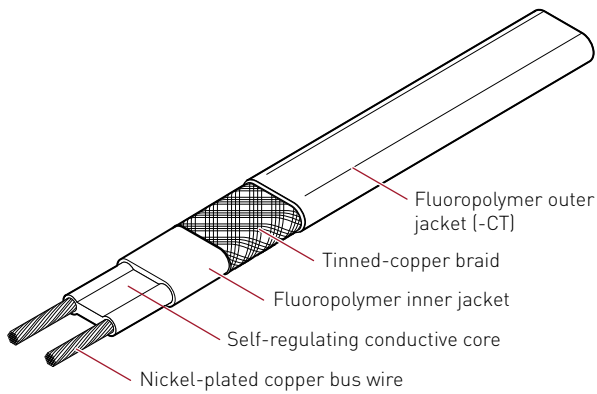


# Raychem HQTV

## CLASS I, DIVISION 1 SELF-REGULATING HEATING CABLES

Electrical process-temperature maintenance for CID1 hazardous locations

### Heating cable construction



### PRODUCT OVERVIEW

The HQTV family of self-regulating heating cables is designed for pipe heat tracing in industrial applications. HQTV heating cables can provide process-temperature maintenance up to 225°F (110°C) and can also be used for freeze protection in systems having high heat loss. The cables are configured for use in CID1 locations including areas where corrosives may be present.

Raychem HQTV-CT cables meet the requirements of the U.S. National 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 plastic
Chemical resistance	Organic and aqueous inorganic chemicals and corrosives

### SUPPLY VOLTAGE

HQTV1	120 V (100–130 Vac)
HQTV2	240 V (200–277 Vac)

### TEMPERATURE RATING

Maximum maintain or continuous exposure temperature (power on)	225°F (110°C)
Maximum intermittent exposure temperature, 1000 hours (power on or off)	225°F (110°C)
Minimum installation temperature	-40°F (-40°C)

### TEMPERATURE ID NUMBER (T-RATING)

T4: 275°F (135°C)  
 Temperature ID numbers are consistent with North America national electrical codes.

### APPROVALS

#### Hazardous Locations



Class I, Div. 1<sup>(1)</sup>, Groups B, C, D  
 Class II, Div. 1, Groups E, F, G  
 Class III

<sup>(1)</sup> All Class I, Div. 1 designs must be reviewed by the manufacturer.

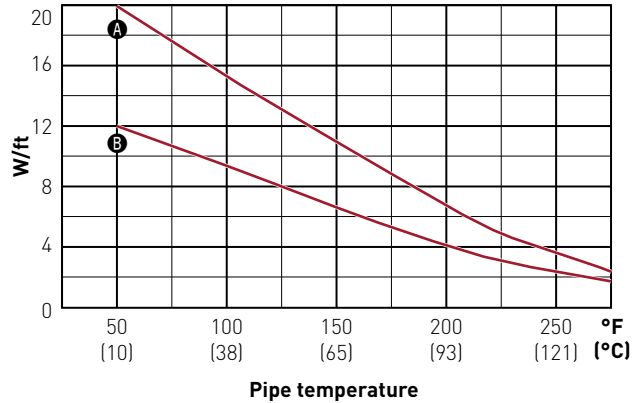
**DESIGN AND INSTALLATION**

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 Industrial Heat Tracing Solutions web site, [www.pentairthermal.com](http://www.pentairthermal.com).

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

	Adjustment factors	
	Power output	Circuit length
<b>208 V</b>		
12HQTV2-CT	0.85	0.94
20HQTV2-CT	0.90	0.91
<b>277 V</b>		
12HQTV2-CT	1.18	1.06
20HQTV2-CT	1.07	1.11

- Ⓐ 20HQTV-CT
- Ⓑ 12HQTV-CT



**Note:** To choose the correct heating cable for your application, use the Design section of the Industrial Heat Tracing Solutions 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
<b>12HQTV-CT</b>	50°F (10°C)	100	130	195	195	†	200	265	390	390	†
	0°F (-18°C)	80	105	160	195	†	160	210	320	390	†
	-20°F (-29°C)	70	95	145	195	†	145	195	295	390	†
	-40°F (-40°C)	65	90	135	180	†	135	180	275	365	†
<b>20HQTV-CT</b>	50°F (10°C)	60	80	120	160	195	120	160	240	320	390
	0°F (-18°C)	45	60	95	125	160	95	125	190	255	320
	-20°F (-29°C)	40	55	85	115	145	85	115	175	235	295
	-40°F (-40°C)	40	55	80	110	135	80	110	165	220	275

† Not permitted

**PRODUCT CHARACTERISTICS**

	12HQTV1-CT, 12HQTV2-CT	20HQTV1-CT, 20HQTV2-CT
Minimum bend radius	@68°F (20°C): 0.5 in (12.7 mm)	@68°F (20°C): 0.5 in (12.7 mm)
Weight (lb per 10 ft, nominal)	0.85	1.21
Bus wire size	16 AWG	14 AWG
Outer jacket color	Brown	Brown
Heating cable dimensions	0.55 in x 0.25 in (14 mm x 6.35 mm)	0.61 in x 0.25 in (15.5 mm x 6.35 mm)

**ORDERING DETAILS**

	<b>Description</b>	<b>Part number</b>
	12HQTV1-CT	899597-000
	20HQTV1-CT	172891-000
	12HQTV2-CT	550107-000
	20HQTV2-CT	094323-000

**CONNECTION KITS**

Pentair Industrial Heat Tracing Solutions 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 Industrial Heat Tracing Solutions, 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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