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hotset

HS- 050.35E

hotspring® COIL HEATERS HOTSET

hotspring® / Mini Ø 1.8 y hotspring® / Mini / F / 1.3 x 2.3

hotspring®/
Mini
Ø 1.8



TECHNICAL DATA

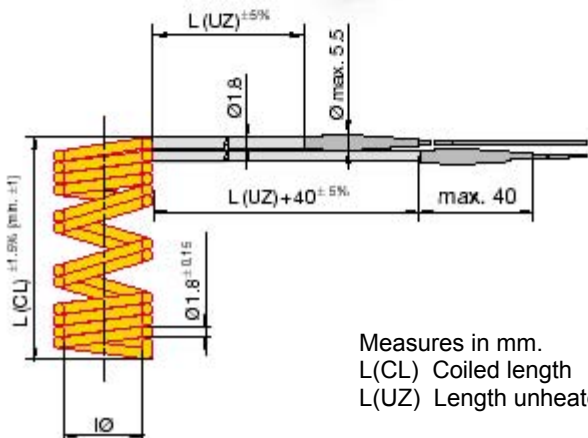
- Hotspring® coil heater with round cross-section Ø 1.8 mm
- Sheath material: Stainless Steel or Nickel
- Insulation sheath: high-compressed MgO
- Heating conductor compound: NiCr 8020
- Sheath temperature of heating element: max. 750 °C
- Voltage: max. 250 V, Standard: 230 V
- Power tolerance (cold): ± 10% (< on request)
- High voltage strength (cold): min. 800 V-AC
- Insulation resistance (cold): > 5 MΩ at 500 V-DC
- Leakage current (cold): < 0.5 mA at 253 V-AC
- Exit axial, radial, tangential or in the mid,
- max. total length straight: 3000 mm
- min. length of unheated zone
L_{UZ}: 25 mm plus connection head
- Length tolerance straight: ± 5%
- Inner diameter tolerance without reflection tube:
up to Ø 12 mm -0.05/-0.20
up to Ø 30 mm -0.10/-0.30
with reflection tube:
+0.05/+0.15
- Sheath surface load according to operating temperature and heat dissipation, max.
- minimum bending radius (internal):
3 mm (heated and unheated zone)
- individual connection heads or common connection head
- connection version see page 6,
Standard connection length 1000 mm
- for connection-temperatures max. 260 °C
- deliverable with external thermocouple

Approximate formula

for calculation the stretched heated length of coiled heaters [mm]

$$(\varnothing_{\text{inner}} + 1.8) \times \pi \times \text{number of windings} \times 2 = \text{heated length straight}$$

The hotspring® Mini or 1.8 only made to order



Measures in mm.
L(CL) Coiled length
L(UZ) Length unheated zone

ORDER DETAILS

hotspring® / Mini / Ø 1.8

- Aplicación
- Inner Ø:
 - Coiled length CL
 - Position of coils
 - Wattage.....
 - Voltage
 - Exit
 - Connection length
 - Thermocouple
 - Radiation tube
 - Quantity.....

