



## TCW/HZ

Electrical heating tape for process temperature maintenance of pipework and vessels in safe or hazardous areas.

Constant Wattage Heating Tape

- Withstand temperatures up to 200°C
- Outputs available to 33W/m
- Can be cut to length without waste
- CENELEC approved for use in hazardous areas
- Full range of controls and accessories
- Available for 110/120 and 220/240VAC

### Features

Minitracer type **TCW/HZ** is a constant wattage heating tape that can be used for freeze protection or maintenance of process temperatures in pipe and vessels.

It can be cut-to-length at site if field fabricated heating cable is preferred.

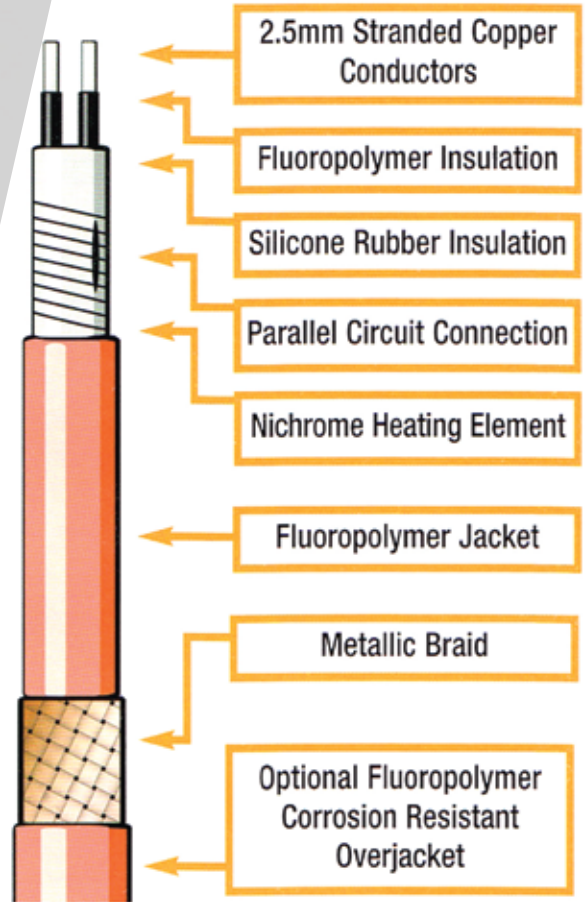
**TCW/HZ** is CENELEC approved for use in hazardous areas.

The installation of **TCW/HZ** heating tape is quick and simple and requires few special skills or tools. Termination and power connection components are all provided in convenient kits.

### Options

**TCW/HZ/C** inlined Copper braid for non-hazardous areas, hazardous areas (Zone 1 or 2) or where traced equipment does not provide an effective earth path.

**TCW/HZ/CF** Fluoropolymer over jacket over tinned copper braid provides corrosion protection for braid where chemical solutions or vapours may be present.



## SPECIFICATION

Maximum Temperature	Un-energised 200°C (392°F)			
Maximum Installation Temperature	-40°C (-40°F)			
Temperature Classification	200°C (T3) T4 (T3) T5 (T3) or T6 (85°C)	} Devices are classified according to rated output and the conditions of use, ie. limited pipe temp		
POWER SUPPLY	220-240 VAC or 110-120 VAC			
Weights and Dimensions				
Type Ref	Nominal Dimensions (mm)	Weight kg/100m	Min. Bending radius	Gland Size
TCW/HZ	7.5 x 4.8	6	20mm	M16
TCW/HZ/C	9.0 x 6.0	9	25mm	M16
TCW/HZ/FC	9.8 x 6.8	11	30mm	M20

# Approval Details

## MAXIMUM CIRCUIT LENGTH

OUTPUT (W/m)	MAX. 115V	CIRCUIT LENGTH*		(NOM.) 230V
		230V	115V	
6.5	111m	212m	1000mm	1500mm
13	78m	150m	741mm	1100mm
23	59m	113m	900mm	1000mm
33	49m	94m	1000mm	950mm

\* For + 10% end-to-end power output variation

## POWER CONVERSION FACTORS

115V HEATING TAPE	230V HEATING TAPE
277V Multiply output by 5.80	277V Multiply output by 1.45
230V Multiply output by 4.00	240V Multiply output by 1.09
208V Multiply output by 3.27	220V Multiply output by 0.91
120V Multiply output by 1.09	208V Multiply output by 0.82
110V Multiply output by 0.91	115V Multiply output by 0.25

## APPROVAL DETAILS

CENELEC 

Certificate No.	SCS Ex 94D3114
Standard	EN50014:1992 & EN50019:1994
Area Approval	Zone 1 and 2

## CONSTRUCTION

Heating Element	Nickel Chromium
Power Conductors	Tinned Plated Copper 2.5mm
Conductor Insulation	Fluoropolymer (FEP) and Silicon Rubber
Jacket	Fluoropolymer (FEP)
Braid	Tinned Copper
Over Jacket (optional)	Fluoropolymer (FEP)

## MAXIMUM PIPE/WORKPIECE TEMPERATURES

The surface of the heater must not exceed the maximum withstand temperature of its constructional materials or the Temperature Classification (if installed in a hazardous area). This is ensured by limiting the pipe or workpiece temperature to a safe level either by design calculation (a Stabilised Design) or by means of temperature controls.

For worst case conditions, the temperature of steel pipes should be limited to the following levels:-

## MAXIMUM PIPE/WORKPIECE TEMPERATURES (°C)

Cat Ref	NOM OUTPUT (W/m)	AREA CLASSIFICATION						
		HAZARDOUS						SAFE
		T6	T5	T4	T3	T2	T1	
TCW/HZ	6.5							190
	13							176
	23	NOT APPROVED						139
	33	NOT APPROVED						97
TCW/HZ/C	6.5	54	72	115	187	190	190	190
	13	30	45	87	173	179	179	179
	23	-	-	47	144	149	149	149
	33	-	-	-	102	107	107	107
TCW/HZ/CF	6.5	54	74	121	190	190	190	190
	13	21	41	90	180	187	185	185
	23	-	-	39	152	159	159	159
	33	-	-	-	103	108	108	108

Pipe temperatures higher than those given above may be accommodated by using Thermotrace voltage compensating devices.

Tolerances: Voltage + 10%; Resistance + 10%; -0%

### Notes

- 1 Surface temperature limits in accordance with EN50014.
- 2 Surface temperature limited in materials of construction (withstand temperature)