



**Thermon**  
South Africa (Pty) Ltd.



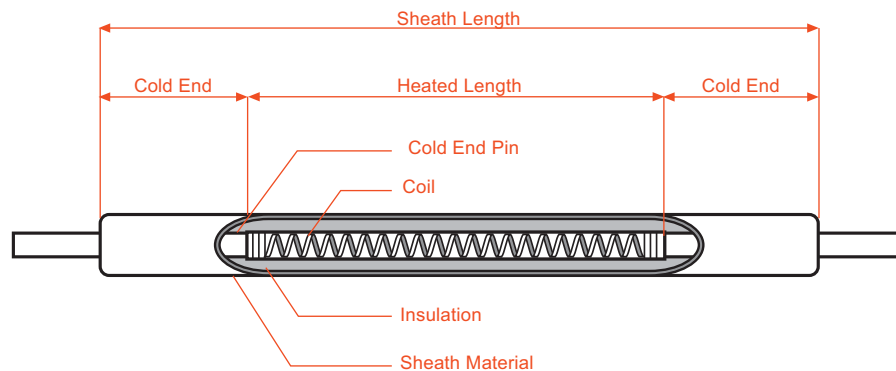
## Rod Elements

Rod elements are widely used in industry for convection heating, conduction heating and also for radiation heating.

Rod elements are versatile because they can be bent into any shape, operate at high temperatures (up to 650°C) and can be immersed into liquids. The robust metal sheathed construction ensures safety (electrical insulation) and protection against moisture and dirt.

### Construction

The rod element consists of a heating coil, imbedded in compacted MgO-powder and protected by an outer metal sheath. An unheated zone on either end prevents overheating of the termination and the exposed part of the rod.



### Typical applications:

Duct heaters (air conditioning)  
Hot-air systems  
Convection ovens  
Drying sheds  
Shrink tunnels  
Roasting of food (meat, nuts...)

Smoking of food  
Curing of paint, ink or varnishes  
Defrosting  
Sealing bars  
Tools and dies  
Melting



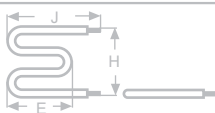
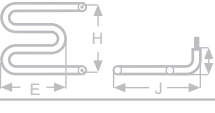
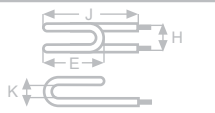
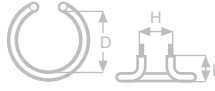
## Order code and options

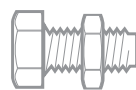
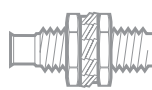
When ordering, please specify watts, volts, diameter, length of cold ends, termination, fitting, shape and dimensions. Please also provide sketches of any special shape required.

| Sheath Material         |   |
|-------------------------|---|
| Incoloy 800             | I |
| Incoloy 825             | H |
| Copper                  | C |
| Titanium                | T |
| Stainless Steel 304/321 | S |
| Finned Incoloy 800      | F |
| Other                   | X |

| Termination                                                                         |                                      |   |
|-------------------------------------------------------------------------------------|--------------------------------------|---|
|  | Plain Pin                            | 0 |
|  | Spade                                | 1 |
|  | M4 Straight Tab & Saddle             | 2 |
|  | M4 Bent Tab & Saddle                 | 3 |
|  | M5 Post with nuts (stainless steel)  | 4 |
|  | Silicone Rubber Cable Moisture proof | 7 |
|  | Ni-Wire Glass Insulated              | 8 |
|  | Ni-Wire in Ceramic Beads             | 9 |
|                                                                                     | Other                                | X |

