

Our Standard Cartridge Heaters are available with various design options and specifications. If you require a more complex Cartridge Heater design, then please consult our Special Cartridge Heater datasheet instead.

DESIGN SPECIFICATIONS

Max. Temperature	750°C
Voltage	230V
Max. Load	38W/cm ²
∅ Tolerance	-0.05mm
Integral Thermocouple	Yes [Type 'J']
Conductor	NiCr 8020
Composition	Standard Cartridge Heaters are composed of a stainless steel outer sheath, with a gas proof disc welded onto the tip. The inner element is wrapped around a ceramic core, which is sealed inside the stainless tube with compacted Magnesium Oxide powder. All Cartridge Heaters are terminated with Pure Nickel cores sealed along the length of the inner core, allowing for a greater tensile strength in the cable.
Cable Length	The standard cable core length is 300mm on all Cartridge Heaters without an integral Thermocouple. Cartridge Heaters including an integral Thermocouple have a standard lead length of 500mm. However, this lead length can be increased upon customer request.



Without Thermocouple						With Thermocouple					
Metric			Imperial			Metric			Imperial		
Available Diameter	Available Immersion Length										
	40mm	50mm	60mm	80mm	100mm	130mm	160mm	180mm	200mm	250mm	300mm
6.5mm Ø	100W	100W	125W	125W	100W	220W	350W				
	125W	125W	160W	160W	160W	350W	400W				
	160W	160W	200W	180W	200W						
	175W	200W	250W	200W	250W						
	200W	250W	315W	250W	315W						
				280W	350W						
			315W	400W							
			350W								
8.0mm Ø	100W	125W	100W	160W	200W	250W	200W				
	160W	160W	125W	200W	250W	315W					
	200W	200W	140W	250W	280W	400W					
	250W	250W	160W	315W	315W						
		315W	200W	400W	400W						
			250W	500W							
		280W									
		315W									
10.0mm Ø	100W	100W	125W	160W	160W	315W	400W		400W	630W	
	125W	160W	160W	200W	200W	400W	630W		630W	800W	
	200W	200W	200W	250W	250W	500W				1000W	
	250W	250W	250W	315W	315W	630W					
	315W	315W	315W	400W	400W	800W					
		400W	400W	500W	500W						
		500W	630W	560W							
			630W	800W							
			800W								
12.5mm Ø	100W	100W	125W	200W	250W	400W	500W	800W	630W	800W	600W
	160W	125W	160W	250W	315W	500W	630W	1000W	800W	900W	1500W
	200W	160W	200W	315W	400W	630W	800W			1500W	2000W
	250W	200W	250W	400W	500W	800W	1000W				
	315W	250W	315W	500W	630W	1000W	1250W				
	400W	315W	400W	630W	800W						
	400W	500W	800W	1000W							
	500W										
16.0mm Ø	100W	160W	160W	250W	315W	500W	630W	1000W	800W	1000W	1250W
	160W	200W	200W	315W	400W	630W	800W	1250W	1000W	1250W	1800W
	200W	250W	250W	400W	500W	800W	1000W	1800W	1250W	1600W	
	250W	315W	315W	500W	630W	1000W	1250W		1600W	2000W	
	315W	400W	400W	630W	800W	1400W	1600W		2000W		
	400W	500W	500W	800W	1000W						
500W	630W	630W	1000W	1250W							
20.0mm Ø		200W	200W	400W	400W	630W	1000W		1250W	1600W	2000W
		250W	250W	500W	630W	800W	1250W		1600W	2000W	2500W
		315W	315W	630W	800W	1000W	1600W		2000W	2500W	3150W
		400W	400W	800W	1000W	1250W	2000W		2500W	3150W	4000W
				1000W	1250W	1600W	2500W				
				1250W	1600W	2000W					



