

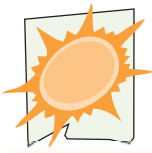
Z.R.E.

... Infinite solutions ...

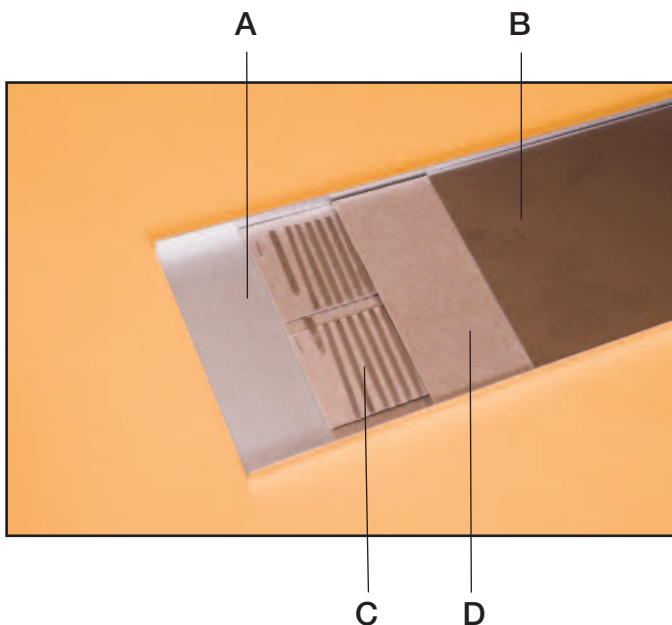
Mica insulated band heaters



MODEL Z.32 (MICA)



Model Z.32 mica



- (A) Internal sheet
- (B) External sheet
- (C) Resistive ribbons
- (D) Isulation made of mica

Technical features

Use

- Plasticization cylinders for injection molding machines or extruders
- Mica band heaters are the ideal solution for heating cylindrical surfaces in many other applications

Advantages of the mica band heaters

- Excellent heat exchange to the cylinder
- Heating uniformity
- Long life of the heater (when properly used)
- Easy to install
- High mechanical resistance
- Constant quality with time

Diameters

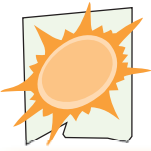
- Starting from 60mm, for heaters whose diameter is over 500mm is recommendable to manufacture them in two or more different sector with separate feedings

Widths

- Feasible widths starting from 20mm to 500mm (continuous width)

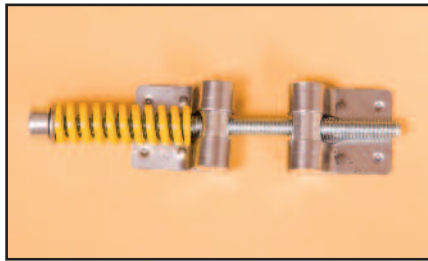
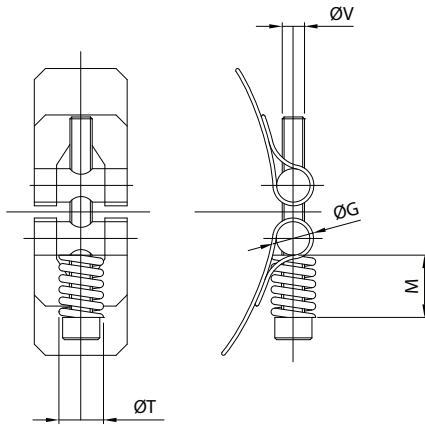
Technical Features

- Specific Wattage up to 4W/cm² (see page 3)
- Working temperature up to 320°C
- Internal sheet made of high heat conductivity treated steel (A)
- External sheet made of stainless steel AISI 430 resistant to high temperatures (B)
- Resistive ribbons made of NiCr 80/20 (C)
- Insulation made of pure Mica for high temperatures (D)
- Heater's standard thickness 4 +/-0.5mm
- Fibreglass insulated feeding cable with pure Ni or CuNi conductor externally protected by a metal braiding (built in earth wire) – working temperature 320°C , with peak 350°C
- Options:
Pure Ni or CuNi conductors with silicon sleeve -max working (Temperature 180°C, peak 200°)



Over 300 mm diameter clamping screw with spring TCE M6 L100

CLAMP TYPE	Ø V	Ø G	Ø T	M	L
TCE M6 L100	M6	12	12	40	100



Technical features

Feasible electric connections

- All monophase voltages
- From 3 p4 feeding available width 100mm on

Testing

- A sophisticated testing equipment (TPC 2000) allows us to guarantee the entire product, because all heaters are hot tested, applying their actual working voltage
- TPC 2000 is complete with a printer certifying testing results
- Testing certificate for each single heater, upon request

