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## **Bottle-top dispensers**

CALIBREX 525

# The Calibrex<sup>®</sup> models 525, 530, 520

- Dispenser for organics
- Dispenser of acids and bases
- Universal dispenser
- Chemical resistance chart
- Accessories and spares



#### The Calibrex<sup>™</sup> models

A generation of robust instruments with excellent chemical resistance, high performance, and easy maintenance. Fitting most reagent bottles, it enables safe and reproducible dispensing in volumes ranging from 0.1 to 100 mL. Choose between the organo, the solutae and the universal models for adequate resistance to liquid dispensed. Two-year warranty.

- Selection between three different models
- Colour coding identification
- Integrated calibration system
- Long lasting performance stability
- Easy disassembling for maintenance
- QR code accessing chemical compatibility chart
- Optional flow control stopcock for 525/530 models
- Autoclavable at 121°C / 250°F fully assembled

#### See chemical compatibility page 41



#### **Model differentiation**



#### **Superior material selection**

Parts in contact with liquid flow are chemically inert, providing for stability and long instrument life.

Parts	520 universal	525 organo	530 solutae
Feed tubing 1 to 10 mL	PTFE	PTFE	PTFE
Feed tubing 25 to 100 mL	FEP	FEP	FEP
Valve body	Ceramic	Ceramic	Ceramic
Valve balls 1 to 10 mL	Pyrex glass	Pyrex glass	Pyrex glass
Valve balls 25 to 100 mL	Ceramic	Ceramic	Ceramic
Valve spring	Platinum-iridium	Platinum-iridium	Platinum-iridium
Valve plate	PTFE	PTFE	PTFE
Barrel	Borosilicate glass	Borosilicate glass	Borosilicate glass
Plunger 1 to 5 mL	PFA coated glass	Ceramic	PFA coated ceramic
Plunger 10 to 100 mL	PFA coated glass	Ground glass	PFA coated glass
Connecting body	ETFE	ETFE	ETFE
Delivery jet	PTFE / ETFE	FEP / PCTFE	FEP / PCTFE
Stopper	PP	ETFE	ETFE

\* Except hydrofluoric acids (HF)





**Permanent visibility** Safety transparent thick sleeve around barrel and delivery jet window allow

liquid flow monitoring.



**Volume setting** 

Spring loaded sliding cursor softly moves up and down dual scale and precisely stops at desired graduation. Easy exchange for the alternative classical screw button, available as accessory.



#### **Flow control stopcock**

Next to its dispensing position **(b)**, device enables liquid priming and recycling **(a)** without reagent loss or contamination. Locking position **(c)** for safe dispenser transportation.



**Optimal working position** 

The instrument rotates 360° for adequate positioning on the bottle. Free rotating dispenser body makes volume clearly visible from any position.



Chemical resistance Printed QR code for instant access to chemical resistance chart.



#### Air filter

Air inlet can be enlarged to receive a membrane filter, if airborne contamination is a concern.



#### Easy In-lab calibration

Access to mechanism protected by safety seal sticker. Integrated key located under plunger cap. Engraved +/- arrows for easy and precise setting.



#### Maintenance

Disassembling/reassembling facilitated by limited number of well-connected parts – no tool needed. Key elements such as valves, plunger, barrel and delivery jet removable in seconds for cleaning. Fully autoclavable at 121°C / 250°F.



#### The Calibrex<sup>™</sup> organo 525

Calibrex<sup>™</sup> organo 525 dispenser includes a ground glass or ceramic plunger, both suited for organics and non-crystallizing acid and base solutions. The material of the plunger is the main differentiating element compared to Calibrex<sup>™</sup> solutae 530 model. The other characteristics, as well as all accessories, are common to both dispensers. Two-year warranty.



#### Supply content

Dispensers supplied with 300 mm feed tubing (350 mm  $\ge$  25 mL), 90 mm delivery jet (120 mm  $\ge$  25 mL), QC certificate and operating instructions. Base thread 45 mm, adaptors 25, 28, 32 mm (1 and 2,5 mL), 28, 32, 40 mm (5 and 10 mL), 32, 38, 40 mm ( $\ge$  25 mL).

