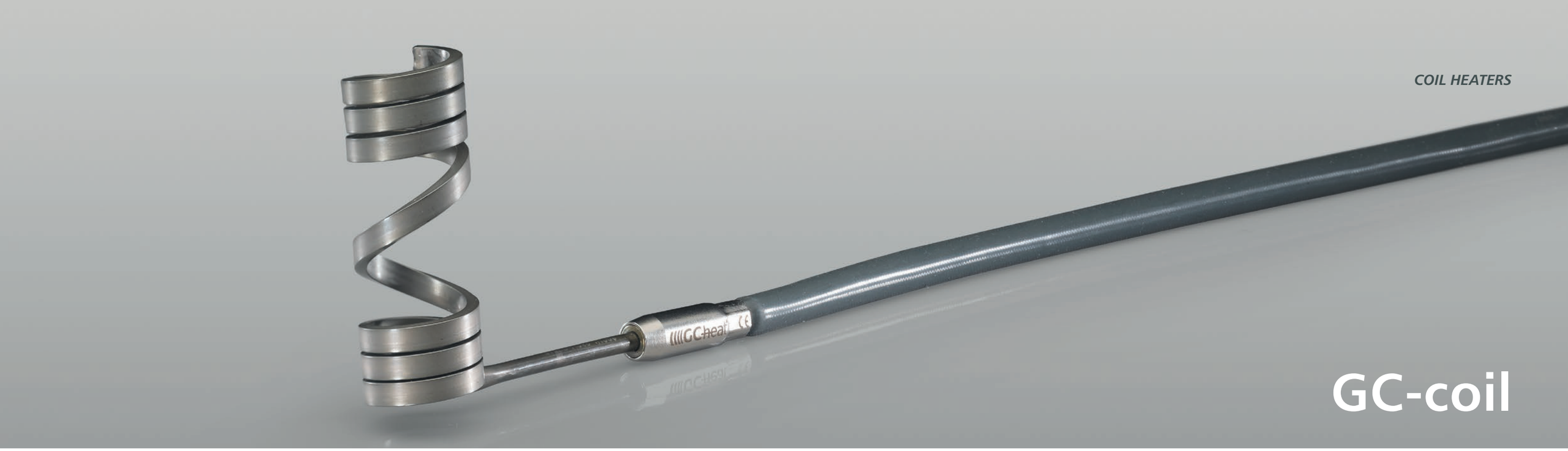
GCheat®

The highest degree.

BNC COMPONENTS LTD



GC-coil

GC-coil coil heaters

GC-coil coil heaters are available in various cross sections and sizes and offer high-capacity electrical heating in the tightest of installation spaces at temperatures of up to 750°C on the cartridge sheath. The minimum bending radius of R3 to R13 (depending on the cross section) allows the use of the GC-coil coil heaters not only in straight or coiled form, but in almost every geometrical shape. An optionally integrated thermocouple enables precise temperature control. In nozzle heating, the GC-coil achieves individual power distribution through the specifically designed gradient of the individual windings.
All GC-coil coil heaters are available with various exits and connections to suit the respective application.

Technical possibilities and options

- *High performance in compact spaces*
- *Integrated thermocouple*
- *Winding or bending according to customer's wishes in nearly every geometrical form*
- *Various connections and exits*
- *Optimum heat transfer due to a GC-jacket*

Applications

- *Hot runner systems*
- *Plastic industry*
- *Packaging machines*
- *Medical equipment*
- *Foundry technology*
- *Numerous other thermal processes*