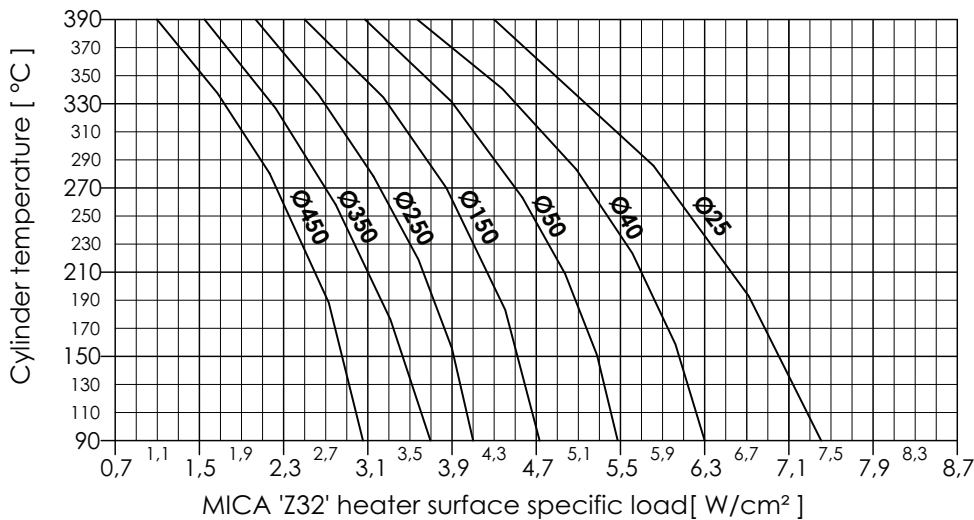
Standard measurements

- Ohmic Value
- Dielectric strength
- Current loss
- Insulation resistance
- Earth wire efficiency

For further information please contact our technical dep.

We reserve the right to change technical details

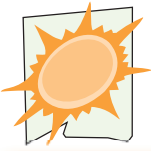
Max. specific load in terms of cylinder diameter and working temperature of the mica heater Z.32



Beware

using an insulation mattress we suggest to reduce the power by 0,5 W/cm²

with any other type of insulation please, contact our technical dep.



How to order

Model Z.32

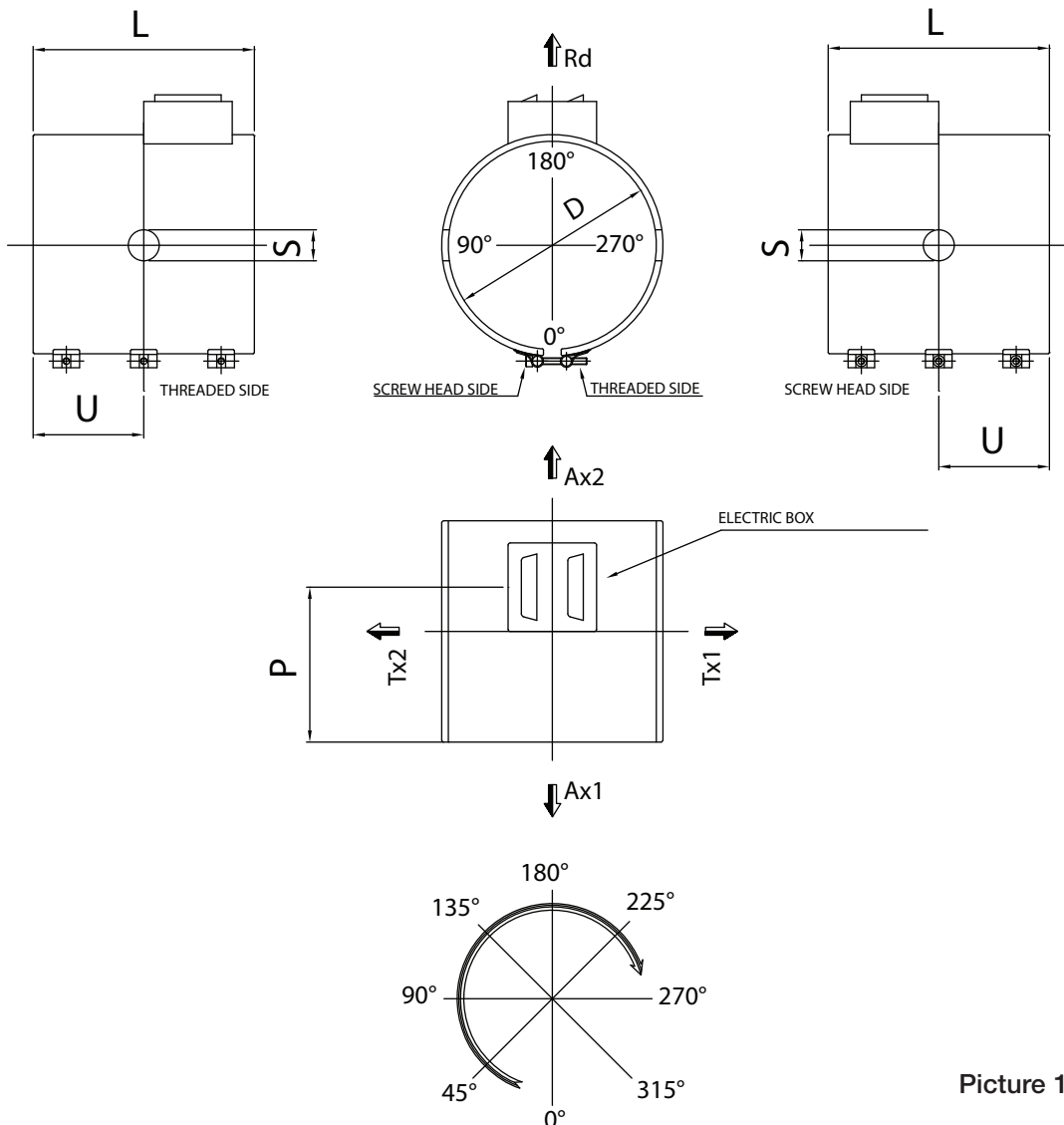
- Application:
- + Diameter D (mm):
- + Width L (mm):
- + Feeding voltage (V):
- + Wattage (W):

