WiseCube®

Wisd
LABORATORY INSTRUMENTS

Incubators

- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
  (WIF, WIG, WIM models - Incubators, WIR - (B.O.D.) Incubators, WIS - Shaking Incubators)
- Digital PID Programmable Controller for Precise Temperature Control
  (WTH-E, WTH models - Temp./Humidity Chambers)
- Microprocessor PID Controller and Easy-to-use Touch Screen LCD Controller Provides Precise Temperature, Relative Humidity and Illumination Control (WGC model - Growth Chambers)
- Over Temperature & Over Current Protection, Sensor Error Detection
- UL / CUL Certified - WIF, WIG, WIM and WIR models

- **Incubators (Forced Convection, Gravity / Natural Flow-type, Multi-Room)** ..... P. 76~81
- **Temp./Humidity Chamber** ..... P. 82~85
- **Plant Growth Chamber** ..... P. 86~89
- **Low Temperature (B.O.D) Incubators** ..... P. 90, 91
- **Shaking Incubator** ..... P. 92~99

Multi-Room Incubator
- Forced Convection Type (WIM model)

Digital Incubator (WIG / WIF model)
- Horizontal/Forced-Flow
- Gravity/Natural-Flow

Precise Shaking Incubator
- Front Door Type (WIS-30 model)

Articles	Cat. No	Description

"witeg" *WiseCube® WIF* Incubators, Forced Convection-type, 50-/105-/155- Lit., up to 70℃, ±0,2℃

with 2× Wire Shelves, Digital Fuzzy Control System, Maximum Temp. Uniformity & Accuracy, Perfect Heat Insulation

Incubator, Forced Convection-type "WIF-105"

- **Optimized Air Flow by Forced Convection Mechanism**
- **Patented Jog-Shuttle Control System**
- **UL / CUL Certified**
- **CE Certified**

* Variable Application : Microorganism Culture, Animal & Plant Cell Culture, Constant Temperature, Germination, and so on
* Digital Fuzzy Control System Implementing Superior Temperature Accuracy
* High-Quality LCD Display with Back-Light Function
* Compact Body Design
* RS232C Interface for Monitoring and Controlling with PC
* Ambient to 70℃ of Temp. Range, Accuracy of ±0,2℃ at 37℃
* Corrosion Resistant 304 Stainless Steel Chamber and Teflon-coated steel shelves
* Over Temperature & Over Current Protection, Sensor Error Detection
* Alarm Function : Error status and Timer-end
* Storage Function of Temperature and Timer setting values
* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be disabled)

Specification

Capacity & Models		50 Lit. "WIF-50"	105 Lit. "WIF-105"	155 Lit. "WIF-155"
Circulation-type		Forced Convection-type		
Temp. Range & Accuracy		Ambient +5℃ ~ 70℃, ± 0,2℃ at 37℃		
Temp. Uniformity & Sensor		±0,3℃ at 37℃, ±0,7℃ at 50℃, PT100 Sensor		
Heat-up Time		15 min. to 37 ℃, 30 min. to 50 ℃		
Recovery Time (Door open 30sec)		5 min. to 37 ℃ 8 min. to 50 ℃	8 min. to 37 ℃ 10 min. to 50 ℃	
Heating Power/Consumption		300 W	400 W	500 W
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end		
Display		Digital LCD Display with Back-Light Function		
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn & Push)		
Inner Door		with 1ea of Inner Tempered Glass Door		
Shelves		Included 2ea of Teflon-coated Steel Wire Shelves		
		Max.11 are available	Max.15 are available	Max.17 are available
Permitted Total Load		Total Load 32 kg (16kg×2 Shelves)		
Ventilation Hole		1ea of Ventilation hole(id. Φ40mm) with Stainless Steel Cap		
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector		
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel		
Dimension (w×d ×h)	Interior (mm)	370×350×420	485×410×535	550×475×600
	Exterior (mm)	541×618×701	644×676×841	709×741×906
Net Weight		45 kg	57 kg	80 kg
Packing Size (mm) & Gross Weight		572×660×h840, 52 kg	710×762×h970, 70 kg	780×826×h1,030, 87 kg
Power Consumption		400 W	500 W	600 W
Power plug type		Hybrid E+F		
Power Supply*		AC 230V, 1N~, 50/60Hz		

* Other Specifications are available upon Customer's Request.

Ordering Information

DH.WIF01050 Forced Convection, **230V, 50 Lit., "WIF-50"**
DH.WIF01105 **, 105 Lit., "WIF-105"**
DH.WIF01155 **, 155 Lit., "WIF-155"**

<Continued on next page>

Cat. No	Description	Articles

<Continued from... "witeg" WiseCube® WIF Incubators, Horizontal-Flow>

Optional Wire & Perforated Shelves, Stainless Steel

DH.WON11050 (1) Wire Shelf, Stainless Steel, with 2 Brackets, **for 50 Lit.**, **"ONS050"**, w340 × d310mm
DH.WON11105 (1) Wire Shelf, Stainless Steel, with 2 Brackets, **for 105 Lit.**, **"ONS105"**, w455 × d375mm
DH.WON11155 (1) Wire Shelf, Stainless Steel, with 2 Brackets, **for 155 Lit. / 305Lit.**, **"ONS155"**, w520 × d440mm

DH.WIG21050 (2) Perforated Shelf, Stainless Steel, with 2 Brackets, **for 50 Lit.**, **"IGPS050"**, w340×d310mm
DH.WIG21105 (2) Perforated Shelf, Stainless Steel, with 2 Brackets, **for 105 Lit.**, **"IGPS105"**, w455×d375mm
DH.WIG21155 (2) Perforated Shelf, Stainless Steel, with 2 Brackets, **for 155 Lit.**, **"IGPS155"**, w520×d440mm

Validation (IQ, OQ) Service

DH.WIF31050 Validation Service(IQ, OQ), **IFV050,** for **WIF-50**
DH.WIF31105 , **IFV105,** for **WIF-105**
DH.WIF31155 , **IFV155,** for **WIF-155**

DH.WIF41050 Calibration Certificate Service, 1 & 3 points, **IFC1050,** for **WIF-50**
DH.WIF41105 , 1 & 3 points, **IFC1150,** for **WIF-105**
DH.WIF41155 , 1 & 3 points, **IFC1155,** for **WIF-155**

DH.WIF51105 Calibration Certificate Service, 9 points, **IFC2150,** for **WIF-105**
DH.WIF51155 , 9 points, **IFC2155,** for **WIF-155**

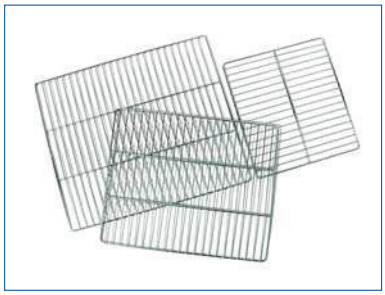
WiseRemote® Remote Control Software

Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

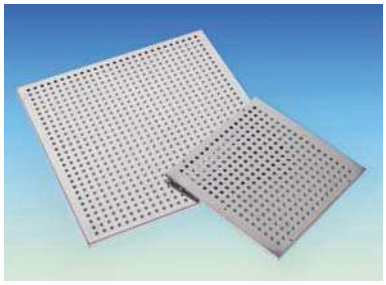
Main Screen

RS232C Cable & Software

Incubator, Forced Convection-type "WIF-105"



(1) Wire Shelves, Stainless Steel (Included)



(2) Perforated Shelves, Stainless Steel (Optional)

Articles	Cat. No	Description

"witeg" *WiseCube® WIG* Incubators, Gravity/Natural Flow-type, 32-/50-/105-/155- Lit

with 2× Wire Shelves, Digital Fuzzy Control, Superior Temp. Accuracy, Optimized Air Circulation, up to 70℃, ±0,2℃

Incubator, Gravity/Natural-Flow Type "WIG-105"

- **Optimized Air Circulation by Natural Flow Preventing Cross Contamination of Samples**
- **Patented Jog-Shuttle Control System**
- **UL/CUL Certified**
- **CE Certified**

* Variable Application : Microorganism Culture, Animal & Plant Cell Culture, Constant Temperature, Germination, and so on
* Digital Fuzzy Control System Implementing Superior Temperature Accuracy
* High-Quality LCD Display with Back-Light Function Used
* Compact Designed Body
* RS232C Interface for Monitoring and Controlling with PC
* Ambient to 70℃ of Temp. Range, Accuracy of ±0,2℃ at 37℃
* Corrosion Resistant 304 Stainless Steel Chamber and Teflon coated steel shelves
* Over Temperature & Over Current Protection, Sensor Error Detection
* Alarm Function : Error status and Timer-end
* Storage Function of Temperature and Timer setting values
* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)

Specification

Capacity & Models		32 Lit. "WIG-32"	50 Lit. "WIG-50"	105 Lit. "WIG-105"	155 Lit. "WIG-155"
Circulation-type		Gravity / Natural Flow-type			
Temp. Range & Accuracy		Ambient +5℃ ~ 70℃, ± 0,2℃ at 37℃			
Temp. Uniformity & Sensor		±0,4℃ at 37℃, ±0,9℃ at 50℃, PT100 Sensor			
Heat-up Time		20 min. to 37 ℃ , 40 min. to 50 ℃			
Recover Time (Door open 30sec)		8 min. to 37 ℃ 12 min. to 50 ℃		10 min. to 37 ℃ 15 min. to 50 ℃	
Heating Power/Consumption		200 W	200 W	300 W	400 W
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end			
Display		Digital LCD Display with Back-Light Function			
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn & Push)			
Inner Door		with 1ea of Inner Tempered Glass Door			
Shelves		Included 2ea of Teflon-coated Steel Wire Shelves			
		Max.9 are available	Max.11 are available	Max.15 are available	Max.17 are available
Permitted Total Load		Total Load 32kg (16kg×2 Shelves)			
Ventilation Hole		1ea of Ventilation hole(id. Φ40mm) with Stainless Steel Cap			
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector			
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel			
Dimension (w×d×h)	Interior (mm)	310×290×360	370×350×420	485×410×535	550×475×600
	Exterior (mm)	481×458×624	541×518×701	644×576×841	709×641×906
Net Weight		29 kg	41 kg	53 kg	70 kg
Packing Size (w×d×h) (mm) & Gross Weight		520×520×673 36 kg	570×570×750 48 kg	700×650×1,000 60 kg	780×740×1,030 77 kg
Power Consumption		320 W	320 W	400 W	400 W
Power plug type		Hybrid E+F			
Power Supply*		AC 230V, 1N~, 50/60Hz			

* Other Specifications are available upon Customer's Request.

