

# MICROLIT BOTTLE TOP DISPENSERS



# MICROLIT SCITUS with Springless Valve® Technology

The instrument is fully autoclavable at 121 °C and 15 psi for a duration of 15 - 20 minutes.



SPRING-  
LESS  
VALVE

**Springless Valve® Technology**  
Operate Jam-free and Work without Hassles with Springless Valve® Technology

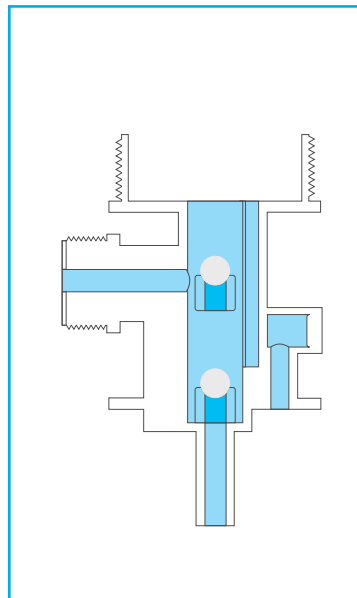
**Traditional Bottle Top Dispensers contain two valves with glass balls:**

**Inlet Valve:**

This valve is vertical. It operates under gravity and does not require a spring to hold the glass ball in its position, in order to keep the valve closed.

**Outlet Valve:**

This valve is horizontal. It requires a spring to keep the glass ball in its position, in order to keep the valve closed while aspirating reagents in the barrel. It opens only when a reagent is being dispensed.



**The spring, housed in the Outlet Valve, poses a lot of problems:**

- The user has to procure different kinds of Bottle Top Dispensers for different applications owing to spring metal reactivity. This proves to be an expensive proposition.
- Apart from this, the spring also offers a surface for deposition of chemicals. This results in a piston jam, thereby compelling the user to repeatedly clean the valve, or replace it altogether.

**Our product design engineers have expertly addressed these problems by designing a system where both Inlet and Outlet Valves are vertical and hence do not require any spring.**

**This Springless Valve® Technology makes MICROLIT SCITUS a Universal Bottle Top Dispenser that can be conveniently used with both organic and inorganic reagents.**

**It not only offers smooth, jam-free piston movement but also ensures service-free operation.**

MICROLIT SCITUS is available in six unique volume ranges.

SPECIFICATIONS AND ORDERING INFORMATION	Model	Volume Range	Increment	Accuracy		CV	
				±%	±ml	±%	±ml
	SCI-2.5	0.25-2.5 ml	0.05 ml	0.5	0.0125	0.2	0.005
	SCI-5	0.5-5 ml	0.1 ml	0.5	0.025	0.2	0.010
	SCI-10	1-10 ml	0.2 ml	0.5	0.050	0.1	0.010
	SCI-30	2.5-30 ml	0.5 ml	0.5	0.150	0.1	0.030
	SCI-60	5-60 ml	1.0 ml	0.5	0.300	0.1	0.060
	SCI-100	10-100 ml	1.0 ml	0.5	0.500	0.1	0.100

The error limits (Accuracy and Coefficient of Variation) mentioned above are in accordance with the nominal capacity (or maximum volume) indicated on the instrument. These are obtained by using the instrument with distilled water at equilibrium, the ambient temperature of 20 °C while operating it smoothly and steadily. The error limits are in accordance with DIN EN ISO 8655-5.

# MICROLIT BEATUS with Recirculation Valve and Springless Valve® Technology

The instrument is fully autoclavable at 121 °C and 15 psi for a duration of 15 - 20 minutes.



SPRING-  
LESS  
VALVE

## Springless Valve® Technology

Get Smooth and Service-free Operation with Springless Valve® Technology

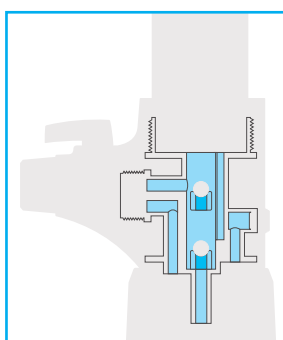
**Traditional Bottle Top Dispensers contain two valves with glass balls:**

**Inlet Valve:**

This valve is vertical. It operates under gravity and does not require a spring to hold the glass ball in its position, in order to keep the valve closed.