Exit Box:

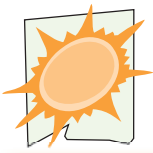
- + Type (M): (see brochure connections k):.....
- + Position from the edge (P):
- + Position as per pic. 1 (degrees):
- + Cable direction: axial (AX 1/2) - tangential (TX 1/2) - radial:
- + Cable length (mm):

Thermocouple holes and slot:

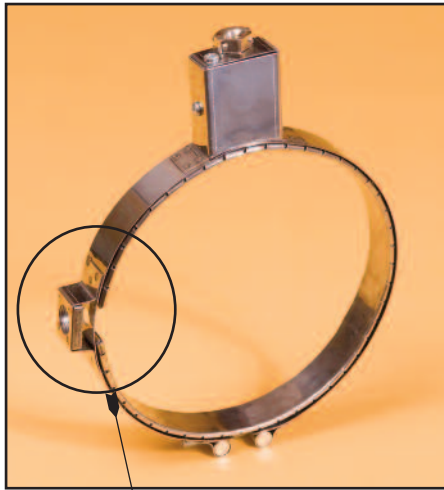
- + N° holes and slot:
- + Position as per pic. 1 (degrees):
- + Holes/slot Axis from the edge (U):
- + Holes' diameter (mm):
- + Any threaded connector (see pag 6):
- + Slot diameter (mm):
- + Any insulation covering:.....



Picture 1



Holes or slots



From width 30mm is possible to supply heaters with external thermocouple holes or slots.
It's also possible to provide a threaded connector as showed in the picture



Standard threaded connector

M8 x 1,25 (8MA)	M10 x 1,5 (10MA)	M10 x 1 (10MB)	M12 x 1,75 (12MA)	M12 x 1,5 (12MB)	M12 x 1 (12MC)
--------------------	---------------------	-------------------	----------------------	---------------------	-------------------

1/8" GAS	1/4" GAS	3/8" GAS
----------	----------	----------

Special execution

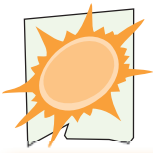


Edge - notched sheet

In case is not possible to insert the heater from the side this special execution enable the operator to open it up over the cylinder diameter.



Upon request executions



Model Z.33

execution with single insulation covering

Model Z.34

execution with double insulation covering, inside insulated and outside with perforated sheet

Drum heaters

Band heaters for drum 200 lt
Diameter 570x200 230V 1500W
Cable 1500mm with thermostat set 30-110°
available on stock

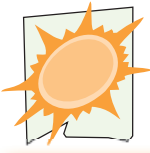
Upon request we may manufacture heaters for different drums.