Ordering Information

DH.WIG01032	Gravity / Natural Flow-type, **230V, 32 Lit., "WIG-32"**
DH.WIG01050	**, 50 Lit., "WIG-50"**
DH.WIG01105	**, 105 Lit., "WIG-105"**
DH.WIG01155	**, 155 Lit., "WIG-155"**

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<Continued from..."witeg" WiseCube® WIG Incubators, Gravity/Natural-Flow Type>

Optional Wire & Perforated Shelves, Stainless Steel

DH.WIG12032	(1) Wire Shelf, Stainless Steel, with 2 Brackets, **for 32 Lit.**, **"IGSN032"**, w280×d260mm
DH.WON11050	(1) Wire Shelf, Stainless Steel, with 2 Brackets, **for 50 Lit.**, **"ONS050"**, w340 × d310mm
DH.WON11105	(1) Wire Shelf, Stainless Steel, with 2 Brackets, **for 105 Lit.**, **"ONS105"**, w455 × d375mm
DH.WON11155	(1) Wire Shelf, Stainless Steel, with 2 Brackets, **for 155 Lit./305Lit.**, **"ONS155"**, w520 × d440mm
DH.WIG21032	(2) Perforated Shelf, Stainless Steel, with 2 Brackets, **for 32 Lit.**, **"IGPS032"**, w280×d260mm
DH.WIG21050	(2) Perforated Shelf, Stainless Steel, with 2 Brackets, **for 50 Lit.**, **"IGPS050"**, w340×d310mm
DH.WIG21105	(2) Perforated Shelf, Stainless Steel, with 2 Brackets, **for 105 Lit.**, **"IGPS105"**, w455×d375mm
DH.WIG21155	(2) Perforated Shelf, Stainless Steel, with 2 Brackets, **for 155 Lit.**, **"IGPS155"**, w520×d440mm

Validation (IQ, OQ) Service

DH.WIG31032	Validation Service(IQ, OQ), **IGV032,** for **WIG-32**
DH.WIG31050	, **IGV050,** for **WIG-50**
DH.WIG31105	, **IGV105,** for **WIG-105**
DH.WIG31155	, **IGV155,** for **WIG-155**
DH.WIG41032	Calibration Certificate Service, 1 & 3 points, **IGC1032,** for **WIG-32**
DH.WIG41050	, 1 & 3 points, **IGC1050,** for **WIG-50**
DH.WIG41105	, 1 & 3 points, **IGC1105,** for **WIG-105**
DH.WIG41155	, 1 & 3 points, **IGC1155,** for **WIG-155**
DH.WIG51105	Calibration Certificate Service, 9 points, **IGC2105,** for **WIG-105**
DH.WIG51155	, 9 points, **IGC2155,** for **WIG-155**

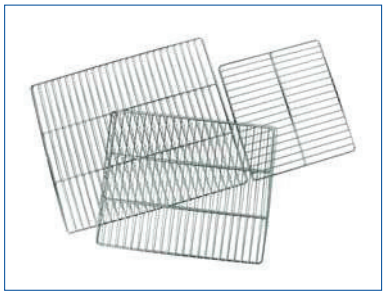
WiseRemote® Remote Control Software

Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

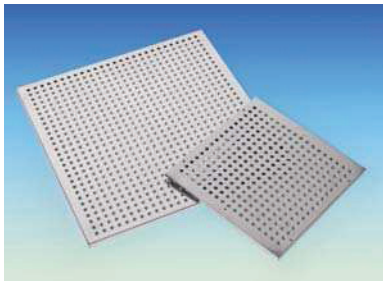
Main Screen

RS232C Cable & Software

Incubator, Gravity/ Natural-Flow Type "WIG-105"



(1) Wire Shelves, Stainless Steel (Included)



(2) Perforated Shelves, Stainless Steel (Optional)

Articles	Cat. No	Description

"witeg" *WiseCube® WIM* Multi-Room Incubator, Forced Convection-type, 125 Lit. × 4 Rooms with 8 × Wire Shelves, Digital Fuzzy Control, Independent Chamber Control, Max. Temp. Uniformity & Accuracy, up to 70℃

Multi-Room Incubator, Forced Convection Type "WIM-R4"

- **4 × 125Lit Rooms : Each Chamber has an Independent Fuzzy Controller for Different Temperature and Time Control**
- **Patented Jog-Shuttle Control System**
- **UL/CUL Certified** ■ **CE Certified**

* Variable Application : Microorganism Culture, Animal & Plant Cell Culture, Constant Temperature and Germination
* Digital Fuzzy Control System Implementing Superior Temperature Accuracy.
* High-Quality LCD Display with Back-Light Function
* Forced Convection Air Flow by Silent Fan Motor Implements the Highest Uniformity of Temperature in Each Chamber
* Stainless Steel Chamber and Teflon-Coated Shelves (2ea for Each Chamber) - Corrosion Resistance
* Inner Tempered Glass Door Enables an User to Observe the Samples without Interruption of Incubation
* Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking.
* Storage Function for Set Values of Temperature and Time
* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)

Specification

Model		Ambient +5℃ ~ 70℃ "WIM-4"	0℃ to 70 ℃ "WIM-R4"	0℃ to 70 ℃ with illumination "WIM-RL4"
Circulation		Forced Convection-Blower FAN		
Capacity		125 Lit.×4 Rooms		
Illumination		None		FRL 55W×2 (×4 Rooms)
Temp.	Range	Ambient +5℃ ~ 70℃	0℃ to 70 ℃	
	Accuracy	±0,2 ℃ at 37 ℃		
	Uniformity	±0,3℃ at 37℃, ±0,7℃ at 50℃	±0,5℃ at 37℃	
	Sensor	PT100		
Heat-up Time		15 min. to 37 ℃ 30 min. to 50 ℃	20 min. to 37 ℃ 30 min. to 50 ℃	
Recovery Time (Door open 30sec)		8 min. to 37 ℃ 10 min. to 50 ℃	10 min. to 50 ℃ 12 min. to 50 ℃	
Heating Power/Consumption		500 W×4ea	650 W×4ea	
Compressor		none	1/4 HP (×4 Rooms)	
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end		
Display		Digital LCD Display with Back-Light Function		
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn & Push)		
Inner Door		with 4ea of Inner Tempered Glass Door		
Shelves		Included 8ea of Teflon Coated Steel Shelves (2ea×4 Chambers)		
		Max.17 are available		
Permitted Total Load		Total Load 128 kg (16kg×8 Shelves)		
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector		
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel		
Dimension (w×d×h)	Interior (mm)	500×500×h500 mm (× 4 Rooms)		
	Exterior (mm)	1.655×845×h1.710 mm		
Net Weight		343kg	350kg	
Packing Size (w×d×h) (mm)		1.900×1.050×1.950		
Gross Weight		441 kg	450 kg	
Power Consumption		2,6 kW	4,5 kW	4,8 kW
Power plug type		Hybrid E+F	5 pole 16A CEE	
Power Supply*		AC 230V, 1N~, 50/60Hz	AC 400V, 3N~,50 / 60Hz	

* Other Specifications are available upon Customer's Request.

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<Continued from... "witeg" *WiseCube® WIM* Multi-Room Incubator>

Ordering Information

"WIM-4" with 125 Lit. × 4 Rooms, Ambient +5℃~70℃

DH.WIM04125 Multi-Room Incubator, **230V, "WIM-4"**

"WIM-R4" with 125 Lit. × 4 Rooms, 0~70℃

DH.WIM16125 Multi-Room Incubator, **400V, 3N~, "WIM-R4"**

"WIM-RL4" with 125 Lit. × 4 Rooms & Illumination, 0~70℃

DH.WIM26125 Multi-Room Incubator, **400V, 3N~, "WIM-RL4"**

Optional Wire Shelves and Cable/Plug

DH.WIM34126 (1) Wire Shelf, Stainless Steel, with 2 Brackets, **"IMS126"**, w470 × d480mm, for **"WIM" 4-Room Incubators**

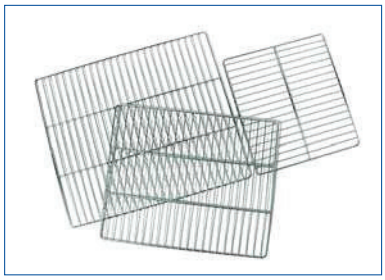
Validation (IQ, OQ) Service

DH.WIM54125 Validation Service(IQ, OQ), **IMV525,** for **WIM-4**
DH.WIM64125 , **IMV625,** for **WIM-R4**
DH.WIM74125 , **IMV725,** for **WIM-RL4**

DH.WIM55125 Calibration Certificate Service, 1 & 3 points, **IMC525,** for **WIM-4**
DH.WIM65125 , 1 & 3 points, **IMC625,** for **WIM-R4**
DH.WIM75125 , 1 & 3 points, **IMC725,** for **WIM-RL4**

DH.WIM56125 Calibration Certificate Service, 9 points, **IMC535,** for **WIM-4**
DH.WIM66125 , 9 points, **IMC635,** for **WIM-R4**
DH.WIM76125 , 9 points, **IMC735,** for **WIM-RL4**

Multi-Room Incubator, Forced Convection Type "WIM-R4"



(1) Wire Shelves, Stainless Steel (Included)

WiseRemote® Remote Control Software

Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

Main Screen

RS232C Cable & Software

Articles	Cat. No	Description

"witeg" *WiseCube® WTH-E* Economic Temp./Humidity Chamber, 155-/305-/420-/800-Lit.

with 3 × Perforated Shelves, Programmable Digital PID Control System, −20℃ ~80℃ ±0,3 ℃, up to 95% RH

Economic Temp./Humidity Chamber 155 Lit. "WTH-E155"

- **Economical & Practical Type**
- **Digital PID Programmable Controller for Precise Temperature Control**
- **RS485 Interface for Remote Monitoring and Controlling with PC**
- **Automatic Defrost System**
- **CE Certified**

