



# *Thermo Plate*<sup>®</sup>

Ensures more accurate and more reliable thermal control of the specimens during the observation under a microscope. Wide product range supports Biotechnology Science and Industry.



**Thermoplate provides user comfort with High Quality and High Performance.**

# Thermo Plate®

Ensures more accurate and more reliable thermal control of the specimens during the observation under a microscope.

Wide product range supports Biotechnology Science and Industry.



**Microscope-Stage Automatic Thermocontrol System**  
High Quality & High Performance

## Stylish & Smart

Which is your color ? More accurate, More stable !



### Environmentally and user-friendly design

Along with its great functionality and high performance, TP's new design creates a warm, relaxed lab environment. Five color variations are available. Please choose your color!

### Colorful controller makes lab comfortable!



Five colors are available only for standard glass plate and lens heater.

### Clear Glass Heater

The ThermoPlate utilizes a special transparent heating material coated onto a hard glass. The ThermoPlate can be used for observing or manipulating specimen under phase contrast and polarization.

The flat plate surface ensures easy operation of the microscopes and relocation of specimen.

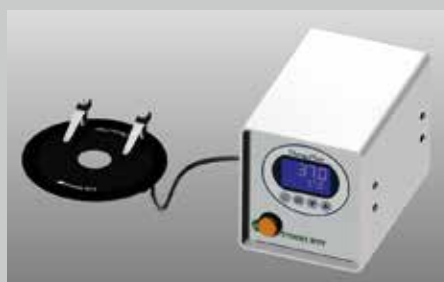
## Imaging



Preset temperature: from room temperature to 50°C

**Especially recommended for use when using high-magnification lenses and oil/water immersion lenses**

- ※ To prevent heat from escaping to objectives, we recommend use in combination with lens heater.
- ※ For short-term imaging  
In case of long-term imaging, Stage Top Incubator is recommended.



Dimensions of controller (mm) : W98mm × D145mm × H117mm



Lens Heater

# Smart 1 Enables ease of temperature measurement

Sterilized sensor can measure the actual sample temperature. Also, it enables on-site calibration to provide optimal temperature setting at your laboratory.

※ Significantly enhance Quality Control!



**OLYMPUS**

Inverted  
Upright  
Stereo

OLYMPUS

**Nikon**

Inverted  
Upright  
Stereo

Nikon

# Smart 2 Temperature Management Software TEM

Monitors, records and logs sample or plate temperature which the sensor measures. Saves data in CSV format which can be used in spreadsheets.

※ Significantly enhance Quality Control!



**ZEISS**

Inverted  
Upright  
Stereo

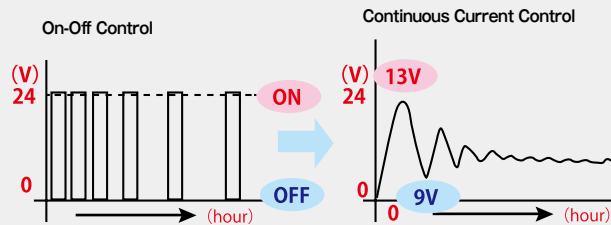
ZEISS / Leica

**Leica**

Inverted  
Upright  
Stereo

# Smart 3 Stable imaging, effective for high magnification

In addition to PID control, TP features Continuous Current Control, minimizing focus drift generated by heat compared to the standard On-Off control method. Especially effective for observation when high magnification is required.



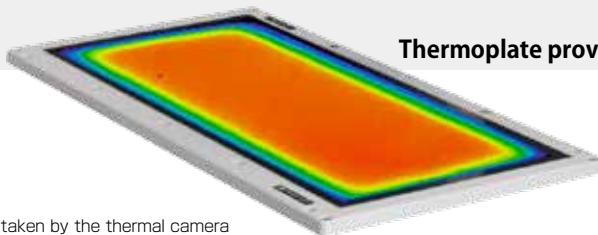
**KEYENCE**

Inverted

KEYENCE / Other Makers All Makers

**Marzhauser**

Ludl  
Prior



Thermoplate provides uniform temperature distribution!

