

# TS-DW, Thermo–Shaker for deep well plates

## DESCRIPTION

TS-DW Thermo–Shaker is designed for shaking and incubating deep well plates.

A multisystem principle, used in the design of the Thermo–Shaker, allows operating it as 3 independent devices: Incubator, Plate shaker and Thermo–Shaker.

TS-DW provides excellent temperature uniformity across the plate due to patented two-sided heating of the block and the lid, contour heating of the block and close proximity of heating elements to plate walls.

There is a number of interchangeable blocks to suit different plates such as Eppendorf® 96/1000 µl, Sarstedt® Megablock 96/2200 µl, Porvair® 96/2000 µl, Axygen® 96/2200 µl. Also we can manufacture a customized block on request.

Deep Well Plate Thermo–Shaker provides:

- Soft or intensive sample shaking
- Rotation speed regulation, stabilization and indication
- Even rotation amplitude throughout the Thermo–Shaker platform
- Exceptional temperature uniformity across the plate
- Required operation time setting and indication
- Automatic stopping of the platform movement after expiration of the set time
- Setting and indication of the required temperature on the platform
- A variety of changeable blocks that can accommodate most popular deepwell plates
- Automatic fault diagnostics (temperature sensor, platform heating, lid heating etc.)

Application fields:

- Cytochemistry — for in situ reactions
- Immunochemistry — for immunofermentative reactions
- Biochemistry — for enzyme and protein analysis
- Molecular biology — for nucleic acid extraction

Separate blocks to accommodate different deepwell plates will be released. For example:

Deep Well Plates NUNC® 96/2000 µl

Deep Well Eppendorf® 96/0.5 ml

The block for deepwell plate is mountable, thus a custom plate module can be manufactured on request

Temperature Calibration Function

With the help of the temperature calibration function the user can calibrate the unit approx. ±6% of the selected temperature to compensate differences in the thermal behaviour of plates from different manufacturers.



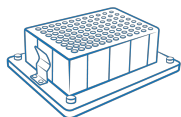
## CAT. NUMBER

| Without thermoblock | Without thermoblock                         |
|---------------------|---|
| BS-010159-A02       | 230VAC 50/60Hz Euro plug                    |
| BS-010159-A03       | 230VAC 50/60Hz UK plug                      |
| BS-010159-A05       | 230VAC 50/60Hz AU plug                      |
| BS-010159-A04       | 100VAC 50/60Hz US plug, 120VAC 60Hz US plug |
| BS-010159-GK        | IQ OQ document                              |
| BS-010159-HK        | PQ document                                 |

## SPECIFICATIONS

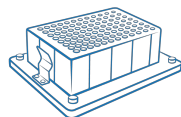
|  |  |
|--|--|
| Temperature setting range                    | +25°C ... +100°C                             |
| Temperature control range                    | 5°C above ambient ... +100°C                 |
| Temperature setting resolution               | 0.1°C  |
| Temperature uniformity at +37°C              | ±0.1°C*                                      |
| Temperature accuracy at +37°C                | ±0.5°C*                                      |
| Time of platform heating from +25°C to +37°C | 6 min*                                       |
| * for B-2E thermoblock                       | -  |
| Temperature calibration coefficient range    | 0.936...1.063 (± 0.063)                      |
| Speed control range                          | 250–1400 rpm                                 |
| Digital time setting                         | 1 min–96 hrs (1 min increment)               |
| Timer sound signal                           | +  |
| Orbit  | 2 mm   |
| Display                                      | LCD, 16 x 2 signs                            |
| Overall dimensions (W×D×H)                   | 240 x 260 x 160 mm                           |
| Weight                                       | 5.1 kg                                       |
| Input current/power consumption              | 12 V, 4.8 A / 58 W                           |
| External power supply                        | Input AC 100–240 V; 50/60 Hz; Output DC 12 V |

## ACCESSORIES



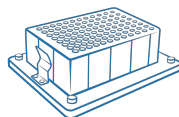
**B-2E**  
BS-010159-AK  
block

Block for one deep-well plate  
Eppendorf® 96/1000 µl -  
Cat.No. 0030505204,  
0030506200, 0030502205