hotspring®/ Mini / F / 1.3 x 2.3



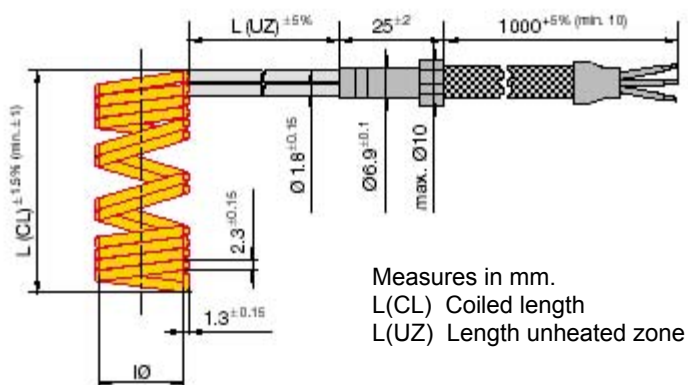
TECHNICAL DATA

- Hotspring® coil heater with flat cross-section 1.3 x 2.3 mm (deliverable only in coiled condition)
- Sheath material: Stainless Steel or Nickel
- Insulation sheath: high-compressed MgO
- Heating conductor compound: NiCr 8020
- Sheath temperature of heating element: max. 750 °C
- Voltage: max. 250 V, Standard: 230 V
- Power tolerance (cold): $\pm 10\%$ (< auf Anfrage)
- High voltage strength (cold): min. 800 V-AC
- Insulation resistance (cold): $> 5 \text{ M}\Omega$ at 500 V-DC
- Leakage current (cold): $< 0.5 \text{ mA}$ at 253 V-AC
- Exit axial, radial, tangential or in the mid,
- max. total length straight: 3000 mm
- min. length of unheated zone
L_{uz}: 25 mm plus connection head
- Length tolerance straight: $\pm 5\%$
- Inner diameter tolerance without reflection tube:
up to $\varnothing 12 \text{ mm}$ -0.05/-0.20
up to $\varnothing 30 \text{ mm}$ -0.10/-0.30
with reflection tube:
+0.05/+0.15
- Sheath surface load according to operating temperature and heat dissipation, max.
- minimum bending radius (internal):
3 mm (heated and unheated zone)
- individual connection heads or common connection head
- Connection options see page 6
- for connection-temperatures max. 260 °C
- deliverable with external thermocouple
- deliverable with reflection tube
- deliverable with clamping element or collar

Approximate formula

for calculation the stretched heated length of coiled heaters [mm]

$$(\varnothing_{\text{inner}} + 1.3) \times \pi \times \text{number of windings} \times 2 = \text{heated length straight}$$



Other dimensions and product varieties on request.

We reserve the right to change technical details.

STANDARD MODELS

W a 230V	Total length mm	Heated zone mm	Unheated zone + conection mm
120	426	271	65/65+25
140	481	326	65/65+25
160	537	382	65/65+25
210	630	475	65/65+25
250	730	575	65/65+25
300	855	700	65/65+25
350	1005	850	65/65+25
450	1201	1046	65/65+25

ORDER DETAILS

hotspring® / Mini / F / 1.3 x 2.3

Aplication

- Inner \varnothing :
- Coiled length CL
- Position of coils
- Wattage.....
- Voltage
- Exit
- Connection length
- Thermocouple
- Radiation tube
- Quantuty.....

hotspring®/Mini/F/ 1.3 x 2.3

with clamping band and
axial screwing



TECHNICAL DATA

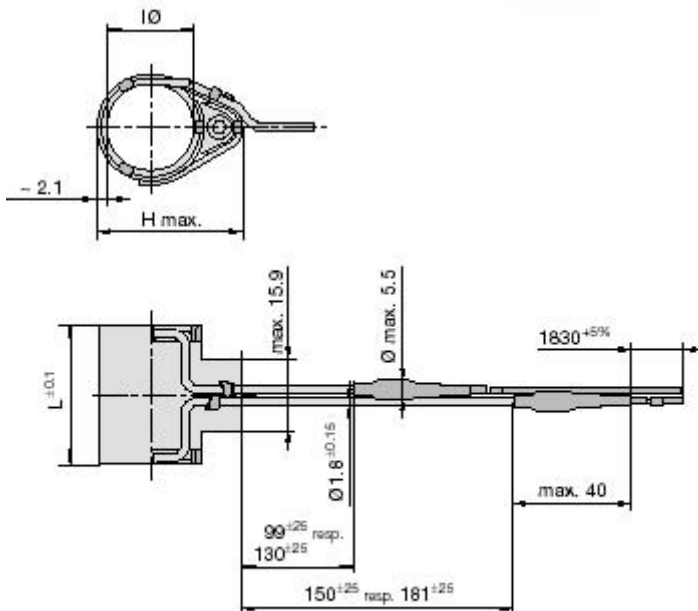
- hotspring® coil heater with flat cross-section 1.3 x 2.3 mm with clamping band and axial screwing
- Sheath material: Stainless Steel or Nickel
- Insulation sheath: high-compressed MgO
- Heating conductor compound: NiCr 8020
- Sheath temperature of heating element: max. 750 °C
- Voltage: max. 250 V, Standard: 230 resp. 240 V
- Power tolerance (cold): $\pm 10\%$ (< on request)
- High voltage strength (cold): min. 800 V-AC
- Insulation resistance (cold): $> 5 \text{ M}\Omega$ at 500 V-DC
- Leakage current (cold): $< 0.5 \text{ mA}$ at 253 V-AC
- Inner diameter tolerance clampable on indicated nozzle diameter
- minimum bending radius (internal): 3 mm
- separated connection heads
- connection versions see page 6, Standard length 1830 mm
- for connection-temperatures max. 260 °C
- Variant 1: L = 30.5 mm/IØ = 19.05 mm
length of unheated zone 99/150 mm
H max. = 32.3 mm
wattage: 149 W or 268 W (Standard) at 240 V
- Variant 2: L = 30.5 mm/IØ = 22.2 mm
length of unheated zone 99/150 mm
H max. = 36.4 mm/IØ = 22.2 mm
wattage: 250 W at 230 V (Standard)