An image taken by the thermal camera

## Cooling and Heating



Handles wide range of observations: yeast, plants, marine life, cell cultures, C.elegans, Planaria etc

The application of a thermoelectric cooling device and unique control system produces a compact and highly responsive cooling and heating system.

Preset temperature: from 4°C to 60°C



Chiller Unit

Temperature Controller



## Standard

(Glass plate • Preset Temperature: room temperature ~ 50°C • Glass plate thickness: 1.0/1.3/1.6mm uniform or 0.5mm at plate center (50x50mm))



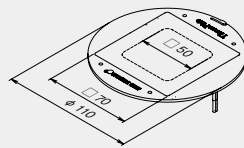
Applicable microscopes

**IX83/73**  
**IX81/71/51**  
**IX70/50**  
**IMT2**

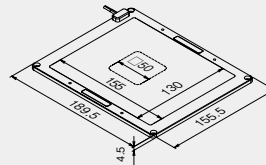
cross stage  
round opening:  $\phi$  110mm



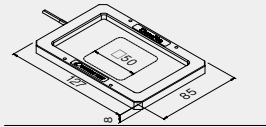
TP-110R13 (with white line)



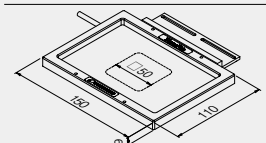
Model	Glass thickness
TP-110R05	0.5mm
TP-110R	1.0mm
TP-110R13	1.3mm



Model	Glass thickness
TP-IX3-05	0.5mm
TP-IX3	1.0mm



Model	Glass thickness
TP-CK05	0.5mm
TP-CK	1.0mm



Model	Glass thickness
TP-CKT505	0.5mm
TP-CKT5	1.0mm (for well plate use)



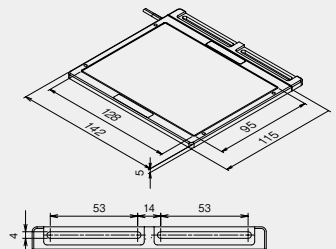
Applicable microscopes

**Power BX/ BX**  
(U-SVLO/SVRO/SVLB-4/SVRB-4)

**BH2**  
**CX40**  
**CH40/30**



Model	Glass thickness
TP-S	1.0mm



Installation Plate

Fix glass heating plate on the side by using attached double sided tape

※ For other motorized stages, please refer to P.9.

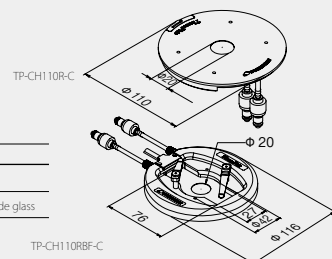
## Cooling and Heating (Metal plate with a hole • Preset Temperature: 4°C ~ 60°C)



