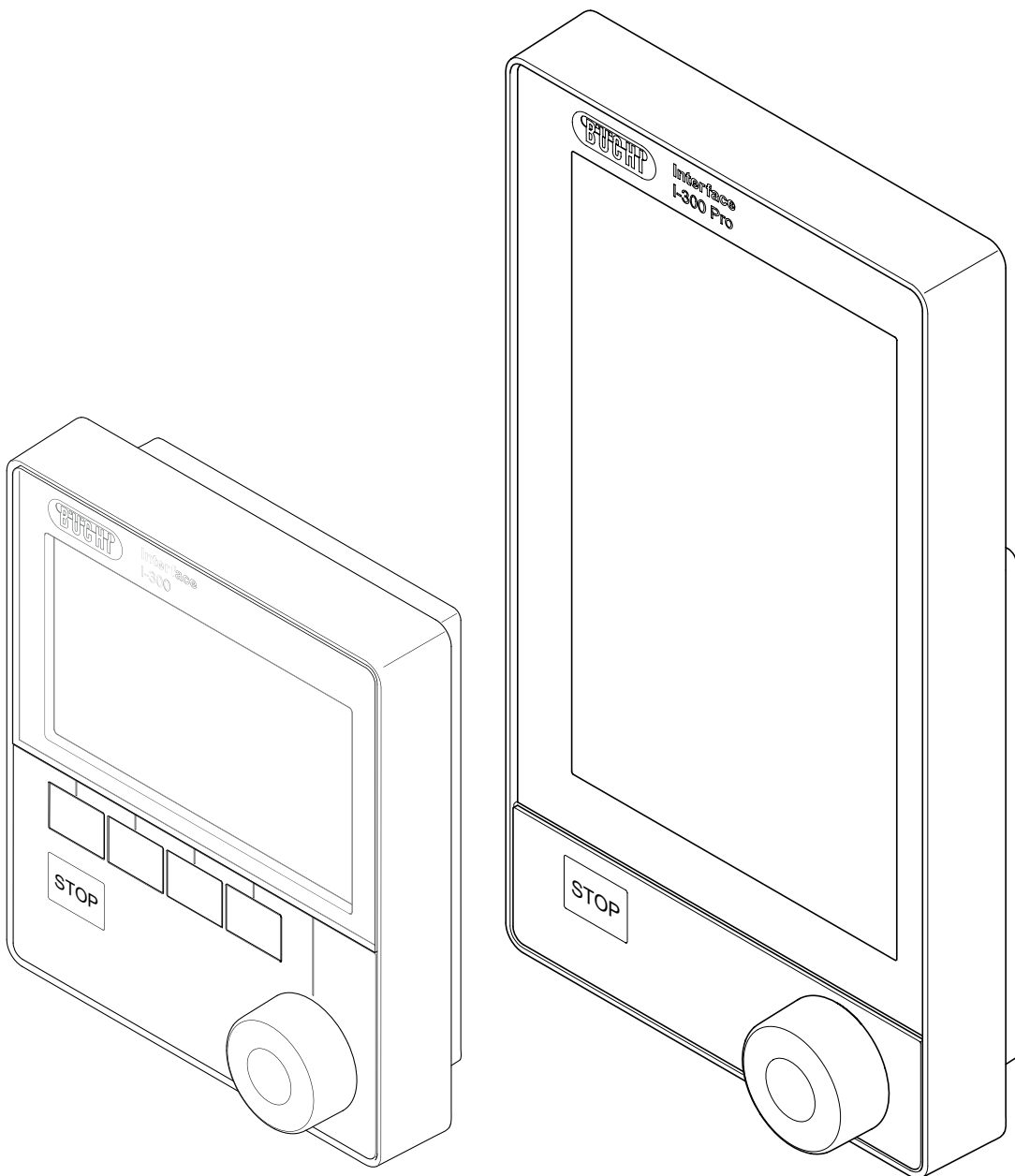




Interface I-300 / I-300 Pro

Technical data sheet

The Interface I-300 or I-300 Pro are the central control unit for all process parameters of a Rotavapor® R-300 system: rotation speed, temperature (heating bath and coolant), pressure, process time etc. Operating modes: manual, timer, continuous, AutoDest, drying. The Rotavapor® R-300 App offers push notifications and live view of all process parameters on mobile devices. The Interface I-300 Pro offers additionally charting and recording. It consists of a 7 in touch screen displaying all process parameters in conjunction with a Rotavapor® R-300 system at a glance.