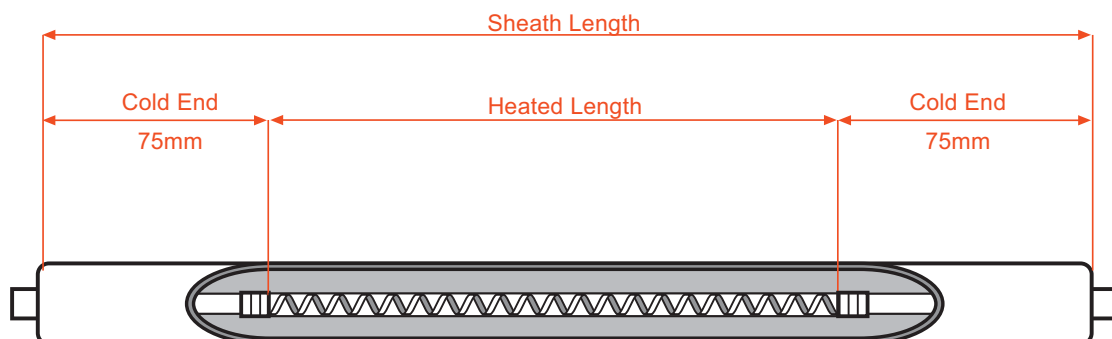
UHR

| Shape |                                                                                       |
|-------|---------------------------------------------------------------------------------------|
| 0     |    |
| E     |    |
| F     |    |
| T     |    |
| C     |    |
| D     |   |
| U     |  |
| W     |  |
| G     |  |
| H     |  |

| Mounting                                                                              |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |
| 0                                                                                     | Plain                                                                                 |
| 1                                                                                     | 1/2" UNF x 25mm Steel Clinch, 2 Nuts & Washers (For air heaters)                      |
| 2                                                                                     | 1/2" UNF x 16mm Brass with Nut                                                        |
| 3                                                                                     | 1/2" UNF x 25mm Brass with Nut                                                        |
| 4                                                                                     | 1/2" UNF x 50mm Brass with Nut                                                        |
| 5                                                                                     | M14 x 1,25 x 16mm Brass with Nut                                                      |

## Tubular sheathed heating elements

### Standard rod elements:



diameter: 8mm  
 sheath material: Incoloy "800"  
 Min bending radius: 2x diameter of rod

| stock code        | Watts Dens.            | sheath length (mm) | heated length (mm) | Wattage | Voltage |
|-------------------|------------------------|--------------------|--------------------|---------|---------|
| <b>Black heat</b> |                        |                    |                    |         |         |
| UHRI00080B-0500   | 2.4W / cm <sup>2</sup> | 980                | 830                | 500     | 230     |
| UHRI00080B-0750   | 2.4W / cm <sup>2</sup> | 1395               | 1245               | 750     | 230     |
| UHRI00080B-1000   | 2.4W / cm <sup>2</sup> | 1740               | 1590               | 1000    | 230     |
| UHRI00080B-1500   | 2.4W / cm <sup>2</sup> | 2680               | 2530               | 1500    | 230     |
| UHRI00080B-2000   | 2.4W / cm <sup>2</sup> | 3500               | 3350               | 2000    | 230     |
| <b>Black heat</b> |                        |                    |                    |         |         |
| UHRI00080D-0500   | 3.2W / cm <sup>2</sup> | 755                | 605                | 500     | 230     |
| UHRI00080D-0750   | 3.2W / cm <sup>2</sup> | 1115               | 965                | 750     | 230     |
| UHRI00080D-1000   | 3.2W / cm <sup>2</sup> | 1315               | 1165               | 1000    | 230     |
| UHRI00080D-1500   | 3.2W / cm <sup>2</sup> | 2000               | 1850               | 1500    | 230     |
| UHRI00080D-2000   | 3.2W / cm <sup>2</sup> | 2640               | 2490               | 2000    | 230     |
| UHRI00080D-2500   | 3.2W / cm <sup>2</sup> | 3125               | 2975               | 2500    | 230     |
| UHRI00080D-3000   | 3.2W / cm <sup>2</sup> | 3615               | 3465               | 3000    | 230     |
| <b>Black heat</b> |                        |                    |                    |         |         |
| UHRI00080E-1000   | 3.9W / cm <sup>2</sup> | 1140               | 990                | 1000    | 230     |
| UHRI00080E-1500   | 3.9W / cm <sup>2</sup> | 1635               | 1485               | 1500    | 230     |
| UHRI00080E-2000   | 3.9W / cm <sup>2</sup> | 2190               | 2040               | 2000    | 230     |
| UHRI00080E-2500   | 3.9W / cm <sup>2</sup> | 2650               | 2500               | 2500    | 230     |
| UHRI00080E-3000   | 3.9W / cm <sup>2</sup> | 3050               | 2900               | 3000    | 230     |

