

3D-IW8, Inteliwasher

DESCRIPTION

Inteliwasher **3D-IW8** series microplate washer is designed for washing various types of standard 96-well microtitre plates, microstrips as well as microarrays on FastFRAME (rectangular well shape). It is suitable for washing wells with different bottom shapes: flat, U-shape and V-shape. The unit is fully programmable ensuring multi-step solution ripening, aspiration (aspiration, combination of aspiration/liquid dispensing and soaking, as well as soaking cycle during a particular period of time). Dispense system of liquid dosage for each channel separately.

The unit provides:

- Washing mode
- Rinsing mode
- Mixing mode
- Single point, two point, circular (circle or rectangular path) aspiration
- Possibility of additional solution mixing during time gap between two work cycles
- Possibility to use microtest plates by different manufacturers, ensured by automated plate set up (adjusting to different depths of plate wells)
- Round-bottom plate and strip washing mode
- Possibility of user-defined programs with adjustable parameters

The unit has 50 programs divided into 5 following aspiration categories (see figure rightward):

- Type 1 (1.0–1.9) IPF96 U/V is intended for round and V-shape immunoplates, 1 point aspiration.
- Type 2 (2.0–2.9) IPF96 FLAT-2 is intended for flat-bottom shape immunoplates, 2 point aspiration.
- Type 3 (3.0–3.9) IPF96 FLAT-C is intended for rectangular shape immunoplates, full-circle aspiration direction.
- Type 4 (4.0–4.9) FastFRAME-2 is intended for multi-slide plate* with rectangular wells.
- Type 5 (5.0–5.9) FastFRAME-C is intended for multi-slide* plate with rectangular wells.

* - The FastFRAME (GVS Life Sciences) multi-slide plate or analog plate of another manufacturer, that is compatible with standard 25 x 76 mm (1 x 3 inch) glass slides.

The unit is designed for use in closed laboratory rooms at temperatures from +10°C to +35°C and relative humidity up to 80% at +25°C decreasing linearly to 50% relative humidity at 35°C.

4-channel washing solution weight logger, **4 CHW Logger** provides automatic control of rinsing solution and waste volumes. The washer shows remaining volume for each bottle as percentage and gives a warning message in case of low solution volume or full waste bottle when **4 CHW Logger** is connected.

