Zoppas Industries
Heating Element Technologies

TUBULAR ELEMENTS FOR AIR CONDITIONING

Platform Catalog

Air conditioning industry

Air conditioning is the process of changing the parameters of an airflow - temperature, humidity, pressure, purity, speed - in an environment such as a building or a vehicle, with the aim to increase the comfort of living.

Zoppas developed several platforms capable of processing an airflow: this Catalog is the collection of Platforms made by basic tubular elements specifically designed for Mechanical Ventilation Systems.

Applications

Mechanical Ventilation Systems are present in all the living environments: residential, commercial, industrial, community. Below just a few examples:

Air curtains create an invisible door separating a conditioned room from the outside. This by means of air flow which is precisely adjusted in term of temperature and speed. This is the most efficient separation with the lowest possible energy consumption, regardless of whether it is the heat or the cold that you want to keep inside.

Air handling unit (AHU), a device used to condition and circulate air as part of a heating, ventilating, and air-conditioning (HVAC) system that distributes the conditioned air through the building and returns it to the AHU.

Duct heaters, a ready-to-use kit composed by electrical heaters wrapped into a metal frame. These units are installed inside the AHU as part of ductwork. Duct heaters are often provided with controls such as high limit sensors or integrated panels supplied lose or as part of the heater assembly.

Zoppas Industries
Heating Element Technologies

The platforms

All the platforms developed for Air conditioning are based on the affordable, reliable and performing technology of tubular elements. The combination of the most used materials, fittings, connectors and shapes, grouped by design, underpins the platforms.

To simplify the design of a new item, Zoppas Industries Heating Element Technologies released software tools to configure custom solutions. See product data sheets to find the configuration string of the selected platform.

Materials and sheath dimensions

The tubular elements of ZI are the best in class for used materials, not only for the sheath tube but also for the filling materials and for the heating wire. Stainless steel is the base of all the heating elements but carbon steel (Incoloy 800) is also available for basic products.

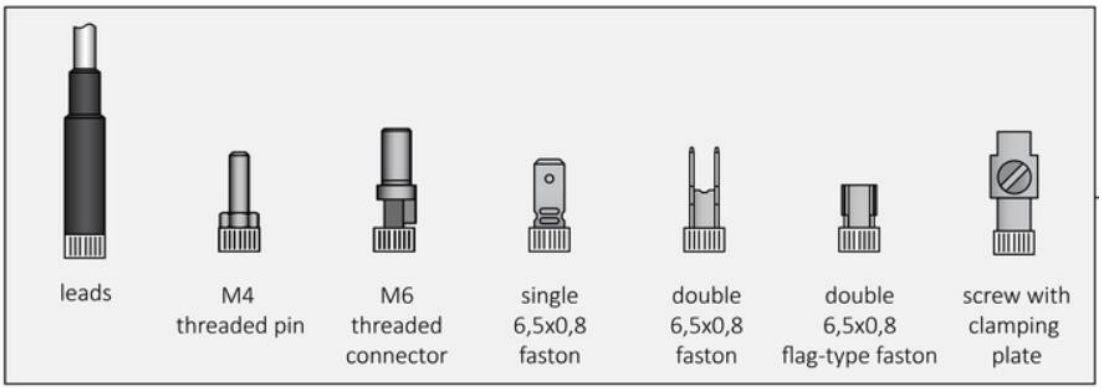
Available diameters range from Ø6,25mm to Ø10mm depending on the shape and execution of the heating element.

Ventilation conditions

A design parameter of the heating elements is the surface temperature on the sealing point: abnormal operating conditions can threaten the sealing properties, shortening the life of the product. When designing a solution, it is highly recommended to consider the working conditions of the application.

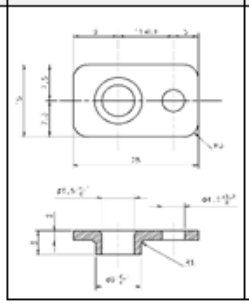
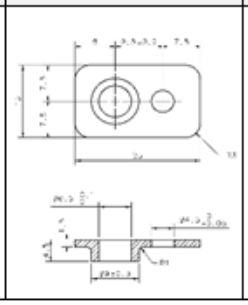
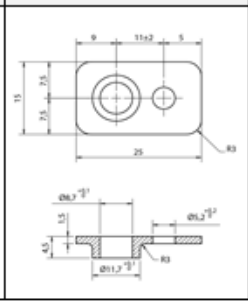
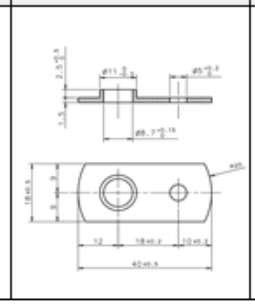
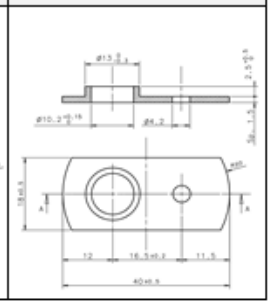
Connectors

The way the elements are connected into the Mechanical Ventilation Systems depends on several factors, such as the OEM design. The platforms of ZI include the most diffused electrical connections so to comply with a wide range of possible executions.



