

CT HEATERS

浸入式加熱器

IMMERSION HEATER

Since 1971



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COMPANY PROFILE

Established in 1971, CHENG TAY HEATER & INSTRUMENT CO., LTD. as known as “CT HEATERS” has been in the business of developing and introducing the latest machinery while pioneering new electrical heating techniques and comprehensive thermocouple design. We have the engineering and manufacturing capabilities to be or define world-class quality. Therefore, made us the only specialists in Taiwan that can supply tailor-made or prototype heating elements for the entire scientific and industrial spectrum. Our years of experience have enabled us to even help our clients to solve their own machinery problems or improving its performance.

For over 49 years, CT HEATERS has stood for quality, flexibility and innovation. Our clients come to us with the knowledge that whatever their heating needs are, we have the solution for them.

We are committed to continually building our reputation, knowledge and respond quickly to the world’s changing needs. Our business approach is to meet our client’s needs and to offer a competitive price.

From a single item to a large scale project, we can supply all your heater and thermocouple needs. All inquiries are welcome.

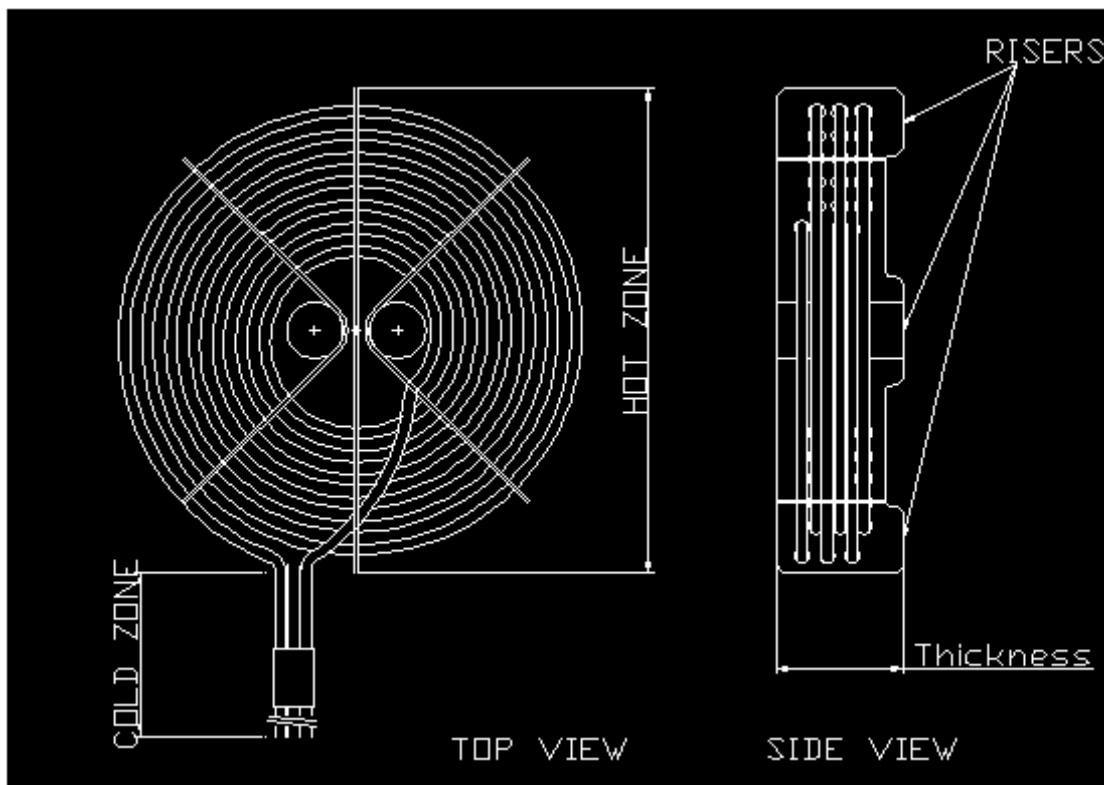
DROP-IN SERIES HEATERS OF PTFE



CTIHD-2500350T60-1

FEATURES

- Available in 3KW and 6KW
- 220/380V, other voltages are available, please consult your CT HEATERS representative
- Rugged construction prevents floating
- Choice of single phase or 3 phase
- Choice of thermocouple types, J or K
- New designed for better circulation
- 1.5m PTFE outlet + 1m flexible PVC conduit. Longer outlet is available, please consult your CT HEATERS representative
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