Applicable microscopes

**IX83/73**  
**IX81/71/51**  
**IX70/50**  
**IMT2**

cross stage  
round opening:  $\phi$  110mm



Model	
TP-CH110R-C	
TP-CH110RBF-C	for 35mm dish and slide glass

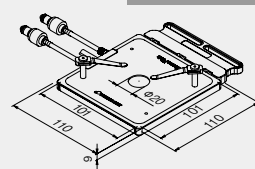
TP-CH110RBF-C



Applicable microscopes

**Power BX/ BX**  
(U-SVLO/SVRO/SVLB-4/SVRB-4)

**BH2**  
**CX40**  
**CH40/30**



Model	
TP-CHS-C	



Installation Plate

Fix metal plate on the side by magnets



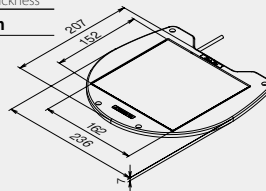
Applicable microscopes

**MXV10  
SZX16/SZX10**

SZX2-ILLB  
SZX2-ILLK  
SZX2-ILLD



Model	Glass thickness
TP-SZX2A	1.0mm



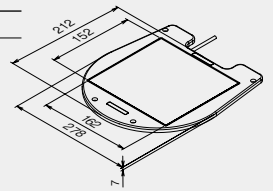
Applicable microscopes

**SZX16/SZX10**

SZX2-ILLT



Model	Glass thickness
TP-SZX2B	1.0mm



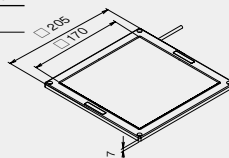
Applicable microscopes

**MXV10  
SZX12/9/7**

SZX-ILLK  
SZX-ILLB2  
SZX-ILLD2



Model	Glass thickness
TP-SZX	1.0mm



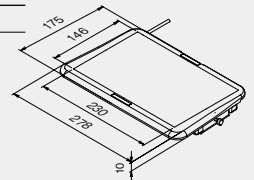
Applicable microscopes

**SZX7/SZ61**

SZ2-ST + SZ2-ILA

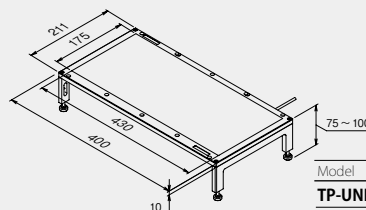


Model	Glass thickness
TP-SZ2	1.0mm



Applicable microscopes

**Universal**



Model	Glass thickness
TP-UNI	1.6mm

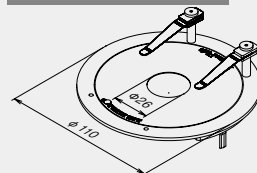
**Imaging** (Metal plate with a hole • Preset Temperature: room temperature ~ 50°C)



Applicable microscopes

**IX83/73  
IX81/71/51  
IX70/50  
IMT2**

cross stage  
round opening: φ 110mm



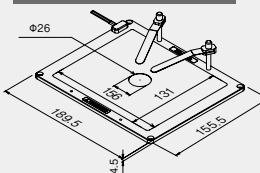
Model
TP-110RH26

Applicable microscopes

**IX83/73  
XY manual stage  
(IX3-SVR)**

XY motorized stage  
(IX3-SSU)

(Sub stage  
for opening: 156mm x 190mm)



Model
TP-IX3H26



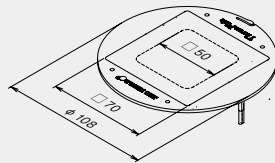
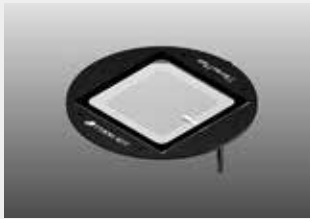
When using Imaging plate, we recommend to use with Lens heater. ( Please refer to P10.)

## Standard

(Glass plate • Preset Temperature: room temperature ~ 50°C • Glass plate thickness: 1.0/1.6mm uniform or 0.5mm at plate center (50x50mm))

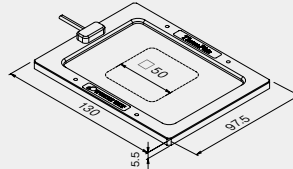
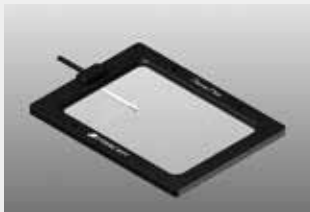


Applicable microscopes  
**Ti**  
**TE2000/300/200**  
**TMD300/200**  
Rectangular stage  
round opening:  $\phi$  108mm

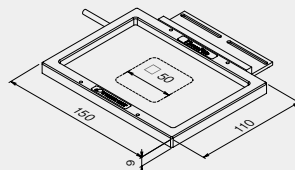
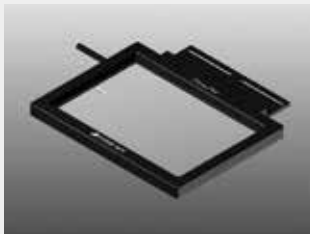


Model	Glass thickness
TP-108R05	0.5mm

Applicable microscopes  
**TS100/TS100-F**  
mechanical stage

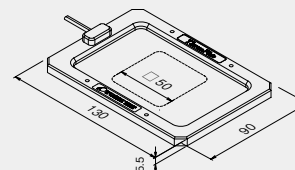


Model	Glass thickness
TP-TS05	0.5mm



Model	Glass thickness
TP-CKTS05	0.5mm
TP-CKTS	1.0mm (for well plate use)