* Ideal for Reliability, Durability, Climatic, Freezing Resistance, Thermal Endurance, Quality Assurance etc.
* Temperature range from -20℃ to 80℃, Relative Humidity from 30% to 95% RH
* Program Function : 30 Patterns, 300 Segments
* Low Water Level Alarm Lamp
* Inner Tempered Glass Door with Silicon Packing
* The Powerful and Silent Dual Fan Motor Assures Temperature Uniformity by Strong Air Circulation
* Over Temperature and Over Current Protection for User Safety
* RS485 Communication Interface(Optional)
* Temperature & Humidity Recorder(Optional)

Specification

Model		155 Lit. "WTH-E155"	305 Lit. "WTH-E305"	420 Lit. "WTH-E420"	800 Lit. "WTH-E800"
Temp. Range & Accuracy		−20℃ ~ +80℃, ±0,3℃ (Stability ±1.0 ℃)			
Humidity Range & Accuracy		30% ~ 95% RH, ±2% (Stability ±3% RH)			
		95% Humidity is available at over 40℃			
Temp. & Humidity Sensor		Temp. : PT100, Humidity : Capacitive Sensor			
Heating Power /Consumption	for Temp.	1,5 kW	2,0 kW	2,2 kW	2,5 kW
	for Humi.	2,0 kW	3,0 kW	3,0 kW	3,0 kW
Compressor		7/8 HP	1,5 HP	1,5 HP	3 HP
Refrigerant		CFC-Free(R404a) Refrigeration System			
Controller		Programmable Digital PID Controller			
Program Function		10 patterns, 100 segments			
Shelves		Included 3ea of Perforated Stainless Steel Shelves			
		Max.21 are available	Max.28 are available	Max.30 are available	Max.36 are available
Safety Circuit		Hi-Low Temp. Protector, Over Current & Leakage Breaker, Water Level Sensor			
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel			
Dimension (w×d×h)	Interior (mm)	505×505×610	620×620×800	750×660×850	1000×800×1000
	Exterior (mm)	745×920×1645	820×1290×1720	990×1075×1885	1200×1100×1920
Net Weight		290 kg	309 kg	378 kg	558 kg
Packing Size (w×d×h) (cm) & Gross Weight (kg)		99×112×185, 355 kg	122×122×205, 369 kg	128×128×216, 478 kg	149×132×220, 678 kg
Power Consumption		4,4 kW	5,7 kW	6,3 kW	8,2 kW
Power plug type		5 pole 16A CEE			
Power Supply*		AC 400V, 3N~,50 / 60Hz			

* Other Specifications are available upon Customer's Request.

Ordering Information

with 3 × Perforated Shelves, Terminal Block

DH.WTHE5155 Temp. / Humidity Chamber, **400V, 3N~,** 155 Lit., **"WTH-E155"**
DH.WTHE5305 **,** 305 Lit., **"WTH-E305"**
DH.WTHE5420 **,** 420 Lit., **"WTH-E420"**
DH.WTHE5800 **,** 800 Lit., **"WTH-E800"**

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<Continued from..."witeg" WiseCube® WTH-E Economic Temp./Humidity Chamber>

Spare Perforated Shelves, Stainless Steel

DH.WTH11155 (1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1155",** for 155 Lit., w470 × d480mm
DH.WTH11305 (1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1305",** for 305 Lit., w590 × d580mm
DH.WTH11420 (1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1420",** for 420 Lit., w720 × d640mm
DH.WTH11800 (1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1800",** for 800 Lit., w970 × d980mm

Optional Chart Recorder/Cable & Plug

DH.WTH05100 (2) Temp. & Humidity Recorder, with 6ea Ribbon Cassete & Chart Paper LED display, 6ch/10sec, 144 × 144 × h233mm, **"WTH5105"**
DH.WTH05108 Ribbon Cassette, 6Colors, **"WTH5108"**
DH.WTH05105 Chart Paper, w100mm × L10m, **"WTH5105"**

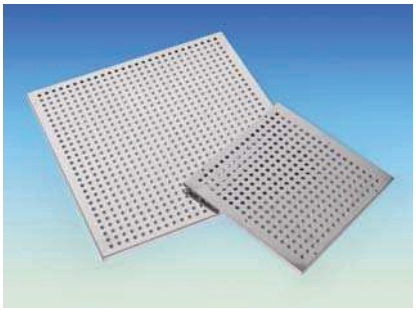
Validation (IQ, OQ) Service

DH.WTHE3155 Validation Service(IQ, OQ), **THEV155,** for **WTHE-155**
DH.WTHE3305 , **THEV305,** for **WTHE-305**
DH.WTHE3420 , **THEV420,** for **WTHE-420**
DH.WTHE3800 , **THEV800,** for **WTHE-800**

DH.WTHE4155 Calibration Certificate Service, 1 & 3 points, **THEC0155,** for **WTHE-155**
DH.WTHE4305 , 1 & 3 points, **THEC0305,** for **WTHE-305**
DH.WTHE4420 , 1 & 3 points, **THEC0420,** for **WTHE-420**
DH.WTHE4800 , 1 & 3 points, **THEC0800,** for **WTHE-800**

DH.WTHE5155 Calibration Certificate Service, 9 points, **THEC1155,** for **WTHE-155**
DH.WTHE5305 , 9 points, **THEC1305,** for **WTHE-305**
DH.WTHE5420 , 9 points, **THEC1420,** for **WTHE-420**
DH.WTHE5800 , 9 points, **THEC1800,** for **WTHE-800**

Economic Temp./Humidity Chamber 155 Lit. "WTH-E155"



(1) Perforated Shelves, Stainless Steel (Included)

(2) Temp. & HumidityRecorder
: with 6ea Ribbon Cassette and Chart Paper

Articles	Cat. No	Description

"witeg" *WiseCube® WTH* Programmable Precise Temp./Humidity Chamber, 155-/305-/420-/800-Lit.

with 3×Perforated Shelves, Programmable Digital PID Control, Touch-Screen LCD, CFC-Free, −40℃/−20℃ to 100℃, up to 98% RH

Programmable Temp. / Humidity Chamber "WTH-305" with Chart Recorder(Optional)

Built in Water Tank

- **Programmable Digital PID Controller with Touch-Screen LCD**
- **Program Capability: 120 Patterns 1200 Segments**
- **CFC Free Refrigerant (R404A)**
- **CE Certified**

* Ideal for Reliability, Durability, Climatic, Freezing Resistance, Thermal Endurance, Quality Assurance etc.
* Precise Temperature Control (-40℃/-20℃ to 100℃) and Humidity (30% to 98% Relative Humidity)
* Electronic Humidity Sensor has Excellent Response Time and Durability.
* The Powerful and Silent Dual Fan Motor Assures Temperature Uniformity by Strong Air Circulation (2 ~ 4pcs)
* Auto-Tuning Function
* Low Water Level Alarm System
* Automatic Defrost Function
* Easy and Safety Door Lock
* Large Clear Viewing Window with Membrane Heating Element (Moisture-Proof)
* Sliding Water Supply Tank : Auto Water Supplementing System
* Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking
* RS232C Interface for Remote Monitoring and Controlling with PC
* Temperature & Humidity Recorder(Optional)

Specification

Capacity		155 Lit.	305 Lit.	420 Lit.	800 Lit.
Model		"WTH-155"	"WTH-305"	"WTH-420"	"WTH-800"
Temp. & Humidity Range		−20℃ to 100℃, 30% to 98% RH			
		95% Humidity is available at over 40℃			
Compressor		7/8 HP	1,5 HP	1,5 HP	3 HP
Heating Power /Consumption	for Temp.	1,5 kW	2,0 kW	2,2 kW	2,5 kW
	for Humi.	2,0 kW	3,0 kW	3,0 kW	3,0 kW
Total Power Consumption		4,7 kW	5,7 kW	6,3 kW	9 kW
Model		"WTH-L155"	"WTH-L305"	"WTH-L420"	"WTH-L800"
Temp. & Humidity Range		−40℃ to 100℃ / 30% to 98% RH			
		95% Humidity is available at over 40℃			
Compressor		1,5 HP	2 HP	3 HP	4 HP
Heating Power /Consumption	for Temp.	1,5 kW	2,0 kW	2,2 kW	2,5 kW
	for Humi.	2,0 kW	2,0 kW	3,0 kW	3,0 kW
Total Power Consumption		6,2 kW	7,9 kW	9,9 kW	12,7 kW
Accuracy	Temp.	±0,3℃ (Stability ±0,3℃)			
	Humidity	±0,3% RH (Stability ±0,3% RH at 70%)			
Temp. & Humidity Sensor		Temp. : PT100, Humidity : Capacitive Sensor			
Heat-up & Cool-down Time		35 min (−20℃ to 80℃), 45 min (+20℃ to −20℃)			
Refrigerant		CFC-Free(R404a) Refrigeration System			
Controller		Programmable Digital PID Multi-function Controller			
Program Function		120 patterns 1.200 segments			
Shelves		Included 3ea of Perforated Stainless Steel Shelves			
		Max.15 are available	Max.22 are available	Max.29 are available	Max.35 are available
Safety Circuit		Over Temp.-/Current-Protector,Error Status/Low Level Detector, Leakage Breaker			
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel			
Dimension (w×d ×h)	Interior (mm)	505×505×610	620×620×800	700×700×820	1.000×800×1.000
	Exterior (mm)	1,100×960×1.550	1.310×1.080×1.765	1.390×1.135×1.690	1.570×1.245×2.060
Packing Size (w×d×h) (cm) & Gross Weight (kg)		134×116×175, 353 kg	152×125×207, 369 kg	160×130×202, 478 kg	178×141×237, 678 kg
Power plug type		5 pole 16A CEE			
Power Supply*		AC 400V, 3N~,50 / 60Hz			

* Other Specifications are available upon Customer's Request.