Connections

Please check all our connection option at the following link www.zre.it





Installation and storage instruction

Installation

- When installing the mica band heater , please make sure to hold it tightly screwing up the apposite bolts (with exagonal head). When reached the working temperature or after 30 min. heating screw it up still further. Do the same after few hours in order to compensate the thermal linear expansion of the heater.
Not doing the operation described above may cause the over heating of the parts of the heater that are not perfectly in contact with the nozzle pointed out by a colour change purple - black and consequently the resistive filament may burn.

It is very important to follow these advices in order to have a longer lifetime of the heater



Connections

- Protect connections against the ingress of liquids and gases to avoid short circuits
- Install the connections away from sharp edges or parts since this may also cause short circuits
- Protect connection leads against the effects of temperature and lay them in a proper way
- Pay attention to the connection voltage

Storage

- Store at room temperature in a dry place.

Operation

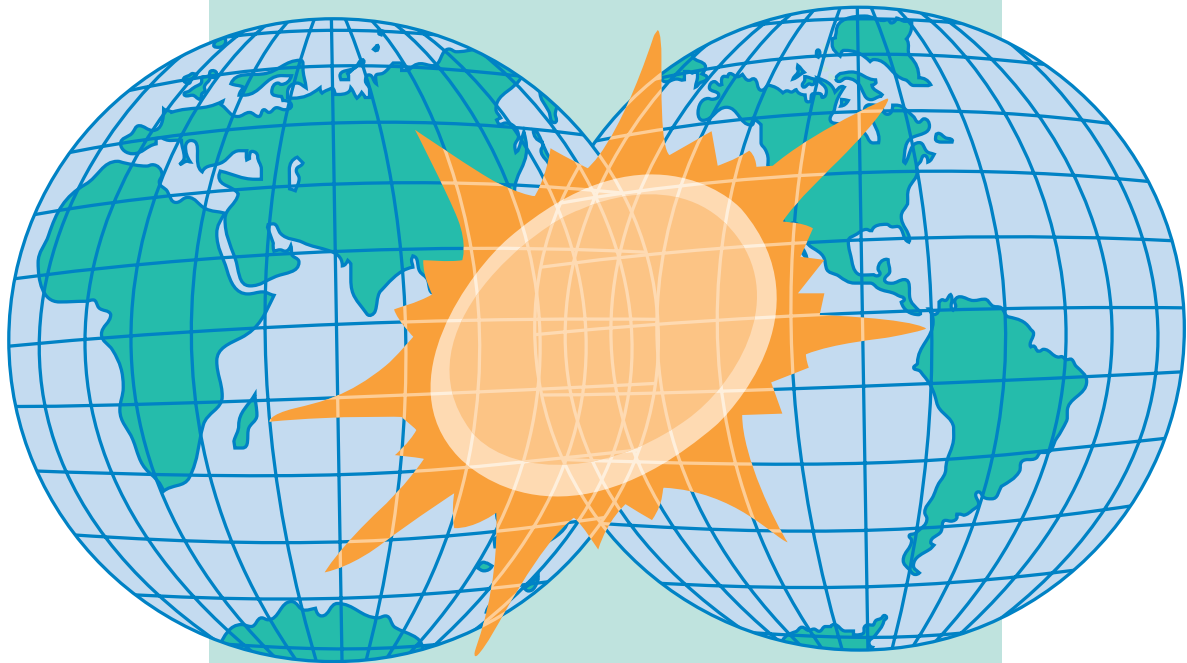
- Security procedures for the handling of electrical items and applications must be followed
- Do not touch mica heater bands while in use because they can get very hot
- Please make sure that the heating elements can not touch flammable material while in use

General information

- If our mica bands heater are delivered with feeding cables without insulation (naked connection) or with removable insulation (covered with gls-sleeving) the customer himself has to take care about the protection against electricity.

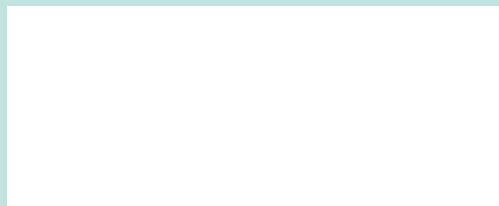
Temperature controllers


- Temperature controllers have to match the power consumption and the used temperature sensor.
- Only install temperature controllers with automatic soft start function so that any moisture which may have entered the heating element will escape slowly



Z.R.E.[®] s.r.l.

10040 San Gillio - Torino (Italy) - Via Druento, 48/2
Tel. +390119841848 8 linee R.A. - Fax +390119848099
e-mail: info@zre.it www.zre.it



Marcatura  secondo direttiva 2006/95/CE del 11/12/2006