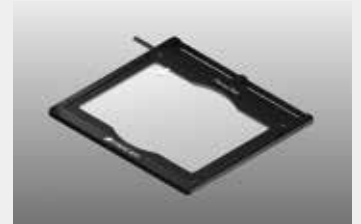
Applicable microscopes  
**TMS/TMS-F**  
mechanical stage



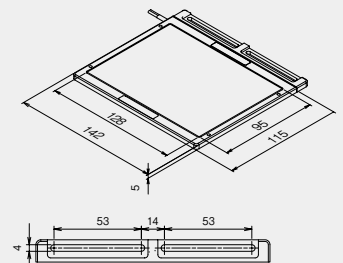
Model	Glass thickness
TP-TMS05	0.5mm
TP-TMS	1.0mm



Applicable microscopes  
**Ni**  
**Ci**  
**90i/80i/55i/50i**  
**E1000/800/600/400/200**  
**OPTIPHOT-2**  
**LABOPHOT-2**



Model	Glass thickness
TP-S	1.0mm



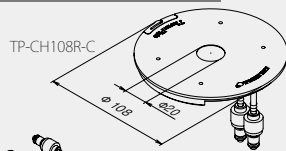
Installation Plate  
Fix glass heating plate on the side by using attached double sided tape

※ For other motorized stages, please refer to P9.

## Cooling and Heating (Metal plate with a hole • Preset Temperature: 4°C ~ 60°C)



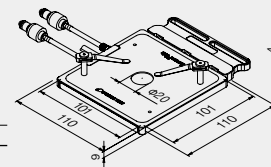
Applicable microscopes  
**Ti**  
**TE2000/300/200**  
**TMD300/200**  
Rectangular stage  
round opening:  $\phi$  108mm



Model
TP-CH108R-C
TP-CH108RBF-C for 35mm dish and slide glass



Applicable microscopes  
**Ni**  
**Ci**  
**90i/80i/55i/50i**  
**E1000/800/600/400/200**  
**OPTIPHOT-2**  
**LABOPHOT-2**



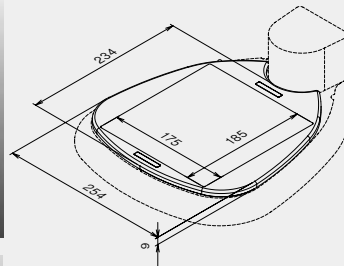
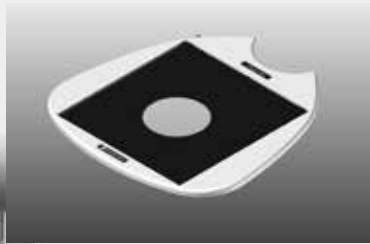
Model
TP-CHS-C

Installation Plate  
Fix metal plate on the side by magnets





Applicable microscopes  
**SMZ1500/1000/800**



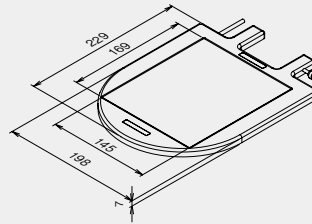
Stand models:

- C-DSD
- C-DSS
- C-BD

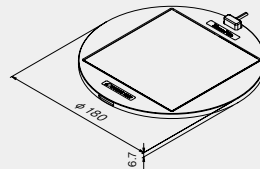
Model	Glass thickness
<b>TP-SMZSL</b>	<b>1.0mm</b>

Stand models:

- C-PS
- C-D



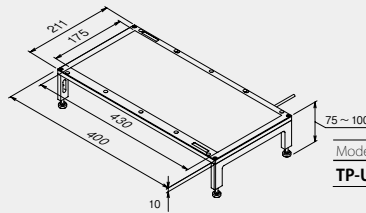
Model	Glass thickness
<b>TP-SMZSS</b>	<b>1.0mm</b>