DROP-IN SERIES HEATERS OF PTFE

| MODEL NUMBERS | SPECIFICATIONS | | | | | |
|----------------------|----------------|-----------------|------------------|-------------------|-------|----------------------|
| Element Only | Watts | Volts "/"=or | Hot Zone (mm) | Thickness (mm) | Phase | Thermocouple Type |
| CTIHD-900185T35-1 | 900 | 220 | 185 | 35 | 1 | none |
| CTIHD-900185T35-1-J | 900 | 220 | 185 | 35 | 1 | J |
| CTIHD-900185T35-1-K | 900 | 220 | 185 | 35 | 1 | K |
| CTIHD-900185T35-3 | 900 | 220/380 | 185 | 35 | 3 | none |
| CTIHD-900185T35-3-J | 900 | 220/380 | 185 | 35 | 3 | J |
| CTIHD-900185T35-3-K | 900 | 220/380 | 185 | 35 | 3 | K |
| CTIHD-1000195T40-1 | 1000 | 220 | 195 | 40 | 1 | none |
| CTIHD-1000195T40-1-J | 1000 | 220 | 195 | 40 | 1 | J |
| CTIHD-1000195T40-1-K | 1000 | 220 | 195 | 40 | 1 | K |
| CTIHD-1000195T40-3 | 1000 | 220/380 | 195 | 40 | 3 | none |
| CTIHD-1000195T40-3-J | 1000 | 220/380 | 195 | 40 | 3 | J |
| CTIHD-1000195T40-3-K | 1000 | 220/380 | 195 | 40 | 3 | K |
| CTIHD-1500210T40-1 | 1500 | 220 | 210 | 40 | 1 | none |
| CTIHD-1500210T40-1-J | 1500 | 220 | 210 | 40 | 1 | J |
| CTIHD-1500210T40-1-K | 1500 | 220 | 210 | 40 | 1 | K |
| CTIHD-1500210T40-3 | 1500 | 220/380 | 210 | 40 | 3 | none |
| CTIHD-1500210T40-3-J | 1500 | 220/380 | 210 | 40 | 3 | J |
| CTIHD-1500210T40-3-K | 1500 | 220/380 | 210 | 40 | 3 | K |
| CTIHD-2000195T40-1 | 2000 | 220 | 195 | 40 | 1 | none |
| CTIHD-2000195T40-1-J | 2000 | 220 | 195 | 40 | 1 | J |
| CTIHD-2000195T40-1-K | 2000 | 220 | 195 | 40 | 1 | K |

Other wattages are available, please consult your CT HEATERS representative.