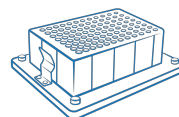
**B-05E**  
BS-010159-QK  
block

Block for one deep-well plate  
Eppendorf® 96/500 µl -  
Cat.No. 0030501101



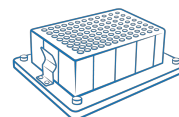
**B-2A**  
BS-010159-FK  
block

Block for one deep-well plate  
Axygen® 96/2200 µl - Cat.No.  
P-2ML-SQ-C



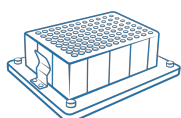
**B-06A**  
BS-010159-KK  
block

B-06A block for one deep-well  
plate Axxygen® 96/600 µl -  
Cat.No. P-DW-500C



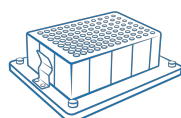
**B-2S**  
BS-010159-CK  
block

Block for one deep-well plate  
Sarstedt® Megablock 96/2200  
µl - Cat.No. 82.1972.002



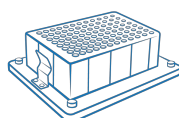
**B-08AB**  
BS-010159-MK  
block

Block for one Abgene™ Storage  
Plate 96/800 µl - Cat.No.  
AB0765, AB0859



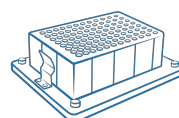
**B-12AB**  
BS-010159-SK  
block

Block for one deep-well plate  
Abgene™ 96/1200 µl - Cat.No.  
AB0564, AB0787



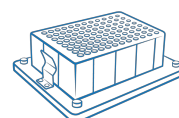
**B-2P**  
BS-010159-EK  
block

Block for one deep-well plate  
Porvair® 96/2000 µl - Cat.No.  
219009



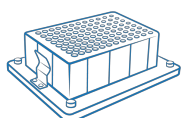
**B-1R**  
BS-010159-UK  
block

Block for one deep-well plate  
Riplate® 96/1000 µl - Cat.No.  
43001-0101



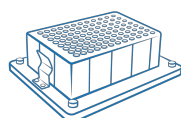
**B-2R**  
BS-010159-TK  
block

Block for one deep-well plate  
Riplate® 96/2000 µl - Cat.No.  
43001-0103



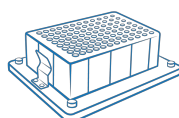
**B-05PO**  
BS-010159-OK  
block

Block for one deep-well plate  
PlateOne® 96/500 µl - Cat.No.  
S1896-5000



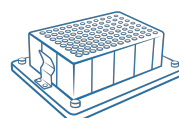
**B-2PO**  
BS-010159-NK  
block

Block for one deep-well plate  
PlateOne® 96/2000 µl -  
Cat.No. S1896-2000



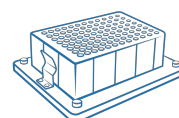
**B-2N**  
BS-010159-DK  
block

Block for one deep-well plate  
Nunc® 96/2000 µl - Cat.No.  
278743, 278752



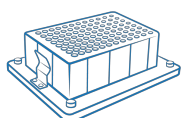
**B-2SL**  
BS-010159-IK  
block

Block for one deep-well plate  
Starlab® 96/1200 µl - Cat.No.  
E2896-0120



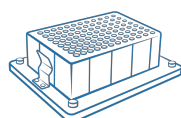
**B-2M**  
BS-010159-RK  
block

Block for one deep-well plate  
KingFisher™ Deepwell 96 Plate  
- Cat.No. 95040450



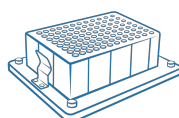
**B-2SD**  
BS-010159-PK  
block

Block for one deep-well plate  
Sliprep™ 96 - Cat.No. AB0932



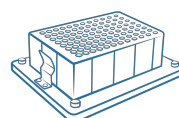
**B-2KF**  
BS-010159-LK  
block

Block for one deep-well plate  
PowerMag® Glass Bead Plate  
96 - Cat.No. 27600-4-KF-BP



**B-2BBI**  
BS-010159-JK  
block

Block for one deep-well plate  
cluster SSI Bio - Cat.No. 703B00,  
713B00



**B-2V**  
BS-010159-BK  
block

B-2V block for one deep-well  
plate Vector-Best® 96/1000 µl