STANDARD MODELS

W a 230V	L mm	I Ø mm	H mm
149	30.5	19.05	32.3
268	30.5	19.05	32.3

Other dimensions and product varieties on request.

We reserve the right to change technical details.



Measures in mm.

ORDER DETAILS

hotspring® / Mini /F / 1.3 x 2.3 salida axial

Aplicación

- For nozzle / clamping band Ø :
 - ☐ Variant 1
 - ☐ Variant 2
- Wattage.....
- Voltage
- Length of unheated zone
- Quantity.....

hotspring®/Mini/F/ 1.3 x 2.3

with clamping band and
tangential screwing

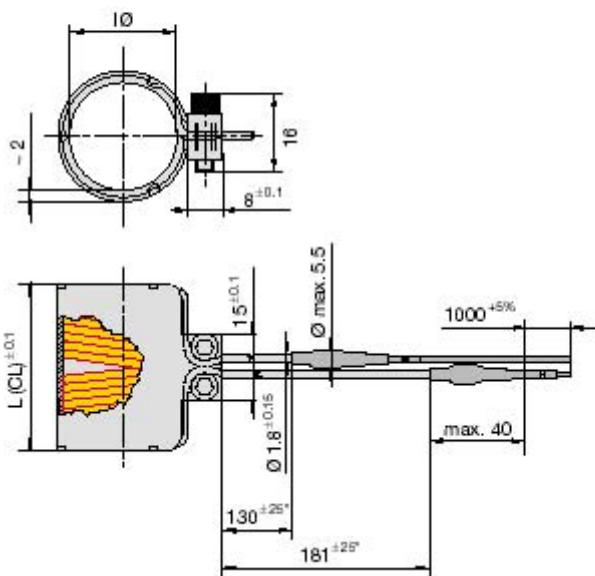


TECHNICAL DATA

- Hotspring® coil heater with flat cross-section 1.3 x 2.3 mm with collar and tangential screwing
- Sheath material: Stainless Steel or Nickel
- Insulation sheath: high-compressed MgO
- Heating conductor compound: NiCr 8020
- Sheath temperature of heating element: max. 750 °C
- Voltage: max. 250 V, Standard: 230 V
- Wattage: Variant 1: 125 W
Variant 2: 250 W
Variant 3: 250 W
- Wattage tolerance (cold): $\pm 10\%$ (< on request)
- High voltage strength (cold): min. 800 V-AC
- Insulation resistance (cold): $> 5 \text{ M}\Omega$ at 500 V-DC
- Leakage current (cold): $< 0.5 \text{ mA}$ at 253 V-AC
- Length unheated zones 130/180 mm (Standard)
- Inner diameter tolerance clampable on indicated nozzle diameter
- Sheath surface load according to operating temperature and heat dissipation, max. \star minimum bending radius (internal): 3 mm
- individual connection heads
- Connection versions see page 6, Standard length 1000 mm
- for connection-temperatures max. 260 °C
- Variant 1: $L = 30.5_{\pm 0.1} \text{ mm} / \varnothing = 19.05 \text{ mm}$
Variant 2: $L = 25.4_{\pm 0.1} \text{ mm} / \varnothing = 19.05 \text{ mm}$
Variant 3: $L = 30.5_{\pm 0.1} \text{ mm} / \varnothing = 22.20 \text{ mm}$