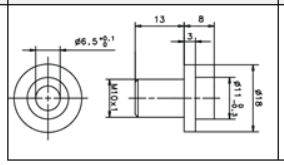
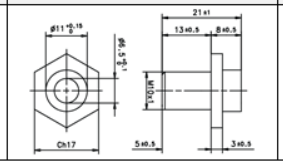
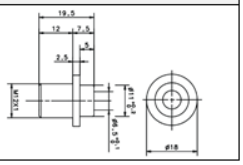
Flanges

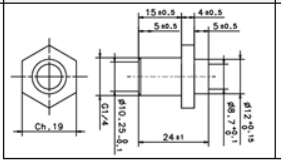
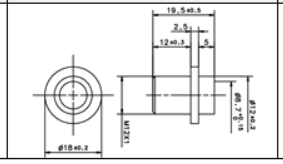
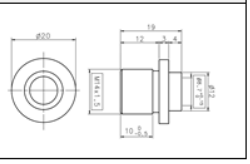
Depending on the OEM design of the Mechanical Ventilation Systems, heating elements must be installed into the application, alone or in bundle with other elements. For this purpose, a flange can be provided with the tubular heater, selected within the following group of standard ones:

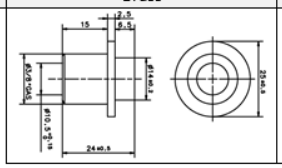
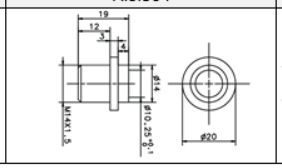
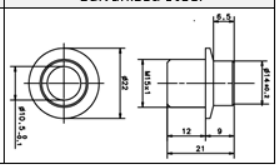
Code	571007770	571162020	570165390	550405661	571026231
Sheath Ø	6,25 mm	6,25 mm	8,5 mm	8,5 mm	10 mm
Dimension	25 x 15 mm	25 x 15 mm	25 x 15 mm	40 x 18 mm	40 x 18 mm
Material	AISI304	FEP11 UNI 5867	AISI304	FEP11 UNI 5867	FEP11 UNI 5867
					

Nipples

Though heaters can be provided without fixing systems, platforms benefit from a bunch of nipples to choose from. Position of the nipple along the element is variable for basic tubular heaters, while for helical and rectangular finned elements nipples are flush mounted.

Code	570934620	570896220	570971261
Sheath Ø	6,25 mm	6,25 mm	6,25 mm
Dimension	M10 x 1 mm	M10 x 1 mm	M12 x 1 mm
Material	AISI303	Brass	11SMnPb30
			

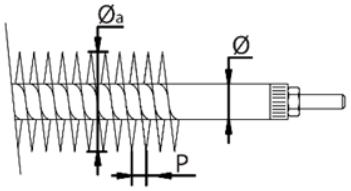
Code	570133441	570510111	570116803
Sheath Ø	8,5 mm	8,5 mm	8,5 mm
Dimension	G 1/4"	M12 x 1 mm	M14 x 1,5 mm
Material	Brass	11SMnPb30	11SMnPb30
			

Code	570155251	570914550	550400922
Sheath Ø	10 mm	10 mm	10 mm
Dimension	G 3/8"	M14 x 1,5 mm	M15 x 1 mm
Material	Brass	AISI304	Galvanized Steel
			

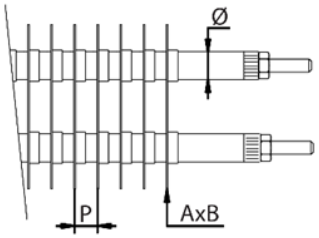
Fins

In many industrial processes, finned elements with continuous helical fins are more frequent, being suitable for installation inside ventilation channels. The finning is made of AISI304 steel, with a constant pitch of 5,2mm.

Heating elements with rectangular fins are often used for domestic application. Fins, made of Fe-P10, are coined on the tube.



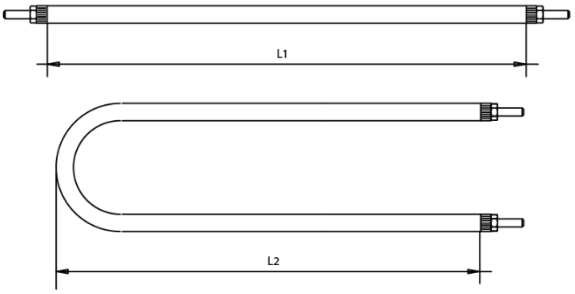
Ø	Øa	P
8,5 mm	26,5 mm	5,2 mm
10 mm	28 mm	5,2 mm



Ø	AxB	P
8,5 mm	25x50 mm	7 mm

Electrical characteristics

With reference to the side sketches, it is possible to define the range of combinations of power rates and length for the heating element. Electrical characteristic apply on all shapes.



Voltage	Sheath Ø	Sealing types		Available sheath material			Power (*)		Length "L1"		Length "L2"	
[V]	[mm]	Hermetic	Non Hermetic	AISI-321	AISI-304	Incoloy800	Range [W]	Step [W]	Range [mm]	Step [mm]	Range [mm]	Step [mm]
115	6,25	X	X	X		X	300÷1500	50	450÷6000	25	225÷3000	25
	8,5		X		X	X	300÷2200	50	350÷6000	25	200÷3000	25
	10	X	X	X		X	300÷2400	50	350÷6000	25	200÷3000	25
230	6,25	X	X	X		X	300÷3050	50	450÷6000	25	300÷3000	25
	8,5		X		X	X	300÷4400	50	350÷6000	25	300÷3000	25
	10	X	X	X		X	300÷4800	50	350÷6000	25	300÷3000	25
277	6,25	X	X	X		X	300÷3700	50	450÷6000	25	375÷3000	25
	8,5		X		X	X	300÷5300	50	350÷6000	25	300÷3000	25
	10	X	X	X		X	300÷5750	50	350÷6000	25	300÷3000	25
290	6,25	X	X	X		X	300÷3850	50	450÷6000	25	375÷3000	25
	8,5		X		X	X	300÷5550	50	350÷6000	25	300÷3000	25
	10	X	X	X		X	300÷6000	50	350÷6000	25	325÷3000	25
400	6,25	X	X	X		X	300÷4750	50	450÷6000	25	450÷3000	25
	8,5		X		X	X	300÷6000	50	475÷6000	25	475÷3000	25
	10	X	X	X		X	300÷6000	50	525÷6000	25	525÷3000	25
480	6,25	X	X	X		X	300÷4750	50	625÷6000	25	625÷3000	25
	8,5		X		X	X	300÷6000	50	650÷6000	25	650÷3000	25
	10	X	X	X		X	300÷6000	50	675÷6000	25	650÷3000	25

