

solarus®
advanced
energy concept,
precision results

HIRSCHMANN®

solarus® sets standards as the world's first digital burette with an integrated solar cell. The power supply for the electronics and display is derived exclusively from an integrated solar cell. Batteries can be completely dispensed with.

Use of solarus® ensures that the term "sustainable" is related directly to work in the laboratory. The unique solar-powered digital burette is powered exclusively using photovoltaic. Power is supplied to the solarus® electronics via the solar cell at the rear. Charging and changing of batteries, excessive stand-by costs or returning the unit for replacement of lithium cells are therefore a thing of the past.

solarus® exploits instead the advantages of solar technology: comfortable, simple, environmentally friendly, inexhaustible and free. Use of superior-quality solar cells ensures a reliable power supply at all times, even where lighting conditions are restricted in the laboratory.

perfect ergonomics

For efficient, non-fatiguing work

maintenance-friendly

Easily replaceable valves

clear

Large, clearly legible display

inspected

Individual quality certificate,
conformity certificate

accurate

Manufacturer's calibration
is permanently stored



solarus® HiClass in digital titration

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Easily replaceable valves, individual calibration with "Quick-Cal" and permanent storage of the manufacturer's calibration mean that solarus® can be adapted rapidly and flexibly. The vivid digital display prevents meniscus reading errors and is always clearly legible, regardless of the viewing angle. The handwheels with a soft touch surface are ergonomically optimised for particularly precise control.

solarus® is available in a 10 ml, 20 ml and 50 ml version. Thanks to its innovative technology, the solarus® 10 ml enables titration of the smallest volumes with an indicating range of 10 µl to 99.99 ml in 10 µl graduations. The ejection unit with a fine tip is supplied as a standard component.

Solar technology

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The Hirschmann recirculation system

User, environmentally and budget friendly. The comfortable Hirschmann recirculation system facilitates rapid aeration without loss of reagent.



Sensitive and precise

Handwheels with a soft touch surface for a firm hold enable sensitive titration via the precision and smooth-running gear mechanism.



All-round rotation

solarus® can be freely screwed as desired onto the bottle. The advantage: the labels or labelled side of the bottle faces the user at all times. This means that you can keep an eye on everything.



Always in sight

Clear, self-explanatory and user-friendly: the display is clearly legible at all times, regardless of the viewing angle, display 0.01 ml - 99.99 ml.

Performance data

Titration graduations	10 µl
Titration range	0.01 ml - 99.99 ml
Pistons	Teflon compound ECTFE, PTFE
Cylinders	Extremely inert and wear-free design made of calibrated DURAN® glass
Valves	Extremely inert and wear-free design, ball and seat made of borosilicate glass, valve springs made of Hastelloy. The valves can be easily removed and replaced using the fitting wrench (included in scope of delivery)
Plastic parts	All parts which come into contact with the medium are made of highly resistant fluoroplastics Valve block and valve housing made of ECTFE, FEP suction and ejection hose
Sterilisability	Media-conveying components (including ejection unit) are suitable for steam sterilisation at 121°C
Breakage resistance	Completely enclosed protective plastic jacket with clear inspection window protects against breakage
Test protocol	Each instrument is individually tested, certified and bears a unique instrument number

Cat No.

939 20 10
939 20 20
939 20 50

Article designation

solarus® 10 ml, R = 0.3%, CV = 0.1%
solarus® 20 ml, R = 0.2%, CV = 0.1%
solarus® 50 ml, R = 0.2%, CV = 0.1%

Accessories

958 40 05 RS232 connection cable
931 30 27 Ejection unit, flexible, spiral shaped
956 40 10 liqui-soft® Software for data transfer

Burette, Digital, Solar Powered, Conformity certified, with Individual Work Certificate, High Precision Digital Titrator for exact and error - free Titration, SOLARUS. The unit will be supplied complete with mounted discharge unit and A45 female thread. 3 different adapters (A 32, A 30 & A 40), suction tube, return tube and wrench



Cat No.	Capacity ml	Accuracy R ≤ ± %	Reproducibility CV ≤ %	Qty. Per Pack Pcs
93920 10	10	0.3	0.1	1
93920 20	20	0.2	0.1	1
93920 50	50	0.2	0.1	1

LABOPETTE, Fixed Volume, Conformity Certified with Individual Work Certificate, HIRSCHMANN

Cat No.	Capacity ml	Accuracy R ≤ ± %	Reproducibility CV ≤ %	Qty. Per Pack Pcs
94755 01	5	2.5	1.5	1
94755 02	10	1.2	0.8	1
94755 03	20	1.0	0.5	1
94755 04	25	1.0	0.5	1
94755 05	50	1.0	0.4	1
94755 06	100	0.8	0.3	1
94755 07	200	0.8	0.3	1
94755 08	250	0.8	0.3	1
94755 09	500	0.8	0.3	1
94755 10	1000	0.8	0.3	1
94755 11	2000	0.8	0.3	1
94755 12	5000	0.8	0.3	1
94755 13	10 ml	0.6	0.3	1



LABOPETTE, Variable Volume, Conformity Certified with Individual Work Certificate, HIRSCHMANN

Cat No.	Volume µl	Volume Division µl	Accuracy R ≤ ± %	Reproducibility CV ≤ %	Qty. Per Pack Pcs
94754 00	0.1 - 3	0.002	4.0	2.0	1
94754 01	0.5 - 10	0.01	1.2	0.8	1
94754 06	2 - 20	0.02	1.0	0.5	1
94754 07	10 - 100	0.1	0.8	0.3	1
94754 08	20 - 200	0.2	0.8	0.3	1
94754 09	100 - 1000	1.0	0.8	0.3	1
94754 05	500 - 5000	10.0	0.8	0.3	1
94754 04	1 - 10 ml	20.0	0.6	0.3	1

LABOPETTE, Variable Volume, Multi Channel, Conformity Certified with Individual Work Certificate, HIRSCHMANN

Cat No.	No. of Channels	Volume µl	Volume Division µl	Accuracy R ≤ ± %	Reproducibility CV ≤ %	Qty. Per Pack Pcs
94756 01	8	0.5 - 10	0.01	2.4	1.6	1
94756 02	8	10 - 100	0.1	1.6	0.6	1
94756 04	8	30 - 300	0.2	1.6	0.6	1
94757 01	12	0.5 - 10	0.01	2.4	1.6	1
94757 02	12	10 - 100	0.1	1.6	0.6	1
94757 04	12	30 - 300	0.2	1.6	0.6	1



PIPETUS - Pipetting Device for All Conventional Glass Pipettes, HIRSCHMANN

Cat No.	Equipment Type	Operating Principle	Operating Range ml	Accessories Supplied	Qty. Per Pack Pcs
99020 00	Junior	Manual	0.5 - 10		1
99030 00	Standard	Electrical	0.1 - 100	Elect. Pump	1
99072 00	Akku	Electrical	0.1 - 100	Bat. Charger	1

