



Data Sheet HLP

High watt density Cartridge Heaters Typ HLP

- Heating of tools and moulds on injection moulding machines, packaging machines, die casting and similar applications.

Technical Data

voltage	: 230 V or to customer
wattage	: application dependent to 20 W/cm ²
temp. max..	: 750°C
Ø/mm	: 6/ 6,3/ 6,5/ 8/ 9,64/ 10/ 11/ 12/ 12,5/ 12,7/ 15,81/ 16/ 19/ 19,05/ 20
length	: max. 3000 mm
cabele set length	: 1000 mm, 250 mm or to customer

options

- with integrated thermocouple
- cartridge ground plane or concave
- power distribution
- with thermal conductivity copper ground

**Other customer preferences are possible
Subject to modifications!**

05/02

HLP - stockmeasurements in mm, glass silk insulated wire leads 250mm/1000mm

Nenn - Ø 6,5 mm

lengt h mm	wattage (Watt) at 230V							
40	100	125	160	175				
50	100	125	160	200	250			
60	125	160	200	250	315			
80	125	160	200	250	280	315	350	
100	100	160	200	250	315	350	400	
130	220	350						
160	350	400						

Nenn - Ø 8 mm

lengt hmm	wattage (Watt) at 230V									
40	100	160	200	250						
50	125	160	200	250	315					
60	100	125	140	160	200	220	250	280	315	350
80	160	200	250	315	350	400	500			
100	180	200	250	280	315	350	400			
130	250	315	400							

Nenn - Ø 10 mm

lengt hmm	wattage (Watt) at 230V										
40	100	125	200	250	315						
50	100	160	200	250	315	400					
60	125	160	200	250	315	400	500				
80	160	200	250	315	400	500	630				
100	125	220	250	315	350	400	560	630	700	850	
130	315	400	500	630	800						
160	400	630									
200	400	630									
250	630	800									

Nenn - Ø 12,5 mm

lengt hmm	wattage (Watt) at 230V									
40	100	160	200	250	315	400				
50	100	160	200	250	315	400	500			
60	125	160	200	250	315	400	500			
80	160	200	250	315	400	500	630	800		
100	160	250	315	400	500	630	800	1000		
130	400	500	630	800	1000	1200				
160	500	630	800	1000	1250					
180	630	800	1000							
200	630	800	1000							
250	800	1000								

Nenn - Ø 16 mm

lengt hmm	wattage (Watt) at 230V								
40	125	160	200	250	315	400	500		
50	160	200	250	315	400	500	630		
60	160	200	250	315	400	500	630		
80	250	315	400	500	630	800	1000		
100	315	400	500	630	800	1000	1250	1600	
130	400	500	630	800	1000	1250	1800		
160	630	800	1000	1250	1600	1800			
180	630	800	1000	1250	1600	1800			
200	630	800	1000	1250	1600	2000			
250	1000	1250	1600	2000					
300	1250	1600	2000						

Nenn - Ø 20 mm

lengt hmm	wattage (Watt) at 230V									
50	200	250	315	400						
60	200	315	500	630	800					
80	315	400	630	1000	1250					
100	400	630	800	1000	1250	1600	1800			
130	630	800	1000	1250	1600	2000				
160	800	1000	1250	1600	2000	2500				
200	1000	1250	1600	2000	2500	3000				
250	1250	1600	2000	2500	3000					
300	1600	2000	2500	3000	4000					
350	1600	2500								

**Other customer preferences are possible
Subject to modifications!**

48/03

HLP - stockmeasurements in inch, glass silk insulated wire leads 250mm/1000mm

Ø 1/4"(6,35 mm)

length/ inch	wattage in Watt at 230 Volt					
1 1/2"	100	125	160	175	200	315
2"	100	125	160	200	250	500
2 1/2"	125	200	250	315		
3"	160	250	300			
3 1/4"	125	160	250	315		
4"	160	200	250	315		