#### Performance and ordering information - Calibrex<sup>™</sup> organo 525

	Division	Inaccuracy (E%)			Imprecision (CV%)			Cat. No.	Cat. No.
Volume	Division	Min. vol.	Mid. vol.	Max. vol.	Min. vol.	Mid. vol.	Max. vol.	Regular (no stopcock)	With stopcock
0.1 - 1 mL	0.02 mL	<± 3.0 %	<± 1.8 %	<± 0.6 %	< 1.2 %	< 0.7 %	< 0.17 %	525.001	525.001FC
0.25 - 2.5 mL	0.05 mL	<± 2.7 %	<± 1.6 %	<± 0.6 %	< 0.9 %	< 0.55 %	< 0.17 %	525.002.5	525.002.5FC
0.5 - 5 mL	0.1 mL	<± 2.0 %	<± 1.3 %	<± 0.6 %	< 0.5 %	< 0.35 %	< 0.1 %	525.005	525.005FC
1 - 10 mL	0.2 mL	<± 1.5 %	<± 1.2 %	<± 0.6 %	< 0.5 %	< 0.35 %	< 0.1 %	525.010	525.010FC
2.5 - 25 mL	0.5 mL	<± 1.5 %	<± 1.1 %	<± 0.6 %	< 0.5 %	< 0.35 %	< 0.1 %	525.025	525.025FC
5 - 50 mL	1.0 mL	<± 1.5 %	<± 1.1 %	<± 0.6 %	< 0.5 %	< 0.35 %	< 0.1 %	525.050	525.050FC
10 - 100 mL	1.0 mL	<± 1.5 %	<± 1.1 %	<± 0.6 %	< 0.5%	< 0.35 %	< 0.1 %	525.100	525.100FC

Performance values obtained by a smooth and steady pace movement, with bidest. water at constant temperature (± 0.5°C) comprised between 20 and 25°C in accordance with ISO 8655. Warning: omission to untighten connecting body ring before autoclaving, and / or over-tightening ring when dispensing may reduce performance.





#### The Calibrex™ solutae 530

Calibrex<sup>™</sup> solutae 530 has a glass or ceramic PFA coated plunger preventing the crystallization of chemicals. It enables trouble free distribution of salt solutions, weak and strong acids, as well as bases. Two-year warranty.





#### Supply content

Dispensers supplied with 300 mm feed tubing (350 mm  $\ge$  25 mL), 90 mm delivery jet (120 mm  $\ge$  25 mL), QC certificate and operating instructions. Base thread 45 mm, adaptors 25, 28, 32 mm (1 and 2,5 mL), 28, 32, 40 mm (5 and 10 mL), 32, 38, 40 mm ( $\ge$  25 mL).

#### Performance and ordering information - Calibrex<sup>™</sup> solutae 530

	Division	Inaccuracy (E%)			Imprecision (CV%)			Cat. No.	Cat. No.
Volume	Division	Min. vol.	Mid. vol.	Max. vol.	Min. vol.	Mid. vol.	Max. vol.	Regular (no stopcock)	With stopcock
0.1 - 1 mL	0.02 mL	<± 3.0%	<± 1.8%	<± 0.6%	< 1.2%	< 0.7%	< 0.17%	530.001	530.001FC
0.25 - 2.5 mL	0.05 mL	<± 2.7%	<± 1.6%	<± 0.6%	< 0.9%	< 0.55%	< 0.17%	530.002.5	530.002.5FC
0.5 - 5 mL	0.1 mL	<± 2.0%	<± 1.3%	<± 0.6%	< 0.5%	< 0.35 %	< 0.1%	530.005	530.005FC
l - 10 mL	0.2 mL	<± 1.5%	<± 1.2%	<± 0.6%	< 0.5%	< 0.35%	< 0.1%	530.010	530.010FC
2.5 - 25 mL	0.5 mL	<± 1.5%	<± 1.1%	<± 0.6%	< 0.5%	< 0.35%	< 0.1%	530.025	530.025FC
5 - 50 mL	1.0 mL	<± 1.5%	<± 1.1%	<± 0.6%	< 0.5%	< 0.35%	< 0.1%	530.050	530.050FC
0 - 100 mL	1.0 mL	<± 1.5%	<± 1.1%	<± 0.6%	< 0.5%	< 0.35%	< 0.1%	530.100	530.100FC

Performance values obtained by a smooth and steady pace movement, with bidest. water at constant temperature (± 0.5°C) comprised between 20 and 25°C in accordance with ISO 8655. Warning: omission to untighten connecting body ring before autoclaving, and / or over-tightening ring when dispensing may reduce performance.