Available Diameter	Without Thermocouple						With Thermocouple								
	Metric			Imperial			Metric				Imperial				
	Available Immersion Length														
	1 ½"	2"	2 ½"	3"	3 ¼"	4"	5"	5 ¼"	6"	6 ½"	7"	8"	10"	12"	
¼" Ø	100W	100W	125W	200W	125W	160W									
	125W	125W	200W	250W	180W	220W									
	160W	150W	250W	300W	280W	250W									
	175W	200W	315W		350W	350W									
	200W	250W													
⅜" Ø	100W	100W	125W	100W	160W	150W	300W	315W	400W	400W					
	125W	125W	180W	150W	250W	220W	500W	400W	500W	630W					
	160W	160W	250W	250W	400W	250W	750W	500W	600W						
	200W	250W	315W	300W	500W	300W		800W	750W						
	250W	315W	400W	400W	630W	350W									
	315W	400W	500W	500W		400W									
	500W		600W		500W										
			600W		600W										
			750W		1000W										
½" Ø	100W	100W	125W	150W	200W	250W	250W	400W	500W	500W	600W	630W	1500W	1500W	
	125W	200W	150W	200W	315W	400W	400W	630W	600W	800W	800W	900W		2000W	
	160W	250W	200W	300W	500W	500W	500W	1000W	750W	1250W	1000W	1000W			
	200W	300W	250W	400W	630W	630W	750W	1250W	1000W			1500W			
	250W	400W	315W	500W	800W	750W	900W					2000W			
	500W	400W	600W		800W										
		500W	750W		1000W										
		630W	1000W												
⅝" Ø	100W	160W	160W	300W	280W	350W	500W	500W	800W	630W	1000W	800W	1000W	1250W	
	250W	250W	250W	400W	400W	400W	750W	700W	1000W	900W	1250W	1000W	1500W	1800W	
	315W	300W	300W	500W	630W	500W	1000W	1100W	1250W	1600W	1600W	1250W	2000W		
	400W	400W	400W	600W	800W	600W	1300W	1400W	1600W	1800W		1500W			
		500W	500W	750W	1000W	750W						2000W			
		630W	630W	1000W		800W									
					1000W										
					1250W										



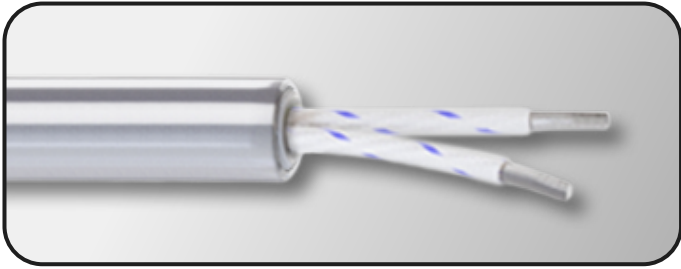
Available Diameter	Without Thermocouple					With Thermocouple					
	Metric		Imperial			Metric			Imperial		
	Available Immersion Length										
	40mm	50mm	60mm	80mm	100mm	130mm	160mm	180mm	200mm	250mm	300mm
6.5mm Ø	100W	100W	125W	125W	100W						
	125W	125W	160W	160W	160W						
	160W	160W	200W	180W	200W						
	175W	200W	250W	200W	250W						
	200W	250W	315W	250W	315W						
				280W	350W						
			315W	400W							
			350W								
8.0mm Ø	100W	125W	100W	160W	200W	250W					
	160W	160W	125W	200W	250W	315W					
	200W	200W	140W	250W	280W	400W					
	250W	250W	160W	315W	315W						
		315W	200W	400W	400W						
			250W	500W							
		280W									
		315W									
10.0mm Ø	100W	100W	125W	160W	160W	315W	400W				
	125W	160W	160W	200W	200W	400W	630W				
	200W	200W	200W	250W	250W	500W					
	250W	250W	250W	315W	315W	630W					
	315W	315W	315W	400W	400W	800W					
		400W	400W	500W	500W						
		500W	630W	560W							
			630W	800W							
12.5mm Ø	100W	100W	125W	200W	250W	400W	500W	800W	630W		
	160W	125W	160W	250W	315W	500W	630W	1000W	800W		
	200W	160W	200W	315W	400W	630W	800W				
	250W	200W	250W	400W	500W	800W	1000W				
	315W	250W	315W	500W	630W	1000W	1250W				
	400W	315W	400W	630W	800W						
	400W	500W	800W	1000W							
	500W										
16.0mm Ø	100W	160W	160W	250W	315W	500W	630W	1000W	800W	1000W	1250W
	160W	200W	200W	315W	400W	630W	800W	1250W	1000W	1250W	1800W
	200W	250W	250W	400W	500W	800W	1000W	1800W	1250W	1600W	
	250W	315W	315W	500W	630W	1000W	1250W		1600W	2000W	
	315W	400W	400W	630W	800W	1400W	1600W		2000W		
	400W	500W	500W	800W	1000W						
500W	630W	630W	1000W	1250W							
20.0mm Ø				400W	400W	630W	1000W		1250W	1600W	2000W
				500W	630W	800W	1250W		1600W	2000W	2500W
				630W	800W	1000W	1600W		2000W	2500W	3150W
				800W	1000W	1250W	2000W		2500W	3150W	4000W
				1000W	1250W	1600W	2500W		3150W		
				1250W	1600W	2000W					