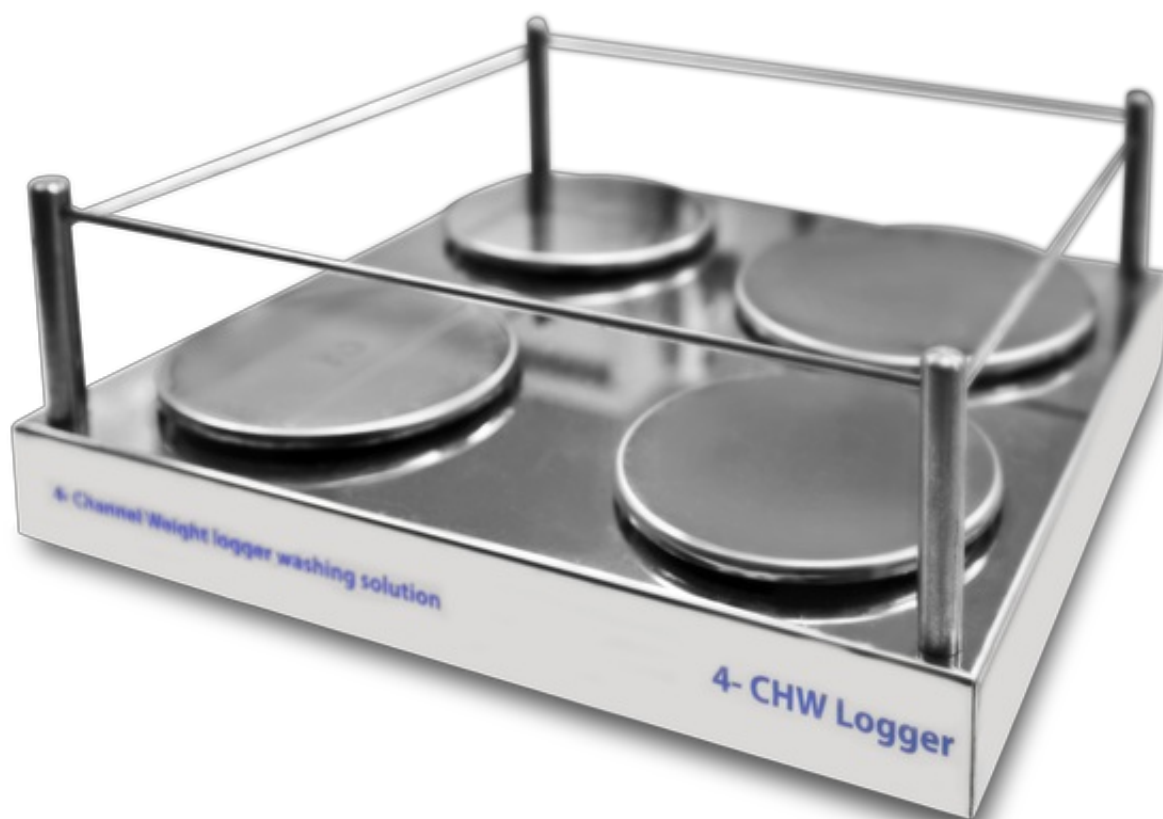


CAT. NUMBER

BS-060102-AAI	230VAC 50/60Hz Euro plug
BS-060102-AAB	230VAC 50/60Hz UK plug
BS-060102-AA4	230VAC 50/60Hz AU plug
BS-060102-AAJ	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-060102-BK	IQ OQ document
BS-060102-CK	PQ document

SPECIFICATIONS

Minimum dispense volume	25 µl
Maximum dispense volume	1600 µl
Dispense increment	25 µl
Dispensing accuracy	±2.5%
Allowed residual liquid volume in plate well	not more than 2 µl
Number of wells washed simultaneously	8
Number of washing cycles	1–15
Aspiration time	1–3 s
Aspiration/dispensing speed	3 levels
Max. number of channels in a program	2
Choice of 3 washing liquid bottles	+
Soaking time	0–300 s (increment 10 s)
Shaking time	0–150 s (increment 5 s)
Number of washed rows	1 – 12
Time of plate single wash (350 µl), not more	45 s
Number of programs	50
Plate platform and washing head movement	automated
Indication of operation modes	LCD, 8-line
Overall dimensions (W×D×H)	375 × 345 × 180 mm
Weight	9.9 kg
Input current/power consumption	12 V DC, 1.8 A / 22 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V



4 CHW Logger
BS-060102-AK

4-channel washing solution weight logger, **4 CHW Logger** provides automatic control of rinsing solution and waste volumes. The washer shows remaining volume for each bottle as percentage and gives a ...

[read more](#)

FTA-1, Aspirator with trap flask

DESCRIPTION

Aspirator with trap flask **FTA-1** is designed for aspiration/removal of alcohol/buffer remaining quantities from microtest tube walls during DNA/RNA purification and other macromolecule reprecipitation techniques.

The device can be used also for routine operations of cells washing from culture medium and resuspension in buffer. Aspirator operation principle is based on creating negative pressure in trapping flask using built-in microcompressor. The collecting tip is connected with polyethylene tube to the trapping flask. Liquid is removed from the microtest tube when the collecting tip touches the solution surface. A tube holder-organizer is conveniently located at FTA-1 right hand side; it accommodates two tubes (e.g. for hydrochloric acid solution and distillate) necessary for collecting tip washing and storing, so that a tip can be re-used.

Suction microbiological hydrophobic filter type 2200/02:

Suction microbiologic filter eliminated risk of contamination with bacteria, viruses and infected particle from patient to suction pump or central vacuum distribution. Suction microbiological filter is hydrophobic with very high bacterial efficiencies up to 99.99999% particles bigger than 0.027 µm (which is smaller than Hepatitis A, B and C).



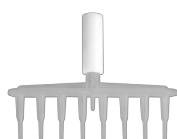
SPECIFICATIONS

Vacuum	-500 mbar
Trap flask	1 litre
Dimensions with trap flask (W×D×H)	186 x 213 x 327 mm
Weight with trap flask	1.8 kg
Input current/power consumption	12 V, 300 mA / 3.6 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

CAT. NUMBER

BS-040108-AAG	230VAC 50/60Hz Euro plug
BS-040108-AAK	100-240VAC 50/60Hz Multi plug (EU, UK, AU, US)
BS-040108-CK	IQ OQ document
BS-040108-DK	PQ document

ACCESSORIES



MA-8

BS-040108-BK

8-channel adapter manifold

8-channel aspiration tip with holder,
autoclavable

FTA-2i, Aspirator with Trap Flask

DESCRIPTION

Aspirator with trap flask **FTA-2i** is designed for aspiration or removal of alcohol, buffer and liquid from reaction vessels (e.g. during DNA/RNA purification or other macromolecule reprecipitation techniques).