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<Continued from..."witeg" WiseCube® WTH Programmable Temp./Humidity Chamber>

Ordering Information

−20℃ ~ 100℃ with 3 × Perforated Shelves, Terminal Block

DH.WTH07155	Temp. / Humidity Chamber, **400V, 3N~,** 155 Lit.,	**"WTH-155"**
DH.WTH07305	, 305 Lit.,	**"WTH-305"**
DH.WTH07420	, 420 Lit.,	**"WTH-420"**
DH.WTH07800	, 800 Lit.,	**"WTH-800"**

−40℃ ~ 100℃ with 3 × Perforated Shelves, Terminal Block

DH.WTH08155	Temp. / Humidity Chamber, **400V, 3N~,** 155 Lit.,	**"WTH-L155"**
DH.WTH08305	, 305 Lit.,	**"WTH-L305"**
DH.WTH08420	, 420 Lit.,	**"WTH-L420"**
DH.WTH08800	, 800 Lit.,	**"WTH-L800"**

Spare Perforated Shelves, Stainless Steel

DH.WTH11155	(1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1155",** for 155 Lit., w470 × d480mm
DH.WTH11305	(1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1305",** for 305 Lit., w590 × d580mm
DH.WTH11420	(1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1420",** for 420 Lit., w720 × d640mm
DH.WTH11800	(1) Perforated Shelf, Stainless Steel, with 2 Brackets, **"THS1800",** for 800 Lit., w970 × d980mm

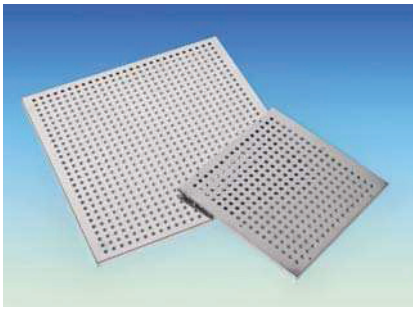
Optional Chart Recorder/Cable & Plug

DH.WTH05100	(2) Temp. & Humidity Recorder, with 6ea Ribbon Cassette & Chart Paper LED display, 6ch/10sec, 144 × 144 × h233mm, **"WTH5105"**
DH.WTH05108	Ribbon Cassette, 6Colors, **"WTH5108"**
DH.WTH05105	Chart Paper, w100mm × L10m, **"WTH5105"**

Validation (IQ, OQ) Service

DH.WTH31155	Validation Service(IQ, OQ), **THV1155,** for **WTH-155**
DH.WTH31305	, **THV1305,** for **WTH-305**
DH.WTH31420	, **THV1420,** for **WTH-420**
DH.WTH31800	, **THV1800,** for **WTH-800**
DH.WTH32155	Validation Service(IQ, OQ), **THV2155,** for **WTH-L155**
DH.WTH32305	, **THV2305,** for **WTH-L305**
DH.WTH32420	, **THV2420,** for **WTH-L420**
DH.WTH32800	, **THV2800,** for **WTH-L800**
DH.WTH41155	Calibration Certificate Service, 1 & 3 points, **THC1155,** for **WTH-155**
DH.WTH41305	, 1 & 3 points, **THC1305, for WTH-305**
DH.WTH41420	, 1 & 3 points, **THC1420, for WTH-420**
DH.WTH41800	, 1 & 3 points, **THC1800, for WTH-800**
DH.WTH42155	Calibration Certificate Service, 1 & 3 points, **THC2155, for WTH-L155**
DH.WTH42305	, 1 & 3 points, **THC2305, for WTH-L305**
DH.WTH42420	, 1 & 3 points, **THC2420, for WTH-L420**
DH.WTH42800	, 1 & 3 points, **THC2800, for WTH-L800**
DH.WTH51155	Calibration Certificate Service, 9 points, **THC3155, for WTH-155**
DH.WTH51305	, 9 points, **THC3305, for WTH-305**
DH.WTH51420	, 9 points, **THC3420, for WTH-420**
DH.WTH51800	, 9 points, **THC3800, for WTH-800**
DH.WTH52155	Calibration Certificate Service, 9 points, **THC4155, for WTH-L155**
DH.WTH52305	, 9 points, **THC4305, for WTH-L305**
DH.WTH52420	, 9 points, **THC4420, for WTH-L420**
DH.WTH52800	, 9 points, **THC4800, for WTH-L800**

Programmable Temp./Humidity Chamber "WTH-305", with Chart Recorder(Optional)



(1) Perforated Shelves, Stainless Steel (Included)

(2) Temp. & HumidityRecorder
: with 6ea Ribbon Cassette and Chart Paper

"witeg" *WiseCube® WGC* Programmable Plant Growth Chamber, Touch-Screen LCD-display

with Wire Shelves, Programmable Digital PID Control, CFC-Free, 0~12.000 - or 15.000-Lux, 30~95% RH, 10~60℃, 432-/864- Lit.

Programmable Plant Growth Chamber "WGC-450"

Water Tank/Silicon Tube/Lux Meter (Included)

- **Suitable for Plant Growth, Stability, Product Self-life QC Testing**
- **Inner Tempered Glass Door with Silicone Packing Offers Easy Observation without Door Opening**
- **Humidity Control by Capacitive Humidity Sensor Provides Accurate Control from 30 to 95%RH**
- **Easy-to-use Touch Screen LCD Controller**
- **CE Certified**

* Microprocessor PID Controller Provides Precise Temperature, Relative Humidity and Illumination Control - Maintain Uniformity and Accuracy of Growth Circumstance
* Programmable Automatic Operation of Various Temperature and Humidity : 120 Patterns, 1.200 Segments.
* 3-/4- Side Light Bank System : Intensity of Light is Controlled by 8-Levels and Displayed on LCD
* Over Temperature & Over Current Protection, Sensor Error Detection, Leakage Breaking

Specification

Capacity & Models		432 Lit. "WGC-450"	864 Lit. "WGC-1000"
Temp.	Range & Uniformity	10℃ ~ 60℃, ±1℃ at 20℃	
	Accuracy	± 0,5℃ at 10℃, ± 0,5℃ at 25℃ (0% light intensity) ± 1℃ at 10℃, ± 1℃ at 25℃ (100% light intensity)	
Humidity	Range & Uniformity	30% ~ 95% RH, ±3% at 60℃	
		95% Humidity is available at over 40℃	
	Accuracy	±1%	
	Humidifier	Evaporation by Fan with Heater	
Illumination	Range	0 to 12.000 Lux	0 to 15.000 Lux
	Lamp	FPL 55W×14	FPL 55W×28
	Bank	3 Side Walls	3 Side Walls & Ceiling
Temp. & Humidity Sensor		Temp. : PT100, Humidity : Capacitive Sensor	
Heat-up Time (up to 37℃)		11 min. (0 % illumination) / 9 min. (100 % illumination)	
Cool-down Time (down to 10℃)		13 min. (0 % illumination) / 15 min. (100 % illumination)	
Temp. Recovery (After Door was opened for 30sec)		3 min. at 10℃, 1 min. at 37℃ (0 % illumination) 5 min. at 10℃, 1min. at 37℃ (100 % illumination)	
Heating Power /Consumption	for Temp.	1,5 kW	3,0 kW
	for Humi.	1,5 kW	3,0 kW
Compressor		1/2 HP	1 HP
Refrigerant		CFC-Free(R404a) Refrigeration System	
Display		Touch-Screen LCD	
Controller		Programmable Digital PID Controller	
Program Function		Temperature and Humidity : 120 Patterns, 1.200 Segments Light Bank : 7 steps	
Door	Internal	Tempered Safety Glass with Silicon Packing	
	External	3-Side Magnetic Packing Door with Light Bank	
Shelves		4 Teflon Coated Steel Shelves	8 Teflon Coated Steel Shelves
		Max.35 are available	
Permitted Total Load		64 kg (16kg×4 Shelves)	128 kg (16kg×8 Shelves)
Safety Circuit		Over Temp Protector, Over Current & Leakage Breaker	
Material		Internal : Stainless Steel (#304), External : Power Coated Steel	
Dimension (w×d×h)	Interior (mm)	650×700×1.050	1.200×790×1.050
	Exterior (mm)	850×1.090×1.965	1.400×1.150×1.965
Packing Size & Gross Weight		1.400×1.220×h2.210mm, 435 kg	1.600×1.500×h2.200mm, 585 kg
Power Consumption		4.8 kW	6.5 kW
Power plug type		5 pole 16A CEE	
Power Supply*		AC 400V, 3N~,50 / 60Hz	

* Other Specifications are available upon Customer's Request.

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Cat. No	Description	Articles

<Continued from... "witeg" ***WiseCube® WGC*** Programmable Plant Growth Chamber**>**

Ordering Information

432 Lit. Programmable Plant Growth Chamber "WGC-450", 0~12.000 Lux

DH.WGC60450* Plant Growth Chamber, **400V, 3N~, WGC-450**

864 Lit. Programmable Plant Growth Chamber "WGC-1000", 0~15.000 Lux

DH.WGC61000* Plant Growth Chamber, **400V, 3N~, WGC-1000**

*-marks : Included Water Tank(with Silicon Tube) and Lux Meter

Spare Wire Shelves, Teflon Coated Steel

DH.WGC10450 (1) Wire Shelf, Teflon Coated, with 2 Brackets, **"GCS450",** for **WGC-450,** w640×d620mm

DH.WGC11000 (1) Wire Shelf, Teflon Coated, with 2 Brackets, **"GCS1000",** for **WGC-1000**, w580×d620mm

Validation (IQ, OQ) Service

DH.WGC30450 Validation Service(IQ, OQ), **GCV450,** for **WGC-450**
DH.WGC31000 , **GCV1000,** for **WGC-1000**

DH.WGC40450 Calibration Certificate Service, 1 & 3 points, **GCC0450,** for **WGC-450**
DH.WGC41000 , 1 & 3 points, **GCC01000,** for **WGC-1000**

DH.WGC50450 Calibration Certificate Service, 9 points, **GCC1450,** for **WGC-450**
DH.WGC51000 , 9 points, **GCC11000,** for **WGC-1000**

