

ARCTIC TRACE[®]

Type TL series Temperature Limiting

PRODUCT SPECIFICATION SUBMERSIBLE FREEZE PROTECTION SYSTEM

APPLICATION:

ARCTIC TRACE TL series Temperature Limiting Heating Cable are designed for a wide range of heating application using parallel resistance heating element. Suitable for water freeze protection and process viscosity maintenance. The product is specially designed to be in contact with the process (submersible) or on the outside of the pipe in a conventional heating fashion.

CONSTRUCTION:

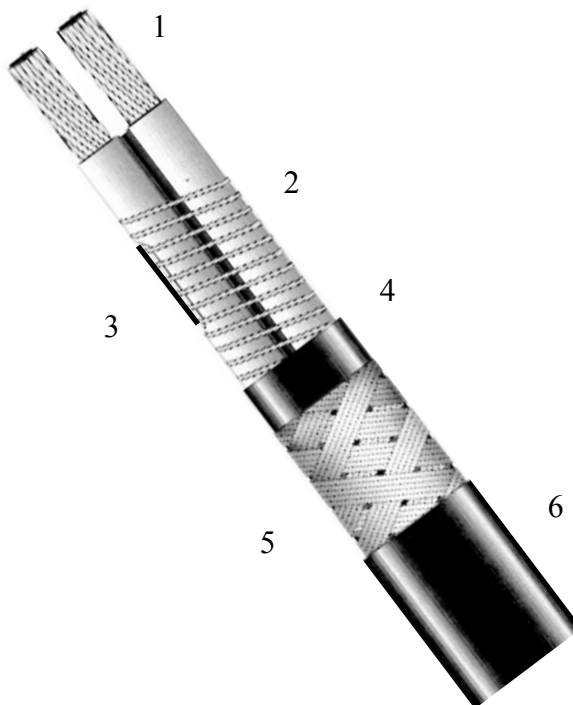
1. Copper bus wire (12 awg)
2. Temperature limiting metal resistance wire
3. Welded heater-bus connection
4. ETFE Flu on[®] Extruded food grade Insulation
5. (CB) Nickel plated copper braid
(SS) 316 SS Braid

OPTIONS:

6. (TEZ) TEE over-jacket provides sanitary cover for food application in addition to mechanical and corrosion protection for metal braid
7. (NSF) Certified to NSF/ANSI 61

PRODUCT FEATURES:

TL heating cable incorporates a special metal heating element that reduces its resistance as temperature rises giving the cable a temperature limiting quality thus saving energy, protecting plastic pipes, limiting process temperature and allowing the cable to be overlapped during installation. Lowering the cable surface temperature extends cable life. The cable is specifically designed to be submerged in the water or process and is approved for use in contact with potable water.



RATINGS

Maximum maintenance temperature:	300° F (149° C)
Maximum continuous exposure temperature: (de-energized)	300° F (260° C)
Minimum installation temperature:	-60° F (-51° C)
Earth leakage:	1.5 mA per 100 ft. (31mA) @ 240 VAC
Voltage:	120/240 VAC nominal *

* Higher maintenance temperatures and operating voltages up to 480Vac may be possible. Contact du Alaska for design assistance.

ARCTIC TRACE[®]

Type TL series Temperature Limiting

PRODUCT SPECIFICATION SUBMERSIBLE FREEZE PROTECTION SYSTEM

CATALOG NUMBER	Rating W/FT W/M	CIRCUIT LOAD AMP DRAW @ -40			CIRCUIT LENGTH @		CIRCUIT LENGTH WITH END TO END WATT REDUCTION			
		W/M 50F	AMPS FT	AMPS M	FULL LOAD *		15%		20%	
@ 120 VAC	W/FT 50F	W/M 50F	AMPS FT	AMPS M	FULL LOAD *		15%		20%	
Z120312CBTL	3	10	.03	.10	450'	120M	500'	150M	590'	177M
Z120512CBTL	5	16	.04	.164	310'	95M	350'	106M	410'	125M
Z120712CBTL	7	23	.06	.33	220'	66M	250'	75M	300'	90M
Z121012CBTL	10	33	.08							
@ 240 VAC										
Z120324CBTL	3	10	.012	.04	480'	121M	600'	181M	875'	266M
Z120524CBTL	5	16	.020	.066	390'	119M	500'	153M	600'	183M
Z120724CBTL	7	23	.029	.095	380'	78M	330'	100M	390'	118M
Z121024CBTL	10	33	.041	.012	370'					

The power output shown apply to standard cable installed on insulated metallic pipe with the service voltage stated.

ALTERNET VOLTAGES
Should Arctic Trace be connected to a less or greater voltage watt per foot output will be reduced or increased

$$\text{ACTUAL WATT PER FOOT} = \left(\frac{\text{CONNECTED VOLTS}}{\text{RATED VOLTS}} \right)^2 \cdot \text{ARCTIC TRACE W/ft}$$

Circuit Breaker should be sized per article 427-4 of the NEC and the use of Ground Fault Equipment is required as stated in N.E.C. Article 427-22.

AMP per FT/M rating is based on -40°F start up temperature. Increase direct breaker for all cable temperatures > -40° F by 20% to allow for in rush current.

Approval Listings: Approvals valid only when used with appropriate heating cable and installation accessories, and installed in accordance with all applicable instructions, codes and regulations



Underwriters Laboratory
Our freeze protection cable has been submitted to and tested by UL and has been recognized by that testing laboratory as a component heating cable to be used in an appropriate freeze protection system.



Hazardous Locations
Class I, Div. 1, Groups C, D; Class II, Div. 1, Groups E, F, G, Class III; Temperature Coded (T6 to T4)
Class I, Div. 2, Groups C, D; Class II, Div 2, Groups F, G; Class III; Temperature Coded (T6 to T4)



**Certified to
NSF/ANSI 61**



Ordinary Locations
Commercial & Industrial UL 515 Type A & D
On metal and nonmetallic pipe and vessels – 3A, 3B, 3C
In metal and nonmetallic pipe and vessels – 4A, 4B, 5A, 5B
wet location industrial

* Full loads are based on 10% power drop when cable is energized on service voltage listed.

CSA/US 4B designation or installation type D limited to power outputs of 3W/FT and 5W/FT

du Alaska Incorporated
Arctic Trace[®]

Phone (907)522-3004
Fax (907) 349-1023

The information in this document is presented in good faith and is believed to be reliable. However, users should independently evaluate the suitability of each product for their specific application. du Alaska makes no warranty as to the accuracy or completeness of the information and/or illustrations, and disclaims any liability regarding its use. No warranty is given, expressed or implied and in no case will du Alaska be liable for any direct, indirect, incidental or consequential damage arising from use, misuse, sale or resale of the product. du Alaska's only obligations are those in the Standard Terms and Conditions of Sale.