PENTAIR

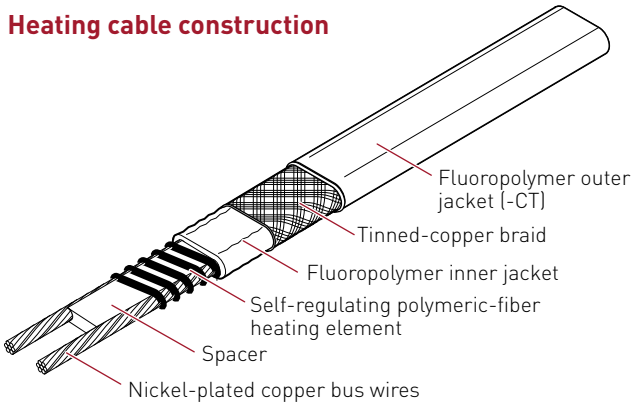
Raychem HXTV

CLASS I, DIVISION 1 SELF-REGULATING HEATING CABLES

10 YEAR Product warranty

Electrical freeze protection and process-temperature maintenance for CID1 hazardous locations

Heating cable construction



PRODUCT OVERVIEW

The HXTV family of self-regulating heating cables provides solutions to industrial freeze protection and process-temperature maintenance applications requiring high power output. HXTV heating cables can withstand temperatures up to 482°F (250°C) and provide process-temperature maintenance to 250°F (121°C).

All of the HXTV family of heating cables can be used in CID1 locations, including areas where corrosives may be present.

The power output of self-regulating heating cable is dependent on the heating cable temperature and can provide up to 20 W/ft at 50°F (10°C).

Raychem HXTV cables meet the requirements of the U.S. National Electrical Code and the Canadian Electrical Code. For additional information, contact your Pentair Industrial Heat Tracing Solutions representative or call (800) 545-6258.

APPLICATION

Area classification	Hazardous locations
Traced surface type	Metal and some plastics For use on plastic pipes, refer to TraceCalc Pro design software.
Chemical resistance	Organic and aqueous inorganic chemicals and corrosives

SUPPLY VOLTAGE

HXTV1	100–130 Vac
HXTV2	200–277 Vac

TEMPERATURE RATING

Maximum maintain or continuous exposure temperature (power on)	250°F (121°C)
Maximum intermittent exposure temperature, 1000 hours (power-on or off)	482°F (250°C)*
Minimum installation temperature	–40°F (–40°C)

*The 250°C rating applies to all products printed "MAX INTERMITTENT EXPOSURE 250C"

TEMPERATURE ID NUMBER (T-RATING)

	T2C: 446°F (230°C)	**T2D:** 419°F (215°C)	**T3:** 392°F (200°C)
	Temperature ID numbers are consistent with North America National Electrical Codes.		
	20HXTV2-CT-T2, 20HXTV1-CT-T2	15HXTV1-CT-T2	5HXTV1-CT-T3, 5HXTV2-CT-T3, 10HXTV1-CT-T3, 10HXTV2-CT-T3, 15HXTV2-CT-T3
Based on systems approach*	T3-T6		

* Raychem HXTV heating cables are approved for T3 – T6 temperature classes when stabilized or controlled designs are used according to the requirements of IEEE 515. Use TraceCalc Pro design software or contact Pentair.

APPROVALS

[1] All Class I, Div. 1 designs must be reviewed by the manufacturer.

Hazardous Locations

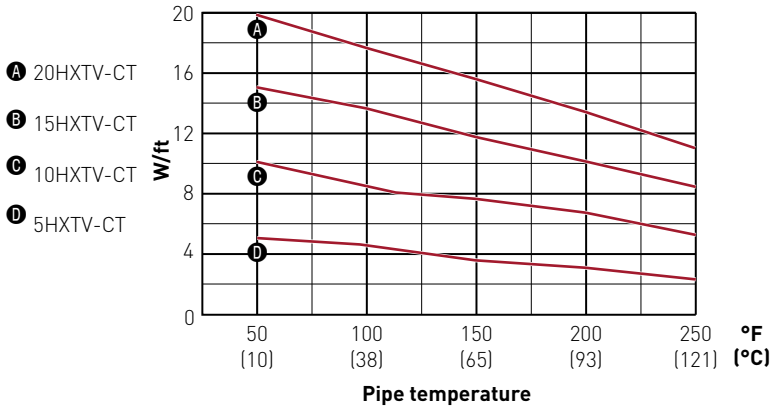
FM APPROVED — Class I, Div. 1[1], Groups B, C, D
Class II, Div. 1, Groups E, F, G
Class III

DESIGN AND INSTALLATION

For proper design and installation, use TraceCalc Pro design software or the design section of the Industrial Heat Tracing Solutions Products & Services Catalogue (H56550). Also, refer to the Industrial Heat-Tracing Installation and Maintenance Manual (H57274). Literature is available via the Pentair web site, www.pentairthermal.com.