(*) Power rates are considered in still air. Higher power rates could be possible with ventilated air

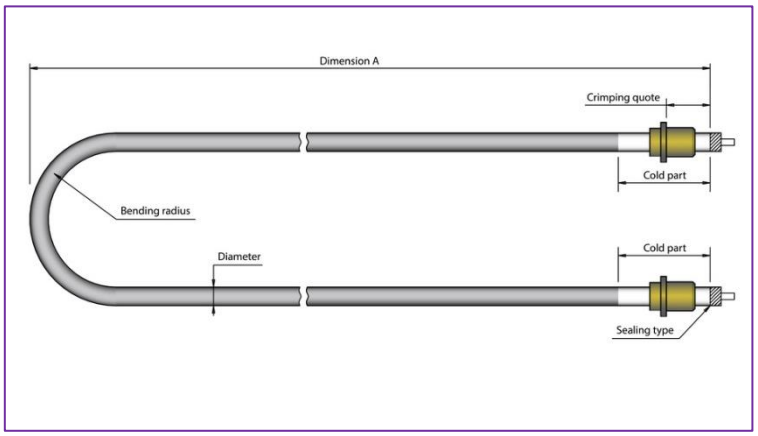
Via Podgora, 26 - 31029 Vittorio Veneto (TV) - Italy
Tel. +39 0438 9101 - Fax +39 0438 912272 - 912236
info@zoppas.com
www.zoppasindustries.com

Zoppas Industries
Heating Element Technologies

Ubend with two nipples

Product specification

Sheath material Ø6,25mm: AISI-321/Incoloy800
Sheath material Ø8,5mm: AISI-304/Incoloy800
Sheath material Ø10mm: AISI-321/Incoloy800
Sealing: hermetic or non hermetic
Power range: 300W to 6000W
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 760°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For banding radius, crimping quote of the fixing, connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

1TB

BENDING RADIUS	
B	12,5 mm
...	...
Z	72,5 mm

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
A	6,25 mm
B	8,5 mm
C	10 mm

SHEATH MATERIAL	
A	AISI-304
B	AISI-321
C	Incoloy-800

CRIMPING QUOTE	
I	12 mm
...	...
Z	29 mm

DIMENSION A	
AF	300 mm
...	...
ER	6000 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

FIXING NIPPLE	
A	M10x1 Brass for Ø6,25
B	M10x1 AISI-303 for Ø6,25
C	M12x1 11SMnPb30 for Ø6,25
D	G1/4" Brass for Ø8,5
E	G1/4" Brass for Ø8,5
F	M12x1 11SMnPb30 for Ø8,5
G	M15x1 Zinc plated for Ø10
H	M14x1,5 AISI-304 for Ø10
I	G3/8" Brass for Ø10

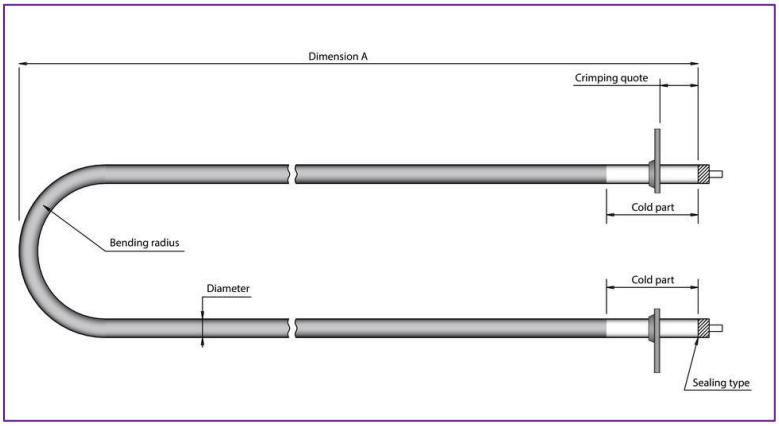
SEALING TYPE	
A	Hermetic
B	Non-hermetic

POWER	
AA	300 W
...	...
DK	6000 W

Ubend with two flanges

Product specification

Sheath material Ø6,25mm: AISI-321/Incoloy800
Sheath material Ø8,5mm: AISI-304/Incoloy800
Sheath material Ø10mm: AISI-321/Incoloy800
Sealing: hermetic or non hermetic
Power range: 300W to 6000W
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 760°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For banding radius, crimping quote of the fixing, connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

1TC

BENDING RADIUS	
B	12,5 mm
...	...
Z	72,5 mm

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
A	6,25 mm
B	8,5 mm
C	10 mm

SHEATH MATERIAL	
A	AISI-304
B	AISI-321
C	Incoloy-800

CRIMPING QUOTE	
I	12 mm
...	...
Z	29 mm

DIMENSION A	
AF	300 mm
...	...
ER	6000 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

