

# IPL...(CS/CF)

Electrical heating tape for freeze protection, refrigeration duties or process heating of pipework and vessels in non-hazardous areas.



## Constant Wattage Heating Tape

200°C

- Withstand temperatures up to 200°C
- Can be cut to length with no wastage.
- Outputs available up to 50W/m
- Full range of controls, accessories and approvals
- Available for 220-277V AC (110-120V AC on request)

### Features

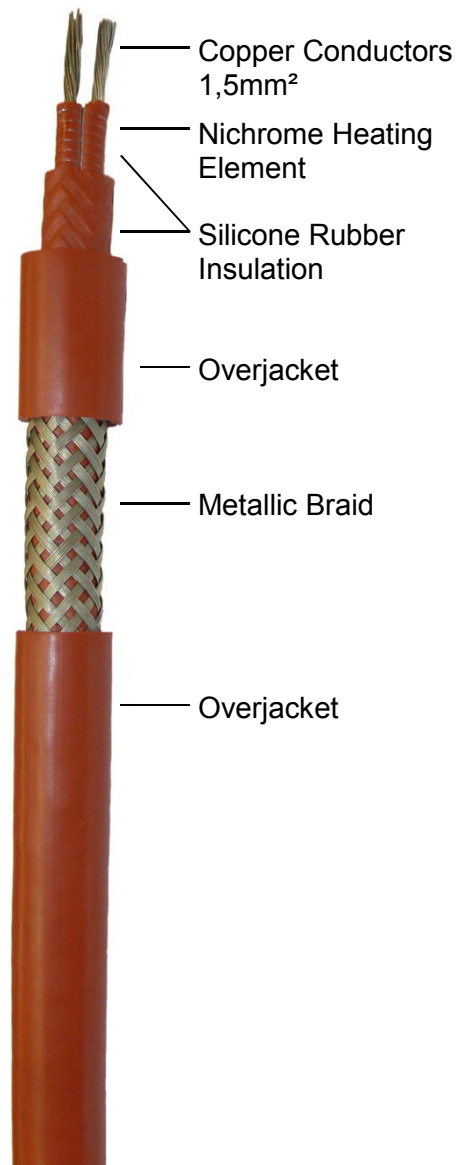
IPL is a constant wattage heating tape that can be used for freeze protection or maintenance of process temperatures in pipework and vessels.

It can be cut-to-length at site and can replace mineral insulated (MI) cables for applications where the cut-to-length feature or field fabricated heating cable is preferred.

IPL is approved for use in non-hazardous areas.

Because of the special construction with "heating zones" no additional cold lead is needed. From cut point to the next heating wire bonding point the heating cable remains cold and serves as cold lead.

The installation of IPS 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

IPL... Basic heating tape without braiding and without outer jacket.

IPL...C Tinned copper braid providing mechanical protection or where traced equipment does not provide an effective earth path. e.g. plastic pipework.

IPL...CS Silicone outer jacket over tinned copper braid provides additional protection.

IPL...CF Fluoropolymer over jacket over tinned copper braid provides protection where corrosive chemical solutions or vapours may be present.

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## Technical Data

Maximum Temperature: 200°C (Un-Energized)  
 Max Operation Temperature: see table  
 Minimum Installation Temperature: -80°C  
 Power Supply: 220-240V AC  
 Max. Resistance of Protective Braiding: 18,2 Ohm/km  
 Weights and Dimension:

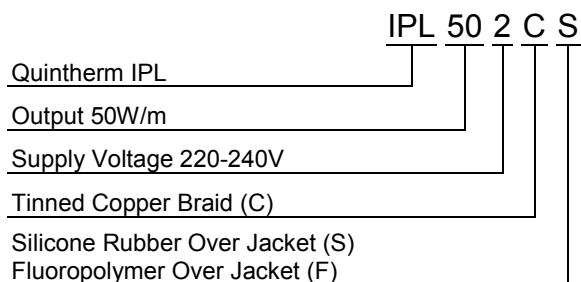
Type	Nom Dimensions (mm)	Weight Kg/100m	Min. Bending (mm)	Gland size
IPL...	8,2 x 6,0	7,4	10	M16
IPL...C	9,0 x 6,8	11,7	12	M16
IPL...CS	11,0 x 8,8	14,3	15	M20
IPL...CF	10,2 x 8,0	14,3	25	M20

## Construction

Heating Element: Nickel-Chromium  
 Power Conductors: Tin Plated Copper 1,5mm<sup>2</sup>  
 Conductor Insulation: Silicone Rubber  
 Jacket: Silicone Rubber  
 Braid: Tinned Copper  
 Over Jacket: Silicone Rubber or Fluoropolymer

## Ordering Information

Example:



## Further Information

Accessories  
 Please consult the appropriate termination instructions and the installation manual.

## Maximum Pipe / Workpiece Temperature

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:

Output (W/m)	Maximum permissible pipe temp (°C)			
	IPL...	IPL...C	IPL...CS	IPL...CF
6,5	190	190	190	190
13	180	180	185	185
23	150	150	160	160
33	110	110	115	115
50	70	75	80	75

## Maximum Circuit Length

Output (W/m)	Max. Circuit Length		Zone Length	
	115V	230V	115V	230V
6,5	82m	164m	1000mm	1500mm
13	58m	116m	741mm	1100mm
23	44m	87m	900mm	1000mm
33	36m	73m	1000mm	950mm
50	30m	59m	995mm	900mm

For conditions other than worst case, or pipes of other materials, consult Quintex.

## Power Conversion Factors

115V Heating Tape		230V Heating Tape	
277V	Factor 5.80	277V	Factor 1.45
230V	Factor 4.00	240V	Factor 1.09
208V	Factor 3.27	220V	Factor 0.91
120V	Factor 1.09	208V	Factor 0.82
110V	Factor 0.91	115V	Factor 0.25

## Accessories

Quintex offers a complete line of accessories, temperature controller, connection sets as well as different enclosures. These products are recommended for a failure free operation.