#### The Calibrex™ universal 520

Designed for performance handling of liquids from a large variety of bottles and flasks, the Calibrex<sup>™</sup> universal dispensers combine the latest in dosing technology, high-tech materials and ergonomic design. They are manufactured and tested to fully comply with current safety regulations. Fixed versions also available in any volume within these ranges. Two-year warranty.

- Superior chemical resistance
- Long-lasting performance stability
- Simple construction no tool for disassembling
- Single hand volume setting
- Calibration mechanism under the cap
- QR code accessing chemical compatibility chart
- Autoclavable at 121°C / 250°F fully assembled

### See bottles page 43





#### Friendly digital volume setting

Fast and precise volume adjustment. Efficient click-stop mechanism prevents unwanted alteration.

Large display is easy to read; the window adjusts to desired side of instrument body. Each step on the cylindrical cam is precalibrated and corresponds to one division on the volume adjustment scale.



**Optimised working position** 

The instrument rotates 360° for adequate positioning on top of the bottle.

#### Air filter

Air inlet can be enlarged to receive a membrane filter, if airborne contamination is a concern.



CALIBRED 520 universal 10 ml

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in in

520

0.25 - 2 mL 1 - 5 mL 1 - 10 mL

#### In-lab calibration

Calibrex<sup>™</sup> dispensers are factory calibrated and can be easily recalibrated by means of a dedicated adjustment screw.

#### **Easy maintenance**

Disassembling/reassembling is facilitated by the limited number of well-connected parts - no tool needed.

#### **Performance and ordering information**

Calibrex<sup>™</sup> universal 520 have a 32 mm base thread. They come with three adaptors: 28, 40, 45 mm and 300 mm feed tube.

Malanaa	Distator	Inaccuracy (E %)		Imp	Imprecision (CV %)			Cat. No.	
Volume	Division	Min. vol.	Mid. vol.	Max. vol .	Min. vol.	Mid. vol.	Max. vol.	Adj. volume	Fixed volume*
0.25 - 2 mL	0.05 mL	<± 3.0 %	<± 1.8 %	<± 0.6 %	< 0.5 %	< 0.35 %	< 0.1 %	520.002	520.F02
1 - 5 mL	0.1 mL	<± 2.0 %	<± 1.3 %	<± 0.6 %	< 0.5 %	< 0.35 %	< 0.1 %	520.005	520.F05
1 -10 mL	0.25 mL	<± 1.5 %	<± 1.1 %	<± 0.6 %	< 0.5 %	< 0.35 %	< 0.1 %	520.010	520.F10

\* Specify desired fixed volume within instrument range when ordering. Performance values obtained with bidest. water at constant temperature (± 0.5°C) comprised between 20 and 25°C in accordance with ISO 8655.





