# **QTVR**



## **CONNECT AND PROTECT**

## Self-Regulating Heating Cable (Ex)

#### **HEATING CABLE CONSTRUCTION**



Electrical heat-tracing for process temperature maintenance applications up to 110°C which are not subject to steam cleaning.

The nVent RAYCHEM QTVR family of self-regulating, parallel circuit heating cables is used for process temperature maintenance of pipes and vessels.

It can also be used for frost protection of large pipes and for applications requiring medium temperature exposure capability.

1.4 mm² nickel plated copper conductors (10 and 15QTVR2-CT) 2.3 mm² nickel plated copper conductors (20QTVR2-CT)

### **APPLICATION**

Area classification	Hazardous, Zone 1, Zone 2 (Gas), Zone 21, Zone 22 (Dust) Ordinary
Traced surface type	Carbon steel Stainless steel Painted or unpainted metal
Chemical resistance	Organics and corrosives For aggressive organics and corrosives consult your local nVent representative

## **SUPPLY VOLTAGE**

230 Vac (Contact your local nVent representative for data on other voltages)

RAYCHEM-DS-EU1381-QTVR-EN-2101 nVent.com/RAYCHEM 1

#### **APPROVALS (\*)**

SGS20ATEX0050X

Tmin -60°C

IECEx BAS 20.0013X

Ex 60079-30-1 eb IIC T4 Gb or Ex 60079-30-1 eb mb IIC T4 Gb

Ex 60079-30-1 tb IIIC T130°C or Ex 60079-30-1 mb tb IIIC T130°C

Tmin -60°C

The QTVR heating cables are approved by DNV for use on ships and mobile offshore units.

DNV Certificate No. DNV-GL TAE00000TV



EHI [x] TC RU C-BE.MЮ62.B.00054/18

1Ex e IIC T4 Gb X 1Ex e mb IIC T4 Gb X

Ex tb IIIC T130°C Db X Ex tb mb IIIC T130°C Db X

Ta -60°C...+56°C IP66

000 "ТехИмпорт"



Ex e IIC T4 Gb

Ex tD A21 IP66 T130°C

#### **SPECIFICATIONS**

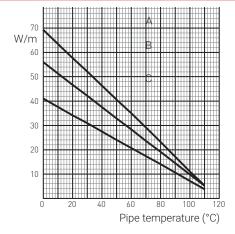
Maximum maintain or continuous exposure temperature (power on/off)	110°C
Maximum intermittent exposure temperature (power on/off)	110°C
Temperature classification	T4
Minimum installation temperature	-60°C
Minimum bend radius	$-60^{\circ}$ C ≤ T<-20°C: 35 mm $-20^{\circ}$ C ≤ T<-10°C: 30 mm $-10^{\circ}$ C ≤ T< 0°C: 25 mm $0^{\circ}$ C ≤ T <+10°C: 20 mm T≥+10°C: 12 mm

#### THERMAL OUTPUT RATING

Nominal power output at 230 Vac on insulated steel pipes

A 20QTVR2-CT B 15QTVR2-CT

C 10QTVR2-CT



	10QTVR2-CT	15QTVR2-CT	20QTVR2-CT
Nominal power output (W/m at 10°C)	38	51	64

### PRODUCT DIMENSIONS (NOMINAL) AND WEIGHT

Thickness (mm)	4.5	4.5	5.1
Width (mm)	11.8	11.8	14.0
Weight (g/m)	126	126	180

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#### MAXIMUM CIRCUIT LENGTH BASED ON TYPE 'C' CIRCUIT BREAKERS ACCORDING TO EN 60898

Electrical protection sizing	Start-up temperature	Maximum heating cable length per circuit (m)		
16 A	-20°C	65	63	47
	+10°C	80	63	47
25 A	-20°C	95	75	60
	+10°C	115	95	75
32 A	-20°C	115	100	75
	+10°C	115	100	95
40 A	-20°C	115	100	95
	+10°C	115	100	115

The above numbers are for circuit length estimation only. For more detailed information please use the nVent RAYCHEM TraceCalc software or contact your local nVent representative.

nVent requires the use of a 30 mA residual current device to provide maximum safety and protection from fire.

Where design results in higher leakage current, the preferred trip level for adjustable devices is 30 mA above any inherent capacitive leakage characteristic of the heater as specified by the trace heater supplier or alternatively, the next common available trip level for non adjustable devices, with a maximum of 300 mA. All safety aspects need to be proven.

#### **ORDERING DETAILS**

Part description	10QTVR2-CT	15QTVR2-CT	20QTVR2-CT
Part No.	391991-000	040615-000	988967-000

#### **COMPONENTS**

nVent offers a full range of components for power connections, splices and end seals.

These components must be used to ensure proper functioning of the product and compliance with electrical requirements.

## **North America**

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

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