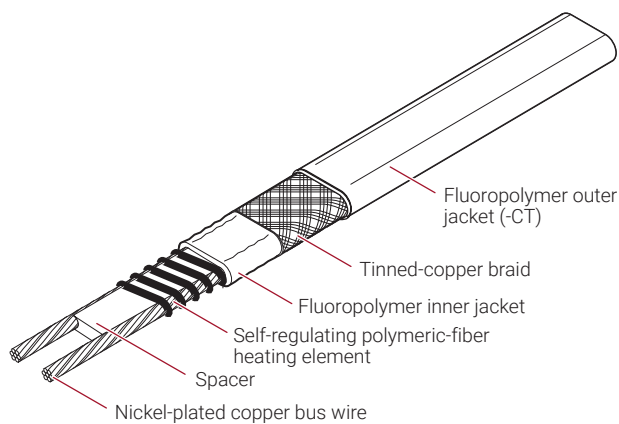


High-temperature self-regulating heating cables Electrical freeze protection and process-temperature maintenance for both nonhazardous and hazardous locations

PRODUCT OVERVIEW



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

The heating cables are configured for use in nonhazardous and hazardous locations, including areas where corrosives may be present.

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

nVent RAYCHEM XTV cables meet the requirements of the U.S. National Electrical Code and the Canadian Electrical Code. For additional information, contact your nVent representative or call (800) 545-6258.



APPLICATION

Area classification	Nonhazardous and hazardous locations
Traced surface type	Metal
Chemical resistance	Organic and aqueous inorganic chemicals and corrosives


SUPPLY VOLTAGE

XTV1	100–130 Vac
XTV2	200–277 Vac

SPECIFICATIONS

Maximum maintain or continuous exposure temperature (power on)	250°F (121°C)
Maximum intermittent exposure temperature (power on/off)	482°F (250°C)* Maximum cumulative exposure 1000 hours (* The 250°C rating applies to all products printed "MAX INTERMITTENT EXPOSURE 250C".
Temperature classification	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. 20XTV1-CT-T2, 15XTV1-CT-T2 5XTV1-CT-T3, 5XTV2-CT-T3, 20XTV2-CT-T2 10XTV1-CT-T3, 10XTV2-CT-T3 15XTV2-CT-T3
Based on systems approach*	T3-T6 * nVent RAYCHEM XTV heat-tracing cables are approved for the listed temperature classifications by using the principles of stabilized design (as per system classification approach) or the use of a temperature limiting device. Use TraceCalc design software or contact nVent.
Minimum installation temperature	-76°F (-60°C)
Minimum bend radius	-76°F (-60°C) ≤ T < -4°F (-20°C): 2" (51 mm) -4°F (-20°C) ≤ T < 14°F (-10°C): 1.4" (35 mm) 14°F (-10°C) ≤ T < 32°F (0°C): 1" (25 mm) 32°F (0°C) ≤ T < 50°F (+10°C): 0.8" (20 mm) T ≥ 50°F (+10°C): 0.5" (12.7 mm)
Bus wire size	14 AWG
Outer jacket color	Red

APPROVALS

	Hazardous Locations	Zone Approvals
IECEX IECEx BAS 20.0012X Ex 60079-30-1 eb IIC T* Gb or Ex 60079-30-1 tb IIIC T**°C Db Ex 60079-30-1 eb mb IIC T* Gb or Ex 60079-30-1 mb tb IIIC T**°C Db Tmin -60°C (*see schedule)	 Class I, Div. 2, Groups A, B, C, D Class II ⁽¹⁾ , Div. 2, Groups F, G Class III ⁽¹⁾ Tmin -40°C	 CLI, ZN1, AEx e II T3 (T2) Tmin -40°C
	 Class I, Div. 1 and 2, Groups A, B, C, D Class II, Div. 1 and 2, Groups E, F, G Class III -WS for Canada	 Ex 60079-30-1 IIC T* Gb Ex 60079-30-1 IIIC T* Db Class I Zone 1 AEx eb IIC T* Gb Zone 21 AEx tb IIIC T* Db -WS for Canada
		 IEx 09.0005X Ex eb IIC T* Gb Ex eb mb IIC T* Gb

⁽¹⁾ Applications must be reviewed by the manufacturer.

(* **) For maximum surface temperature, see heating cable, design documentation or schedule.

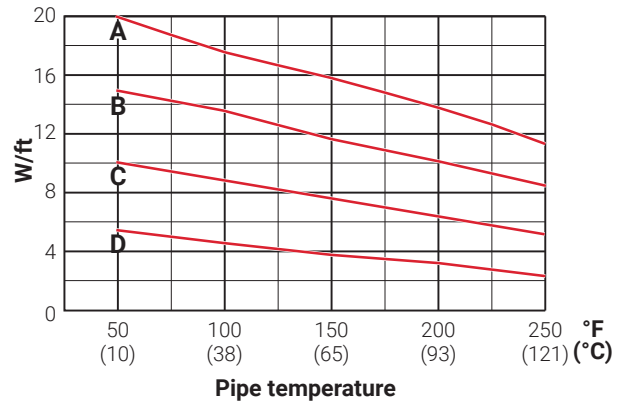
DESIGN AND INSTALLATION

For proper design and installation, use TraceCalc Pro design software or the design section of the nVent Products & Services Catalogue (H56550). Also, refer to the nVent (H57274). Literature is available via the nVent web site, nVent.com.

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

	Adjustment factors	
	Power output	Circuit length
208 V		
5XTV2	0.87	0.93
10XTV2	0.88	0.92
15XTV2	0.88	0.92
20XTV2	0.89	0.94
277 V		
5XTV2	1.07	1.12
10XTV2	1.08	1.09
15XTV2	1.08	1.12
20XTV2	1.07	1.12

- A** 20XTV-CT
- B** 15XTV-CT
- C** 10XTV-CT
- D** 5XTV-CT



Note: To choose the correct heating cable for your application, use the Design section of the nVent Products & Services Catalogue (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
5XTV-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
10XTV-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
15XTV-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
20XTV-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 DIMENSIONS AND WEIGHT

Weight	110 lbs/1000 ft
Width x Thickness (nominal)	0.425 x 0.283 in (10.8 x 7.2 mm)

ORDERING DETAILS

Part Description	Part Number	Part Description	Part Number
5XTV1-CT-T3	P000001668	15XTV1-CT-T2	P000001674
5XTV2-CT-T3	P000001669	15XTV2-CT-T3	P000001675
10XTV1-CT-T3	P000001671	20XTV1-CT-T2	P000001676
10XTV2-CT-T3	P000001672	20XTV2-CT-T2	P000001677

CONNECTION KITS

nVent 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 nVent, 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 nVent RAYCHEM control and monitoring systems meet the ground-fault protection requirement.

North America

Tel +1.800.545.6258
Fax +1.800.527.5703
thermal.info@nVent.com

Europe, Middle East, Africa

Tel +32.16.213.511
Fax +32.16.213.603
thermal.info@nVent.com

Asia Pacific

Tel +86.21.2412.1688
Fax +86.21.5426.3167
cn.thermal.info@nVent.com

Latin America

Tel +1.713.868.4800
Fax +1.713.868.2333
thermal.info@nVent.com



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