### **Microdispenser and dispenser chemical resistance chart**

	J	-		-	1
Chemicals A - H	Acura 865	Acurex 501	520	Calibrex 525	530
Acetaldehyde (Ethanal)	000	+	++	525 ++	++
Acetic acid 96%	+	+	++	++	+
Acetic acid 100% (Glacial)	+	++	++	+	+
Acetone (Propanone)		++	+	++	++
Acetonitrile (MECN)	+	++	++	+	+
Acetyl chloride		+	+	+	+
Amino acids		+	++		++
Ammonium chloride	+	+	++		++
Ammonium hydroxide (amonia)	Ŧ	++	++		++
Amyl alcohol (Pentanol)				+	
	++	++	++	++	++
Aniline	+	++	++	++	++
Ascorbic acid	+	++	++		++
Benzaldehyde		++	++	++	++
Benzene		++	+	+	+
Boric acid 10%	+	++	++	+	++
Bromine	+	+	+		
Butanol	+	++	++	++	++
Butanone (MEK)		++			
Butyl acetate		++	++	+	+
N-Butylamine		+	+	+	+
Butyrique acid	+	+	+	+	+
Calcium chloride	+	+	++		++
Calcium hydroxide	+	+	+		+
Carbon disulfide	+	++	++	+	+
Carbon tetrachloride		++	++	+	+
Chlorine dioxide			+	+	+
Chlorobenzene	+	++	++	+	+
Chlorobutane	+	++	++	+	+
Chloroethanol	+	++	++	+	+
Chloroform			+	+	+
Chlorosulfuric acid 100%			+	+	+
Chromic acid 100%	+	+	+	+	+
Citric acid	++	++	++	+	++
		+		Ŧ	
Copper sulfate	+		++		++
Cyclohexane	+	++	++	+	+
Cyclohexanone		++	++	+	+
Cyclopentane	+	+	+	+	+
1,4-Dioxane (Diethylene dioxide)		++	++	+	+
Dichloroacetic acid		+	++	++	++
Dichlorobenzene	+	++	++	++	++
Dichloroethane (DCE)	+	+	+	++	++
Dichloromethane (DCM)	+	+	+	+	+
Diesel oil (Heating oil)	+	++	++	++	++
Diethylene glycol	+	++	++	++	++
Diethylether		++	++	+	+
Dimethyl sulfoxide (DMSO)	+	++	++	+	+
Dimethylformamide (DMF)		++	+	+	+
Essential oils		+	+	+	+
Ethanol	+	++	++	++	++
Ether		++	+	+	+
Ethyl acetate		++	++	+	+
Ethylenediamine		++	++	++	++
Ethylene glycol	+	++	++	++	++
Formaldehyde (Formalin)	++	++	++	++	++
Formamide	+	++	++	++	++
Formic acid		++	++	++	++
Gamma-butyrolactone		++	++	++	++
Gasoline		++	++	+	+
Glycerin <40%			++		
Heptane	++	++		++	++
		++	++	++	++
Hexane	+	++	++	++	++
Hydrochloric acid <20%	+	+	++	++	++
Hydrochloric acid 37% (HCI)		+	++	+	+
Hydrofluoric acid (HF)					

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Chemicals I - Z	Acura 865	Acurex 501	520	Calibrex 525	530
lodine	+	++	++	525	+
sooctane	+	++	++	++	++
sopropanol	++	++	++	++	++
sopropylamine	+	++	++	+	+
Lactic acid		++	++		++
2-Methoxyethanol	+	++	++	++	++
Methanol	++	++	++	++	++
Methyl chloride (Chloromethane)		+	+	+	+
Methyl methacrylate (MMA)		++	++	+	+
Methyl propyl ketone (2-Pentanone)		+	+	++	++
Methylene chloride (Dichloromethane) (DCM)		++	+	+	+
Nitric acid >70%		+			
Nitric acid 30-70%	+	+	+	+	+
Nitro-hydrochloric acid (Aqua regia)		+	+	+	+
N-methyl-2-pyrrolidone (NMP)	+	++	++	++	++
Octane	+	++	++	++	++
Octanol	++	++	++	++	++
Oil, mineral (engine oil)	++	++	++	++	++
Oil, vegetable, animal	+	++	++	+	+
Oil of turpentine	+	++	++	+	+
Oxalic acid	+	++	++		++
Pentane	+	+	+	+	+
Perchloric acid 100%	+	+	+	+	+
Perchloric acid diluted	+	++	++	++	++
Petroleum	+	++	++	+	+
Petroleum ether / spirit		++	++	+	+
Phenol	+	++	++	++	++
Phenylhydrazine	+	++	++	+	+
Phosphoric acid 100%	+	++	++	++	++
Potassium chloride	+	+	++		++
Potassium dichromate	+	++	++		++
Potassium hydroxide Potassium iodide	+	++	++		++
Potassium permanganate	т	++	++		+
Propionic acid (Propanoic acid)	+	++	++	++	++
Propylene glycol (Propane-1,2-diol)	++	++	++	++	++
Picric acid (Trinitrophenol)	+	++	++	+	+
Pyridine	•	+	+	+	+
Scintilation fluid	+	++	++	++	++
Silver nitrate	•	++	+		++
Sodium acetate		++	++		++
Sodium chloride (Kitchen salt)	+	+	++		++
Sodium hydroxide 30%		+	++		+
Sodium hypochlorite (Javel water)		++	++		+
Sodium thiosulfate	+	++	++		++
Sulfuric acid <60%	+	++	+	++	++
Sulfuric acid >60%	+	+	+	+	+
Terebentine oil	+	++	++	++	++
Tetrachloroethylene	+	+	+	+	+
Tetrahydrofuran (THF)		+	+	+	+
Foluene		++	+	++	++
Frichlorethylene		++	++	+	+
Trichloroacetic acid		++	++	+	+
Frichloroethane		+	+	+	+
Frichloromethane (Chloroform)	+	+	+	+	+
Triethylene glycol	+	++	++	++	++
Trifluoroacetic acid (TFA)	+	+	+	+	
Jrea		+	+		+
Kylene		++	+	+	+