Ø 3/8"(9,53 mm)

length/ inch	wattage in Watt at 230 Volt						
1 1/2"	100	125	200	250	315		
2"	100	125	160	250	315	400	500
2 1/2"	125	160	250	315	400	500	
3"	160	250	315	400	500	630	
3 1/4"	160	250	400	500	630		
4"	160	250	315	400	500	600	700
5"	315	500	700				
5 1/4"	315	400	500	800			
6"	400	500	600	800			
6 1/2"	400	630					

Ø 1/2"(12,70 mm)

length/ inch	Watt at 230 Volt					
1 1/2"	100	125	160	200	250	
2"	100	200	250	315	400	500
2 1/2"	125	160	200	250	315	400
3"	160	200	315	400	500	600
3 1/4"	200	315	500	630		
4"	250	400	500	630		
5"	250	400	500	630		
5 1/4"	400	630	800			
6"	500	630	800			
6 1/2"	500	800	1000			
7"	630	800	1000			
8"	630	800	1000			

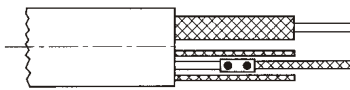
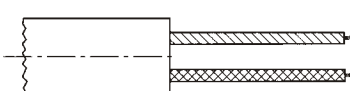
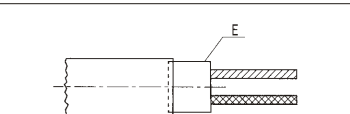
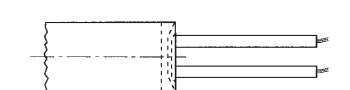
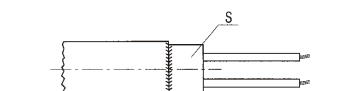
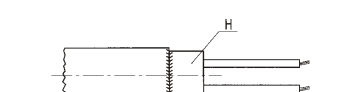
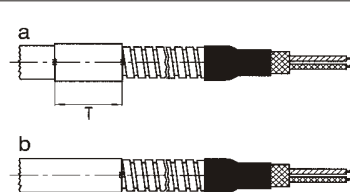
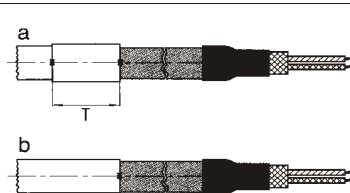
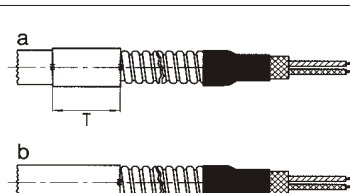
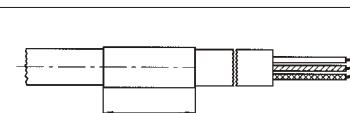
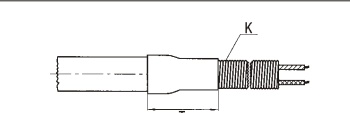
Ø 5/8"(15,88 mm)

length/ inch	wattage in Watt at 230 Volt						
1 1/2"	100	250	315	400			
2"	160	250	315	400	500	630	
2 1/2"	160	250	400	500	630	800	
3"	315	400	500	630	800	1000	
3 1/4"	315	400	630	800	1000		
4"	315	400	500	630	800	1000	1250
5"	500	800	1000	1250			
5 1/4"	500	800	1000	1250	1600		
6"	800	1000	1250	1600			
6 1/2"	630	800	1250	1600			
7"	1000	1250	1600				
8"	630	800	1000	1250	1600		
10"	1000	1600	2000				
12"	1250	2000					