GC-coil coiling schemes

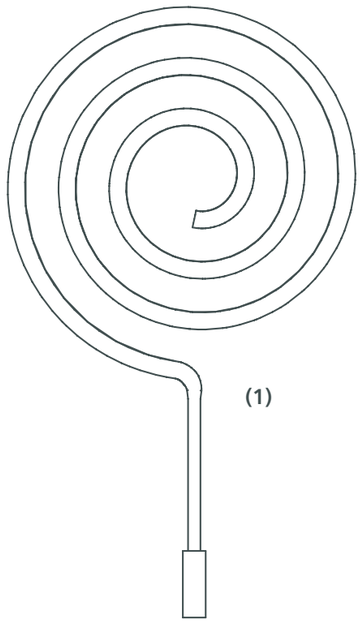
Coiling schemes

(1) *Spiral*

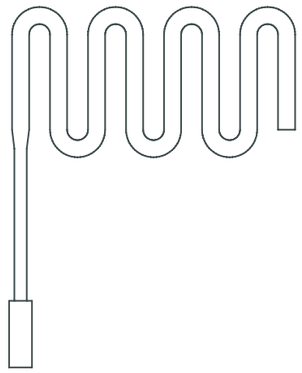
(2) *Meander*

(3) *Coiled with wattage distribution*

(4) *Coiled together*



(1)



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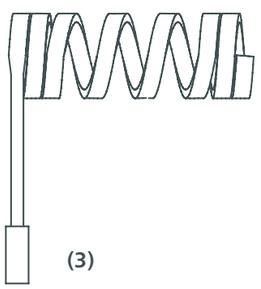

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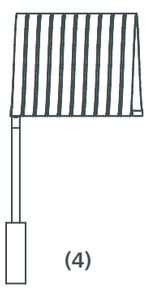


(4)

GC-coil exits

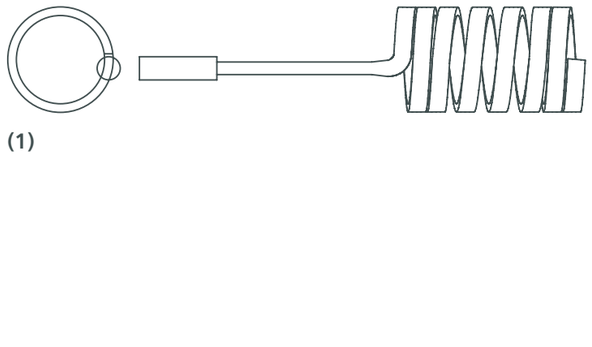
Exits

(1) *Axial*

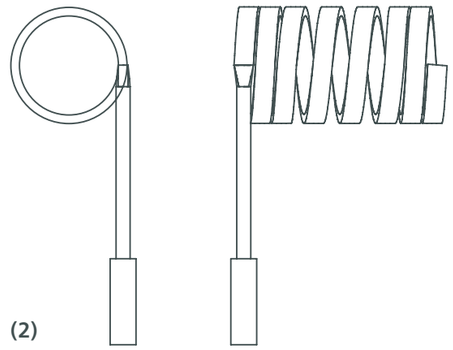
(2) *Tangential*

(3) *Radial*

(4) *Special exits*



(1)



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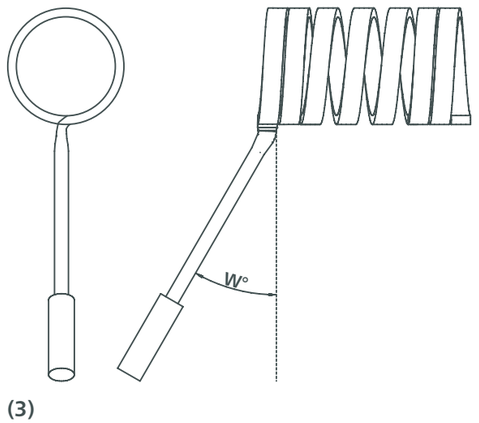
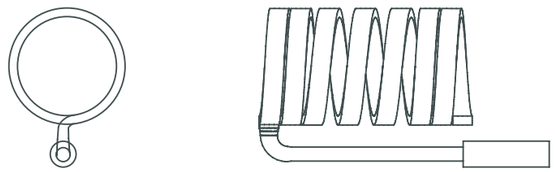


