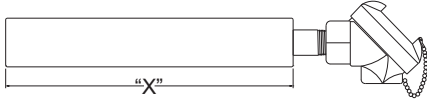


The Series 11, 13 and 14 assemblies are used to protect thermocouple elements in molten aluminum and zinc applications such as diecasting, melting, smelting and high temperature holding furnace environments. The Series 18 silicon carbide assembly can also be used in the above mentioned applications, however the Series 18 is a refractory silicate bonded tube and generally will not provide a service life equal to silicon nitride bonded silicon carbide assemblies. The Series 18 is satisfactory for use in other molten metals, molten glass, and other high temperature applications. Series 13, 14, and 18 assemblies should be preheated and slowly immersed into any molten materials.

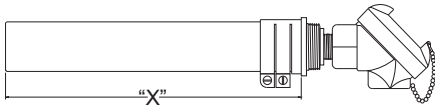
SERIES 13 PROTECTION TUBE ASSEMBLIES

FIG. 1



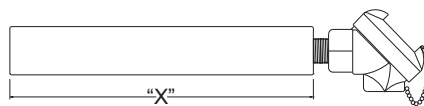
SERIES 18J PROTECTION TUBE ASSEMBLIES

FIG. 2



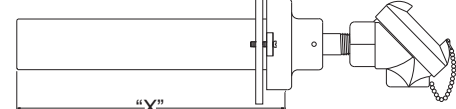
SERIES 11 PROTECTION TUBE ASSEMBLIES

FIG. 3



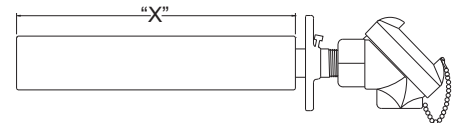
SERIES 18JC PROTECTION TUBE ASSEMBLIES

FIG. 4



CERITE® II 14 PROTECTION TUBE ASSEMBLY

FIG. 5



ORDER CODES

Example Order Number:

K8C - **13-75** - **24** - **31, H**

1 Thermocouple Type + Wire Gauge Size

CODE	
K8C	N8C
DUPLEX T/C ASSEMBLIES	
For duplex assemblies use the T/C type code letter twice. Example: K8C - 13 - 75 becomes KK8C - 13 - 75.	
For additional types and sizes consult factory.	

2 Protection Tube Material

CODE	FIGURE NUMBER
CAST IRON	
11-75	3
VESUVIUS	
13-75	1
SILICON CARBIDE	
18J-75	2
18JC-75	4
CERITE® II	
14-50 ^[1]	5
[1] For protection tubes supplied with a 316SS pipe instead of a carbon steel pipe, change order number 14 to 148. EXAMPLE: K8C-148-50-24-31	

Protection Tube Dimensions

CODE	ID x OD (inches)
11	0.875 x 1.625
13	0.824 x 2.00
18J	1.00 x 1.75
18JC	1.00 x 1.75
14	0.622 x 2.00

4 Head Terminations

CODE	DESCRIPTION
31	Aluminum screw cover head
34	Cast iron screw cover head
49	Flip top aluminum head
91	316L SS head

4-1 Assembly Options

CODE	DESCRIPTION
GS	Ground screw
H	Adjustable steel mounting flange
I	Stainless tag
L	Insulated hot junction

3 Tube "X" Length

LENGTH (inches)	LENGTH (inches)
12	36
18	42 ^[1]
24	48 ^[1]
30	
Consult factory for other lengths.	
[1] 42 & 48 not available in 14 Series tubes.	