Available Diameter	Without Thermocouple					With Thermocouple					
	Metric		Imperial			Metric			Imperial		
	Available Immersion Length										
	1 ½"	2"	2 ½"	3"	4"	5"	6"	7"	8"	10"	12"
¼" Ø	100W	100W	125W	200W	160W						
	125W	125W	200W	250W	220W						
	160W	150W	250W	300W	250W						
	175W	200W	315W		350W						
	200W	250W									
⅜" Ø	100W	100W	125W	100W	150W	300W	400W				
	125W	125W	180W	150W	220W	500W	500W				
	160W	160W	250W	250W	250W	750W	600W				
	200W	250W	315W	300W	300W		750W				
	250W	315W	400W	400W	350W						
	315W	400W	500W	500W	400W						
		500W		600W	500W	560W					
			750W	600W	600W						
½" Ø	100W	100W	125W	150W	250W	250W	500W	600W	630W		
	125W	200W	150W	200W	400W	400W	600W	800W	900W		
	160W	250W	200W	300W	500W	500W	750W	1000W	1000W		
	200W	300W	250W	400W	630W	750W	1000W		1500W		
	250W	400W	315W	500W	750W	900W			2000W		
		500W	400W	600W	800W						
		500W	750W	1000W							
⅝" Ø		160W	160W	300W	350W	500W	800W	1000W	800W	1000W	1250W
		250W	250W	400W	400W	750W	1000W	1250W	1000W	1500W	1800W
		300W	300W	500W	500W	1000W	1250W	1600W	1250W	2000W	
		400W	400W	600W	600W	1300W	1600W		1500W		
		500W	500W	750W	750W				2000W		
		630W	630W	1000W	800W						
					1000W						
					1250W						

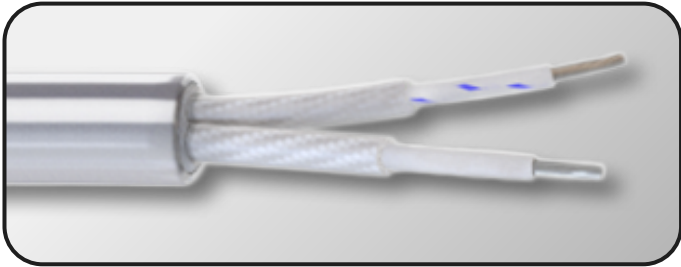


CORE OPTIONS



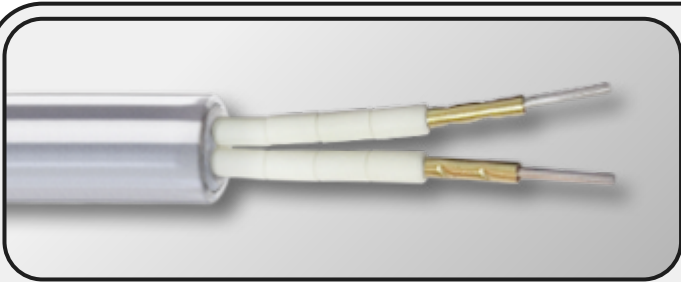
OPTION 1
Glass Fibre Cores

Max. Temperature	400°C
Optional Extras	Earth Lead
	Thermocouple



OPTION 2
Glass Fibre Cores (Double Sleeved)

Max. Temperature	250°C
Optional Extras	Earth Lead
	Thermocouple



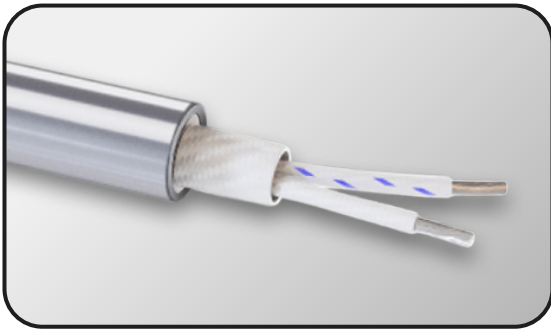
OPTION 3
Ceramic Bead Cores

Max. Temperature	600°C
Optional Extras	Earth Lead
	Thermocouple

Please note, Option 3 is not available with any extra oversleeve. Page 8 in this datasheet is void if you are selecting this option.