FIXING	
M	AISI-304 Flange (for Ø6,25)
N	FeP11 Flange (for Ø6,25)
O	FEP11 Flange (for Ø8,5)
P	AISI-304 Flange (for Ø8,5)
Q	FEP11 Flange (for Ø10)

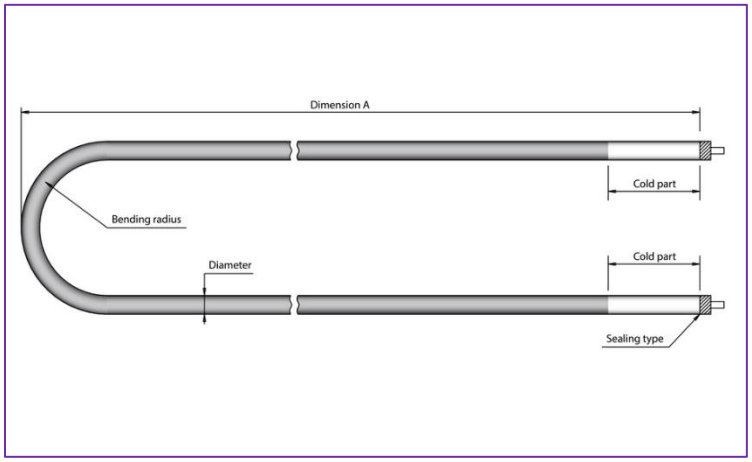
SEALING TYPE	
A	Hermetic
B	Non-hermetic

POWER	
AA	300 W
...	...
DK	6000 W

Ubend without fixing

Product specification

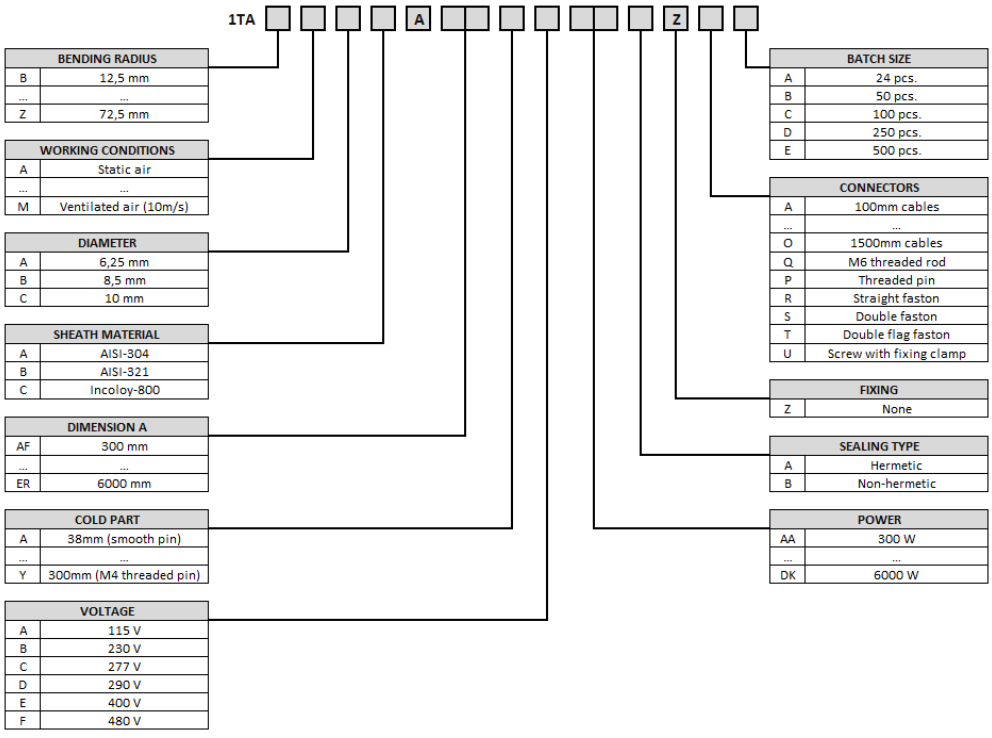
Sheath material Ø6,25mm: AISI-321/Incoloy800
Sheath material Ø8,5mm: AISI-304/Incoloy800
Sheath material Ø10mm: AISI-321/Incoloy800
Sealing: hermetic or non hermetic
Power range: 300W to 6000W
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 760°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For banding radius and connector type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