The device can be applied for routine operations of cells washing from culture medium and resuspension in buffer. Aspirator operation principle is based on creating negative pressure in trapping flask using built-in microcompressor. The collecting tip is connected with polyethylene tube to the trapping flask. Liquid is removed from the reaction vessel when the collecting tip is in contact with the solution. A tube holder-organizer is conveniently located at **FTA-2i** right hand side; it accommodates two 1.5–2 ml tube slots (e.g. for hydrochloric acid solution and distillate) necessary for collecting tip washing and storing, so that a tip can be re-used. **FTA-2i** is equipped with a level sensor that detects excess liquid with consequential prevention of the overflow by automatically switching off the pump with a sounding alarm indication. The device comes, as standard, with vacuum regulation control knob that allows to smoothly select a preferable aspiration speed.

Additionally, a hand operator can be purchased for a more comfortable usability of the new accessories (see list below). The autoclavable hand operator features a pressure sensitive button that can control the aspiration speed.

Filtration: Hydrophobic microbiologic filter 2200/02 eliminates risk of contamination from the trap flask by bacteria, viruses and infected particles

COMMON APPLICATIONS:

Removal and disposal of liquid from various reaction vessels

STANDARD ACCESSORY:

MA-U universal adapter for 200/1000 µl single use tips

OPTIONAL ACCESSORIES:

- HAS-1 Hand operator set
 - 1ch. adapter
 - with ejector for 200 mkl tips
 - with 40 mm stainless steel pin
 - with 125 mm stainless steel pin
 - 8ch. adapter
 - with ejector for 200 mkl tips
 - with 35 mm stainless steel pins
 - Stand SH-6
- MA-8
 - 8-channel aspiration tip with holder



CAT. NUMBER

BS-040120-A02	230VAC 50/60Hz Euro plug
BS-040120-A03	100-240VAC 50/60Hz Multi plug (EU, UK, AU, US)

SPECIFICATIONS

Aspiration speed	up to 10 l/min (air)
Vacuum	-200 to -800 mbar (adjustable)
Trap flask	2 l, polypropylene (autoclavable)
Liquid level sensor type	invasive
Overflow protection	motor stops, light and sound signal
Dimensions with trap flask (W×D×H)	185 × 290 × 390 mm
Weight with trap flask	1.85 kg
Input current/power consumption	12 V, 1 A / 10.8 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

ACCESSORIES



HAS-1

BS-040118-PK

Hand operator set

HAS-1 Hand operator set

- 1ch. adapter
 - with ejector for 200 mkl tips
 - with 40 mm stainless steel pin
 - with 125 mm stainless steel pin
- 8ch. adapter
 - with ejector for 200 ...

[read more](#)

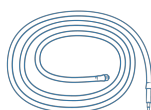


MA-8

BS-040108-BK

8-channel adapter manifold

8-channel aspiration tip with holder, autoclavable



Extended tubing

BS-040120-DK

Extended tubing 2 m long, with fittings and MA-U adapter

IW-8, Intelspeed washer

DESCRIPTION

Intelspeed Washer **IW-8** is designed for washing of standard flat-bottom 96 well plates and microstrips. The unit is fully programmable ensuring multi-step solution ripening, aspiration (aspiration, combination of aspiration/liquid dispensing and soaking, as well as soaking cycle during a particular period of time).

The unit has 100 user-defined programs. Standard version is supplied with 8-channel washing head for dispensing/aspiration, 3 bottles for washing and rinsing solutions, a waste bottle and bottle with filter. Optional 4-channel washing solution weight logger, **4 CHW Logger** is available.

The unit is designed for washing standard 96-well plates during analyses.

The unit provides:

- Washing mode
- Rinsing mode
- Mixing mode
- Double aspiration
- Possibility of additional solution mixing during time gap between two work cycles
- Possibility to use microtest plates by different manufacturers, ensured by automated plate set up (adjusting to different depths of plate wells)
- Plate and strip washing mode
- User-defined programs with adjustable parameters
- Saving work programs

The unit is designed for use in closed laboratory rooms at temperatures from +10°C to +35°C and relative humidity up to 80% at +25°C decreasing linearly to 50% relative humidity at 35°C.

4-channel washing solution weight logger, **4 CHW Logger** provides automatic control of rinsing solution and waste volumes. The washer shows remaining volume for each bottle as percentage and gives a warning message in case of low solution volume or full waste bottle when **4 CHW Logger** is connected.