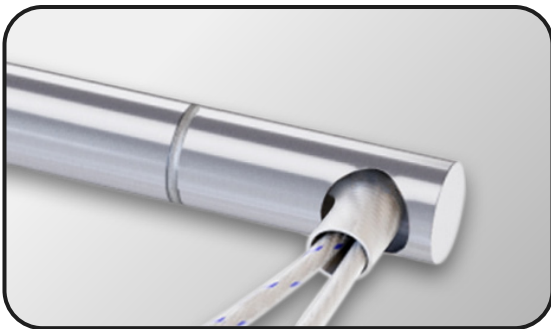
CABLE EXIT OPTIONS



EXIT 1

Straight

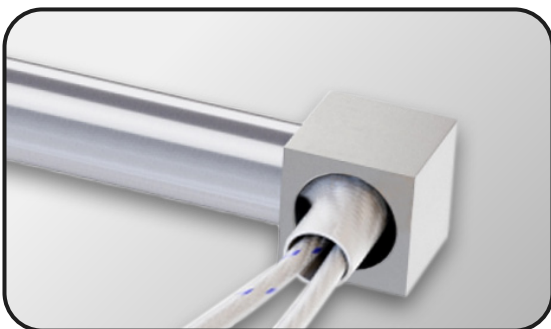
Heater Diameter	6.5 [mm]	8.0 [mm]	10.0 [mm]	12.5 [mm]	16.0 [mm]	20.0 [mm]	1/4"	3/8"	1/2"	5/8"
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EXIT 2

90° Exit Tube

Heater Diameter	6.5 [mm]	8.0 [mm]	10.0 [mm]	12.5 [mm]	16.0 [mm]	20.0 [mm]	1/4"	3/8"	1/2"	5/8"
Tube Length	12.5 [mm]	14.5 [mm]	18.0 [mm]	19.5 [mm]	22.5 [mm]	25.0 [mm]	12.5 [mm]	18.0 [mm]	19.5 [mm]	22.5 [mm]



EXIT 3

90° Exit Block

Heater Diameter	6.5 [mm]	8.0 [mm]	10.0 [mm]	12.5 [mm]	16.0 [mm]	20.0 [mm]	1/4"	3/8"	1/2"	5/8"
Block Size	10.0 [mm ³]	10.0 [mm ³]	15.0 [mm ³]	15.0 [mm ³]	20.0 [mm ³]	25.0 [mm ³]	10.0 [mm ³]	15.0 [mm ³]	15.0 [mm ³]	20.0 [mm ³]



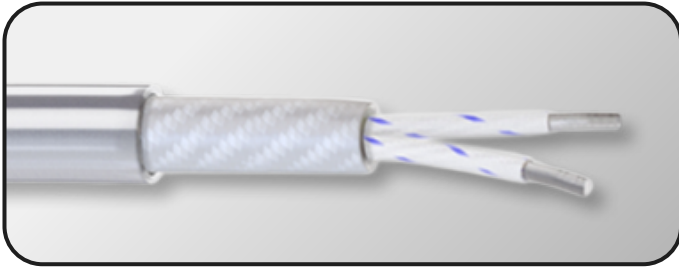
EXIT 4

90° Curved Tube

Heater Diameter	6.5 [mm]	8.0 [mm]	10.0 [mm]	12.5 [mm]	16.0 [mm]	20.0 [mm]	1/4"	3/8"	1/2"	5/8"
Tube Length	10.0 [mm]	15.0 [mm]	17.0 [mm]	20.0 [mm]	23.0 [mm]	28.0 [mm]	10.0 [mm]	17.0 [mm]	20.0 [mm]	23.0 [mm]



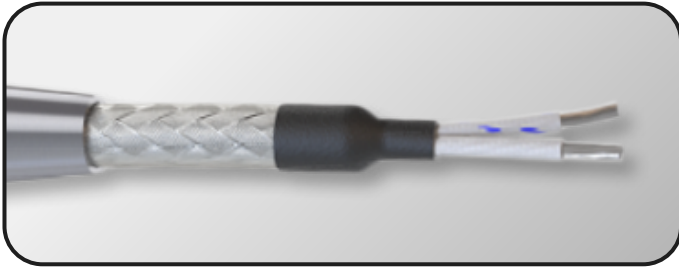
OVERSLEEVE OPTIONS



SLEEVE 1

Glass Fibre Oversleeve

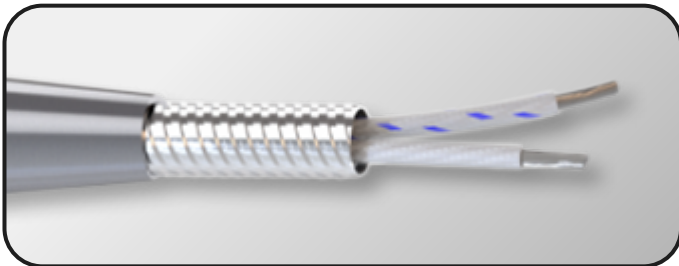
Min. Temperature	- 60°C
Max. Temperature	250°C
Material	Fibreglass