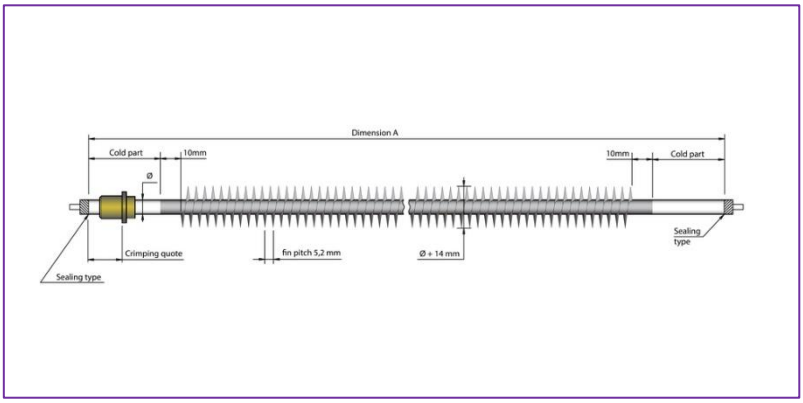


Zoppas Industries
Heating Element Technologies

Straight helical with nipple

Product specification

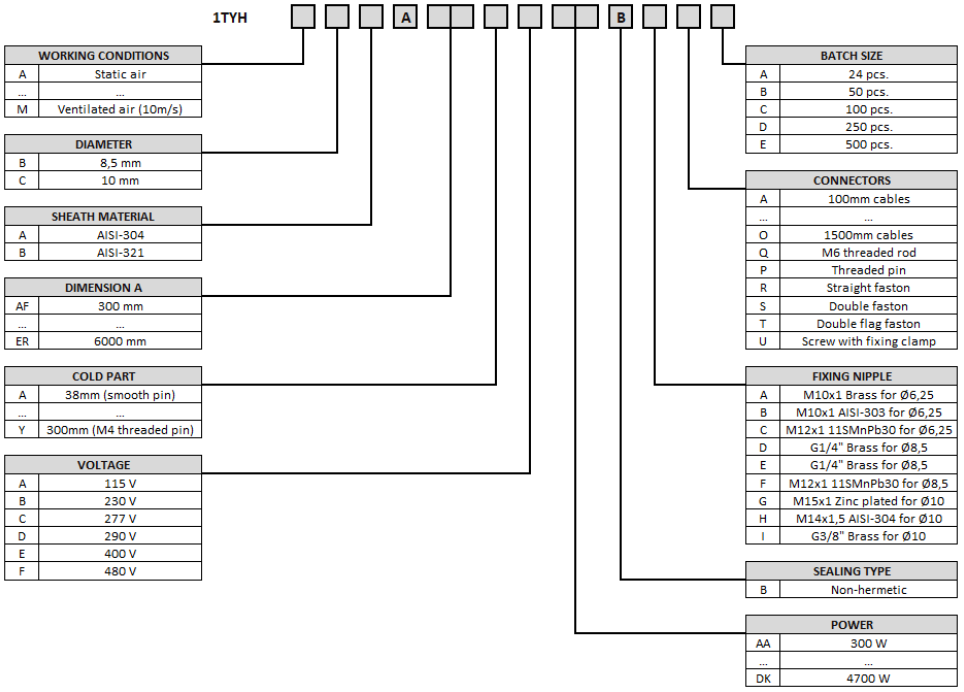
Sheath material Ø8,5mm: AISI-304
Sheath material Ø10mm: AISI-321
Helical fin: AISI-304 band, 7 mm width
Fin pitch: 5,2 mm
Power range: 300W to 4700W
Sealing: non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For crimping quote of the fixing, connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

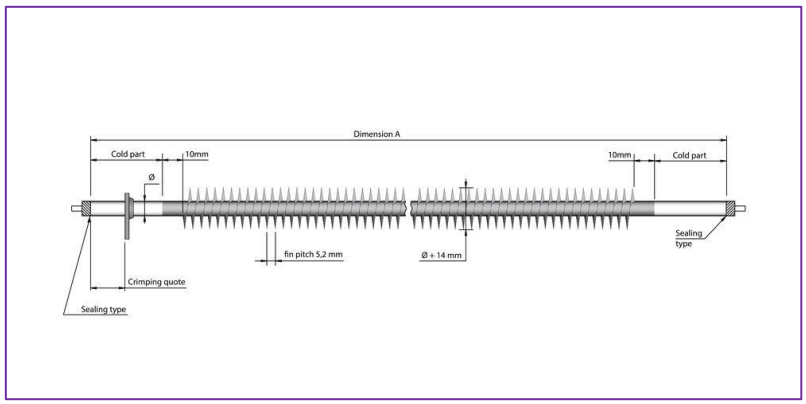


Via Podgora, 26 - 31029 Vittorio Veneto (TV) - Italy
Tel. +39 0438 9101 - Fax +39 0438 912272 - 912236
info@zoppas.com
www.zoppasindustries.com

Straight helical with flange

Product specification

Sheath material Ø8,5mm: AISI-304
Sheath material Ø10mm: AISI-321
Helical fin: AISI-304 band, 7 mm width
Fin pitch: 5,2 mm
Power range: 300W to 4700W
Sealing: non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For crimping quote of the fixing, connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

1TYM B

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
B	8,5 mm
C	10 mm

SHEATH MATERIAL	
A	AISI-304
B	AISI-321

CRIMPING QUOTE	
I	12 mm
...	...
Z	29 mm

DIMENSION A	
AF	300 mm
...	...
ER	6000 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

FIXING	
M	AISI-304 Flange (for Ø6,25)
N	FeP11 Flange (for Ø6,25)
O	FEP11 Flange (for Ø8,5)
P	AISI-304 Flange (for Ø8,5)
Q	FEP11 Flange (for Ø10)

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

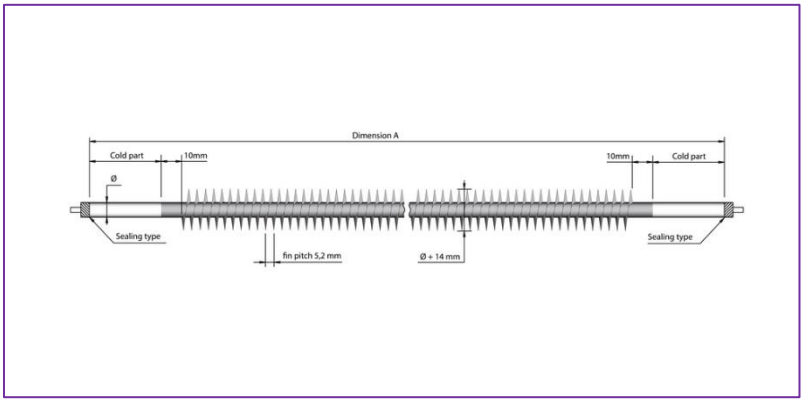
SEALING TYPE	
B	Non-hermetic

POWER	
AA	300 W
...	...
DK	4700 W

Zoppas Industries
Heating Element Technologies

Straight helical without fixing

Product specification



Sheath material Ø8,5mm: AISI-304
Sheath material Ø10mm: AISI-321
Helical fin: AISI-304 band, 7 mm width
Fin pitch: 5,2 mm
Power range: 300W to 4700W
Sealing: hermetic or non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.