**Other customer preferences are possible
Subject to modifications!**

05/02

Variations of leads for cartridge heaters side 1

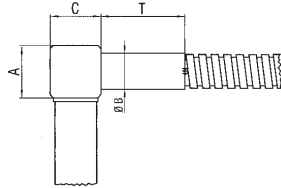
Typ A		<ul style="list-style-type: none"> mounted externally glass silk insulated Ni-leads (to 320°C)
Typ B		<ul style="list-style-type: none"> mounted internally glass silk insulated Ni-leads (to 320°C)
Typ C		<ul style="list-style-type: none"> ceramic head glass silk insulated Ni-leads (to 320°C)
Typ D		<ul style="list-style-type: none"> PTFE leads moisture protected to 260°C on the head
Typ E		<ul style="list-style-type: none"> silicone leads sealed with silicone moisture protected to 180°C
Typ F		<ul style="list-style-type: none"> PTFE leads, sealed with epoxy resin moisture protected to max 250°C
Typ G		<ul style="list-style-type: none"> Flexible metal Standard sleeve
Typ H		<ul style="list-style-type: none"> wire mesh glass silk insulated Ni-leads (to 320°C)
Typ I		<ul style="list-style-type: none"> Stainless steel sleeving moisture proof
Typ J		<ul style="list-style-type: none"> silicone leads to 180 °C
Typ K		<ul style="list-style-type: none"> kink protection spring spring length ca. 100 mm

Other customer preferences are possible
Subject to modifications!

05/02

Variations of leads for cartridge heaters side 2

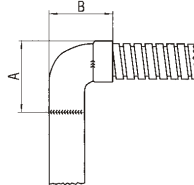
Typ L



- Angle block

ØP in mm	6,5	8,0	10,0	12,5	16,0	20,0	1/4"	3/8"	1/2"	5/8"	3/4"
ØB in mm	7,5	9,0	11,0	11,0	14,0	18,0	7,5	11,0	11,0	14,0	18,0
A/C in mm	10,0	10,0	14,0	14,0	18,0	25,0	10,0	14,0	14,0	18,0	25,0

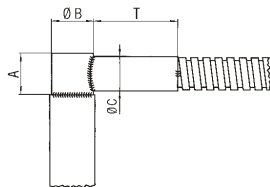
Typ M



- Bend tube with double socket

ØP in mm	6,5	8,0	10,0	12,5	16,0	20,0	1/4"	3/8"	1/2"	5/8"	3/4"
ØB in mm	17,3	18,0	22,0	25,0	33,0	39,0	18,0	22,0	25,0	33,0	39,0
A/C in mm	14,3	15,0	19,0	22,3	29,0	35,0	14,5	18,8	22,4	29,0	35,0

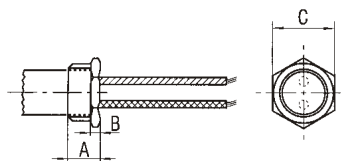
Typ N



- Angle block as swivel

ØP in mm	8,0	10,0	12,5	16,0	20,0	3/8"	1/2"	5/8"	3/4"
ØB in mm	17,3	18,0	22,0	25,0	33,0	39,0	18,0	22,0	25,0
A/C in mm	14,3	15,0	19,0	22,3	29,0	35,0	14,5	18,8	22,4

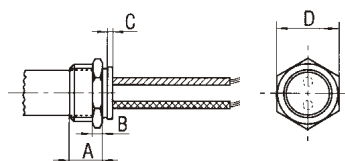
Typ O



- nipple

ØP in mm/Zoll	6,5	8,0	10,0	12,5	16,0	20,0	1/4"	3/8"	1/2"	5/8"
A/mm	10,0	10,0	12,0	12,0	12,0	14,0	10,0	12,0	12,0	12,0
B/mm	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0
C/mm	12	14	17	19	24	27	12	17	19	24
thread	M 10x1	M 12x1	M 14x1,5	M 16x1,5	M 20x1,5	M 26x1,5	G 1/8"	G 1/4"	G 3/8"	G 1/2"

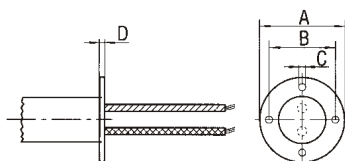
Typ P



- expansion assistance

ØP in mm/Zoll	6,5	8,0	10,0	12,5	16,0	20,0	1/4"	3/8"	1/2"	5/8"
A/mm	10,0	10,0	12,0	12,0	12,0	14,0	10,0	12,0	12,0	12,0
B/mm	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0
C/mm	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
D/mm	12	14	17	19	24	27	12	17	19	24
thread	M 10x1	M 12x1	M 14x1,5	M 16x1,5	M 20x1,5	M 26x1,5	G 1/8"	G 1/4"	G 3/8"	G 1/2"