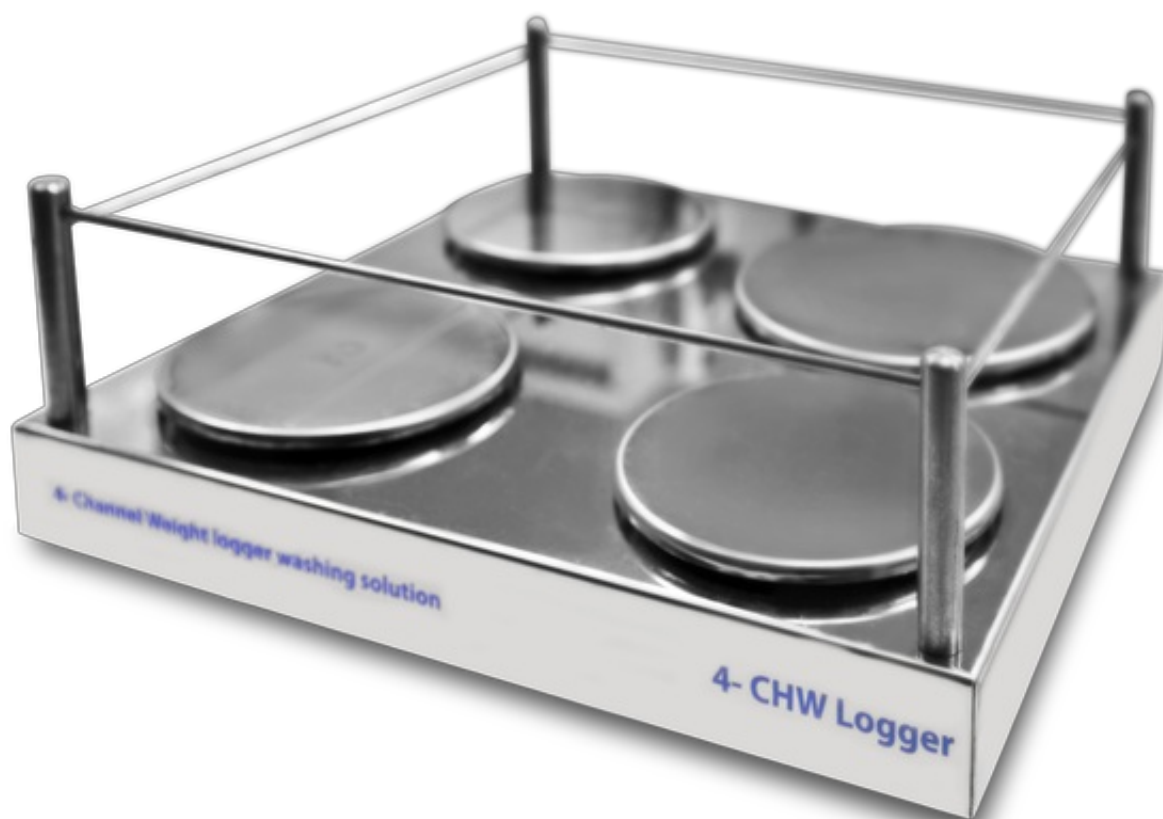


CAT. NUMBER

BS-060106-AAI	230VAC 50/60Hz Euro plug
BS-060106-AAB	230VAC 50/60Hz UK plug
BS-060106-AA4	230VAC 50/60Hz AU plug
BS-060106-AAJ	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
Russian language interface	Russian language interface
BS-060106-A02	230VAC 50/60Hz Euro plug
BS-060106-AK	IQ OQ document
BS-060106-BK	PQ document

SPECIFICATIONS

Minimum dispense volume	25 µl
Maximum dispense volume	1600 µl
Dispense increment	25 µl
Dispensing accuracy	±2.5%
Allowed residual liquid volume in plate well	not more than 2 µl
Number of wells washed simultaneously	8
Number of washing cycles	1–15
Aspiration time	0.2–3 s
Aspiration/dispensing speed	3 levels
Max. number of channels in a program	2
Choice of 3 washing liquid bottles	+
Soaking time	0–300 s (increment 10 s)
Shaking time	0–150 s (increment 5 s)
Number of washed rows	1 – 12
Time of plate single wash (350 µl), not more	45 s
Number of programs	101
Plate platform and washing head movement	automated
Indication of operation modes	LCD, 8-line
Overall dimensions (W×D×H)	375 × 345 × 180 mm
Weight	9.6 kg
Input current/power consumption	12 V DC, 1.8 A / 22 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V



4 CHW Logger
BS-060102-AK

4-channel washing solution weight logger, **4 CHW Logger** provides automatic control of rinsing solution and waste volumes. The washer shows remaining volume for each bottle as percentage and gives a ...

[read more](#)