Order code

Choose the configuration according to your needs:



Interface

- S I-300
- P I-300 Pro

Compatibility pack

- 0 Stand-alone (incl. holder)
- 1 for R-300/V-300, without Woulff bottle (incl. holder, VacuBox)
- 2 for R-300/V-300, with Woulff bottle (incl. holder, VacuBox)
- 3 For house vacuum, with valve unit (incl. VacuBox, power pack, communication cable, Mini-DIN)

*Holder fixes Interface I-300 or Interface I-300 Pro onto Rotavapor® R-300 or Vacuum Pump V-300

A recommended solution with the Interface I-300 as well as the Interface I-300 Pro in combination with the Rotavapor® R-300, the Vacuum Pump V-300 and the Recirculating Chiller F-308 can be found in the technical data sheet of the Rotavapor® R-300 “Exemplary solution” and in the “Laboratory Rotary Evaporation Solutions” brochure.

Technical data

	Interface I-300	Interface I-300 Pro
Dimension (WxHxD)		
Instrument	121 x 141 x 50 mm	122 x 221 x 50 mm
Shipping box	300 x 340 x 85 mm	300 x 340 x 85 mm
Weight	400 g	600 g
Power consumption	3 W	10 W
Power supply voltage	30 VDC ± 5 %	30 VDC ± 5 %
Display	LCD, 4.3 in	LCD, 7.0 in
Protection class	IP21	IP21
Approvals	CE / CSA	CE / CSA

	VacuBox	LegacyBox
Dimension (WxHxD)	50 x 167 x 57 mm	50 x 167 x 28 mm
Weight	400 g	200 g
Measurement range	1400 - 0 mbar	
Control range	Ambient pressure - 0 mbar	
Measuring accuracy	± 2 mbar (after calibration at constant temperature)	
Vacuum connection	GL14	
Magnetic valve supply	24 V	
Power consumption	8 W	8 W
Power connections / output voltage	30 VDC ± 5 %	30 VDC ± 5 %
Hysteresis	Automatic or 1 - 200 mbar	Automatic or 1 - 200 mbar
Protection class	IP21	IP21
Approvals	CE / CSA	CE / CSA

Scope of delivery

All models are delivered ready to use and are complete of:

	Stand-alone	For R-300 / V-300 with WB	For R-300 / V-300 w/o WB	For house vacuum
Interface I-300 / I-300 Pro*	1	1	1	1
Power pack (100 – 240 V, 40 W)	-	-	-	1
Holder (for Rotavapor® and pump)	-	1	1	-
VacuBox (incl. communication cable, Mini-DIN)	-	-	-	1
Woulff bottle	-	1	-	-
Valve unit	-	-	-	1
SD-card (1 GB)**	1	1	1	1

* according to order code

** only with I-300 Pro

Applications

The Interface I-300 / I-300 Pro is designed for sophisticated applications and has following functions:

Interface I-300 / I-300 Pro

Multi-languages	en, de, fr, it, es, zh, ja, ru, pt-b, id, ko
Operating modes	Manual vacuum control -> manual management of pressure settings and aeration Timer function -> manual vacuum control, stops process after preset time has elapsed Continuous pumping -> Pump runs constantly Drying -> Evaporating flask rotates alternating clock wise and anti-clock wise for a defined time range AutoDest -> Performs automatic multi-stage distillation with specific settings adjusted by the system Methods (I-300 Pro only) -> Performs distillation according to a sequence of programmed steps with defined times and parameters
Overpressure prevention	Automatic aeration when pressure is above 1400 mbar
ECO-mode	Shuts down activity of bath and chiller, hence lowers energy consumption if system remains inactive for a predefined time period

Special features

Interface I-300 / I-300 Pro

Multi use	Can easily be switched and fastened on different peripherals Allows to fasten interface onto Rotavapor® R-300, Vacuum Pump V-300 and lab-stand
Notification via sound signal	Audible signal is sounded after termination of distillation Allows to leave system unattended and frees up time for other tasks
Indication of process parameters of R-300	Displays all operating parameters Indicates set and actual values of heating bath and coolant temperature, rotation speed and lift position
Indication of icons	Displays symbols of peripherals and accessories Enables to check if pump, chiller, vacuum valve and foam sensor are connected to system
Management from distance	Controls Rotavapor® pump and chiller from remote Enables to work behind a closed fume hood
Operating in parallel	Interface I-300 and I-300 Pro can be used simultaneously Allows to keep one interface at the system and one outside the fume hood for remote operation
Dynamic distillation	Distillation process starts directly after choosing solvent from the library Allows to start distillation while chiller and bath, the vacuum is dynamically adjusted
Color code	Green cables indicate BUCHI communication cable, marked with "COM" Allows an easy understanding of the setup
Solvent library	Internal library lists the common solvents Allows starting distillation process directly by selecting corresponding solvent
Wear part library	Internal library lists common wear parts inclusive order code Allows a convenient replacing process of wear parts and user is alerted to check quality of wear parts
Leak test	Integrated test checks system for possible leaks and displays result Allows to verify tightness of the system automatically
Remote monitoring (APP)	BUCHI Rotavapor® APP for iOS, Android and Windows offers push notifications and live view of all process parameters Allows to track current status of distillation remotely via smartphones / tablets and informs user when process is terminated. and termination of distillation

