

FK31-SL Calibration bath

The calibration baths in this category feature an integrated refrigeration unit and are suitable for calibration applications to -30 °C. The bath cover with openings and Viton® sleeves is already included in delivery for all models.



Product features

- LCD DIALOG DISPLAY backlit for convenient interactive operation
- ICC (Intelligent Cascade Control), self-optimizing temperature control
- TCF Temperature Control Features to optimize the control behavior
- Integrated programmer for 6 x 60 program steps
- Highest temperature stability to ± 0.005 °C (± 0.02 °C at +200 °C)
- Temperature uniformity better than ± 0.01 °C
- Optional Pt100 sensor for reference temperature measurements
- Temperature chamber with overflow at maximum liquid level

Performance values

230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)

Heating capacity kW	2
Viscosity max. cSt	70
Pump capacity flow rate l/min	22 ... 26
Pump capacity flow pressure bar	0.4 ... 0.7
Maximum suction bar	0.2 ... 0.4
Power consumption A	14

Order No. 9352628.03

Cooling capacity (Ethanol)

°C	20	0	-20
kW ¹	0.46	0.34	0.15

Refrigerant stage 1

Refrigerant	R134a
Filling weight g	200
Global Warming Potential for R134a	1430
Carbon dioxide equivalent t	0.286

¹ Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

Technical data

Available voltage versions		Cooling	
Order No.	9 352 628	Cooling coil	not available
Available voltage versions:		Cooling of compressor	1-stage Air
9352628.02	115V/60Hz (Nema N5-15 Plug) (R134a)		
9352628.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R134a)		
9352628.04	230V/50Hz (UK Plug Type BS1363A) (R134a)		
Bath		Other	
Bath tank	Stainless steel	Classification	Classification III (FL)
Bath cover	integrated	IP Code	IP 21
Usable bath opening cm (W x L / D)	12 x 0 / 31	Pump type	Immersion Pump
Electronics		Dimensions and volumes	
Interfaces	Profibus optional	Usable immersion depth cm	31
External pt100 sensor connection	integrated	Weight kg	51
Integrated programmer	6x60 steps	Dimensions cm (W x L x H)	32 x 45 x 91
Temperature control	ICC	Filling volume l	24
Absolute temperature calibration	3 Point Calibration		
Temperature display	VFD		
Temperature setting	Keypad		
Temperature values		Included in delivery	
Working temperature range °C	-30 ... +200	Including bath cover with seven openings	
Temperature stability °C	±0.005		
Ambient temperature °C	+5 ... +40		
Setting the resolution of the temperature display °C	0.01		

All Benefits



For flammable bath fluid
Classification III (FL) according to DIN 12876-1



Process. Under control.
Full regulation of the dynamics control, access to all important control parameters for individual process optimization.



Early warning system for high/low temperature limits
Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function



ATC3. Calibration.
'Absolute Temperature Calibration' for compensating a physically caused temperature difference, 3-point calibration.



100 % Cooling capacity
'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



Energy saving cooling
Proportional cooling control for automatic adjustment of cooling power or temporary switch-off of compressor as needed to save up to 90 % energy in comparison to unregulated cooling

machines



Connection of additional equipment
 Stakei connections for solenoid valve, HSP booster pump and HST booster heater



Clever pump system
 Reliable and consistent pump capacity, electronically adjustable pump stages



Control of the external application
 External Pt100 sensor connection for precise measurement and control directly in the external application



Condensation and ice protection
 A heated cover plate prevents condensation or ice build-up in the bath



100% Checked.
 100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



Green technology.
 Development consistently applied environmentally friendly materials and technologies.



JULABO. Quality.
 Highest standards of quality for a long product life.



Quick start.
 Individual JULABO consultation and comprehensive manuals at your disposal.



Satisfied customers.
 11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



Services 24/7.
 Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.