DROP-IN SERIES HEATERS OF PTFE

| MODEL NUMBERS | SPECIFICATIONS | | | | | |
|----------------------|----------------|-----------------|------------------|-------------------|-------|----------------------|
| Element Only | Watts | Volts "/"=or | Hot Zone (mm) | Thickness (mm) | Phase | Thermocouple Type |
| CTIHD-2000195T40-3 | 2000 | 220 | 195 | 40 | 1 | none |
| CTIHD-2000195T40-3-J | 2000 | 220 | 195 | 40 | 1 | J |
| CTIHD-2000195T40-3-K | 2000 | 220 | 195 | 40 | 1 | K |
| CTIHD-2000195T80-1 | 2000 | 220 | 195 | 80 | 1 | none |
| CTIHD-2000195T80-1-J | 2000 | 220 | 195 | 80 | 1 | J |
| CTIHD-2000195T80-1-K | 2000 | 220 | 195 | 80 | 1 | K |
| CTIHD-2000195T80-3 | 2000 | 220/380 | 195 | 80 | 3 | none |
| CTIHD-2000195T80-3-J | 2000 | 220/380 | 195 | 80 | 3 | J |
| CTIHD-2000195T80-3-K | 2000 | 220/380 | 195 | 80 | 3 | K |
| CTIHD-2000230T40-1 | 2000 | 220 | 230 | 40 | 1 | none |
| CTIHD-2000230T40-1-J | 2000 | 220 | 230 | 40 | 1 | J |
| CTIHD-2000230T40-1-K | 2000 | 220 | 230 | 40 | 1 | K |
| CTIHD-2000230T40-3 | 2000 | 220/380 | 230 | 40 | 3 | none |
| CTIHD-2000230T40-3-J | 2000 | 220/380 | 230 | 40 | 3 | J |
| CTIHD-2000230T40-3-K | 2000 | 220/380 | 230 | 40 | 3 | K |
| CTIHD-3000195T80-1 | 3000 | 220 | 195 | 80 | 1 | none |
| CTIHD-3000195T80-1-J | 3000 | 220 | 195 | 80 | 1 | J |
| CTIHD-3000195T80-1-K | 3000 | 220 | 195 | 80 | 1 | K |
| CTIHD-3000195T80-3 | 3000 | 220/380 | 195 | 80 | 3 | none |
| CTIHD-3000195T80-3-J | 3000 | 220/380 | 195 | 80 | 3 | J |
| CTIHD-3000195T80-3-K | 3000 | 220/380 | 195 | 80 | 3 | K |

Other wattages are available, please consult your CT HEATERS representative.



DROP-IN SERIES HEATERS OF PTFE

| MODEL NUMBERS | SPECIFICATIONS | | | | | |
|-----------------------|----------------|-----------------|------------------|-------------------|-------|----------------------|
| Element Only | Watts | Volts "/"=or | Hot Zone (mm) | Thickness (mm) | Phase | Thermocouple Type |
| CTIHD-3000270T70-1 | 3000 | 220 | 270 | 70 | 1 | none |
| CTIHD-3000270T70-1-J | 3000 | 220 | 270 | 70 | 1 | J |
| CTIHD-3000270T70-1-K | 3000 | 220 | 270 | 70 | 1 | K |
| CTIHD-3000270T70-3 | 3000 | 220/380 | 270 | 70 | 3 | none |
| CTIHD-3000270T70-3-J | 3000 | 220/380 | 270 | 70 | 3 | J |
| CTIHD-3000270T70-3-K | 3000 | 220/380 | 270 | 70 | 3 | K |
| CTIHD-3000300T70-1 | 3000 | 220 | 300 | 70 | 1 | none |
| CTIHD-3000300T70L-1-J | 3000 | 220 | 300 | 70 | 1 | J |
| CTIHD-3000300T70-1-K | 3000 | 220 | 300 | 70 | 1 | K |
| CTIHD-3000300T70-3 | 3000 | 220/380 | 300 | 70 | 3 | none |
| CTIHD-3000300T70-3-J | 3000 | 220/380 | 300 | 70 | 3 | J |
| CTIHD-3000300T70-3-K | 3000 | 220/380 | 300 | 70 | 3 | K |
| CTIHD-2500350T60-1 | 2500 | 220 | 350 | 60 | 1 | none |
| CTIHD-2500350T60-1-J | 2500 | 220 | 350 | 60 | 1 | J |
| CTIHD-2500350T60-1-K | 2500 | 220 | 350 | 60 | 1 | K |
| CTIHD-6000350T125-1 | 6000 | 220 | 350 | 125 | 1 | none |
| CTIHD-6000350T125-1-J | 6000 | 220 | 350 | 125 | 1 | J |
| CTIHD-6000350T125-1-K | 6000 | 220 | 350 | 125 | 1 | K |
| CTIHD-6000350T125-3 | 6000 | 220/380 | 350 | 125 | 3 | none |
| CTIHD-6000350T125-3-J | 6000 | 220/380 | 350 | 125 | 3 | J |
| CTIHD-6000350T125-3-K | 6000 | 220/380 | 350 | 125 | 3 | K |

Other wattages are available, please consult your CT HEATERS representative.