Typ Q



- Stainless steel adapter

ØP in mm/Zoll	6,5	8,0	10,0	12,5	16,0	20,0	1/4"	3/8"	1/2"	5/8"
A/mm	18,0	18,0	27,0	27,0	33,0	33,0	18,0	18,0	27,0	33,0
B/mm	13,0	13,0	20,0	20,0	25,6	25,6	13,0	20,0	20,0	25,6
C/mm	2,2	2,2	3,2	3,2	3,2	3,2	2,2	2,2	3,2	3,2
D/mm	1,0	1,0	1,5	1,5	1,5	1,5	1,0	1,5	1,5	1,5

**Other customer preferences are possible
Subject to modifications!**

05/02



Typ DAW

Sealed Heater

- for applications in the casting industry
- Integrated Thermocouple NiCr-Ni
- very good heat transmission.
- stainless steel sleeving, glass insulated nickle lead

Standard

∅ - inside/mm	31,5	31,5	42,0	42,0	50,0	64,0
∅ - outside/mm	49,2	49,2	59,7	59,7	67,7	81,7
length/mm	78,0	105,0	172,0	190	235	295
voltage/V	230	230	230	230	230	400
wattage/ Watt	500	700	1300	1400	1700	2400
name	DAW5	DAW20	DAW50	DAW80	DAW125	DAW200



Typ HLP/G

Cartridge Heaters for applications in the casting industry

- with cone and angle block
- simple disassembling
- integrated thermocouple possible

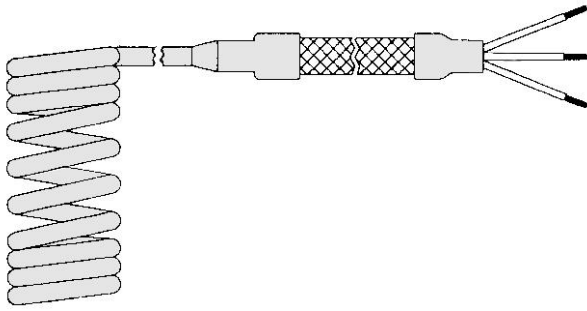
Standard

∅ - /mm	10,0	12,5	12,5	12,5	16,0	16,0	16,0	16,0	16,0	16,0	20,0	20,0
length/mm	80	60	80	90	80	100	160	180	200	250	100	160
voltage/V	230	230	230	230	230	230	230	230	230	230	230	230
wattage/ Watt	250	200	250	350	315	500	630	800	800	1000	630	800

**Other customer preferences are possible
Subject to modifications!**

05/02

Data Sheet WRP 3,3



Coil Heaters Typ WRP 3,3

- For the heating of hotrunner systems, plastic processing for the packaging industry, for hot melt applications, coil heaters are almost irreplaceable for these and many more applications.

options

- with oder without reflexion tube.
- cabel connection axial, radial or tangential

**Other customer preferences are possible
Subject to modifications!**

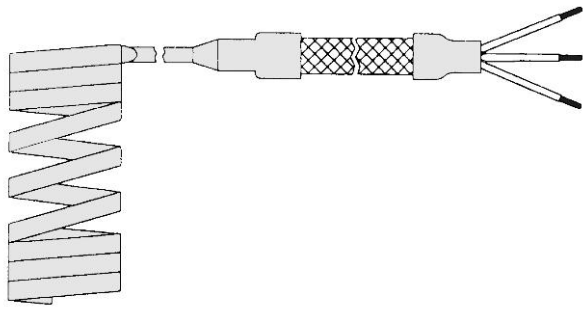
05/02

Technical Data

Ø/mm	:	3,3
voltage	:	to 250 V
wattage	:	application dependent to 15 W/cm ²
temp. max..	:	750°C
bending radius min.	:	3 mm
length	:	max. 3000 mm
connection	:	PTFE leads
cable set length	:	1000 mm oder to customer
unheated zone :		65 + 25 mm