See detailed description on page 9 'Functional principle of communication'

Interface I-300 Pro only

Charting	All process are graphically displayed to facilitate the supervision of distillation Allows to display graphs on smartphones and tablets.
Data recording	Set of data can be exported on an SD card for further analysis and traceability purpose Enables to record all process parameters continuously
Extendable solvent library	Setup individual solvent library with up to 60 solvents Allows to add and bookmark individual solvents to favorite
Touch screen and rotary knob	Control via touch screen and rotary knob / button Allows to manage in both ways simultaneously

Complementary products

	Pump V-300	Chiller F-305	Chiller F-308
R-300	autonomous	manually controlled	manually controlled
R-300 with I-300 / I-300 Pro	speed controlled	regulated	regulated

To operate a Vacuum Pump V-300 and a Recirculating Chiller F-305 or F-308 with an Interface I-300 or Interface I-300 Pro a VacuBox is needed. A VacuBox is included when ordering a Rotavapor® R-300 with an Interface I-300 or Interface I-300 compatibility pack.

Compatibility of older generation's peripherals

	Pump V-300	Pump V-700 / V-710	Pump V-100	Chiller F-100	Chiller F-105 / F-108
R-300	autonomous	autonomous	autonomous	autonomous	manually controlled
R-300 with I-300 / I-300 Pro and VacuBox	speed controlled	speed controlled (11060649)	regulated	autonomous	regulated
V-300 with I-300 / I-300 Pro and VacuBox	---	---	---	autonomous	regulated

To operate the Vacuum Pump V-100, V-700 or V-710 and a Recirculating Chiller F-100 or F-105 with the Interface I-300 or Interface I-300 Pro a VacuBox and a legacy box is needed. A VacuBox is included when ordering a Rotavapor R-300 with Interface I-300 or an Interface I-300 compatibility pack.

Explanation of terms

Autonomous:	the peripheral (chiller / pump) can be turned On and Off by its own power switch only
Autonomous:	the peripheral (chiller / pump) can be turned On and Off by its own power switch only

Explanation of terms

Regulated:	the peripheral (pump and chiller) is automatically turned On and Off via the interface -> ON/Off communication
Speed controlled:	the peripheral (pump) is turned On and Off as well as speed controlled via the interface
Manually controlled:	the parameters can be adjusted via the peripherals control buttons

Interface accessories

	Order number
AutoDest sensor. Incl. cap nut, seal GL14 For automatic distillation. Measures temperature of cooling media. Vacuum is adjusted according to cooling capacity of condenser. Meant to be used with the Interface I-300/I-300 Pro and glass assembly V, S and E.	11059225
Vapor temperature sensor. Incl. cap nut, seal GL14 Measures the vapor temperature inside the system. Meant to be used with the Interface I-300/I-300 Pro.	11060707
Level sensor. Incl. O-ring, cable, rubber band Prevents an overflow in the receiving flask of condenser/secondary condenser. Placed on receiving flask. Meant to be used with the Interface I-300/I-300 Pro.	11060954
Holder. For rod, incl. support, fixing clamp To fasten interface on	11059021
Holder. Wall mount, incl. support set To fasten Interface on wall.	11059132
Communication cable. Mini-DIN, 0.3 m Connection between Rotavapor® R-300 and VacuBox or Vacuum Pump V-300 and VacuBox.	11058705
Communication cable. Mini-DIN, 1.8 m Connection between Rotavapor® R-300 / VacuBox and Vacuum Pump V-300 or Rotavapor R-300 / Vacu-Box and Recirculating Chiller F-305/F-308.	11058707
Cooling water valve. 24 VAC Valve opens cooling water feed during distillation. Meant to be used with a vacuum controller/interface.	031356
Power adapter. 30V, 30 W, frequency 50/60Hz To power Interface I-100.	11060669
Foam sensor. Incl. holder Prevents sample from foaming into the condenser. Sensor automatically aerates the system temporarily. Meant to be used with the Interface I-300/I-300 Pro.	11061167
Tubing. Natural rubber, Ø6/16 mm, red, per m Use: Vacuum	017622
Tubing. Synthetic rubber, Ø6/13 mm, black, per m Use: Vacuum	11063244
Tubing. Nyflex, PVC-P, Ø8/14 mm, transparent, per m Use: Vacuum, cooling media, feeding (industrial Rotavapor)	004113
Vacuum valve. Magnetic valve, 24V / 4 W, Mini-DIN, 1.5 m Flow valve without flask, meant to be used with a centralized vacuum source or an unregulated vacuum pump. Meant to be used with the Interface I-300/I-300 Pro.	11060706