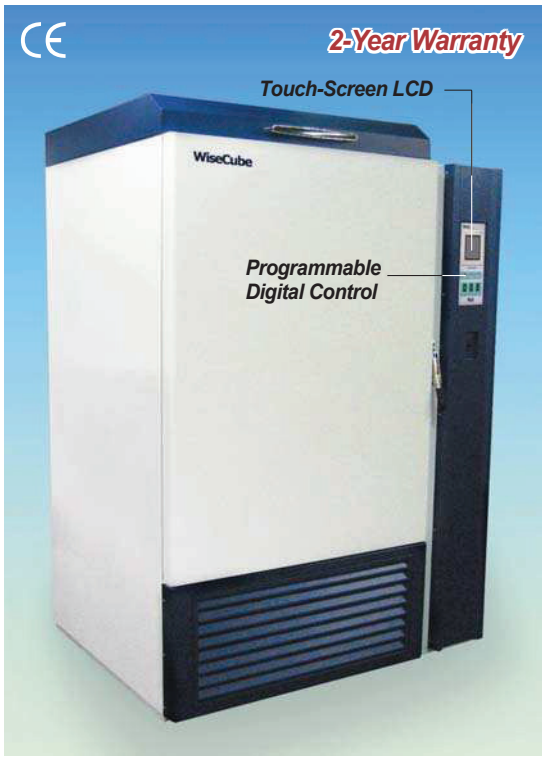
Programmable Plant Growth Chamber "*WGC-450*"

(1) Wire Shelves, Teflon Coated Steel (Included)

Articles	Cat. No	Description

"witeg" *WiseCube® WGC* Programmable Growth/Environmental Chamber, 432-/972- Lit.

with 4 × Wire Shelves, Programmable Digital PID Control, Touch-Screen LCD, CFC-Free, 0~20.000 Lux, 30~95% RH, 10~60℃



Programmable Growth / Environmental Chamber "WGC-P4"

Ceiling Light Bank System

Water Tank/Silicon Tube/Lux Meter (Included)

- **Suitable for Plant Growth, Stability and Product Self-life QC Testing**
- **Light Bank System with 8 Steps Programmable Control on the Top, Control from 0 to 20.000 Lux**
- **Relative Humidity from 30% to 95% Maintains Uniform and Accurate Growth Environment-Capacitive Humidity Sensor is used.**
- **Easy-to-use Touch Screen LCD Controller**
- **CE Certified**

* Silent Fan Motor to Maintain Temperature and Humidity Uniformity
* Microprocessor PID Controller Provides Precise Temperature, Relative Humidity and Illumination Control - Maintain Uniformity and Accuracy of Growth Circumstance
* Inner Tempered Glass Door with Silicone Packing Offers easy Observation without Door Opening
* Precise Temperature Control from 10℃ to 60℃.
* Programmable Controller Provides Automatic Operation of Various Temperature, Humidity and illumination Values : 120 Patterns, 1.200 Segments.
* Over Temperature & Over Current Protection, Sensor Error Detection, Leakage Breaking

Specification

Model		432 Lit. "WGC-P4"	972 Lit. "WGC-P9"
Temp.	Range & Uniformity	10℃ ~ 60℃, ±1℃ at 20℃	
	Accuracy	± 0,5℃ at 10℃, ± 0,5℃ at 25℃ (0% light intensity) ± 1℃ at 10℃, ± 1℃ at 25℃ (100% light intensity)	
Humidity	Range & Uniformity	30% ~ 95% RH, ±3% at 60℃	
		95% Humidity is available at over 40℃	
	Accuracy	±1%	
	Humidifier	Evaporation by Fan with Heater	
Illumination	Range & Bank	0 to 20.000 Lux, Ceiling	
	Lamp	FPL 250W×1 / 36W×6	FPL 250W×2 / 55W×8
Temp. & Humidity Sensor		Temp. : PT100, Humidity : Capacitive Sensor	
Heat-up Time (up to 37℃)		11 min. (0 % illumination) / 9 min. (100 % illumination)	
Cool-down Time (down to 10℃)		13 min. (0 % illumination) / 15 min. (100 % illumination)	
Temp. Recovery (After Door was opened for 30sec)		3 min. at 10℃, 1 min. at 37℃ (0 % illumination) 5 min. at 10℃, 1min. at 37℃ (100 % illumination)	
Heater	for Temp.	1,5 kW	2,0 kW
	for Humi.	1,5 kW	2,5 kW
Compressor		1/2 HP	1 HP
Refrigerant		CFC-Free (R404a) Refrigeration System	
Display		Touch-Screen LCD	
Controller		Programmable Digital PID Multi-Function Controller	
Program Function		Temperature and Humidity : 120 Patterns, 1.200 Segments Light Bank : 7 steps	
Ceiling Door	Ceiling	Tempered Safety Pair Glass	
	Internal	Tempered Safety Glass with Silicon Packing	
Shelves		4 Teflon Coated Steel Shelves of Adjustable Position	
		Max.37 are available	Max.52 are available
Permitted Total Load		64 kg (16kg×4 Shelves)	
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector, Leakage Breaker	
Material		Internal : Stainless Steel (#304), External : Power Coated Steel	
Dimension (w×d×h)	Interior (mm)	600×660×1.200	900×1.000×1.200
	Exterior (mm)	1.185×835×2.055	1.485×1.265×2.060
Packing Size & Gross Weight			1.700×1.300×2.250
			577 kg
Power Consumption			5,7 kW
Power plug type		5 pole 16A CEE	
Power Supply*		AC 400V, 3N~,50 / 60Hz	

* Other Specifications are available upon Customer's Request.

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<Continued from... "witeg" ***WiseCube® WGC*** Programmable Growth/Environmental Chamber**>**

Ordering Information

432 Lit. Programmable Growth/Environmental Chamber "WGC-P4"

DH.WGC03400* Growth/Environmental Chamber, **400V, 3N~, "WGC-P4"**

972 Lit. Programmable Growth/Environmental Chamber "WGC-P9"

DH.WGC03900* Growth/Environmental Chamber, **400V, 3N~, "WGC-P9"**

*-marks : Included Water Tank(with Silicon Tube) and Lux Meter

Spare Wire Shelves, Teflon Coated Steel

DH.WGC11400 (1) Wire Shelf, Teflon Coated, with 2 Brackets, **"GCS400",** w570×d580mm, for **WGC-P4**

DH.WGC11900 (1) Wire Shelf, Teflon Coated, with 2 Brackets, **"GCS900",** w870×d880mm, for **WGC-P9**

Validation (IQ, OQ) Service

DH.WGC31400 Validation Service(IQ, OQ), **GCV400,** for **WGC-P4**
DH.WGC31900 , **GCV900,** for **WGC-P9**

DH.WGC41400 Calibration Certificate Service, 1 & 3 points, **GCC0400,** for **WGC-P4**
DH.WGC41900 , 1 & 3 points, **GCC0900,** for **WGC-P9**

DH.WGC51400 Calibration Certificate Service, 9 points, **GCC1400,** for **WGC-P4**
DH.WGC51900 , 9 points, **GCC1900,** for **WGC-P9**

Programmable Growth / Environmental Chamber "WGC-P4"

(1) Wire Shelves, Teflon Coated Steel (Included)

Articles	Cat. No	Description

"witeg" *WiseCube® WIR* Low Temperature (B.O.D) Incubators, 150-/250-/420-/700- Lit.

with 3 × Wire Shelves, Digital Fuzzy Control, CFC-free Refrigeration(134A) System, Forced Convection, 0~60℃, ±0,2℃

Low Temperature(B.O.D) Incubator "WIR-150"

- **Intelligent Control of Refrigerator for Preventing Overload of Compressor**
- **CFC-free (134A) Refrigeration System**
- **Digital Fuzzy Control System Implementing Superior Temperature Accuracy**
- **Patented Jog-Shuttle Control System**
- **UL/CUL Certified**
- **CE Certified**

* Variable Application : Animal & Plant Cell Culture, Constant Temperature, Germination Test, BOD Test, and so on
* RS232C Interface for Monitoring and Controlling with PC
* Superior Temperature Uniformity by Forced Convection
* Stainless Steel Chamber and Teflon-Coated Shelves - Corrosion Resistance
* Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking.
* Storage Function : Alarm & Timer
* Back-Light LCD Display
* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
* CFC-free (134A) Refrigeration System.**"WGC-P4"**

Specification

Capacity & Models		150 Lit. "WIR-150"	250 Lit. "WIR-250"	420 Lit. "WIR-420"	700 Lit. "WIR-700"
Circulation-type		Forced Air-type			
Temp. Range & Accuracy		0 ℃ ~ 60 ℃, ± 0,2℃ at 37℃			
Temp. Uniformity & Sensor		±0,5℃ at 37℃, ±1,4℃ at 50℃, PT100 Sensor			
Heat-up Time		20 min. to 37 ℃ 20 min. to 50 ℃		35 min. to 37 ℃ 35 min. to 50 ℃	
Recovery Time (Door open 30sec)		10 min. to 37 ℃ 12 min. to 50 ℃		12 min. to 37 ℃ 15 min. to 50 ℃	
Heating Power/Consumption		700 W	1 kW	1,2 kW	2 kW
Compressor		1/2 HP	1/2 HP	5/8 HP	3/4HP
Compressor Control		Intelligent Control of Refrigerator for preventing Overload of Compressor			
Refrigerant		CFC-Free(134A) Refrigeration System			
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end			
Display		Digital LCD Display with Back Light			
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn & Push)			
Inner Door		with 1ea of Inner Tempered Glass Door			
Shelves		Included 3ea of Teflon-coated Steel Shelves			
		Max.21 are available	Max.37 are available		Max.47 are available
Permitted Total Load		Total Load : 48 kg (16kg × 3 Shelves)			
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector			
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel			
Dimension (w × d × h)	Interior (mm)	505 × 505 × 610	505 × 505 × 1.000	705 × 605 × 1.000	800 × 700 × 1.250
	Exterior (mm)	640 × 832 × 1.313	640 × 832 × 1.703	840 × 932 × 1.753	935 × 1.027 × 2.000
Net Weight		118 kg	157 kg	202 kg	234 kg
Packing Size (w × d × h) (mm) & Gross Weight		900 × 1.000 × 1.650 191 kg	900 × 1.000 × 2.040 217 kg	1.100 × 1.100 × 2.140 277 kg	1.220 × 1.220 × 2.260 313 kg
Power Consumption		1,6 kW	1,8 kW	2,3 kW	2,4 kW
Power plug type		Hybrid E+F			
Power Supply*		AC 230V, 1N~, 50/60Hz			

* Other Specifications are available upon Customer's Request.