DROP-IN SERIES HEATERS OF PTFE OVAL

FEATURES

- Available in 3KW and 6KW
- Other voltages are available, please consult your CT HEATERS representative
- Rugged construction prevents floating
- Choice of single phase or 3 phase
- Choice of thermocouple types, J or K
- New design for better circulation
- 1.5m PTFE outlet + 1m flexible PVC conduit.
Longer outlet is available, please consult your CT HEATERS representative
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



| MODEL NUMBERS | SPECIFICATIONS | | | | | |
|--------------------------|----------------|-----------------|------------------|-------------------|-------|----------------------|
| Element Only | Watts | Volts "/"=or | Hot Zone (mm) | Thickness (mm) | Phase | Thermocouple Type |
| CTIHDO-3000500220T50-1 | 3000 | 220 | 500X220 | 50 | 1 | none |
| CTIHDO-3000500220T50-1-J | 3000 | 220 | 500X220 | 50 | 1 | J |
| CTIHDO-3000500220T50-1-K | 3000 | 220 | 500X220 | 50 | 1 | K |
| CTIHDO-3000500220T50-3 | 3000 | 220/380 | 500X220 | 50 | 3 | none |
| CTIHDO-3000500220T50-3-J | 3000 | 220/380 | 500X220 | 50 | 3 | J |
| CTIHDO-3000500220T50-3-K | 3000 | 220/380 | 500X220 | 50 | 3 | K |

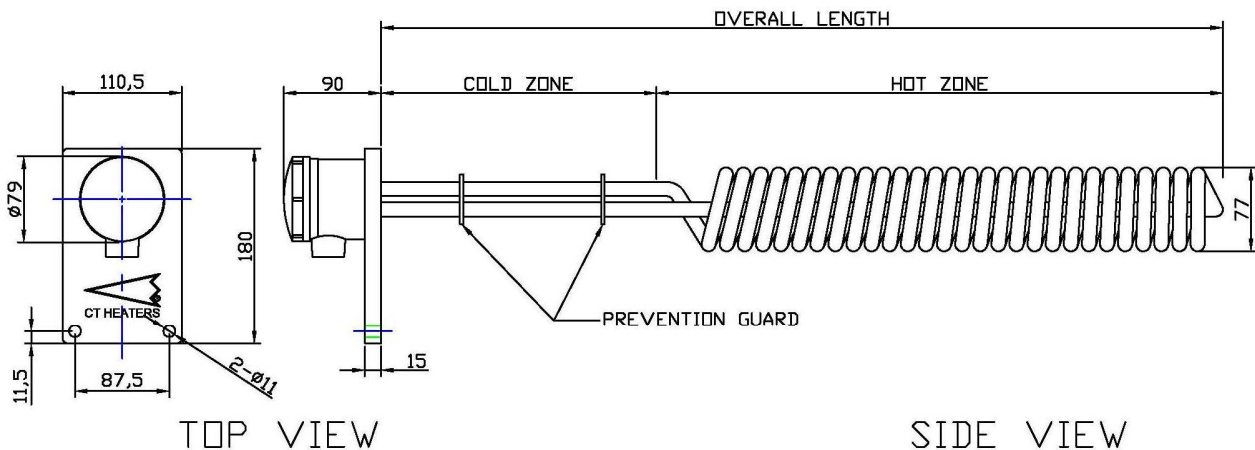
如要其他瓦特，請與廠商查詢 / Other wattages are available, please consult your CT HEATERS representative.