For connector type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

1TYY A Z

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
B	8,5 mm
C	10 mm

SHEATH MATERIAL	
A	AISI-304
B	AISI-321

DIMENSION A	
AF	300 mm
...	...
HY	6000 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

FIXING	
Z	None

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

SEALING TYPE	
A	Hermetic
B	Non-hermetic

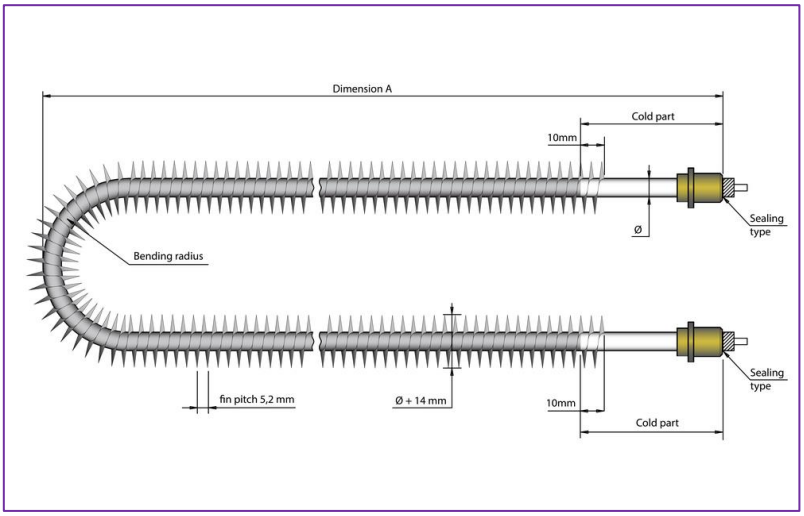
POWER	
AA	300 W
...	...
DK	4700 W

Zoppas Industries
Heating Element Technologies

Ubend helical with nipples

Product specification

Sheath material Ø8,5mm: AISI-304
Sheath material Ø10mm: AISI-321
Helical fin: AISI-304 band, 7 mm width
Fin pitch: 5,2 mm
Power range: 300W to 4700W
Sealing: non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For banding radius, crimping quote of the fixing, connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

1TH [ ] [ ] [ ] [ ] A [ ] [ ] [ ] [ ] [ ] [ ] B [ ] [ ] [ ]

BENDING RADIUS	
B	12,5 mm
...	...
Z	72,5 mm

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
B	8,5 mm
C	10 mm

SHEATH MATERIAL	
A	AISI-304
B	AISI-321

DIMENSION A	
AF	300 mm
...	...
EQ	2975 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

FIXING NIPPLE	
A	M10x1 Brass for Ø6,25
B	M10x1 AISI-303 for Ø6,25
C	M12x1 11SMnPb30 for Ø6,25
D	G1/4" Brass for Ø8,5
E	G1/4" Brass for Ø8,5
F	M12x1 11SMnPb30 for Ø8,5
G	M15x1 Zinc plated for Ø10
H	M14x1,5 AISI-304 for Ø10
I	G3/8" Brass for Ø10

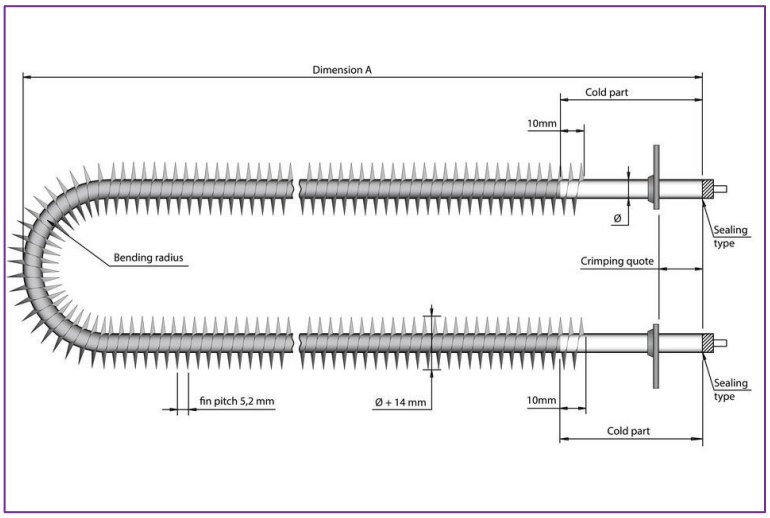
SEALING TYPE	
B	Non-hermetic

POWER	
AA	300 W
...	...
DK	4700 W

Ubend helical with flanges

Product specification

Sheath material Ø8,5mm: AISI-304
Sheath material Ø10mm: AISI-321
Helical fin: AISI-304 band, 7 mm width
Fin pitch: 5,2 mm
Power range: 300W to 4700W
Sealing: non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For banding radius, crimping quote of the fixing, connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

1TM [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][B][ ][ ][ ][ ]

BENDING RADIUS	
B	12,5 mm
...	...
Z	72,5 mm

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
B	8,5 mm
C	10 mm

SHEATH MATERIAL	
A	AISI-304
B	AISI-321

CRIMPING QUOTE	
I	12 mm
...	...
Z	29 mm

DIMENSION A	
AF	300 mm
...	...
EQ	2975 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