Model	Glass thickness
<b>TP-SMZR</b>	<b>1.0mm</b>

Applicable microscopes

**Universal**

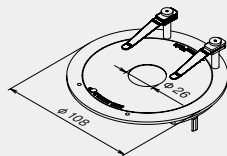


Model	Glass thickness
<b>TP-UNI</b>	<b>1.6mm</b>

**Imaging** (Metal plate with a hole • Preset Temperature: room temperature ~ 50°C)



Applicable microscopes  
**Ti**  
**TE2000/300/200**  
**TMD300/200**  
Rectangular stage  
round opening: φ 108mm

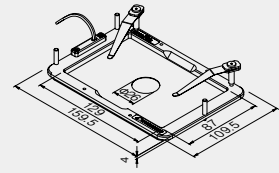


Model
<b>TP-108RH26</b>

Applicable microscopes

**Ti**  
**Exclusive XY motorized stage**

When installing without Piezo stage, the stage adapter TID-NA is required.



Model
<b>TP-TIZH26</b>



When using Imaging plate, we recommend to use with Lens heater. ( Please refer to P10.)

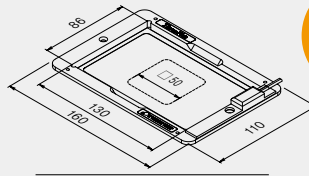
# ZEISS Standard

(Glass plate • Preset Temperature: room temperature ~ 50°C • Glass plate thickness: 1.0/1.6mm uniform or 0.5mm at plate center (50x50mm))



Applicable microscopes

**Axio Observer  
Axiovert**  
(K type frame holder)



Model	Glass thickness
TP-SQ05	0.5mm
TP-SQ	1.0mm

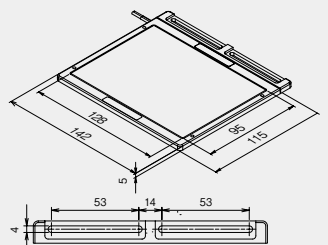


Applicable microscopes

**Axio Examiner  
Axio Imager  
Axiophot2  
Axioplan2  
Axioskop  
Axialab  
Axialab Pol  
Axialab Imager**



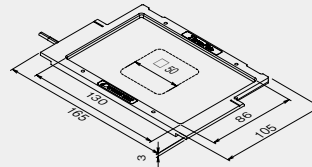
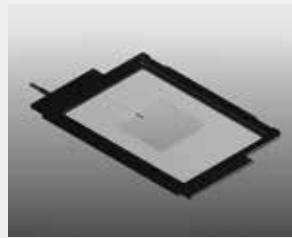
Model	Glass thickness
TP-S	1.0mm



Installation Plate  
Fix glass heating plate on the side by using attached double sided tape

Applicable microscopes

**Axio Observer  
Axiovert**  
(M type frame holder)



Model	Glass thickness
TP-SQM05	0.5mm
TP-SQM	1.0mm

OLYMPUS

Nikon

ZEISS / Leica

KEYENCE / Other Makers / All Makers

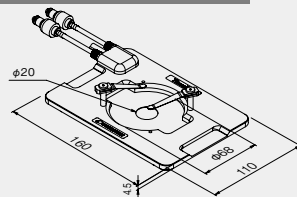


## Cooling and Heating (Metal plate with a hole • Preset Temperature: 4°C ~ 60°C)



Applicable microscopes

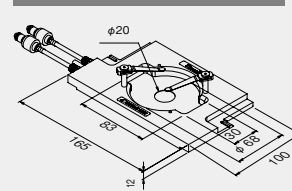
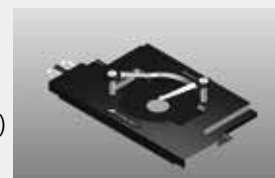
**Axio Observer  
Axiovert**  
(K type frame holder)



Model
TP-CHSQ-C

Applicable microscopes

**Axio Observer  
Axiovert**  
(M type frame holder)



Model
TP-CHSQM-C



**ThermoPlate** models for Leica microscopes are exclusively distributed through Leica worldwide network the name of "Leica MATS"