STRAIGHT SERIES HEATERS OF PTFE

FEATURES

- Available in 1KW to 6KW
- 120, 220 and 480 volts — other voltages are available, please consult your CT HEATERS representative
- Rugged construction prevents floating.
- Choice of single phase or 3 phase
- Optional of thermocouple types, J or K, please consult your CT HEATERS representative
- Straight section is not heated. Longer straight section is available; please consult your CT HEATERS representative
- Vapor tight, flame retardant, Bakelite terminal box, (shown)
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



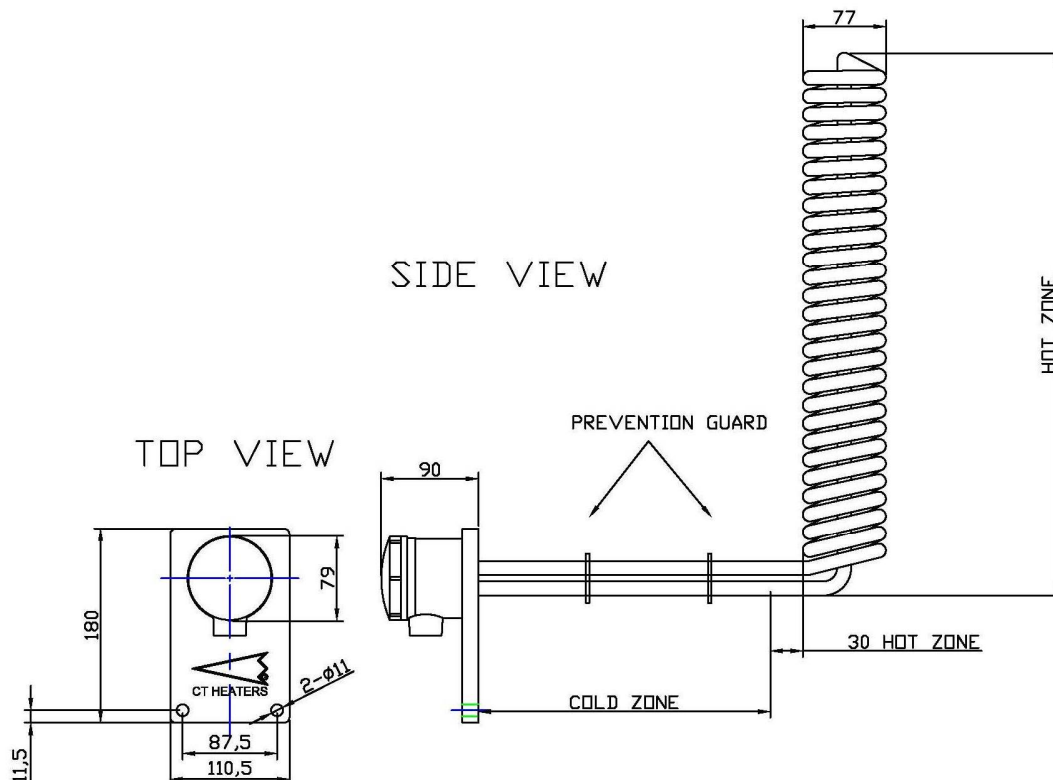
STRAIGHT SERIES HEATERS OF PTFE

| MODEL NUMBERS | SPECIFICATIONS | | | | |
|--|----------------|-------|----------------|------------------|-------------------|
| Element Only | Watts | Volts | Length (mm) | Hot Zone (mm) | Cold Zone (mm) |
| CTIHS-1000120E CTIHS-1000240E | 1000 | 120 | 280 | 180 | 100 |
| | | 240 | | | |
| CTIHS-2000120E CTIHS-2000240E CTIHS-2000480E | 2000 | 120 | 430 | 305 | 125 |
| | | 240 | | | |
| | | 480 | | | |
| CTIHS-3000240E CTIHS-3000480E | 3000 | 240 | 585 | 355 | 230 |
| | | 480 | | | |
| CTIHS-4000240E CTIHS-4000480E | 4000 | 240 | 735 | 505 | 230 |
| | | 480 | | | |
| CTIHS-5000240E CTIHS-5000480E | 5000 | 240 | 890 | 635 | 255 |
| | | 480 | | | |
| CTIHS-6000240E CTIHS-6000480E | 6000 | 240 | 1015 | 735 | 280 |
