



ThermoTek PhasePlane™ Heat Pipe

Model Name	4X21	3X31	5X31	7X71
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Specifications

Performance

Effective Thermal Conductivity				
Horizontal (max. W/mK)	7,000	7,000	7,000	7,000
Vertical (max. W/mK)	7,000	10,000	7,000	10,000
Gravity operation				
With (heater below condenser)	Yes	Yes	Yes	Yes
Against (heater above condenser)	No	No	No	Yes

Acoustic

Operating (dBa)	0	0	0	0
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Physical Characteristics

Height (mm)	3.8	2.9	4.9	7
Width (mm)	21	31	31	71
Length	15cm - 2km	15cm - 2km	15cm - 2km	15cm - 6m
Weight (gram/meter)				

Material

Metal Body	Aluminum	Aluminum	Aluminum	Aluminum
Fluid	Acetone	Acetone	Acetone	Acetone

Mounting

Flatness (length per 10mm working area)	0.01mm	0.01mm	0.01mm	0.01mm
Maximum Load per Area	> 0.3 MPa	> 1 MPa	> 0.3 MPa	> 10 MPa
Maximum Strain Rate (per 90° bend)	5 sec	5 sec	5 sec	5 sec

Environmental Characteristics

Operating				
Ambient Temperature	-48°C to 85°C	-48°C to 120°C	-48°C to 85°C	-48°C to 120°C
Relative Humidity	0% to 99%	0% to 99%	0% to 99%	0% to 99%
Non-Operating				
Ambient Temperature	-48°C to 85°C	-48°C to 120°C	-48°C to 85°C	-48°C to 120°C
Relative Humidity	0% to 99%	0% to 99%	0% to 99%	0% to 99%

Bending

(Length = X, Width = Y, Height = Z)

Minimum Bend Radius				
Direction XY (mm)	63	93	93	284
Direction XZ (mm)	16	9	20	15
Minimum Twist (mm per 90°)				
	42	31	62	71



For more information:

Internet:

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> phaseplane@thermotekusa.com

Technical Support Phone Numbers:

> 1.877.242.3232 (N. America)

> 972.242.3232

How to read the PhasePlane Model Name:

Example:

4x21

4 = height (mm)

21 = width (mm)

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Produced in the United States 3/05

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Document 0P1FPPLGMS rev. NC

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Specific application environments such as temperature and thermal duty cycle will affect the overall performance and heat capacity. For specific application environment performance characteristics, please consult ThermoTek, Inc application support