INTRODUCTION

Durex coil heaters feature continuous operating temperatures up to 1200°F (649°C). Rapid heating and cooling occur, due to the low mass construction. All heating elements are sealed from contamination and the stainless steel sheath provides maximum corrosion resistance. An optional internal thermocouple may be utilized for overtemp control.

Design Features:

- Continuous operating temperatures to 1200°F (649°C)
- Intermittent operating temperatures to 1500°F (815°C)
- Rapid heating and cooling due to low mass construction
- Heating elements sealed from contamination
- Stainless steel sheath for corrosion resistance
- Optional internal thermocouple for temperature control.

Typical Applications:

- Blow Molding
- Custom Die Applications
- Extrusion
- Hot Runner Systems
- Injection Molding
- Thermoforming
- Others, Consult Durex
**SPECIFICATIONS AND OPTIONS**

**Engineering Specifications**
- Standard sheath material: 304 stainless steel
  - For temperatures up to 1500°F (815°C)
- Optional sheath material: Inconel® 600 up to 1800°F (980°C)
  - For aggressive atmospheres
- Standard thermocouple: ANSI Type J
- Optional thermocouple: ANSI Type K
- Minimum bending radius: Three times the sheath diameter

**Dimensional Specifications**
- Standard square cable: 0.125” square
- Standard rectangle cable: 0.080” x 0.140”, 0.105” x 0.150”, 0.130” x 0.130”, 0.100” x 0.120”
- Standard round cable diameters: 0.093”, 0.125”, 0.150”, 0.188”, 0.200”, 0.250”
  - Other dimensions available
- Cable diameter tolerance: ± 0.005
- Standard potting adapter: 0.25” to 0.38” diameter (See chart)
- Standard potting adapter length: 0.88” to 1.20” (See chart)
  - Other lengths available
- Standard coil I.D.: From ¾” up to 2½” in any increments
  - Applicable coil inner diameter is subject to cable diameter
  - Coil I.D. tolerances: ¾” to ¾”, + 0.000”, - 0.020”
  - ¾” to 1¼”, + 0.000”, - 0.030”
  - 1¼” to 2¼”, + 0.000”, - 0.060”
- Coil length: Up to 12” on ¾” to ¾” I.D.
  - Up to 16” on ¾” to 1¼” I.D.
  - Up to 18” on 1¼” to 2½” I.D.
- Coil length tolerance:
  - 0 to 6”: + 0, - ¼”
  - 6 to 12”: + ¼”, - ¼”
  - 12 to 18”: ± ¼”

**Electrical Specifications**
- Resistance tolerance: ± 10%
- Wattage tolerance: ± 10%
- Maximum amperage: Size dependent, consult factory
- Standard Voltage: 120 or 240 volts
  - For higher or lower voltages contact Durex Industries
**SPECIFICATIONS AND OPTIONS**

**Standard Specifications**

<table>
<thead>
<tr>
<th>Sheath Cross Section</th>
<th>Maximum Voltage</th>
<th>Adapter Diameter</th>
<th>Adapter Length</th>
<th>Minimum Bend Radius</th>
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</thead>
<tbody>
<tr>
<td>0.062 Dia.</td>
<td>120</td>
<td>0.25</td>
<td>1.16</td>
<td>0.18</td>
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<tr>
<td>0.093 Dia.</td>
<td>120</td>
<td>0.28</td>
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<td>0.125 Dia.</td>
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Radius may be reduced to two times the sheath diameter under ideal conditions. Consult the factory.

Resistance / Wattage Tolerance ± 10%

**Lead Adapter Orientations**

**STYRE A1**

**STYRE A2**

**STYRE A3**

**STYRE A4**

**STYRE A5**

**Leadwire Termination Options**

- **TYPE L** - PTFE Lead wire 36” standard
  Ground lead is optional on all terminations

- **TYPE S** - Fiberglass Sleeve

- **TYPE C** - Stainless Steel Flex Hose

- **TYPE B** - Stainless Steel Overbraid
MINERAL INSULATED CABLE HEATERS

Mineral insulated cable heaters can be formed to a wide variety of shapes and sizes that can deliver high temperatures to areas where standard heaters are impractical due to size or space restrictions. Cable heaters can be formed to cover cylindrical areas that require uniform heat patterns. Custom-formed cable heaters are transitioned with a moisture resistant transition to a flexible leadwire, which can have additional protective jackets such as stainless steel braid or stainless steel armor.

Design Features:
- Wattage and voltage customized to application
- Elements can be formed to specification or formed on location
- Optional internal thermocouple can be located at various points for precise temperature control
- Sealed leadwire transition eliminates contamination
- Sheath materials available in 304 stainless steel, 316 stainless steel, Inconel® 600, or custom material available upon request

Typical Applications:
- Heat Trace / Freeze Protection
- Semiconductor Manufacturing
- Plastic Molding Hot Runners Systems
- Air or Liquid Immersion
- Cutting and Sealing Bars
- Tube and Pipe Heating
- Large Surface Areas
- Vacuum Chambers
MINERAL INSULATED CABLE HEATERS

Engineering Specifications

Performance Ratings
Watt density: .......................................................... 150 watts per square inch of sheath surface area maximum with ideal application, consult factory

Maximum temperature: .......................... 1500°F (815°C)

Dimensional Ratings
Heater cable diameters: .......................... 0.040”, 0.062” 0.093”, 0.125”, 0.132”, 0.150”, 0.170”, 0.188”, 0.200”, 0.250”, Consult the factory for additional sizes

Cable diameter tolerance: .................. ± 0.005
Heater length tolerance: .................. 0 to 6” (± ⅛”), 6 to 18” (± ¼”), 18 to 24” (± ⅜”), 24 to 120” (± ¾”), 120 to 300” (± 1”)

Electrical Ratings
Resistance tolerance: .................. ± 10%
Standard voltage: .................. 120 or 240 volts
For higher or lower voltages, contact Durex Industries

Thermocouples: .................. ANSI Type J or K

Transition and Termination
Transition (potting) adapters: .................. 0.25” to 0.38” diameter (See chart)

Transition temperature ratings: .................. Standard transition is rated to 482°F (250°C)
Optional high temperature transition is rated to 842°F (450°C)
Standard heater lead wire insulation is TGGT (Teflon®, double fiberglass, Teflon® impregnation) rated to 482°F (250°C)

Thermocouple: .................. Standard leads use a fiberglass insulation rated to 900°F (482°C)
Teflon® insulation is available upon request
Optional lead protection: .................. Fiberglass sleeving, stainless steel overbraid, or stainless steel armor cable available

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Resistance / Wattage Tolerance ± 10%

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