TAD & ASSOCIATES, INC. heat tracing specialists

MISS

MINERAL INSULATED HEATER CABLE

Made in USA

Heat Trace

1. End Termination
2. Alloy 825 Stainless Steel
3. Hot/Cold Joint
4. Compression Fitting

Description

MI heater cables are seamless die drawn cables that are made to specified lengths to deliver high power output along the entire length of the cable. It's nichrome heating conductors are embedded in highly compressed magnesium oxide dielectric and covered with a stainless Alloy 825 sheath. The sheath is fully annealed and is easily hand formable.

MI heater cables are factory assembled and cannot be cut to length in the field. Both hot and cold sections are made to customer specifications. MI cables can be completely submersed which makes them great for gut tracing applications. MI cables can also be equipped with reversed glands and puller-eyes to assist in cable installation and capping small diameter pipes. MI cables resist the most aggressively corrosive environments. Alloy 825 cables are capable of withstanding temperatures up to 1,000°F.

Applications

MI heater cables are suitable for use in pipe tracing applications where high temperatures are required, pad heating/snow melting where removal of snow and ice are needed for safety. MI heater cables are also useful in large vessel and hopper heating applications. In tank and hopper heating applications MI is attached to sheets of wire mesh to help diffuse the heat into the tank walls. Because MI cables are silver soldered and waterproof they are a great choice in "gut" tracing applications.

Calculation

To determine which conductor in Table 2 will satisfy performance requirements follow the arithmetic below.

$$\text{Conductor } (\Omega/\text{Ft.}) = \frac{\text{Voltage}^2}{\text{Length}^2(\text{Cable W/Ft.})}$$

Compare the answer to the closest available conductor that will yield desired effect. Recalculate using formula above to determine exact output and whether the result is favorable and will not impose any safety or damage potential. No more than 4 W/Ft. is permissible on PVC and polyethylene pipe. Some design complications may arise under certain circumstances due to variables, however there are workarounds such as transformers.

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Ordering Information

Example Configuration		MISS-K742-AN-125-03-C1-E				
MISS	Conductor	Form	Hot Section	Cold Section	Options	Options Continued
	Table 2	AN	See Notes	.5' - 40' Exp.	C1=1/2" Reversed Gland	P=PVC Jacketed Cold Section
		BN			C2=3/4" Reversed Gland	U=NEMA 7 Termination
		CN			E=Puller-Eye End	X=Other, Specify
					G=Glass Wrapped Hot Section	

Note: Hot section length is dependent on several factors including voltage, cable output, conductor, amperage.

Construction

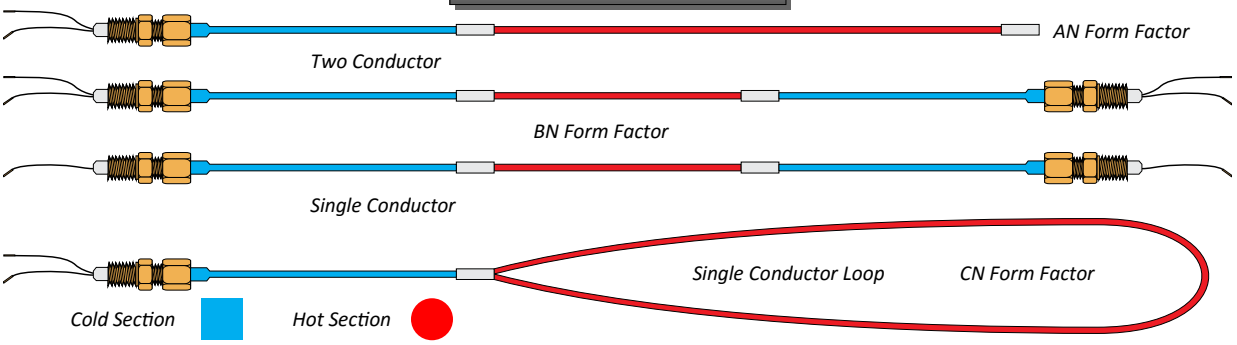

Table 2

300 Volt, 2 Conductor 3/16" OD .07 Lbs/Ft.		
Size	Ohms/Ft.	Max Exp Temp°F
K556	.043*	600
K658	.058*	
K674	.074*	
K693	.093*	
K712	.117*	
K715	.147*	
K721	.213*	
K732	.319	1,000
K742	.416	
K752	.520	
K766	.660	
K774	.740	
K810	1.00	
K813	1.30	
K818	1.80	
K824	2.34	
K830	2.96	
K838	3.70	
K846	4.72	
K860	5.60	
K866	6.60	
K894	9.00	
K919	18.00	

600 Volt, 2 Conductor 5/16" OD .22 Lbs/Ft.		
Size	Ohms/Ft.	Max Exp Temp°F
B588	.0071*	600
B614	.0149*	
B627	.027*	
B640	.040*	
B670	.065	1,000
B710	.104	
B715	.162	
B720	.205	
B732	.325	
B750	.500	
B774	.735	
B810	1.162	
B819	1.87	
B830	2.97	
B840	4.30	
B859	5.98	

600 Volt, 1 Conductor 3/16" OD .07 Lbs/Ft.		
Size	Ohms/Ft.	Max Exp Temp°F
K145	.0046*	600
K189	.0090*	
K216	.0165*	
K239	.039	1,000
K250	.050	
K279	.079	
K310	.095	
K316	.157	
K326	.260	
K333	.330	
K346	.457	
K372	.730	
K412	1.17	
K415	1.48	
K423	2.36	
K430	2.80	
K447	4.50	

Note: All values @ 68°F
*Resistance curves apply, consult TAD for design