(3)



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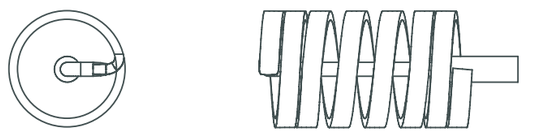

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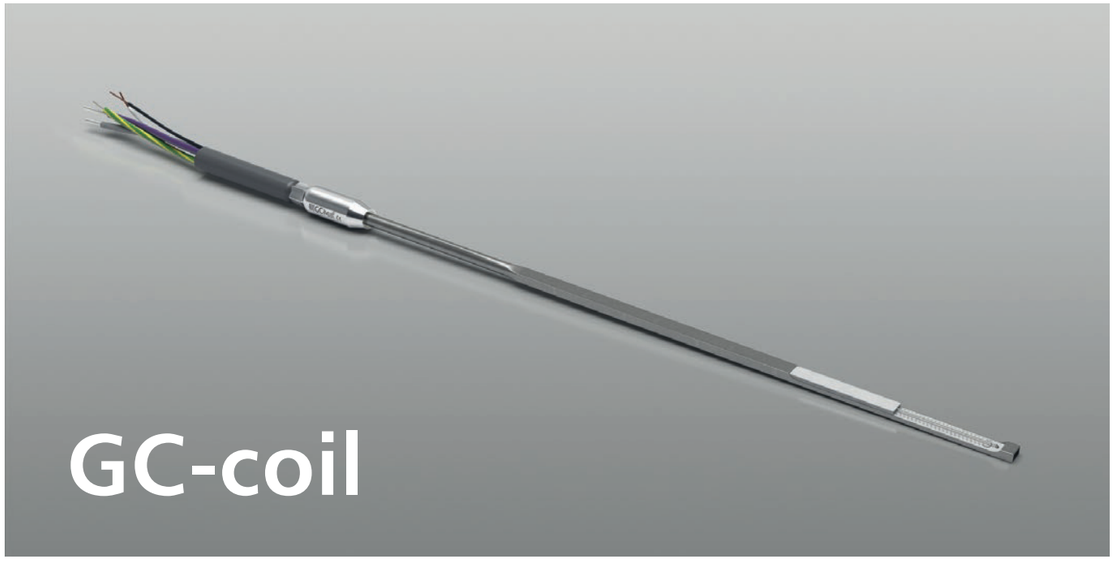


GC-coil coil heaters

Standard versions

GC-coil standard, available from stock

Cross section, length, wattage acc. to table; voltage: 230 V

Connection type: TEGA 1000 (connection head protected against humidity; UL-approved PTFE leads with glass silk insulated sleeve and earth lead; 1000 mm)

GC-coil optional version, available on request

Connection types

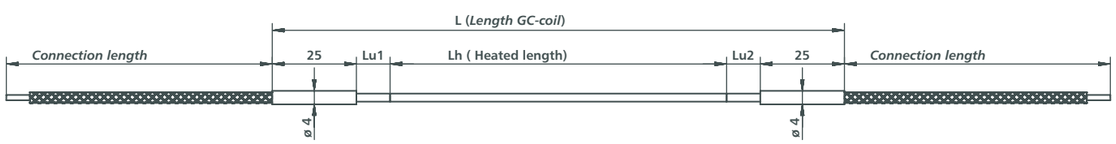
Various dimensions of GC-coil coil heaters are available from stock at short notice.