Ø - inside in mm	coild length in mm								
	20	40	60	80	100	120	140	160	180
10		185	270	390	390	500	500		630
12		185	270	390	390	500	500	630	
12,5 u. 1/2"		185	270	390	500	500	500	630	
14		270	390	390	500	500	630		
15		270	390	500	500	630			
16 u. 5/8"		270	390	500	500	630			
18		270	390	500	630				
19 u. 3/4"		270	390	500	630				
20		270	390	500	630				
22 u. 7/8"	185	390	500	630					
24	185	390	500	630					
25 u. 1"	185	390	630	630					
28	185	500	630						
30	185	500	630						
32 u. 1 1/4"	185	500	630						
35	185	500							
38 u. 1 1/2"	270	500							
40	270	630	565/630						
42	270	630							
45	270	630							
48	390								
50	390								

Power in Watt		
stretched length	heated length	wattage
390	300	185
540	450	270
740	650	390
940	850	500
1140	1050	630



Data Sheet WRP 2,2x4,2

Coil Heaters Typ WRP 2,2x4,2

- For the heating of hotrunner systems, plastic processing for the packaging industry, for hot melt applications, coil heaters are almost irreplaceable for these and many more applications.

Technical Data

profile	: 2,2x4,2 mm
voltage	: to 250 V
wattage	: application dependent to 15 W/cm ²
temp. max..	: 750°C
bending radius min.	: 4 mm
length	: max. 3000 mm
connection	: PTFE leads
connection length	: 1000 mm or to customer
unheated zone	: 65 + 25 mm

options

- with Thermocouple FeCu-Ni Typ L
- cable connection axial, radial or tangential

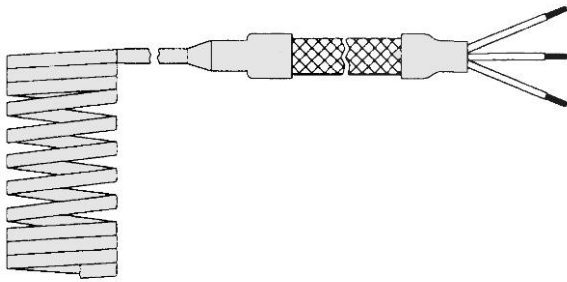
**Other customer preferences are possible
Subject to modifications!**

05/02

Ø - innen in mm	coiled length in mm								
	20	40	60	80	100	120	140	160	180
10		185	270	390	390	500	500		630
12		185	270	390	390	500	500	630	
12,5 u. 1/2"		185	270	390	500	500	500	630	
14		270	390	390	500	500	630		
15		270	390	500	500	630			
16 u. 5/8"		270	390	500	500	630			
18		270	390	500	630		Power in Watt		
19 u. 3/4"		270	390	500	630				
20		270	390	500	630				
22 u. 7/8"	185	390	500	630					
24	185	390	500	630					
25 u. 1"	185	390	630	630					
28	185	500	630						
30	185	500	630						
32 u. 1 1/4"	185	500	630						
35	185	500							
38 u. 1 1/2"	270	500							
40	270	630	565/630						
42	270	630							
45	270	630							
48	390								
50	390								

stretched length	heated length	wattage
340	250	195
370	280	215
425	335	240
475	385	295
550	460	350
610	520	400
690	600	460
850	760	610
990	900	690

Data Sheet WRP 3x3



Coil Heaters Typ WRP 3x3

- For the heating of hotrunner systems, plastic processing for the packaging industry, for hot melt applications, coil heaters are almost irreplaceable for these and many more applications.