	Order number
Valve unit. Incl. Woulff bottle, 125 mL, P+G, holder Magnetic valve, meant to be used with the Interface I-300/I-300 Pro. For operation with non-BUCHI vacuum pumps or house vacuum.	11061887
Water jet pump, B-764. Magnetic valve, FFKM, 24V Used when tap water is used to generate vacuum. Not inclusive: Cooling water valve. Meant to be used with a vacuum controller or interface.	031358
Water jet pump, B-767. Magnetic valve (2 pcs), FFKM, 24V Meant to be used when tap water is used to generate vacuum. Inclusive: Cooling water valve. Meant to be used with a vacuum controller or interface.	031357
Woulff bottle. 125 mL, P+G, incl. holder For trapping particles and droplets and for pressure equalization.	11059905

Interface accessories for I-300 Pro only

	Order number
Communication cable. Mini-DIN, 5.0 m Connection between Rotavapor R-300/VacuBox and Vacuum Pump V-300 or Rotavapor R-300/VacuBox and Recirculating Chiller F-305/F-308.	11058708
SD card. For Interface I-300 Pro, 1GB Records all process parameters. The set of data can be exported for further analysis.	11061548

Interface wear parts

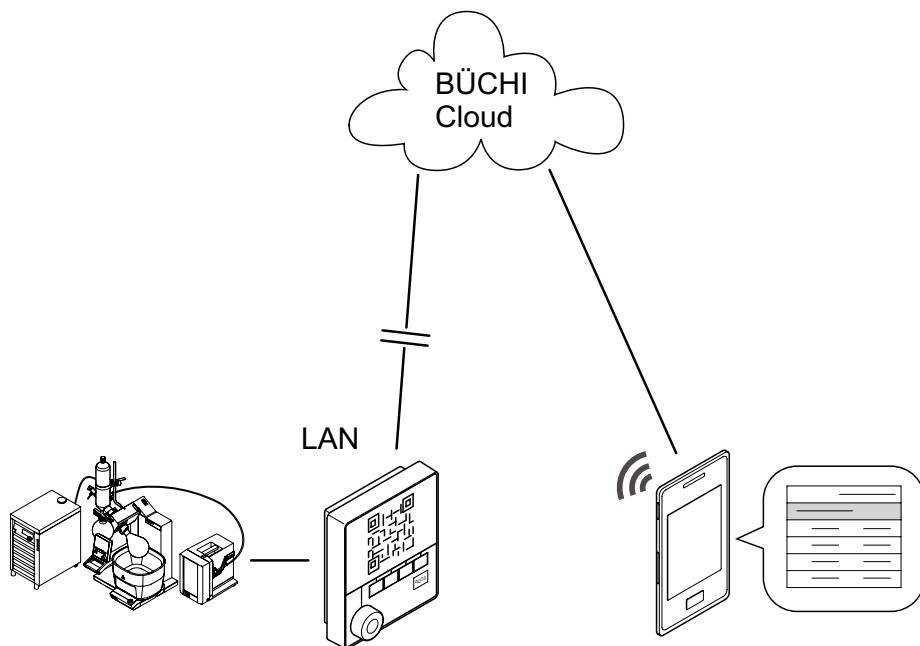
	Order number
Seal. For cap nut GL14 to FEP, EPDM	038225
Hose barb. Bent, GL14, incl. silicone seal	018916
Hose barbs, set. 2 pcs, bent (1), straight (1), GL14, silicone seal Content: Hose barbs, cap nuts, seals	041939
Hose barbs, set. 2 pcs, bent (1), straight (1), GL14 silicone seal Content: Hose barbs, cap nut, screw caps seals	11061921
Hose barbs, set. 4 pcs, bent GL14, silicone seal Content: Hose barbs, cap nuts, seals	037287
Hose barbs, set. 4 pcs, straight, GL14, silicone seal Content: Hose barbs, cap nuts, seals	037642
Cap nuts, set. 10 pcs, screw cap with hole GL14, seal EPDM Content: Hose barbs, cap nuts, seals	041999

Measuring principle

Capacitive, independent of gas type, absolute pressure gauge / sensor made from aluminum oxide-ceramic

Functional principle of communication

The BUCHI Connect Solution is an IT Solution for mobile monitoring of distillation processes.



BUCHI Connect Scenario using distillation system, using smartphone, cloud and server.

With the BUCHI Connect Solution, the distillation process can be tracked via smartphone or tablet. The 'Push Notifications' inform about the status of the process and all the data can be monitored and analyzed from afar.

The mobile BUCHI Rotavapor® APP shows the set as well as actual values analogous displayed on the interface. When the interface is connected to the network (LAN) the BUCHI Rotavapor® mobile APP displays the alphanumeric data. With the Interface I-300 Pro also the progression graphs of the distillation process are displayed.