STANDARD MODELS

W a 230V	L mm	I Ø mm	H mm
125	25.4	19.05	29.05
250	25.4	19.05	29.05
125	30.5	19.05	29.05
250	30.5	19.05	29.05
125	30.5	22.2	32.2
250	30.5	22.2	32.2



Measures in mm.
L (CL) Total length

Other dimensions and product varieties on request.

We reserve the right to change technical details.

ORDER DETAILS

hotspring® / Mini / F / 1.3 x 2.3 salda tangencial

Aplicación

- For nozzle / clamping band Ø:
 - ☐ Variant 1
 - ☐ Variant 2
 - ☐ Variant 3
- Wattage.....
- Voltage
- Length of unheated zone
- Quantity.....

hotspring®/Mini/M

Coil Heaters casted in brass

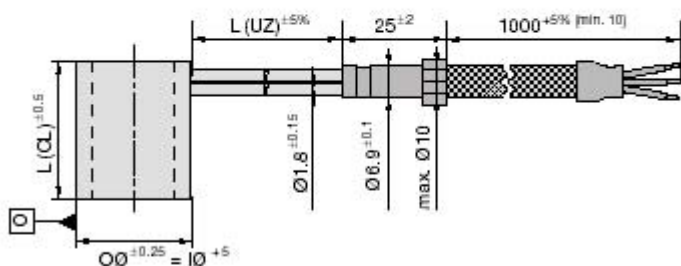
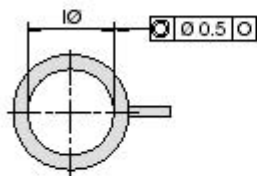


TECHNICAL DATA

- Hotspring® coil heater casted in brass with outer sheath of stainless steel
- Sheath material: Stainless Steel or Nickel
- Insulation sheath: high-compressed MgO
- Heating conductor compound: NiCr 8020
- Temperature at brass inner sheath: max. 650 °C
- Voltage: max. 250 V, Standard: 230 V
- Power tolerance (cold): $\pm 10\%$ (< on request)
- High voltage strength: (cold) min. 800 V-AC
- Insulation resistance (cold) $> 5 \text{ M}\Omega$ at 500 V-DC
- Leakage current (cold): $< 0.5 \text{ mA}$ at 253 V-AC
- Exit axial or radial,
- min. length of unheated zone L_{UZ} : 25 mm
- Inner diameter tolerance Standard $+ 0.05(\text{H7 on request})$
- Outer- \varnothing = Inner- \varnothing + 5 mm
- minimum outer diameter tolerance: $\pm 0.25 \text{ mm}$
- Coaxiality inner- \varnothing to outer- \varnothing :
- Sheath surface load according to operating temperature and heat dissipation, max. see
- minimum bending radius (internal): 3 mm (unheated zone)
- Connection versions see page 6
- for connection-temperatures max. 260 °C
- with or without reinforcement tube along the unheated zone against distortion or breakage, for axial exit not possible

Other dimensions and product varieties on request.

We reserve the right to change technical details.



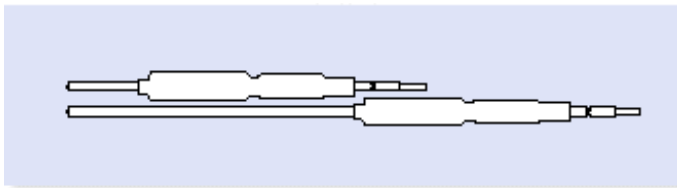
Measures in mm.
L(CL) Coiled length
L(UZ) Length unheated zone

ORDER DETAILS

hotspring® / Mini / M

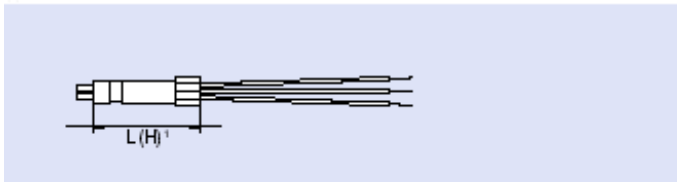
- Aplicación
- Inner \varnothing :
 - Tolerance Inner \varnothing
 - Length CL
 - Position of coils
 - Wattage.....
 - Voltage.....
 - Exit
 - Connection length
 - Thermocouple
 - Length of unheated zone
 - Protection tube
 - Quantity.....