options

- with thermocouple FeCu-Ni Typ L
- cable connection axial, radial or tangential

**Other customer preferences are possible
Subject to modifications!**

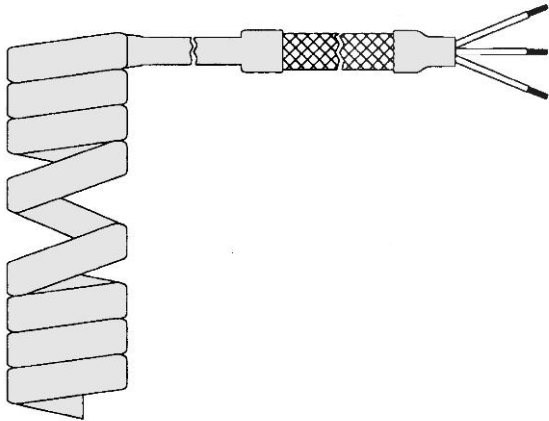
05/02

Technical Data

profile	: 3x3 mm
voltage	: to 250 V
wattage	: application dependent to 15 W/cm ²
temp. max..	: 750°C
bending radius min.	: 3 mm
length	: max. 3000 mm
connection	: PTFE leads
connection length	: 1000 mm or to customer
unheated zone	: 65 + 25 mm

∅ - inside in mm	coil length in mm									
	20	40	60	80	100	120	140	160	180	200
10		215	325	325	325	470	470	610	610	630
12		215	325	470	470	470	610	610	630	630
12,5 u. 1/2"		215	325	470	470	470	610	610	630	
14		215	470	470	470	610	610	630		
15		325	470	610	610	610	630	630		
16 u. 5/8"		325	470	610	610	610	630	630		
18	215	325	610	610	610	630				
19 u. 3/4"	215	325	610	630	630	630				
20	215	325	610	630	630	630				
22 u. 7/8"	215	325	610	630	630					
24	215	470	630							
25 u. 1"	215	470	630							
28	325	470	630							
30	325	470								
32 u. 1 1/4"	325	470								
35	325	610								
38 u. 1 1/2"	470	610								
40	470	630								
42	470	630								
45	470	630								
48	470									

stretched length	heated length	wattage
390	300	215
540	450	325
740	650	470
940	850	610
1140	1050	630



Data Sheet WRP 4,6x8,6

Coil Heaters Typ WRP 4,6x8,6

- For the heating of hotrunner systems, plastic processing for the packaging industry, for hot melt applications, coil heaters are almost irreplaceable for these and many more applications.

options

- with Thermocouple FeCu-Ni Typ L
- cable connection axial, radial or tangential

**Other customer preferences are possible
Subject to modifications!**

05/02

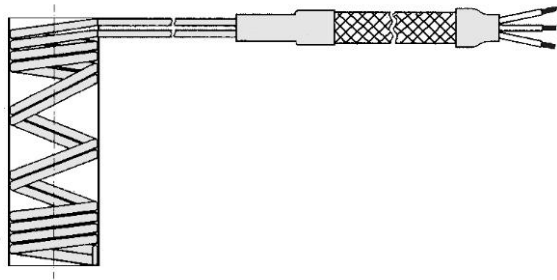
Technical Data

profile	: 4,6x8,6mm
voltage	: to 440 V
wattage	: application dependent to 15 W/cm ²
temp. max..	: 750°C
bending radius min.	: 10 mm
length	: max. 3000 mm
connection	: PTFE leads
connection length	: 1000 mm or to customer
unheated zone	: 65 mm

∅ - inside in mm	coiled length in mm							
	20	40	60	80	100	120	140	160
20		300	450	550	550	800	800	800
22		300	450	550	800	800	800	800
24		300	550	550	800	800	800	1000
26		300	550	550	800	1000	1000	1000
28		450	550	550	800	1000	1000	1000
30		450	550	550	800	1000	1000	1000
32		450	550	800	1000	1000	1000	
34		450	800	800	1000	1000		
36		450	800	800	1000			
38		550	800	800	1000			
40		550	800	800	1000			
42/44/46/48/50/52		550	1000	1000				
56/58/60		800						
62/64	300	800	1000					
66/68/70/72/74	300	800						
76/78/80/82/84	300	1000						
86/88/90/92/94	300	1000						
96/98/100	300	1000						

stretched length	heated length	wattage
315	250	300
415	350	450
515	450	550
715	650	800
915	850	1000