NOMINAL POWER OUTPUT RATING ON METAL PIPES AT 120 V / 240 V

	Adjustment factors	
	Power output	**Circuit length**
208 V		
5HXTV2-CT	0.87	0.99
10HXTV2-CT	0.88	0.99
15HXTV2-CT	0.88	0.98
20HXTV2-CT	0.86	1.00
277 V		
5HXTV2-CT	1.07	1.08
10HXTV2-CT	1.08	1.06
15HXTV2-CT	1.08	1.06
20HXTV2-CT	1.07	1.08



Note: To choose the correct heating cable for your application, use the Design section of the Advanced Industrial Solutions Heat-Tracing Products & Services Catalog (H56550). For more detailed information, use TraceCalc Pro design software.

MAXIMUM CIRCUIT LENGTHS BASED ON CIRCUIT BREAKER SIZES

	Ambient temperature at start-up		Maximum circuit length (in feet) per circuit breaker									
			120 V					240 V				
			15 A	**20 A**	**30 A**	**40 A**	**50 A**	**15 A**	**20 A**	**30 A**	**40 A**	**50 A**
5HXTV-CT	50°F	(10°C)	180	240	360	385	385	360	480	720	765	765
	0°F	(–18°C)	160	210	320	385	385	315	420	625	765	765
	–20°F	(–29°C)	150	200	305	385	385	295	395	595	765	765
	–40°F	(–40°C)	145	195	290	385	385	285	380	570	760	765
10HXTV-CT	50°F	(10°C)	110	145	220	270	270	220	295	440	540	540
	0°F	(–18°C)	95	130	195	260	270	195	260	385	515	540
	–20°F	(–29°C)	95	125	190	250	270	185	245	370	495	540
	–40°F	(–40°C)	90	120	180	240	270	175	235	355	470	540

MAXIMUM CIRCUIT LENGTHS BASED ON CIRCUIT BREAKER SIZES

	Ambient temperature at start-up		Maximum circuit length (in feet) per circuit breaker									
			120 V					240 V				
			15 A	20 A	30 A	40 A	50 A	15 A	20 A	30 A	40 A	50 A
15HXTV-CT	50°F	(10°C)	75	100	150	200	220	150	200	300	400	445
	0°F	(–18°C)	65	90	135	180	220	130	175	265	355	440
	–20°F	(–29°C)	65	85	130	170	215	125	165	250	335	420
	–40°F	(–40°C)	60	80	125	165	205	120	160	240	320	405
20HXTV-CT	50°F	(10°C)	60	80	120	160	190	115	150	230	305	380
	0°F	(–18°C)	50	70	105	140	180	100	135	205	275	345
	–20°F	(–29°C)	50	65	100	135	170	100	130	200	265	330
	–40°F	(–40°C)	50	65	100	130	165	95	125	190	255	320

PRODUCT CHARACTERISTICS

Minimum bend radius	@68°F (20°C): 0.5 in (12.7 mm)
Weight (lb per 10 ft, nominal)	1.1
Bus wire size	14 AWG
Outer jacket color	Red
Heating cable dimensions	0.46 in x 0.3 in (11.7 mm x 7.6 mm)

ORDERING DETAILS

DESCRIPTION	PART NUMBER
5HXTV1-CT	P000001686
5HXTV2-CT	P000001687
10HXTV1-CT	P000001688
10HXTV2-CT	P000001689
15HXTV1-CT	P000001690
15HXTV2-CT	P000001691
20HXTV1-CT	P000001692
20HXTV2-CT	P000001693

CONNECTION KITS

Pentair offers a full range of connection kits for power connections, splices, and end seals. These connection kits must be used to ensure proper functioning of the product and compliance with warranty, code, and approvals requirements.

GROUND-FAULT PROTECTION

To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of Pentair, agency certifications, and national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection. Many Raychem control and monitoring systems meet the ground-fault protection requirement.

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