## Standard rod elements:

diameter: 8mm

sheath material: Incoloy "800"

| stock code        | Watts Dens.             | sheath length (mm) | heated length (mm) | Wattage | Voltage |
|-------------------|-------------------------|--------------------|--------------------|---------|---------|
| <b>Black heat</b> |                         |                    |                    |         |         |
| UHRI00080F-1000   | 4.7W / cm <sup>2</sup>  | 975                | 825                | 1000    | 230     |
| UHRI00080F-1500   | 4.7W / cm <sup>2</sup>  | 1365               | 1215               | 1500    | 230     |
| UHRI00080F-2000   | 4.7W / cm <sup>2</sup>  | 1800               | 1650               | 2000    | 230     |
| <b>Red heat</b>   |                         |                    |                    |         |         |
| UHRI00080G-0500   | 5.5W / cm <sup>2</sup>  | 600                | 450                | 500     | 230     |
| UHRI00080G-0750   | 5.5W / cm <sup>2</sup>  | 685                | 535                | 750     | 230     |
| UHRI00080G-1000   | 5.5W / cm <sup>2</sup>  | 800                | 650                | 1000    | 230     |
| UHRI00080G-1500   | 5.5W / cm <sup>2</sup>  | 1170               | 1020               | 1500    | 230     |
| UHRI00080G-2000   | 5.5W / cm <sup>2</sup>  | 1540               | 1390               | 2000    | 230     |
| UHRI00080G-2300   | 5.5W / cm <sup>2</sup>  | 1725               | 1575               | 2300    | 230     |
| UHRI00080G-2500   | 5.5W / cm <sup>2</sup>  | 1845               | 1695               | 2500    | 230     |
| UHRI00080G-3000   | 5.5W / cm <sup>2</sup>  | 2280               | 2130               | 3000    | 230     |
| UHRI00080G-4000   | 5.5W / cm <sup>2</sup>  | 3010               | 2860               | 4000    | 230     |
| <b>Red heat</b>   |                         |                    |                    |         |         |
| UHRI00080H-1000   | 6.2W / cm <sup>2</sup>  | 770                | 620                | 1000    | 230     |
| UHRI00080H-1500   | 6.2W / cm <sup>2</sup>  | 1080               | 930                | 1500    | 230     |
| UHRI00080H-2000   | 6.2W / cm <sup>2</sup>  | 1390               | 1240               | 2000    | 230     |
| UHRI00080H-3000   | 6.2W / cm <sup>2</sup>  | 2010               | 1860               | 3000    | 230     |
| UHRI00080H-4000   | 6.2W / cm <sup>2</sup>  | 2845               | 2695               | 4000    | 230     |
| <b>Red heat</b>   |                         |                    |                    |         |         |
| UHRI00080I-1000   | 9.9W / cm <sup>2</sup>  | 550                | 400                | 1000    | 230     |
| UHRI00080I-150A   | 11.7W / cm <sup>2</sup> | 660                | 510                | 1500    | 230     |
| UHRI00080I-150B   | 9.9W / cm <sup>2</sup>  | 775                | 625                | 1500    | 230     |
| UHRI00080I-150C   | 8.8W / cm <sup>2</sup>  | 830                | 680                | 1500    | 230     |
| UHRI00080I-200A   | 11.7W / cm <sup>2</sup> | 830                | 680                | 2000    | 230     |
| UHRI00080I-200B   | 9.9W / cm <sup>2</sup>  | 995                | 845                | 2000    | 230     |
| UHRI00080I-300A   | 17.5W / cm <sup>2</sup> | 830                | 680                | 3000    | 230     |
| UHRI00080I-300B   | 11.1W / cm <sup>2</sup> | 1220               | 1070               | 3000    | 230     |
| UHRI00080I-300C   | 9.9W / cm <sup>2</sup>  | 1395               | 1245               | 3000    | 230     |
| UHRI00080I-400A   | 14.3W / cm <sup>2</sup> | 1260               | 1110               | 4000    | 230     |
| UHRI00080I-400B   | 9.9W / cm <sup>2</sup>  | 1650               | 1500               | 4000    | 230     |