Ordering Information

DH.WIR01150 Low Temperature(B.O.D) Incubator, **230V,** 150 Lit., **"WIR-150"**
DH.WIR01250 , 250 Lit., **"WIR-250"**
DH.WIR01420 , 420 Lit., **"WIR-420"**
DH.WIR01700 , 700 Lit., **"WIR-700"**

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<Continued from... "witeg" *WiseCube® WIR* Low Temperature (B.O.D) Incubators>

Spare Wire Shelves, Teflon Coated Steel

DH.WIR11150 (1) Wire Shelf, Teflon Coated Steel, with 2 Brackets, **"IRS150",** w470×d480mm, for **WIR-150, WIR-250**
DH.WIR11420 (1) Wire Shelf, Teflon Coated Steel, with 2 Brackets, **"IRS420",** w675×d585mm, for **WIR-420**
DH.WIR11700 (1) Wire Shelf, Teflon Coated Steel, with 2 Brackets, **"IRS700",** w770×d680mm, for **WIR-700**

Optional Wire Shelves, Stainless Steel

DH.WIR21150 (2) Wire Shelf, Stainless Steel, with 2 Brackets, **"IRU150"** w470×d480mm, for **WIR-150, WIR-250**
DH.WIR21420 (2) Wire Shelf, Stainless Steel, with 2 Brackets, **"IRU420"** w675×d585mm, for **WIR-420**
DH.WIR21700 (2) Wire Shelf, Stainless Steel, with 2 Brackets, **"IRU700"** w770×d680mm, for **WIR-700**

Validation (IQ, OQ) Service

DH.WIR31150 Validation Service(IQ, OQ), **IRV150,** for **WIR-150**
DH.WIR31250 , **IRV250,** for **WIR-250**
DH.WIR31420 , **IRV420,** for **WIR-420**
DH.WIR31700 , **IRV700,** for **WIR-700**

DH.WIR41150 Calibration Certificate Service, 1 & 3 points, **IRC0150,** for **WIR-150**
DH.WIR41250 , 1 & 3 points, **IRC0250,** for **WIR-250**
DH.WIR41420 , 1 & 3 points, **IRC0420,** for **WIR-420**
DH.WIR41700 , 1 & 3 points, **IRC0700,** for **WIR-700**

DH.WIR51150 Calibration Certificate Service, 9 points, **IRC1150,** for **WIR-150**
DH.WIR51250 , 9 points, **IRC1250,** for **WIR-250**
DH.WIR51420 , 9 points, **IRC1420,** for **WIR-420**
DH.WIR51700 , 9 points, **IRC1700,** for **WIR-700**

WiseRemote® Remote Control Software

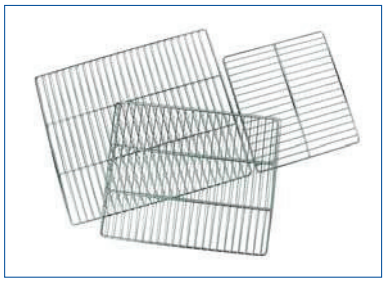
Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

Main Screen

RS232C Cable & Software

Low Temperature(B.O.D) Incubator "WIR-150"

(1) Wire Shelves, Teflon Coated Steel (Included)



(2) Wire Shelves, Stainless Steel (Optional)

Articles	Cat. No	Description

"witeg" *WiseCube® WIS-30* Precise Shaking Incubator, Front Door-type, Orbital Motion, up to 60℃ with Universal Platform, Digital Fuzzy Control, Advanced Shaking Mechanism, Precise Speed Control, 30~250 rpm

Precise Shaking Incubator, Front Door Type "WIS-30" with Universal Platform

- **Useful for Biological Cultures under various Temperature**
- **Patented Jog-Shuttle Control System**
- **CE Certified**

* Useful for Biological Cultures under various Temperature
* Precise Temperature Control by Digital Fuzzy Controller, up to 60℃
* Digital Timer Function : 99 hours 59 minutes
* Front Door and Sliding Platform Provides Easy Loading and Handling of Samples
* Digital LCD Display with Back-Light Function
* Stabilized Orbital Motion
* RS232C Interface for Monitoring and Controlling with PC.
* Advanced Shaking Mechanism Provides Quiet Shaking and Precise Speed Control
* Minimum Noise and No Vibration.
* Accommodate Flasks up to 1.000ml
* Universal Spring Rack for Various Shapes/Size of Flasks (Optional)
* Automatic Stop of Shaking, Heating and Refrigeration when a Door opens
* Over Temperature & Over Current Protection and Leakage Breaking.

Specification

Temp. Range & Model		Ambient +5℃ ~ 60℃ "WIS-30"	10℃ ~ 60℃ "WIS-30R"
Temp. Accuracy & Uniformity		Accuracy : ±0,2℃ at 37℃,	Uniformity : ±0,5℃ at 37℃
Temp. Sensor		PT100 Sensor	
Heater		600 W	800 W
Compressor		None	1/4 HP
Compressor Control		None	Intelligent Control of Refrigerator for preventing Overload of Compressor
Refrigerant		None	CFC-Free(134A) Refrigeration System
Shaking Speed & Stroke		30 ~ 250 rpm, 25mm Orbital Motion	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD Display with Back-Light Function	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Platform		Included Universal Platform for Various Shapes & Sizes of Flasks	
Optional Flask Holder		Durable & Flexible Plastic Flask Holder (up to 1000ml)	
Available Max. Capacity of Flask Holder	for 50~100ml	Available 35 ea Flask Holder **"FH100"**, for 50~100ml Flask	
	for 200~300ml	Available 16 ea Flask Holder **"FH250"**, for 200~300ml Flask	
	for 500~1.000ml	Available 12 ea Flask Holder **"FH500"**, for 500~1.000ml Flask	
Safety Circuit		Over Temp./ Current Protector, Leakage Breaker	
Material		Internal : Stainless Steel (#304),	External : Powder Coated Steel
Dimension		Internal : 570×465×h470mm,	External : 916×730×h683mm
Packing Size (w×d×h) (mm) & Gross Weight		1.050×900×h900mm	
		146 kg	156 kg
Power Consumption		600 W	1,3 kW
Power plug type		Hybrid E+F	
Power Supply*		AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.

Ordering Information

Ambient +5℃ ~ +60℃, with Universal Platform, "WIS-30"

DH.WIS03010 Front Door-type Shaking Incubator, **230V, "WIS-30"**

+10℃ ~ +60℃, with Universal Platform, "WIS-30R"

DH.WIS03011 Front Door-type Shaking Incubator, **230V, "WIS-30R"**

<Continued on next page>

<Continued from... "witeg" WiseCube® WIS-30 Precise Shaking Incubator>

Optional Platform/Spring Rack/Flask Holders

DH.WIS504630	(1) Universal Platform, w485×h405mm, **"SP630"**, for WIS-30(R)
DH.WIS504530	(2) Universal Spring Rack w498×d408×h135mm, **"SR530",** for WIS-30(R)
DH.WIS504030	(3) Flask Holder, for 50~100ml Flask, **"FH100",** for **SHO, SHR** and **WIS**
DH.WIS504035	(4) , for 200~300ml Flask, **"FH250",** for **SHO, SHR** and **WIS**
DH.WIS504040	(5) , for 500~1000ml Flask, **"FH500",** for **SHO, SHR** and **WIS**

Validation (IQ, OQ) Service

DH.WIS33010	Validation Service(IQ, OQ), **ISV3010,** for **WIS-30**
DH.WIS33011	, **ISV3011,** for **WIS-30R**
DH.WIS43010	Calibration Certificate Service, 1 & 3 points, **ISC03010,** for **WIS-30**
DH.WIS43011	, 1 & 3 points, **ISC03011,** for **WIS-30R**
DH.WIS53010	Calibration Certificate Service, 9 points, **ISC13010,** for **WIS-30**
DH.WIS53011	, 9 points, **ISC13011,** for **WIS-30R**

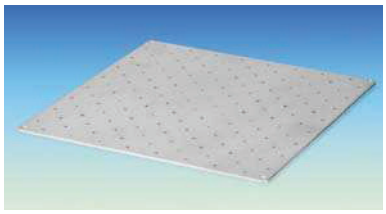
WiseRemote® Remote Control Software

Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

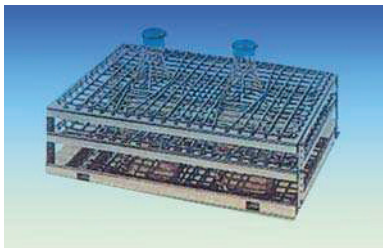
Main Screen

RS232C Cable & Software

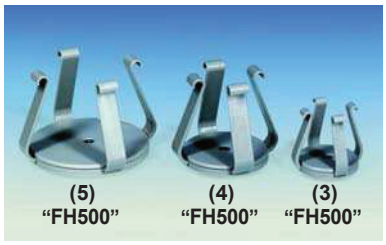
Precise Shaking Incubator, Front Door Type "WIS-30" with Universal Platform



(1) Universal Platform "SP630" (Included)



(2) Universal Spring Rack "SR530" (Optional)



Flask Holders (Optional)

Articles	Cat. No	Description

"witeg" *WiseCube® WIS-20* Precise Shaking Incubator, BenchTop-type, Orbital Motion, up to 60℃ with Universal Platform, Digital Fuzzy Control, Advanced Shaking Mechanism, Precise Speed Control, 30~250 rpm

Precise Shaking Incubator, Bench Top-type "WIS-20R" with Universal Platform

- **Useful for Biological Cultures under various Temperature**
- **Patented Jog-Shuttle Control System**
- **CE Certified**

* Useful for Biological Cultures under various Temperature
* Precise Temperature Control by Digital Fuzzy Controller, up to 60℃
* Digital Timer Function : 99 hours 59 minutes
* Minimum Noise and No Vibration
* Digital LCD Display with Back-Light Function
* Advanced Shaking Mechanism Provides Quiet Shaking and Precise Speed Control
* Automatic Stop of Shaking, Heating and Refrigeration when a Door opens
* Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking
* Accommodate Flasks up to 1.000ml
* Stabilized Orbital Motion
* RS232C Interface for Monitoring and Controlling with PC
* Universal Spring Rack for Various Shapes/Sizes of Flasks (Optional)

Specification

Temp. Range & Model		Ambient +5℃ ~ 60℃ "WIS-20"	10℃ ~ 60℃ "WIS-20R"
Temp. Accuracy & Uniformity		Accuracy : ±0,2℃ at 37℃,	Uniformity : ±0,5℃ at 37℃
Temp. Sensor		PT100 Sensor	
Heater		500 W	700 W
Compressor		None	1/4 HP
Compressor Control		None	Intelligent Control of Refrigerator for preventing Overload of Compressor
Refrigerant		None	CFC-Free(134A) Refrigeration System
Shaking Speed & Stroke		30 ~ 250 rpm, 25mm Orbital Motion	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD Display with Back-Light Function	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Room Lamp		60W Krypton Lamp	
Platform		Included Universal Platform for Various Shapes & Sizes of Flasks	
Optional Flask Holder		Durable & Flexible Plastic Flask Holder (up to 1000ml)	
Available Max. Capacity of Flask Holder	for 50~100ml	Available 32 ea Flask Holder **"FH100"**, for 50~100ml Flask	
	for 200~300ml	Available 20 ea Flask Holder **"FH250"**, for 200~300ml Flask	
	for 500~1.000ml	Available 16 ea Flask Holder **"FH500"**, for 500~1.000ml Flask	
Safety Circuit		Over Temp./ Current Protector, Leakage Breaker, Sensor Error Detector	
Material		Internal : Stainless Steel (#304),	External : Powder Coated Steel
Dimension		Internal : 530×530×h350mm,	External : 575×855×h850mm
Packing Size (w×d×h) (mm) & Gross Weight		1.000×800×h1.100mm	
		147 kg	150 kg
Power Consumption		500 W	1,2 kW
Power plug type		Hybrid E+F	
Power Supply*			

* Other Specifications are available upon Customer's Request.