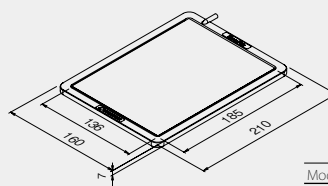




Applicable microscopes

**Axio Discovery  
Stemi2000**

(with large base stand N: 495052 9801)

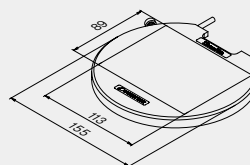


Model	Glass thickness
TP-ST2	1.0mm

Applicable microscopes

**Stemi2000**

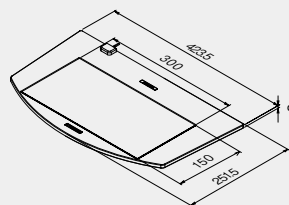
(with transmitted light base stand N: 455137)



Model	Glass thickness
TP-STR	1.0mm

Applicable microscopes

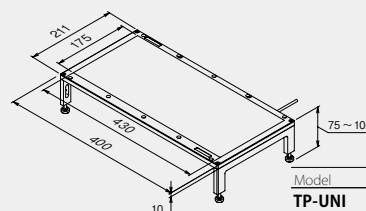
**Discovery.V12  
Lumar.V12**



Model	Glass thickness
TP-V12	1.0mm

Applicable microscopes

**Universal**



Model	Glass thickness
TP-UNI	1.6mm

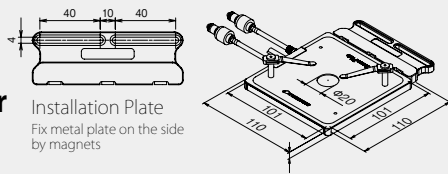


**Imaging** (Metal plate with a hole • Preset Temperature: room temperature ~ 50°C)



Applicable microscopes

**Axio Examiner  
Axio Imager  
Axiophot2  
Axioplan2  
Axioskop  
Axiolab  
Axiolab Pol  
Axiolab Imager**



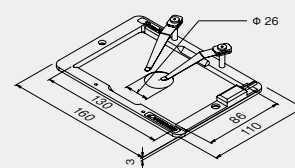
Installation Plate  
Fix metal plate on the side  
by magnets

Model
TP-CHS - C



Applicable microscopes

**Axio Observer  
Axiovert**  
(K type frame holder)



Model
TP-SQH26

For more information about "Imaging" and "Cooling and Heating" plates for Leica microscopes, please feel free to contact Tokai Hit at sales-os@tokaihit.com

OLYMPUS

Nikon

ZEISS / Leica

KEYENCE / Other Makers  
All Makers

# Standard

(Glass plate • Preset Temperature: room temperature ~ 50°C • Glass plate thickness: 1.0mm uniform or 0.5mm at plate center (50x50mm))

OLYMPUS

Nikon

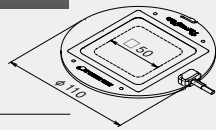
ZEISS / Leica

KEYENCE / Other Makers  
All Makers



## KEYENCE

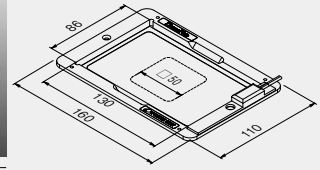
Applicable stage  
**BZ-8000**  
**BZ-9000**



Model	Glass thickness
TP-K105	0.5mm

## Marzhauser / Ludl

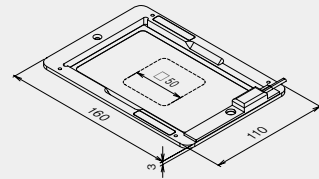
Applicable stage  
XY moterized stage  
opening: 110mm × 160mm



Model	Glass thickness
TP-SQ05	0.5mm
TP-SQ	1.0mm

## Prior

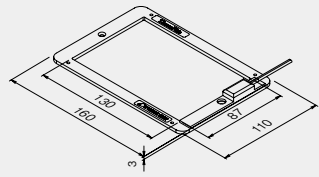
Applicable stage  
**H117**



Model	Glass thickness
TP-SQP05	0.5mm
TP-SQP	1.0mm

## H101

Applicable stage

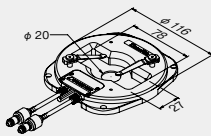


Model	Glass thickness
TP-SQUP	1.0mm

## Cooling and Heating (Metal plate with a hole • Preset Temperature: 4°C ~ 60°C)

## KEYENCE

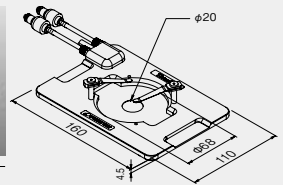
Applicable stage  
**BZ-8000**  
**BZ-9000**