| | | 480 | | | |

L-SHAPED SERIES HEATERS OF PTFE

FEATURES

- Available in 1KW to 6KW
 - 120, 220 and 480 volts — other voltages are available,
please consult your CT HEATERS representative
 - Rugged construction prevents floating
 - Choice of single phase or 3 phase
 - Optional of thermocouple types, J or K, please consult your
CT HEATERS representative
 - Vertical section is not heated. Longer vertical section is
available, please consult your CT HEATERS representative
 - Heater element extends horizontally place at the bottom of the
superior heat distribution
- Vapor tight, flame retardant, Bakelite terminal box, (not shown)
- USE OF LIQUID LEVEL CONTROLS IS STRONGLY RECOMMENDED



L-SHAPED SERIES HEATERS OF PTFE

| MODEL NUMBERS | SPECIFICATIONS | | | |
|--|----------------|-------------------|-----|--------------------------|
| Element Only | Watts | Volts | | Vert. Ht. Cold Zone (mm) |
| CTIHL-1000120E CTIHL-1000240E | 1000 | 120 240 | 230 | 305 |
| CTIHL-2000120E CTIHL-2000240E CTIHL-2000480E | 2000 | 120 240 480 | 330 | 460 |
| CTIHL-3000240E CTIHL-3000480E | 3000 | 240 480 | 430 | 460 |
| CTIHL-4000240E CTIHL-4000480E | 4000 | 240 480 | 530 | 460 |
| CTIHL-5000240E CTIHL-5000480E | 5000 | 240 480 | 635 | 460 |
| CTIHL-6000240E CTIHL-6000480E | 6000 | 240 480 | 735 | 460 |

Internal thermocouple is available, please consult your CT HEATERS representative.