FIXING	
M	AISI-304 Flange (for Ø6,25)
N	FeP11 Flange (for Ø6,25)
O	FEP11 Flange (for Ø8,5)
P	AISI-304 Flange (for Ø8,5)
Q	FEP11 Flange (for Ø10)

SEALING TYPE	
B	Non-hermetic

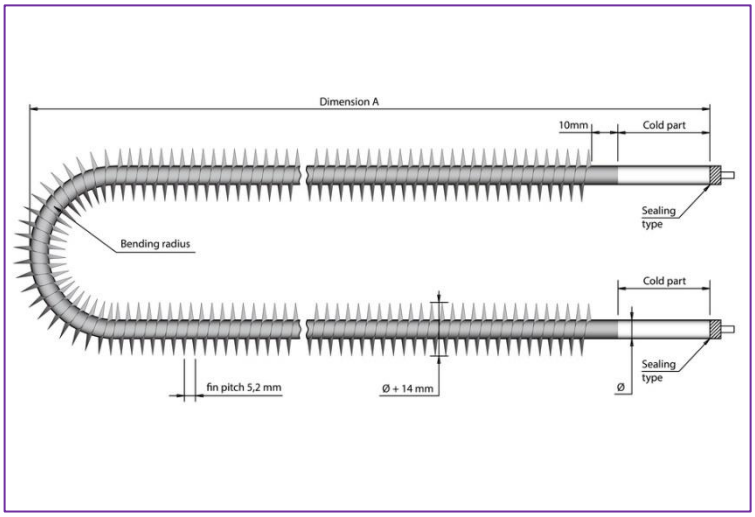
POWER	
AA	300 W
...	...
DK	4700 W

Zoppas Industries
Heating Element Technologies

Ubend helical without fixing

Product specification

Sheath material Ø8,5mm: AISI-304
Sheath material Ø10mm: AISI-321
Helical fin: AISI-304 band, 7 mm width
Fin pitch: 5,2 mm
Power range: 300W to 4700W
Sealing: non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For banding radius, crimping quote of the fixing, connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

1TG [ ] [ ] [ ] [ ] [A] [ ] [ ] [ ] [ ] [ ] [ ] [Z] [ ] [ ]

BENDING RADIUS	
B	12,5 mm
...	...
Z	72,5 mm

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
B	8,5 mm
C	10 mm

SHEATH MATERIAL	
A	AISI-304
B	AISI-321

DIMENSION A	
AF	300 mm
...	...
EQ	2975 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

FIXING	
Z	None

SEALING TYPE	
A	Hermetic
B	Non-hermetic

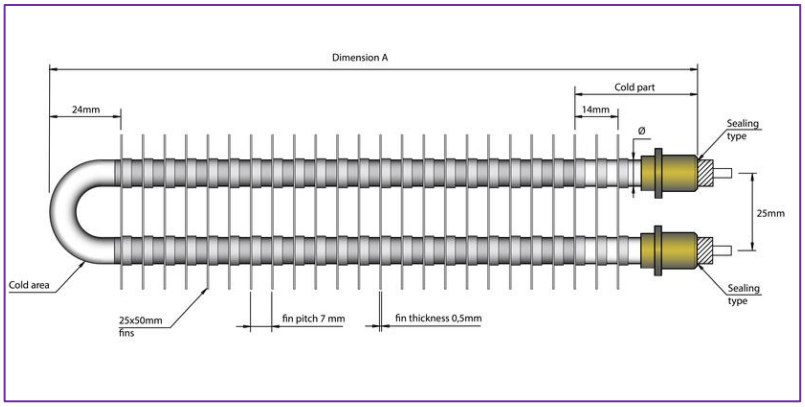
POWER	
AA	300 W
...	...
DK	4700 W

Zoppas Industries
Heating Element Technologies

Rectangular 25x50 fins with two nipples

Product specification

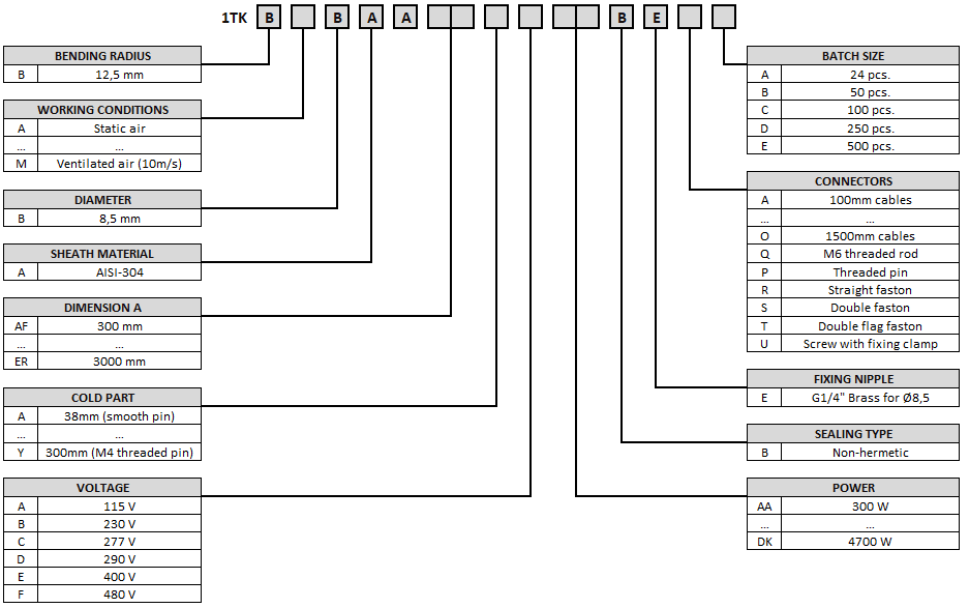
Sheath material: AISI-304
Sheath diameter: Ø8,5mm
Rectangular fin: AISI-304 50x25x0,5mm
Fin pitch: 7 mm
Power range: 300W to 4700W
Sealing: non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For connector type and fixing type all the possible selections are listed below in the configuration string table.