GC-coil coil heaters	Ø 1.3	1.0 x 1.6*	Ø 1.8	1.3 x 2.3*	1.8 x 3.2	2.2 x 4.2 3.0 x 3.0 2.4 x 4.0 2.4 x 4.4	Ø 3.3	Ø 4.0	4.6 x 9.0
Unheated zone (Lu1), standard**	45 mm								55 mm
Unheated zone (Lu2), standard**	Lu1 + 30 mm					–			
Length tolerance, heated zone	+/– 2.5%								+/– 1%
Length tolerance, unheated zone	+/– 2.5%								
Bending radius, heated zone	min. R3						min. R4		min. R13
Bending radius, unheated zone	min. R3								min. R8
Tolerance, inner diameter **ØI < 12 mm**	–0.1/–0.2 mm								
Tolerance, inner diameter **ØI < 30 mm**	–0.1/–0.3 mm								
Tolerance, inner diameter **ØI > 30 mm < 50 mm**	–0.2/–0.4 mm								
Tolerance, inner diameter **ØI > 50 mm < 80 mm**	–0.5/–1 mm								
With pressed-on tube	+ 0.05/ + 0.15 mm								
Wattage tolerance	+/– 10%								
Thermocouple **Fe-CuNi/NiCr-Ni**	–					□			
Sheath material	CrNi steel, nickel					CrNi steel			
Sheath temperature	max. 750°C (max 500°C Nickel)								
High-voltage stability (cold, straight)	800 V								1250 V

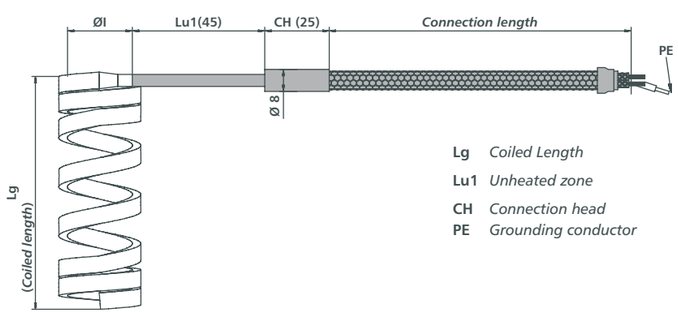
* Only deliverable coiled.
** Special lengths possible.

Technical changes and errors excepted.

■ Standard version □ Optional version – Not available



Lu1/2 *Unheated length*



Lg *Coiled Length*
Lu1 *Unheated zone*
CH *Connection head*
PE *Grounding conductor*

Other designs available on request.

GC-coil connection types TEGA 1000

Standard

Connection head protected against humidity

UL-approved PTFE Teflon leads, 1000 mm

Earth, 1030 mm

Max. temperature resistance 260°C

With glass silk insulated sleeve, 950 mm

Further options

With metal sleeve (MWS)

With braided metal sleeve (MGS)

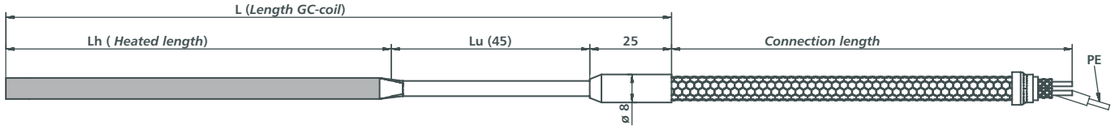
With stainless-steel sleeve (RWE)

Without protective sleeve

Other special connections available on request

Cross section	*Length* (mm) L	Lh	Lu	*Head (mm)*	*Wattage (W)*
2.2 x 4.2 mm*	320	250	45	25	195
	370	300	45	25	230
	420	350	45	25	260
	470	400	45	25	300
	520	450	45	25	350
	570	500	45	25	380
	620	550	45	25	420
	670	600	45	25	460
	720	650	45	25	500
	770	700	45	25	530
	820	750	45	25	570
	870	800	45	25	610
	920	850	45	25	650
	970	900	45	25	690
	1070	1000	45	25	760
	1170	1100	45	25	840

** With or without FeCuNi-J thermocouple, located at the bottom.*



PE *Grounding conductor*

Lu1/2 *Unheated length*

Other designs available on request.

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