Compact Dimensions – High Performances

Temperature and Climate Test Chambers WTL and WKL – perfect for application in the laboratory

schunk Group

Weiss Umwelttechnik GmbH
Simulationsanlagen • Messtechnik

WEISS TECHNIK

Our Contribution ...

Reproducible Environmental Conditions for Reliable Test Results ...

Small, but highly effective ...

Reproducible temperature and climate tests can be performed directly at your workplace.

This is possible with the WTL and WKL chambers of Weiss.

This series was specifically developed for use in laboratories.

Compact dimensions – considerable intrinsic values.

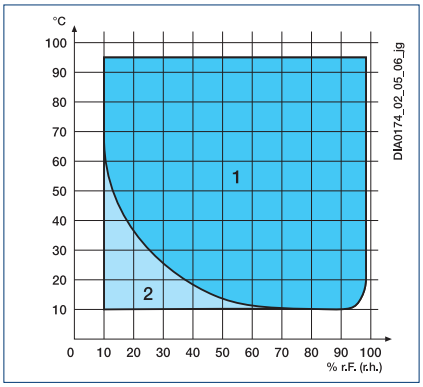
3.5˝ TFT-colour touch panel and independent, adjustable temperature limiter (t_{min}/t_{max})

For versatile applications around-the-clock ...

- control and program control SIMPAC* with program storage for a max. of 100 programs
- 3.5˝ TFT-colour touch panel
- Ethernet interface for communication with an on site computer system
- USB interface for documentation of measuring data via USB stick
- large observation window and illuminated test space
- high-quality double seals
- 50 mm access port
- upper and lower temperature, specimen protection according to EN 60519-2 (1993) adjustable, with separate sensor

Well equipped ...

The temperature and climate chambers comply with test standards such as e.g. DIN, ISO, MIL, IEC, DEF or ASTM.



Humidity diagram: 1 standard working range
2 extended climate working range (option compressed air dryer)

Our extensive standard configuration . . .

- 32 bit SIMPAC* control with 3.5″ TFT-colour touch panel
- observation window
- test space lighting
- independent, adjustable temperature limiter t_{min}/t_{max}
- voltage-free contact for switching test item
- Ethernet interface
- USB interface
- refrigeration system, air-cooled
- psychrometric humidity measurement (WKL)
- 1 access port 50 mm
- 1 shelf
- calibration of 2 temperature values (WTL) and 2 humidity values (WKL) with certificate
- automatic water supply (WKL)

Options . . .

- software package SIMPATI*
- temperature measurement on specimen
- capacitive humidity sensor
- interface IEEE 488
- interface RS 485
- interface RS 232
- compressed air dryer
- additional access ports
- additional shelves
- mobile base (standard on WKL 34/70 and WKL 64/70)
- demineralisation unit (WKL)
- special voltages

Technical Data . . .

Type WTL / Temperature **Type WKL / Climate**			**WKL 34/+10**	**WTL WKL 34/40**	**WTL WKL 34/70**	**WKL 64/+10**	**WTL WKL 64/40**	**WTL WKL 64/70**	**WKL 100/+10**	**WTL WKL 100/40**	**WTL WKL 100/70**
Test space volume		approx. l	34	34	34	64	64	64	100	100	100
Test space dimensions	height	mm	310	310	310	400	400	400	500	500	500
	width	mm	350	350	350	470	470	470	490	490	490
	depth	mm	300	300	300	345	345	345	400	400	400
External dimensions	height	mm	980	980	1730	1070	1070	1780	1190	1190	1190
	width	mm	640	640	640	760	760	760	780	780	780
WTL	depth	mm	–	750	750	–	800	800	–	930	930
WKL	depth	mm	930[2)]	930[2)]	750[5)]	980[3)]	980[3)]	800[5)]	1105[4)]	1105[4)]	1105[4)]
Incl. base (extension)	height	mm	1730	1730	–	1780	1780	–	1880	1880	1880
	depth	mm	750	750	–	800	800	–	930	930	930
Performances for temperature tests											
Maximum temperature		°C	+180	+180	+180	+180	+180	+180	+180	+180	+180
Minimum temperature		°C	+10	-40	-70	+10	-40	-70	+10	-40	-70
Temperature changing rate											
Cooling		K/min	3.0	6.0	3.0	3.0	5.0	2.5	3.0	5.0	3.5
Heating		K/min	2.0	4.0	4.0	2.0	3.5	3.5	2.0	3.5	3.5
Heat compensation max.		W	–	800	550	–	800	550	–	1100	700
Temp. constancy in time[1)]		K	±0.3 to ±1.0								
Temp. homogeneity in space[7)]		K	±0.5 to ±2.0								
Perform. for climate tests – only WKL											
Temperature range		°C	+10 to +95								
Dewpoint temperature range		°C	+5.5 to +94								
Humidity range		% r. h.	10 to 98								
Humidity constancy		% r. h.	±1 to ±3								
Temp. constancy in time[1)]		K	±0.3 to ±0.5								
Temp. homogeneity in space[7)]		K	±0.5 to ±1.5								
Power supply			1/N/PE AC 230 V ±10 %/50 Hz								
Max. connected load		kW	1.8	1.8	2.5	1.8	1.8	2.5	2.7	3.0	3.5
Max. current comsumption		approx. A	8	8	11	8	8	12	12	13	15
Sound pressure level[6)]		dB(A)	56	56	59	56	56	59	56	56	59
Condenser			air-cooled								
Weight		kg	110	110	130	120	120	140	170	190	210

The performance data refer to an ambient temperature of +25 °C
[1)] according to IEC 60068-3-5 [2)] with the optional base (extension) the depth is reduced to 750 mm [3)] with the optional base (extension) the depth is reduced to 800 mm [4)] with the optional base (extension) the depth is reduced to 930 mm [5)] depth with standard base
[6)] measured in 1.60 m height under free field conditions at 1 m distance from front of the system
[7)] referring to the adjusted setpoint value in the temperature range of a minimum temperature to 150 °C
Subject to technical modifications. Equipment partly shown with options.

Test Systems for Professionals. Test the best ...

A complete product range for temperature and climate testing is available, with test space volumes of approx. 34 litres to 2160 litres and working ranges of –75 ... +180 °C and 10 ... 98 % r.h.
In addition, we also offer an extensive selection of proven test systems for simulating exposure to weather, temperature shock, corrosion and long-term testing for research, development, quality assurance and production.

As one of the leading manufacturers of simulation systems worldwide, Weiss Umwelttechnik offers the entire range of high-quality test equipment: from economical series devices to walk-in systems process-integrated systems built to customer specification.

A high-performance after-sales service ensures the optimal support for our customers and high operational safety of the systems. Decades of experience in the various fields of application and an intensive exchange of information with our customers throughout the world all serve to guarantee good co-operation.

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Further information, technical field offices in Germany, subsidiaries and agencies worldwide can be found at

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