SLEEVE 2

Armour Braided Oversleeve

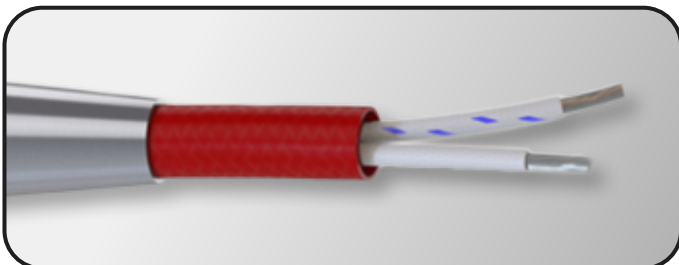
Min. Temperature	- 50°C
Max. Temperature	300°C
Material	Galvanised Steel



SLEEVE 3

Armour Conduit Oversleeve

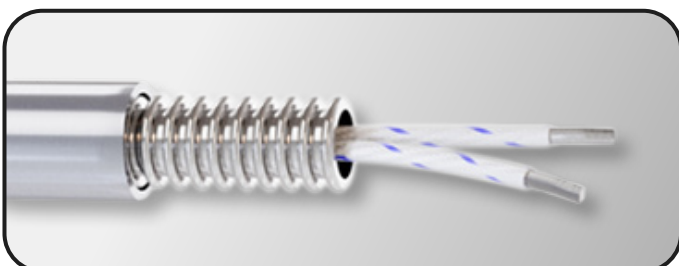
Min. Temperature	- 50°C
Max. Temperature	400°C
Material	Galvanised Steel



SLEEVE 4

Silicone Oversleeve

Min. Temperature	- 60°C
Max. Temperature	160°C
Material	Silicone



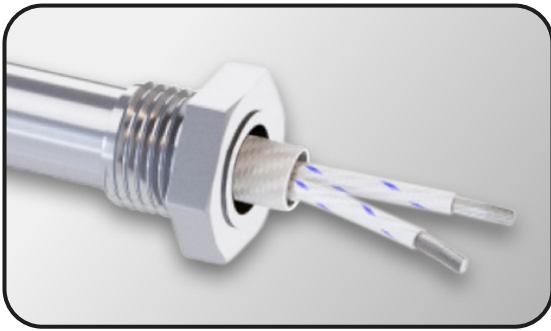
SLEEVE 5

Wave Hose Oversleeve

Min. Temperature	- 270°C
Max. Temperature	600°C
Material	Stainless Steel



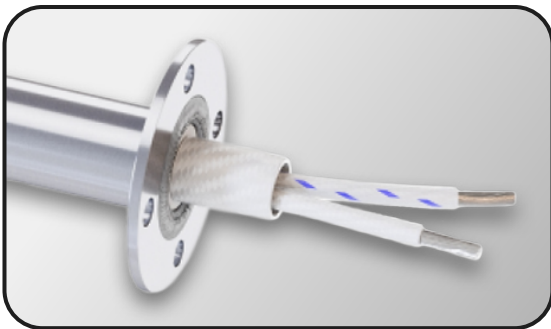
ADDITIONAL FITTINGS



FITTING 1

Threaded Nipple

Heater Diameter	6.5 [mm]	8.0 [mm]	10.0 [mm]	12.5 [mm]	16.0 [mm]	20.0 [mm]	1/4"	3/8"	1/2"	5/8"
Thread Size	M10 x 1.0	M12 x 1.0	M14 x 1.5	M16 x 1.5	M20 x 1.5	M26 x 1.5	1/8" BSP	1/4" BSP	3/8" BSP	1/2" BSP



FITTING 2

Fixing Flange

Heater Diameter	6.5 [mm]	8.0 [mm]	10.0 [mm]	12.5 [mm]	16.0 [mm]	20.0 [mm]	1/4"	3/8"	1/2"	5/8"
Flange Diameter	18.0 [mm]	18.0 [mm]	27.0 [mm]	27.0 [mm]	43.0 [mm]	43.0 [mm]	18.0 [mm]	27.0 [mm]	27.0 [mm]	43.0 [mm]
Hole Distance	13.0 [mm]	13.0 [mm]	20.0 [mm]	20.0 [mm]	32.0 [mm]	32.0 [mm]	13.0 [mm]	20.0 [mm]	20.0 [mm]	32.0 [mm]
Hole Size	2.2 [mm]	2.2 [mm]	3.2 [mm]	3.2 [mm]	5.5 [mm]	5.5 [mm]	2.2 [mm]	3.2 [mm]	3.2 [mm]	5.5 [mm]