Data Sheet WRP 1,3x2,3-R



Coil Heaters Typ WRP 3x3

- For the heating of hotrunner systems, plastic processing for the packaging industry, for hot melt applications, coil heaters are almost irreplaceable for these and many more applications.

options

- with oder without reflexiontube available.
- cabel connection axial, radial or tangential

Technical Data

profile	: 1,3 x 2,3 mm
voltage	: to 250 V
wattage	: application dependent to 15 W/cm ²
temp. max..	: 750°C
bending radius min.	: 3 mm
length	: max. 3000 mm
connection	: PTFE leads
connection length	: 1000 mm or to customer
unheated zone	: 65 + 25 mm

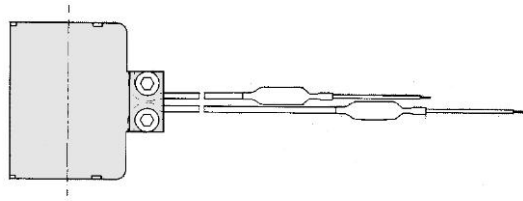
Standard

Ø- outside in mm	Ø- inside in mm	length in mm	wattage in Watt
12,5	8	30 - 40	120
		40 - 60	160
		60 - 80	250
14,5	10	30 - 40	140
		40 - 60	200
		60 - 80	300
16,5	12	30 - 40	160
		40 - 60	230
		60 - 80	350
20,5	16	30 - 50	210
		40 - 70	300
23,5	19	30 - 50	250
		40 - 70	450

**Other customer preferences are possible
Subject to modifications!**

05/02

Data Sheet WRP 1,3x2,3/SP



Coil Heaters

Typ WRP 1,3 x 2,3 with tension band

- For the heating of hotrunner systems, plastic processing for the packaging industry, for hot melt applications, coil heaters are almost irreplaceable for these and many more applications.

options

- other Types to customer are possible

Technical Data

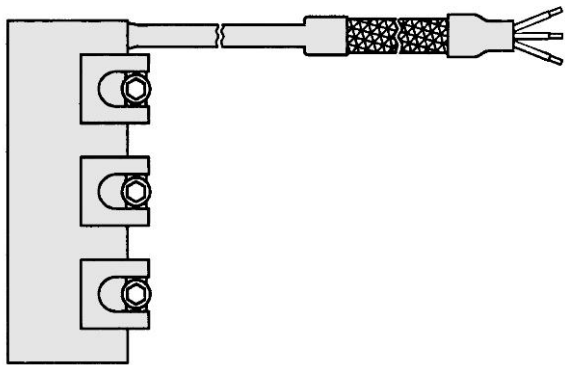
profile	: 1,3x2,3 mm
voltage	: to 250 V
wattage	: application dependent to 15 W/cm ²
temp. max..	: 750°C
bending radius min.	: 3 mm
length	: max. 3000 mm
connection	: PTFE leads
connection length	: 1000 mm or to customer
unheated zone	: 65 + 25 mm

Standard

Ø- inside in mm	length in mm	length of the unheated ends	wattage in Watt
19,05 (3/4")	30,5	130/180	125
	30,5	130/180	250
	25,4	25/75	125
	25,4	130/180	250
	30,5	160/90	137
	30,5	160/90	246
22	30,5	130/180	125
	30,5	130/180	250

**Other customer preferences are possible
Subject to modifications!**

05/02



Data Sheet WRP 4,6x8,6-SP

Coil heaters

Typ WRP 4,6 x 8,6 with tension band

- For the heating of hotrunner systems, plastic processing for the packaging industry, for hot melt applications, coil heaters are almost irreplaceable for these and many more applications.