Ordering Information

Ambient +5℃~ +60℃, with Universal Platform, "WIS-20"

DH.WIS02010 Bench Top-type Shaking Incubator, **230V, "WIS-20"**

+10℃~+60℃, with Universal Platform, "WIS-20R"

DH.WIS02011 Bench Top-type Shaking Incubator, **230V, "WIS-20R"**

<Continued on next page>

Cat. No	Description	Articles

<Continued from... "witeg" ***WiseCube® WIS-20*** Precise Shaking Incubator**>

Optional Platform/Spring Rack/Flask Holders

DH.WIS504600 (1) Universal Platform, w478×h478mm, **"SP600"**, for **WIS-20(R)**
DH.WIS504500 (2) Universal Spring Rack w483×d483×h135mm, **"SR500",** for **WIS-20(R)**

DH.WIS504030 (3) Flask Holder, for 50~100ml Flask, **"FH100",** for **SHO, SHR** and **WIS**
DH.WIS504035 (4) , for 200~300ml Flask, **"FH250",** for **SHO, SHR** and **WIS**
DH.WIS504040 (5) , for 500~1000ml Flask, **"FH500",** for **SHO, SHR** and **WIS**

Validation (IQ, OQ) Service

DH.WIS32010 Validation Service(IQ, OQ), **ISV2010,** for **WIS-20**
DH.WIS32011 , **ISV2011,** for **WIS-20R**

DH.WIS42010 Calibration Certificate Service, 1 & 3 points, **ISC02010,** for **WIS-20**
DH.WIS42011 , 1 & 3 points, **ISC02011,** for **WIS-20R**

DH.WIS52010 Calibration Certificate Service, 9 points, **ISC12010,** for **WIS-20**
DH.WIS52011 , 9 points, **ISC12011,** for **WIS-20R**

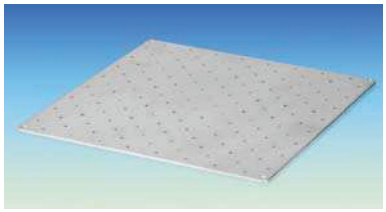
WiseRemote® Remote Control Software

Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

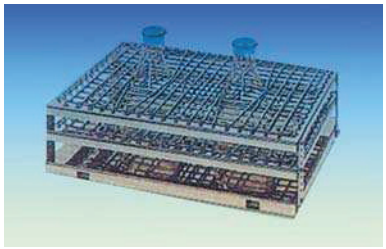
Main Screen

RS232C Cable & Software

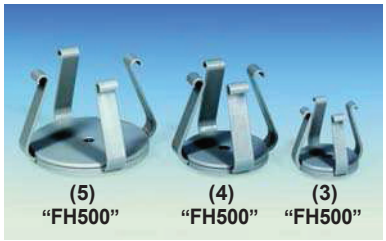
Precise Shaking Incubator, Bench Top-type "WIS-20R" with Universal Platform



(1) Universal Platform "SP600" (Included)



(2) Universal Spring Rack "SR500" (Optional)



Flask Holders (Optional)

Articles	Cat. No	Description

"witeg" *WiseCube® WIS-10* Precise Shaking Incubator, Top Door-type, Orbital Motion

with Universal Platform, Digital Fuzzy Control, with or without illuminators & Recorder, up to 60℃, 30~250 rpm

Precise Shaking Incubator, Top Door Type "WIS-10R" with Universal Platform

- **Useful for Biological Cultures under various Temperature**
- **Patented Jog-Shuttle Control System**
- **CE Certified**

* Precise Temperature Control by Digital Fuzzy Controller, up to 60℃
* Digital LCD Display with Back-Light Function
* Minimum Noise and No Vibration
* Advanced Shaking Mechanism Provides Quiet Shaking and Precise Speed Control
* Automatic Stop of Shaking, Heating and Refrigeration when a Door opens
* Universal Spring Rack for Various Shapes/Sizes of Flasks (Optional)
* RS232C Interface for Monitoring and Controlling with PC

Specification

Model		"WIS-10"	"WIS-10R"	"WIS-10RL"
Illumination System		None		FPL 55W×4ea
Temp. Range		Ambient +5℃ ~ 60℃	10℃ ~ 60℃	
Temp. Accuracy & Uniformity		Accuracy : ±0,2℃ at 37℃, Uniformity : ±0,5℃ at 37℃		
Temp. Sensor		PT100 Sensor		
Heater		800 W	1 kW	1,2 kW
Compressor		None	1/3 HP	
Compressor Control		None	Intelligent Control of Refrigerator for preventing Overload of Compressor	
Refrigerant		CFC-Free (R134A) Refrigeration System		
Shaking Speed & Stroke		30 ~ 250 rpm, 25mm Orbital Motion		
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end		
Display		Digital LCD Display with Back-Light Function		
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)		
Room Lamp		Krypton Lamp, 60W		None
Platform		Included Universal Platform for Various Shapes & Sizes of Flasks		
Optional Flask Holder		Durable & Flexible Plastic Flask Holder (up to 1.000ml)		
Available Max. Capacity of Flask Holder	for 50~100ml	Available 68 ea Flask Holder **"FH100"**, for 50~100ml Flask		
	for 200~300ml	Available 36 ea Flask Holder **"FH250"**, for 200~300ml Flask		
	for 500~1.000ml	Available 21 ea Flask Holder **"FH500"**, for 500~1.000ml Flask		
Safety Circuit		Over Temp./ Current Protector, Leakage Breaker, Sensor Error Detector		
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel		
Dimension		Internal : 750×720×h400mm, External : 1.065×900×h980mm		
Packing Size (w×d×h) (mm) & Gross Weight		1.220×1.060×h1.200mm		
		231 kg	238 kg	238 kg
Power Consumption		800 W	1,8 kW	2,1 kW
Power plug type		Hybrid E+F		
Power Supply*		AC 230V, 1N~, 50/60Hz		

* Other Specifications are available upon Customer's Request.

Ordering Information

Ambient +5℃ ~60℃, With Universal Platform

DH.WIS01010 Shaking Incubator, Top Door-type, **230V, "WIS-10"**

10℃ ~ 60℃, With Universal Platform

DH.WIS01011 Shaking Incubator, Top Door-type, **230V, "WIS-10R"**

10℃ ~ 60℃, with Universal Platform & Illumination System

DH.WIS01012 Shaking Incubator, Top Door-type, **230V, "WIS-10RL"**

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<Continued from..."witeg" WiseCube® WIS-10 Precise Shaking Incubator>

Optional Platform/Spring Rack/Flask Holders

DH.WIS504510 (1) Universal Spring Rack, w693×d653×h135mm, **"SR510",** for WIS-20(R/RL)
DH.WIS504610 (2) Universal Platform, w688×h648mm, **"SP610"**, for WIS-10(R/RL)

DH.WIS504030 (3) Flask Holder, for 50~100ml Flask, **"FH100",** for **SHO, SHR** and **WIS**
DH.WIS504035 (4) , for 200~300ml Flask, **"FH250",** for **SHO, SHR** and **WIS**
DH.WIS504040 (5) , for 500~1000ml Flask, **"FH500",** for **SHO, SHR** and **WIS**

DH.WTH05100 (6) Temp. & Humidity Recorder, with 6ea Ribbon Cassette & Chart Paper
LED display, 6ch/10sec, 144×144×h233mm, **"WTH5105"**

DH.WTH05108 Ribbon Cassette, 6 Colors, **"WTH5108"**
DH.WTH05105 Chart Paper, w100mm×L10m, **"WTH5105"**

Validation (IQ, OQ) Service

DH.WIS31010 Validation Service(IQ, OQ), **ISV1010,** for **WIS-10**
DH.WIS31011 , **ISV1011,** for **WIS-10R**
DH.WIS31012 , **ISV1012,** for **WIS-10RL**
DH.WIS31013 , **ISV1013,** for **WIS-10RLC**

DH.WIS41010 Calibration Certificate Service, 1 & 3 points, **ISC01010,** for **WIS-10**
DH.WIS41011 , 1 & 3 points, **ISC01011,** for **WIS-10R**
DH.WIS41012 , 1 & 3 points, **ISC01012,** for **WIS-10RL**
DH.WIS41013 , 1 & 3 points, **ISC01013,** for **WIS-10RLC**

DH.WIS51010 Calibration Certificate Service, 9 points, **ISC11010,** for **WIS-10**
DH.WIS51011 , 9 points, **ISC11011,** for **WIS-10R**
DH.WIS51012 , 9 points, **ISC11012,** for **WIS-10RL**
DH.WIS51013 , 9 points, **ISC11013,** for **WIS-10RLC**