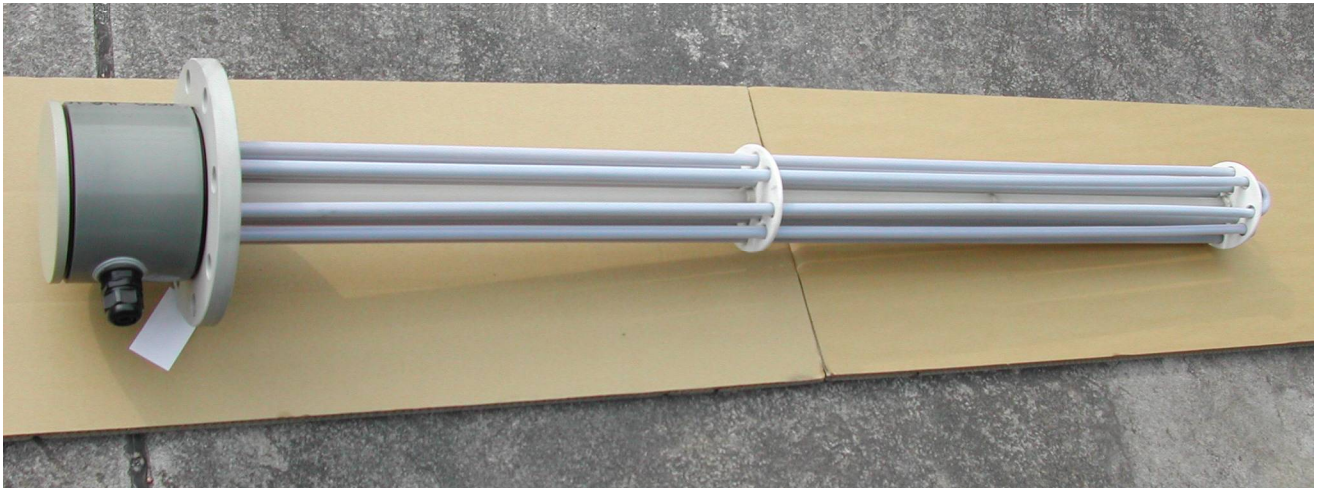
THERMOCOUPLE TYPES

| ANSI TYPE | CONDUCTOR POSITIVE (+) | CHARACTERISTICS NEGATIVE (-) | RECOMMENDED TEMPERATURE RANGE | |
|-----------|-------------------------------------|---------------------------------|----------------------------------|-----------|
| | | | °C | °F |
| J | IRON (Magnetic) | CONSTANTAN (Non-magnetic) | -20 to 540 | 0 to 1000 |
| K | CHROMEL [®] (Non-magnetic) | ALUMEL [®] (Magnetic) | -20 to 1100 | 0 to 2000 |

ALUMEL[®] and CHROMEL[®] are registered trademarks of the Hoskins Manufacturing Company

SPECIAL IMMERSION HEATER

For wet processing, CT HEATERS does made quartz type or PP flange heating elements especially to fit your needs. For this section, please consult with CT HEATERS representative.



Flange Immersion Heater



Quartz Radiant Heater

How to custom-made?

To help the ordering process, provide the following information:

- Liquid level
- Liquid type and pH level¹ (Note: 1. safety and choice of material)
- Size of tank or container or volume
- Sheath material and diameter
- Target timing to reach desired temperature
- Required temperature
- Volts and watts
- Bending formation
- Termination (1 phase or 3 phases)
- Mounting style (flanged, hook and others)
- Length of un-heated
- Quantity

PolyTetra FluoroEthylene(PTFE)—**PTFE** Tubing has become the gold standard in industries requiring the ultimate in lubricity, high temperature use, chemical resistance, biocompatibility, and precision extruded tolerances. **Use temperature at 250°C max., melt temperature at 327°C.**

Polyfluoro Ethylene Propylene(FEP)—Applications where **FEP** tubing is chosen usually require more clarity, flexibility or a lower heat shrinkable temperature than PTFE. **Use temperature at 200°C max., melt temperature at 285°C.**

PerFluoroAlkoxy(PFA)—**PFA** tubing is often the resin of choice when additional clarity, flexibility, and a

higher continuous service temperature are required. **Use temperature at 250°C max., melt temperature at 305°C.**

Copolymer of Ethylene and Tetrafluoro Ethylene(ETFE)—ETFE tubing is used in applications requiring excellent impact resistance and good resistance to stress cracking. **Use temperature at 150°C max., melt temperature at 270°C.**

※※No warranty provided on consumable parts (including the heater elements, thermocouples, etc.), therefore, please adhere to above conditions.※※

[CHENG TAY HEATER & INSTRUMENT CO., LTD., Taiwan]

MEMO

more than heaters !

MEMO

more than heaters !

TERMS AND CONDITIONS

1. CT HEATERS warrants its Products against defects in material and workmanship for three months from the date of delivery. **Many of Heaters are hygroscopic in nature due to MgO contents. If kept unused for longer period, there is moisture deposition on the terminals. Therefore CT HEATERS recommend you to de-moisture the heaters prior to installation by heating them at 90~120°C in an oven for at least 2 hours or use controllers with soft start function. This will help evaporate any moisture present inside.** CT HEATERS dose not warrant any PRODUCT against damage from corrosion, contamination, misapplication, improper specification or wear and tear and operational conditions beyond CT HEATERS' control. In no event shall CT HEATERS be liable for special, indirect, incidental or consequential damages. CT HEATERS shall not be liable for, and buyer and any other person or entity to whom Products are transferred during the period of this warranty assumes responsibility for, all personal injury and property damage resulting from or related to the handling, possession or use of Products and Products manufactured and sold by CT HEATERS hereunder.