#### **Extended chemical lists**





Acurex<sup>™</sup> 501 Calibrex<sup>™</sup> 520



Calibrex™ 525/530





### Accessories for bottle-top dispensers



#### **Dispenser stability**

Stands hold dispenser when screwed on small-size bottle.



#### **Remote aspiration**

Work station facilitates liquid intake from drum or other remote container (<10 m distance, <2 m elevation).



#### **Extension tubing**

Spiral tubing and delivery Jet-Pen™ help dispense into vessels with maximum comfort within a 600 mm distance. No tool needed to assemble or to remove for cleaning. Autoclavable.

Description	Packaging	Cat. No.
Dispenser stability		
Fits Calibrex™ 520 dispensers	1/ pk	320.SB050
Fits Calibrex™ 525/530 dispensers	1/pk	320.SB100
Remote aspiration		
Fits Calibrex™ 520 dispensers*	1/ pk	320.BC050
Fits Calibrex™ 525/530 dispensers* as of 25 mL	1/ pk	320.BC100
Feed tubing set, 2.5 m with connector for remote aspiration, fits Calibrex™ 525/530 as of 25 mL	1/pk	1.525.581

Extension tubing	Material	Length	int.Ø	Cat. No.
Fits Calibrex™ 520 up to 10 mL	PTFE	600 mm	2.2 mm	1.524
Fits Calibrex™ 525/530, up to 10 mL	FEP/PCTFE	600 mm	2.2 mm	1.525.610
Fits Calibrex™ 525/530, 25 mL	FEP/PCTFE	600 mm	2.2 mm	1.525.625
Fits Calibrex™ 525/530, 50 and 100 mL	FEP/PCTFE	600 mm	4 mm	1.525.650

\* Dispenser and feed tubing / connector to be orderedseparately



#### Flow control stopcock

Fitting Calibrex<sup>™</sup> 525/530 models. No tool needed to assemble or to remove for cleaning. Autoclavable.



#### **Delivery jet**

Standard and extended assemblies are exchangeable without any tool. Fully autoclavable.

Description	Packaging	Cat. No.
Flow control stopcock for Calibrex™ 525/530		
Fits models up to 10 mL	1 / pk	1.525.544
Fits models as of 25 mL	1 / pk	1.525.546
Delivery jet assembly, 90 mm, for Calibrex™ 525/530		
Fits 1 mL model	1 / pk	1.525.090
Fits 2.5, 5 and 10 mL models	1 / pk	1.525.091
Delivery jet assembly, 120 mm, for Calibrex™ 525/530		
Fits 25 mL model	1 / pk	1.525.120
Fits 50 and 100 mL models	1 / pk	1.525.121
Delivery jet assembly, extended, 120 mm, for Calibrex™ 525/530		
Fits 1 mL models	1 / pk	1.525.123
Fits 2.5, 5 and 10 mL models	1 / pk	1.525.125
Delivery jet assembly, extended, 150 mm, for Calibrex™ 525/530		
Fits 25 mL models	1/pk	1.525.150
Fits 50 and 100 mL models	1/pk	1.525.151

### **Spare parts and bottles**



### Standard and telescopic feed tubings

Supplied either cut to standard size or uncut, by the meter.