Technical Data

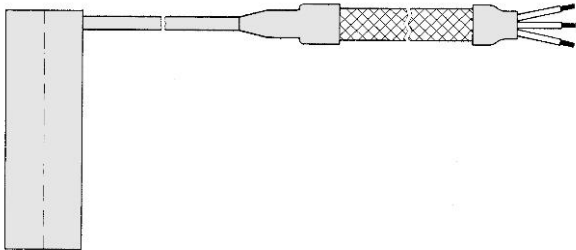
profile	: 4,6 x 8,6 mm
voltage	: to 440 V
wattage	: application dependent to 15 W/cm ²
temp. max..	: 750°C
bending radius min.	: 10 mm
length	: max. 3000 mm
connection	: PTFE leads
connection length	: 1000 mm or to customer
unheated zone	: 65 mm

Standard Ø-inside in mm	length in mm	wattage in Watt	connection	thermocouple Fe-CuNi (L)
30,0	30,0	300	radial 45°	
30,0	38,0	400	radial 45°	
32,0	30,0	350	tangential	•
38,0	32,0	500	tangential	•
40,0	30,0	450	radial 45°	
42,0	22,0	350	tangential	
44,4	34,9	450	tangential	
50,0	34,0	500	radial 45°	
50,8	24,4	350	tangential	

**Other customer preferences are possible
Subject to modifications!**

05/02

Data Sheet WRP-K



Coil Heaters Typ WRP-K embedded in copper

- for constant heat

options

- other Types to customer are possible

Technical Data

voltage	: to 250 V
wattage	: application dependent to 15 W/cm ²
temp. max..	: 750°C
connection	: PTFE leads
connection length	: 1000 mm or to customer
unheated zone	: 65 + 25 mm

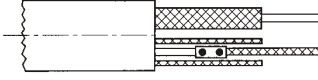
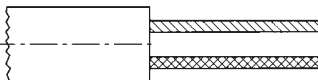
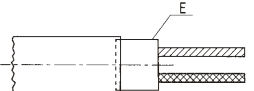
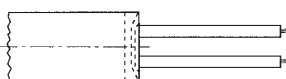
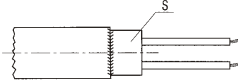
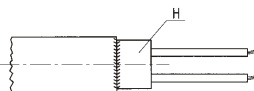
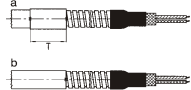
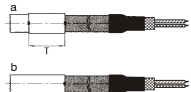
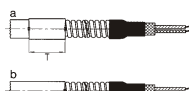
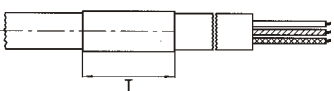
Standardaed

Ø- inside in mm	Ø - outside in mm	length in mm	wattage in Watt	Thermocouple Fe-CuNi (L)
9	15	35	200	
9	15	50	200	
10	16	30	200	
12	21	40	200	
12	21	60	280	
19	28	45	350	
19	28	65	500	
22,225 (7/8")	31	68	550	•
22,225 (7/8")	31	93	600	•
31,75 (1 1/4")	41	227	1400	•

**Other customer preferences are possible
Subject to modifications!**

05/02

Connection options for Coil heaters

Typ WA		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded, glass silk protective sleeving
Typ WB		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded, with glass silk protective tube
Typ WC		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded flexible metal sleeving
Typ WD		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded, braided metal sleeving
Typ WE		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded, with PTFE sleeving
Typ WF		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded with flexible metal sleeving mounting ring \varnothing 8 mm
Typ WG		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded glass silk protective sleeving from inside \varnothing 5,5 mm
Typ WH		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded with flexible metal sleeving from inside \varnothing 7 mm
Typ WI		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded with glass silk protective sleeving from inside \varnothing 6 mm
Typ WJ		<ul style="list-style-type: none"> • PTFE insulated Cu-nickel plated leads, multistranded with PTFE sleeving from inside \varnothing 5,5 mm

**Other customer preferences are possible
Subject to modifications!**

05/02