2. Deliveries may be suspended by either party in the event of: Act of God, war, riot, fire, explosion, accident, flood, sabotage; lack of adequate fuel, power, raw materials, labor, containers or transportation facilities; compliance with Governmental Requirements; breakage or failure of machinery or apparatus; national defense requirements or any other event, whether or not of the class or kind enumerated herein, beyond the reasonable control of such party; or in the event of labor trouble, strike, lockout or injunction which event makes impracticable the manufacture, transportation, sale, purchase, acceptance, use or resale of Products or a material upon which the manufacture of Products is dependent.

3. If Buyer orders and/or CT HEATERS delivers a Product designated as a "Prototype", no guarantees, warranties or representations as to fitness for a particular purpose or merchantability are made with respect to such Prototype. Buyer shall have the duty and sole responsibility to test a Prototype prior to acceptance and/or incorporation into end-use applications. Further, a production Product based on a Prototype design may differ in assembly methods and materials from the Prototype. Buyer, therefore, shall have the duty and sole responsibility for testing and acceptance of production Products which are based on Prototype designs.

CONTACT INFORMATION

FACTORY

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Chungli City 320, Taoyuan County, Taiwan

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FAX: +886-3-452-9539

E-mail: ct.heaters@msa.hinet.net

WEB: www.ctheaters.com

ADMINISTRATIVE OFFICE

221 Chung Ching North Road, Section 3, Taipei 103, Taiwan

TEL: +886-2-2594-0385

FAX: +886-2-2596-8109

BUSINESS TAX #: 07105140

PLEASE NOTE:

No warranty provided on consumable parts (including the heater elements, thermocouples, etc.), therefore, please adhere to above conditions. CT HEATERS dose not warrant any PRODUCT against damage from corrosion, contamination, misapplication, improper specification, wear and tear, or operational conditions beyond CT HEATERS' control.

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ALL RIGHTS RESERVED.

CT HEATERS or CHENG TAY HEATER & INSTRUMENT CO., LTD. reserves the right to bring any modifications to our products. We manufacture products according to drawings which serve as contractual documents. We are not responsible for damage resulting from inappropriate installation or use of our product.



訂購傳真/INQUIRY FAX

底本/MASTER-COPY

| | |
|---------------|-------------------|
| 公司/Company | 電話/Phone |
| 姓名/Name | 傳真/Fax |
| 地址/Street | 行動電話 Mobile Phone |
| 郵遞區號/Zip Code | 電子信箱 E-Mail |
| 國家/Country | 公司網址/Website |

| 型號 Model Number | 數量 Quantity | 規格 Specification | 特殊需求 (例:電源線長度) Special requests (e.g. Length of power cord) |
|--------------------|----------------|---------------------|--|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

日期/Date

簽名蓋章/Signature, stamp

Please send this inquiry directly to the CT HEATERS representative in your country. You will find all the contact information on our website at www.ctheaters.com. For further information, please do not hesitate to contact us by phone at +886-3-452-1328.

※※No warranty provided on consumable parts (including the heater elements, thermocouples, etc.), therefore, please adhere to above conditions.※※[CHENG TAY HEATER & INSTRUMENT CO., LTD., Taiwan]CT HEATERS or CHENG TAY HEATER & INSTRUMENT CO., LTD. reserves the right to bring any modifications to our products. We manufacture products according to drawings which serve as contractual documents. We are not responsible for damage resulting from inappropriate installation or use of our product.



We manufacture products according to drawings which serve as contractual documents. We are not responsible for damage resulting from inappropriate installation or use of our product. 19