Optional telescopic tubing for instant fitting to bottle size.

Description	Length	int.Ø	Cat. No.			
Replacement feed tubing, PTFE						
Fits Calibrex™ 520/525/ 530 up to 10 mL, cut	300 mm	5 mm	511.707			
Fits Calibrex™ 520/525/ 530 up to 10 mL, by the meter, uncut	specify	5 mm	511.709			
Replacement feed tubing, FEP						
For Calibrex™ 525/530 as of 25 mL, cut	350 mm	7 mm	525.350			
For Calibrex™ 525/530 as of 25 mL, by the meter, uncut	specify	7 mm	525.706			
Telescopic feed tubing, FEP						
Fits Calibrex™ 520/525/ 530 up to 10 mL	150 - 255 mm	1/ pk	1.525.352			
Fits Calibrex™ 525/530 as of 25 mL	195 - 345 mm	1 / pk	1.525.355			



#### Alternative setting button

Classical screw-type button easily replaces the original sliding cursor, according to user preference.

#### **Calibration seal stickers**

Autoclavable seal sticker protects access to the calibration mechanism of Calibrex™ 525/530 models.

Colour	Packaging	Cat. No.					
Screw type volume setting button							
Yellow	1/ pk	1.525.918					
Red	1/ pk	1.530.918					
•							
	25 / pk	1.525.525					
	100 / pk	1.525.526					
	Yellow Red	Performance    Yellow  1/pk    Red  1/pk					



#### **Bottle-neck adapters**

Each Calibrex™ dispenser comes along with three bottle-neck adapters. To fit additional bottle-neck diameter, order the appropriate adapter size or combine two adapters to reach the adequate solution.

Туре	Ext. Ø of bottle neck	Cat. No.				
Adapters for Calibrex™ organo 525 and solutae 530						
Threaded, PP	32 - 25 mm	1.525.GL25				
Threaded, PP	32 - 28 mm	1.525.GL28				
Threaded, PP	45 - 32 mm	1.525.GL32				
Threaded, PP	45 - 38 mm	1.525.GL38				
Threaded, PP	45 - 40 mm	1.525.GL40				
Adapters for Calibrex™ universal 520						

Threaded, PP	Ø 22, 25, 28, 30, 34, 36, 38, 40, 45 mm	GLP + Ø			
Threaded, PTFE	Ø 36, 38, 40, 45 mm	GLT + Ø			







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#### **Reagent bottles**

Glass and polyethylene reagent bottles supplied with its PP screw cap. Suitable for all bottle top dispensers. Corresponding neck adapters supplied with the dispensers.

Shape	Volume	Neck , ext. Ø	Cat. No.
Amber glass <sup>1</sup>			
Square	100 mL	32 mm	314.0100
Square	250 mL	32 mm	314.0250
Square	500 mL	32 mm	314.0500
Square	1000 mL	45 mm	314.1000
Round	2500 mL	45 mm	314.2500
Amber glass <sup>2</sup> , witl	n handle		
Round	2500 mL	45 mm	314.2500H
PE coated amber	glass <sup>2</sup>		
Square	500 mL	32 mm	314.0500PE
Square	1000 mL	45 mm	314.1000PE
Round	2500 mL	45 mm	314.2500PE

Shape	Volume	Neck , ext. Ø	Cat. No.
Clear borosilicate	glass <sup>1</sup>		
Round	250 mL	45 mm	314.0250C
Round	500 mL	45 mm	314.0500C
Round	1000 mL	45 mm	314.1000C
Round	2000 mL	45 mm	314.2000C
Polyethylene <sup>2</sup>			
Square	250 mL	25 mm	315.0250
Square	500 mL	25 mm	315.0500
Square	1000 mL	32 mm	315.1000

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<sup>1</sup>autoclavable <sup>2</sup> not autoclavable



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## General Socorex Isba SA

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