Configuration String

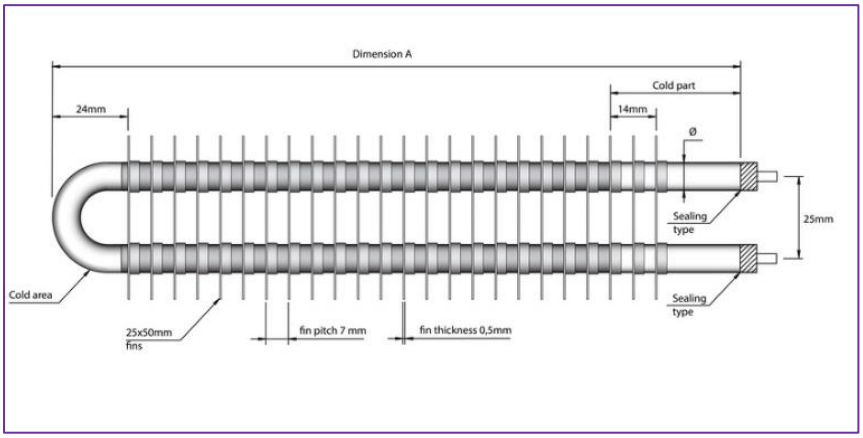
A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.



Rectangular 25x50 fins without nipples

Product specification

Sheath material: AISI-304
Sheath diameter: Ø8,5mm
Rectangular fin: AISI-304 50x25x0,5mm
Fin pitch: 7 mm
Power range: 300W to 4700W
Sealing: hermetic or non-hermetic
Voltage: 115/230/277/290/440/480V
Maximum temperature heating area: 450°C
Maximum temperature sealing area: 180°C
Technical ref.: CEI EN 60335-1:2013
Compliance: 2006/95/CE Dir. and 2011/65/UE Dir.



For connector type all the possible selections are listed below in the configuration string table.

Configuration String

A product belonging to a Platform is defined by a PN that is called configuration string, a sequence of alphanumeric digits. For each position in the string, a unique digit is used, each having the meaning shown in the picture. Please note that combination rules may apply, causing some combination of values to be impossible. For more details, refer to the Configuration Software of ZIHET or to a sales representative.

| 1TJ | B | | B | A | A | | | | | | B | Z | | |

BENDING RADIUS	
B	12,5 mm

WORKING CONDITIONS	
A	Static air
...	...
M	Ventilated air (10m/s)

DIAMETER	
B	8,5 mm

SHEATH MATERIAL	
A	AISI-304

DIMENSION A	
AF	300 mm
...	...
ER	3000 mm

COLD PART	
A	38mm (smooth pin)
...	...
Y	300mm (M4 threaded pin)

VOLTAGE	
A	115 V
B	230 V
C	277 V
D	290 V
E	400 V
F	480 V

BATCH SIZE	
A	24 pcs.
B	50 pcs.
C	100 pcs.
D	250 pcs.
E	500 pcs.

CONNECTORS	
A	100mm cables
...	...
O	1500mm cables
Q	M6 threaded rod
P	Threaded pin
R	Straight faston
S	Double faston
T	Double flag faston
U	Screw with fixing clamp

FIXING NIPPLE	
Z	None

SEALING TYPE	
B	Non-hermetic

POWER	
AA	300 W
...	...
DK	4700 W

Worldwide Local Supplier

Zoppas Industries
Heating Element Technologies

ZOPPAS INDUSTRIES Partner

- Experience Zoppas Industries increasing efficiency using lean enterprise across all facilities and departments.
- Access our state-of-the-art laboratory facilities with over 30 years' design experience.
- Benefit from Zoppas Industries manufacturing and design facilities, which maintain Quality Management Systems according to ISO 9001, EN 9100, Environmental Management System according to ISO 14001 and Energy Management System according to ISO 50001.
- Access one of the widest Heating Element Technology product portfolios in the world including completely integrated thermal assemblies with sensors, connectors, enclosures, etc.
- Benefit from Zoppas Industries global presence through design and manufacturing facilities across Europe, North America, South America and Asia - lowering your Total Cost of Ownership (TCO) including reduced logistics, design, communication and support costs.
- Access Zoppas Industries' in-house design, development and R&D capabilities, such as CAD 3D design, FEA, DOE, FMEA.
- Benefit from Zoppas Industries products third-party certification, such as UL and VDE: marking applied on customer's request.

We at ZOPPAS INDUSTRIES put you in the front seat of internationalization - sourcing your local needs globally.

COMPANY CERTIFICATIONS

FM 11235 · 9191.IRCR · 9196.IRC8 · IT-75.12-6975 12/054P_IND EN 15085-2 · IT-75.12-6975 12/055P_IND ISO 3834-3

PRODUCT TRADEMARKS

Compliance with the mark of each specific product must be properly reviewed with our Sales Department.

Doc. xxxx Rev.x - Issued on xx/xx/2021

Zoppas Industries
Heating Element Technologies

Via Podgora, 26 - 31029 Vittorio Veneto (TV) - Italy
Tel. +39 0438 9101 - Fax +39 0438 912272 – 912236
www.zoppasindustries.com