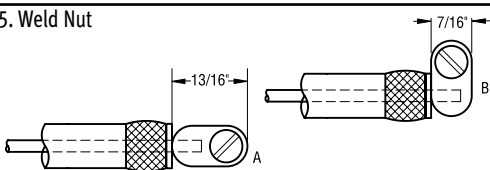
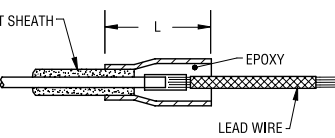
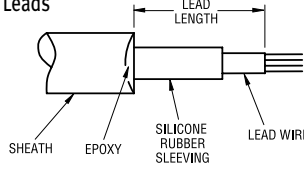
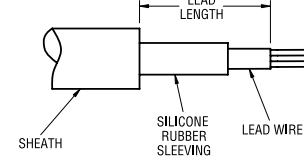


# Terminals, Insulators & Seals

## Terminals, Insulators & Seals

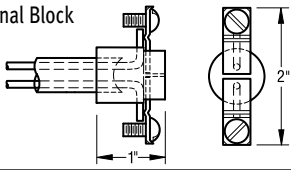
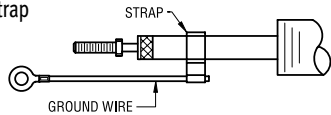
Except as noted, various terminations, insulators and seals can be combined as required to fit the application.

Table IV

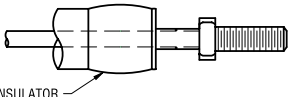
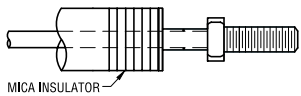
Terminals	Description	Use						
1. Threaded Terminal (Standard) 	10-32 stainless steel stud with 9/16" threaded length	For lead attachment in the field. 40 amp, 600V rating						
2. Threaded Terminal (Short) 	10-32 stainless steel stud with 5/16" threaded length	For installations with tight clearance.						
3. Threaded Terminal (Long) 	10-32 stainless steel stud with 7/8" threaded length	For multiple leads and heavy bus bars.						
4. Quick Connect Terminal 	Standard quick connect configuration	For connection to matching female terminal on field furnished lead. 30 amp, 600V rating						
5. Weld Nut 	Tab is welded to terminal pin and furnished with 10-32 terminal screw	Where it is more convenient to use this terminal orientation.						
6. Insulated Leads <table border="1" data-bbox="193 1243 368 1348"><thead><tr><th>L</th><th>Element Dia.</th></tr></thead><tbody><tr><td>1-1/4"</td><td>.312"</td></tr><tr><td>1-3/4"</td><td>.475"</td></tr></tbody></table> 	L	Element Dia.	1-1/4"	.312"	1-3/4"	.475"	Standard copper conductors insulated with 5/64" or 1/16", 90° C neoprene	Used primarily with epoxy waterproof seal (see No. 14) for defrost applications. Rated 480V at the following amperages: 18 gauge – 10 amps max 16 gauge – 15 amps max 12 gauge – 30 amps max
L	Element Dia.							
1-1/4"	.312"							
1-3/4"	.475"							
7. Silicone Insulated Leads 	Stranded nickel-clad copper leads with 1/32" silicone rubber insulation and glass braid	For higher temperature applications requiring a 200° C insulation. Rated 600V at the following amperages: 14 gauge – 20 amps 12 gauge – 30 amps						
8. Type TGGT Leads 	Stranded nickel-clad copper leads with Teflon – Glass – Glass – Teflon, 4-layer insulation	For applications requiring 250° C insulation. Rated 600V at the following amperages: 14 gauge – 20 amps 12 gauge – 30 amps						

# Terminals, Insulators & Seals

**Table IV** (continued)

Terminals	Description	Use
<b>9. Ceramic Terminal Block</b> 	10-32 female terminal tabs spot-welded to terminal pins running through ceramic block	For .475" diameter two-pass elements where temperature exceeds insulation limit or for convenience in attaching field furnished leads. Rated 30 amps at 277V
<b>10. Grounding Strap</b> 	To ground long straight single-pass finned tubular elements, eliminating arcing due to secondary currents	Recommended for straight single-pass finned tubular elements over 6' long.

Note: Terminations Nos. 1 through 8 are available on standard single-pass elements. Two-pass elements available with Nos. 9 and 15 only.

Terminal Insulators	Use
<b>11. Silicone Rubber (Standard)</b> 	General applications where terminal temperatures do not exceed 400° F. 1/4" thick insulation furnished up to 250V; 1/2" thick up to 600V. (Standard insulator unless otherwise specified)
<b>12. Mica</b> 	Applications where terminal temperatures do not exceed 1000° F. 1/4" thick insulation furnished up to 250V; 1/2" thick up to 600V.

Note: Terminal insulators are used in conjunction with Terminals Nos. 1 through 5 on standard elements.

Terminal Seals		Description	Use
13. Epoxy Barrier		Epoxy resin is mostly absorbed by the magnesium oxide insulation, but a thick film forms a barrier against moisture	For applications where low to moderate humidity may be present in the terminal area. For use at 200° F maximum.
14. Epoxy Seal		Epoxy resin fills a metallic adapter enclosing the connection between lead wire and element terminal pin	Primarily defrost applications and others where water may drip on the terminal end. UL Recognized under File SA3254. Suitable for a maximum adapter temperature of 200° F.
L	Element Dia.		
1-1/4"	.312"		
1-3/4"	.475"		
15. Epoxy Barrier (for two-pass construction)		Epoxy resin is mostly absorbed by the magnesium oxide insulation, but a thick film forms a barrier against moisture	For applications where low to moderate humidity may be present in the terminal area. For use at 200° F maximum.
16. Hermetic Seal		Ceramic to metal hermetic seal is soldered to the element sheath and terminal pin. 1/4"-28 threaded terminal	Absolute seal up to 1000° F.