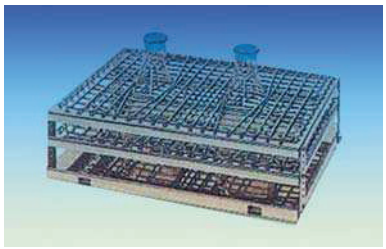
WiseRemote® Remote Control Software

Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

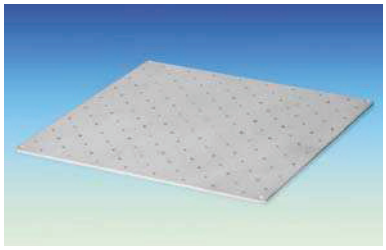
Main Screen

RS232C Cable & Software

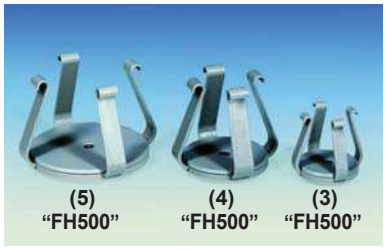
Precise Shaking Incubator, Top Door Type "WIS-10R" with Universal Platform



(1) Universal Spring Rack "SR510" (Optional)



(2) Universal Platform "SP610" (Included)



Flask Holders (Optional)

(6) Temp. & HumidityRecorder
: with 6ea Ribbon Cassette and Chart Paper

Articles	Cat. No	Description

"witeg" *WiseCube® WIS-ML* Multi-Stack Refrigerated Shaking Incubator, Orbital Motion

with Universal Platform, Digital Fuzzy Control, 2 or 4 Independent Shaking Speed Control, 10~60℃, 30~250 rpm, 2-/4- Stacks

Multi-Stack Refrigerated Shaking Incubator "WIS-ML04" with 4×Universal Platform

- **Excellent for Multi-use and wide range of Sample Testing under various Temperature**
- **Patented Jog-Shuttle Control System**
- **CE Certified**

* Digital Fuzzy Control System Implementing Superior Temperature Accuracy
* Intelligent Control of Refrigerator for Preventing Overload of Compressor
* High-Quality LCD Display with Back-Light Function Used
* 10 ~ 60℃ Range, Accuracy of ±0,1℃
* Advanced Shaking Mechanism provides Quiet Shaking and Precise Speed Control
* Space Saving Design for Large Quantity Samples with 2 or 4 Independent Shaking Speed Controller
* Automatic Stop of Shaking, Heating and Refrigeration when the Door is Opened
* RS232C Interface for Monitoring and Controlling with PC
* Over Temperature & Over Current Protection and Sensor Error Detection
* Including Universal Platform for Various Shapes and Sizes of Flasks
* Universal Spring Rack for Various Shapes/Sizes of Flasks (Optional)

Specification

Stack & Model		2 Stacks "WIS-ML02"	4 Stacks "WIS-ML04"
Temp. Range & Accuracy		10℃~60℃, ±0,2℃ at 37℃	
Temp. Uniformity & Sensor		±1,0℃ at 37, PT100 Sensor	
Heater		1,5 kW	1,8 kW
Compressor		1/2 HP	3/4 HP
Compressor Control		Intelligent Control of Refrigerator for Preventing Overload of Compressor	
Refrigerant		CFC-Free(134A) Refrigeration System	
Shaking Speed & Stroke		30 ~ 250 rpm, 25mm Orbital Motion	
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD Display with Back-Light Function	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Door		Magnetic Packing Door with Pair Glass	
Plate Size		w700×d600mm	
Platform		Included Universal Platform for Various Shapes & Sizes of Flasks	
Optional Flask Holder		Durable & Flexible Plastic Flask Holder (up to 1000ml)	
Available Max. Capacity of Flask Holder	for 50~100ml	Available 68 ea Flask Holder **"FH100"**, for 50~100ml Flask	
	for 200~300ml	Available 36 ea Flask Holder **"FH250"**, for 200~300ml Flask	
	for 500~1000ml	Available 21 ea Flask Holder **"FH500"**, for 500~1.000ml Flask	
Safety Circuit		Over Temp./ Current Protector, Sensor Error Detector	
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel	
Dimension (w×d×h)	Internal (mm)	700×700×1.100	700×700×1.790
	External (mm)	1.290×850×1.445	1.290×850×2.125
Packing Size (w×d×h) (mm) & Gross Weight		1.500×1.200×1.750	1.500×1.200×2.350
		397 kg	555 kg
Power Consumption		2,4 kW	3,2 kW
Power plug type		Hybrid E+F	5 pole 16A CEE
Power Supply*		AC 230V, 1N~, 50/60Hz	AC 400V, 3N~,50 / 60Hz

* Other Specifications are available upon Customer's Request.

Ordering Information

2-Stackers Refrigerated Shaking Incubator, with 2×Universal Platform

DH.WIS05002 Multi-Stack Shaking Incubator, **230V, "WIS-ML02",** with Cord/Plug

4-Stackers Refrigerated Shaking Incubator, with 4×Universal Platform

DH.WIS03004 , **400V, 3N~, "WIS-ML04"**, with Terminal Block

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<Continued from... "witeg" WiseCube® WIS-ML Multi-Stack Refrigerated Shaking Incubator>

Optional Platform/Spring Rack/Flask Holders

DH.WIS504620 (1) Universal Platform, w645×h645mm, **"SP620"**, for WIS-ML02/04
DH.WIS504520 (2) Universal Spring Rack, w653×d653×h135mm, **"SR520",** for WIS-ML02/04
DH.WIS504030 (3) Flask Holder, for 50~100ml Flask, **"FH100",** for **SHO, SHR** and **WIS**
DH.WIS504035 (4) , for 200~300ml Flask, **"FH250",** for **SHO, SHR** and **WIS**
DH.WIS504040 (5) , for 500~1000ml Flask, **"FH500",** for **SHO, SHR** and **WIS**

Validation (IQ, OQ) Service

DH.WIS35002 Validation Service(IQ, OQ), **ISV5002,** for **WIS-ML02**
DH.WIS35004 , **ISV5004,** for **WIS-ML04**

DH.WIS45002 Calibration Certificate Service, 1 & 3 points, **ISC05002,** for **WIS-ML02**
DH.WIS45004 , 1 & 3 points, **ISC05004,** for **WIS-ML04**

DH.WIS55002 Calibration Certificate Service, 9 points, **ISC15002,** for **WIS-ML02**
DH.WIS55004 , 9 points, **ISC15004,** for **WIS-ML04**

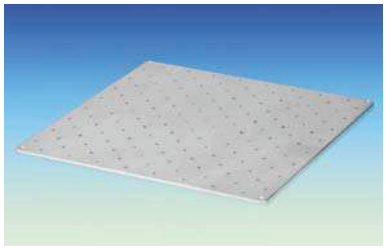
WiseRemote® Remote Control Software

Connection of Wisd Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)

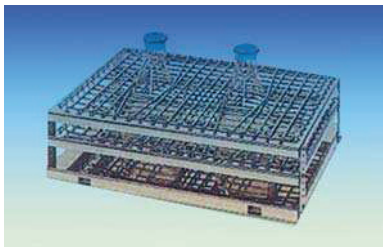
Main Screen

RS232C Cable & Software

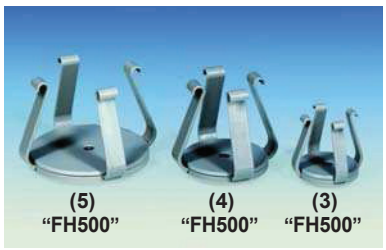
Multi-Stack Refrigerated Shaking Incubator "WIS-ML04" with 4×Universal Platform



(1) Universal Platform "SP620" (Included)



(2) Universal Spring Rack "SR520" (Optional)



Flask Holders (Optional)

"witeg" *WiseMix® BML* Programmable Ball Mill, 2-/6- Pots

with Digital Feedback Control System, Digital LCD Display, 50~600 rpm, ±5 rpm, 10 Steps 6 Programs

2-Places Programmable Ball Mill "BML-2"

- **Ideal for Grinding/Mixing : Crystalline Chemicals, Inks, Paints, Pigments, Plants, Racks and Soils**
- **Microprocessor, Programmable, Variable Speed : 50~600 rpm**
- **Digital Feedback Control and LCD Display : Speed (RPM), Power Bar-Graph and Timer Status**
- **CE Certified**

* Antistatic Rubber Roller : Keeps Jars / Pots Centered
* Digital LCD with Back-Light Function
* Over Load Protection
* Ergonomic and Compact Design
* NBR Roller with Pot Guide Ring
* Programmable Operation : 10 Steps 6 Programs
* Storage Function (RPM, Timer)
* Soundproof Cabinet for Safety and Minimum Noise (Optional)

6-Places Programmable Ball Mill "BML-6"

Optional Soundproof Cabinet "BMC-6" for 6-Places Programmable Ball Mill "BML-6"

Specification

Model		2-places"BML-2"	6-places"BML-6"
Capacity		up to 2 pots	up to 6 pots
Motor		DC 40W Geared Motor (5 : 1 ratio)	DC 100W Geared Motor (5 : 1 ratio)
Maximum Load		40kg	120kg
Speed Range		50 ~ 600 rpm	
Speed Accuracy		±5 rpm	
Timer		99 hr 59 min (Programmable)	
Display		Digital LCD Display with Back-Light Function	
Controller		Programmable Digital Feedback Controller with Jog-Shuttle Switch (Turn+Push)	
Program Function		10 Steps, 6 Programs	
Safety Device		Over Load Protector for Motor	
Dimension (w×d×h)	Roller (mm)	50×300	70×800
	External (mm)	620×300×515	1.200×500×795
Packing Size (w×d×h) (mm) & Gross Weight		760×460×700	1.300×620×1.010
		52 kg	115 kg
Power Consumption		40 W	100 W
Power plug type		Hybrid E+F	
Power Supply*		AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.

Ordering Information

For 2 Pots

DH.WBM05002 Ball Mill, **2-places "BML-2", 230V**, with Cord/Plug

For 6 Pots

DH.WBM05006 Ball Mill, **6-places "BML-6", 230V**, with Cord/Plug

Optional *Soundproof Cabinets*

* **Designed for Minimizing Noise, and Safety Work**

DH.WBM505102 Soundproof Cabinet, **"BMC2"**, for **2-places"BML-2"**, w1.020×d570×h1.120mm

DH.WBM505106 Soundproof Cabinet, **"BMC6"**, for **6-places"BML-6"** w1.600×d770×h1.400mm