Model
TP-CHKI-C

## Marzhauser / Ludl

Applicable stage  
XY moterized stage  
opening: 110mm × 160mm

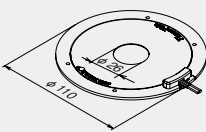


Model
TP-CHSQ-C

## Imaging (Metal plate with a hole Preset Temperature: room temperature ~ 50°C)

## KEYENCE

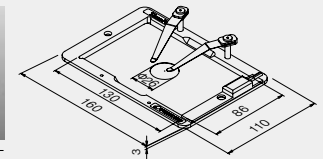
Applicable stage  
**BZ-8000**  
**BZ-9000**



Model
TP-KIH26

## Marzhauser / Ludl

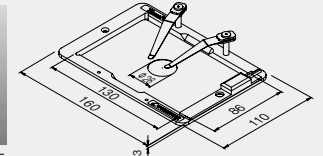
Applicable stage  
XY moterized stage  
opening: 110mm × 160mm



Model
TP-SQH26

## Prior

Applicable stage  
**H117**



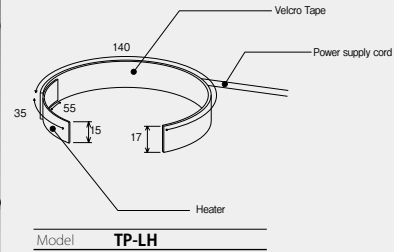
Model
TP-SQH26P

# Others

## Lens Heater

### Ease of set-up and superior thermal effectiveness

Prevents heat from escaping to objectives when using high magnification lenses and oil/water immersion lenses.



## Digital Thermometer for Bioresearch

Model **MC1000**  
(For K type thermocouple)

Sensor is calibrated to thermometer as a set, which enables precise temperature measurement.



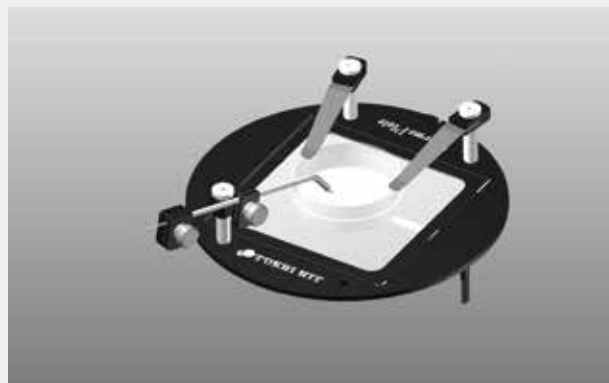
## Thermoprobe

Model **TSU-200F**  
(Stand alone sensor type)

1.0mm diameter sensor probe coated with Teflon for high chemical-resistance



Tip width : 2.0 ~ 2.5mm  
Tip thickness : 0.3 ~ 0.5mm



For Imaging, Cooling and Heating plate, CL is included as standard.  
TP option can be installed only for Inverted microscopes.



### Dish fixing flat springs

Model **CL**



### Thermo sensor fixing guide

Model **TSU-G**

## Repair Service

### To expedite repair service, the following information is required:

- Serial number of plate and controller
- Photo of the defective unit  
(For example, broken plate)
- User name, address, etc.

Please feel free to contact to Tokai Hit at [sales-os@tokaihit.com](mailto:sales-os@tokaihit.com) with the above information.

Your Satisfaction is Our Mission.  
We pay attention to your each and every word.  
Whenever you require our assistance,  
please feel free to contact us anytime.



**TOKAI HIT**



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▲ Please pay special attention to items marked with Caution and Warning symbols as seen on the left.  
It is essential to read the Instruction Manual when using this device.