CONNECTION VERSIONS hotspring® / Mini



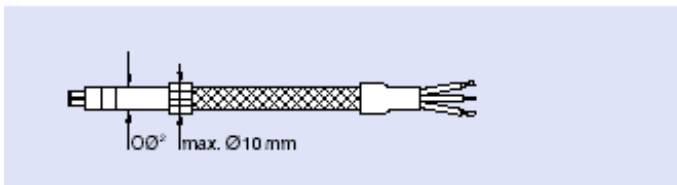
Type Micro/Mini Individual Heads

- PTFE insulated Cu-nickel plated leads, multistranded



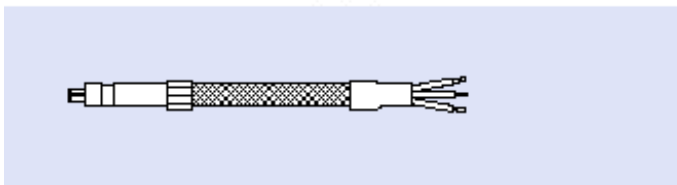
Type Mini N

- common head
- PTFE₂ insulated Cu-nickel plated leads, multistranded (Standard)
- with ground wire



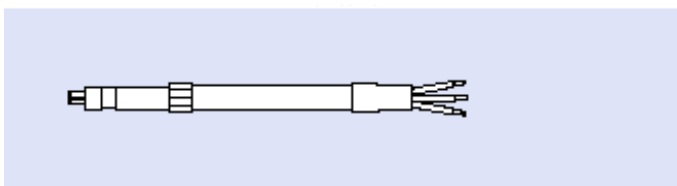
Type Mini NG

- common head
- PTFE insulated Cu-nickel plated leads, multistranded (Standard) ₃ with glass silk insulated protective sleeving
- with ground wire



Type Mini ND

- common head
- PTFE₂ insulated Cu-nickel plated leads, multistranded (Standard) with braided metal sleeving
- with ground wire

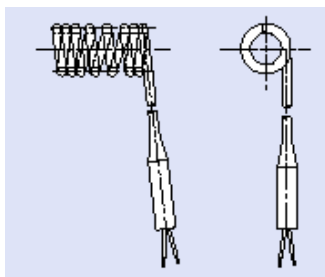


Type Mini NT

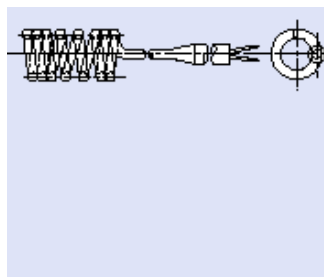
- common head
- PTFE₂ insulated Cu-nickel plated leads, multistranded (Standard) ₃ with PTFE-sleeving
- with ground wire

head length L = 25 mm (Standard)
maximum temperature at connection sector: 260 °C
other types on request

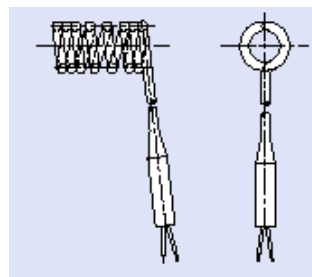
EXITS



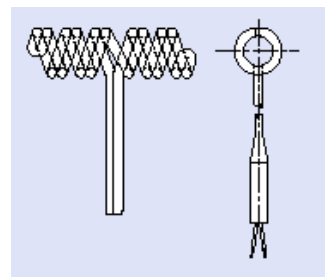
Tangential



Axial



Radial



In the mid