**Outlet Valve:**

This valve is horizontal. It requires a spring to keep the glass ball in its position, in order to keep the valve closed while aspirating reagents in the barrel. It opens only when a reagent is being dispensed.



**The spring, housed in the Outlet Valve, poses a lot of problems:**

- The user has to procure different kinds of Bottle Top Dispensers for different applications owing to spring metal reactivity. This proves to be an expensive proposition.
- Apart from this, the spring also offers a surface for deposition of chemicals. This results in a piston jam, thereby compelling the user to repeatedly clean the valve, or replace it altogether.

Our product design engineers have expertly addressed these problems by designing a system where both Inlet and Outlet Valves are vertical and hence do not require any spring.

This Springless Valve® Technology makes MICROLIT BEATUS a Universal Bottle Top Dispenser that can be conveniently used with both organic and inorganic reagents. It not only offers smooth, jam-free piston movement but also ensures service-free operation.

### Re-direct Liquids with Recirculation Valve



Recirculation Valve prevents the loss of reagents during purging by re-directing them into the mounted bottle and facilitates bubble free dispensing.

MICROLIT BEATUS is available in six unique volume ranges.

SPECIFICATIONS AND ORDERING INFORMATION	Model	Volume Range	Increment	Accuracy		CV	
				±%	±ml	±%	±ml
	BEAT-2.5	0.25-2.5 ml	0.05 ml	0.5	0.0125	0.2	0.005
	BEAT-5	0.5-5 ml	0.1 ml	0.5	0.025	0.2	0.010
	BEAT-10	1-10 ml	0.2 ml	0.5	0.050	0.1	0.010
	BEAT-30	2.5-30 ml	0.5 ml	0.5	0.150	0.1	0.030
	BEAT-60	5-60 ml	1.0 ml	0.5	0.300	0.1	0.060
	BEAT-100	10-100 ml	1.0 ml	0.5	0.500	0.1	0.100

The error limits (Accuracy and Coefficient of Variation) mentioned above are in accordance with the nominal capacity (or maximum volume) indicated on the instrument. These are obtained by using the instrument with distilled water at equilibrium, the ambient temperature of 20 °C while operating it smoothly and steadily. The error limits are in accordance with DIN EN ISO 8655-5.

# MICROLIT ULTIMUS <sup>®</sup> with Dual Inlet<sup>®</sup> Technology

The instrument is fully autoclavable at 121 °C and 15 psi for a duration of 15 - 20 minutes.



DUAL  
INLET

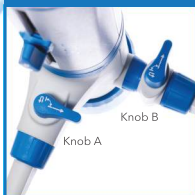
## Dual Inlet<sup>®</sup> Technology Enhance Your Productivity with Four Modes of Operation

### 1 Standard Dispensing Knob A - Open Knob B - Closed



In this mode, the dispenser dispenses the liquid normally into the receiver from the bottle it is mounted on.

### 2 Purging Knob A - Closed Knob B - Closed



In this mode, the liquid is re-circulated into the same bottle on which the dispenser is mounted. This process removes the air from the dispenser, without wasting any reagent.

### 3 Dilution/Rinsing/Second Liquid Dispensing Knob A - Open Knob B - Open



In this mode, the liquid from a second source can be dispensed into the receiver. The second liquid can be distilled water, thus allowing the user to rinse the instrument without dismounting it or dilute the reagent within the receiver.

### 4 Bottle Refilling Knob A - Closed Knob B - Open



In this mode, the liquid from a second source can be used to refill the bottle, without dismounting the dispenser.

MICROLIT ULTIMUS is available in six unique volume ranges.

SPECIFICATIONS AND ORDERING INFORMATION	Model	Volume Range	Increment	Accuracy		CV	
				±%	±ml	±%	±ml
	ULT-2.5	0.25-2.5 ml	0.05 ml	0.5	0.0125	0.2	0.005
	ULT-5	0.5-5 ml	0.1 ml	0.5	0.025	0.2	0.010
	ULT-10	1-10 ml	0.2 ml	0.5	0.050	0.1	0.010
	ULT-30	2.5-30 ml	0.5 ml	0.5	0.150	0.1	0.030
	ULT-60	5-60 ml	1.0 ml	0.5	0.300	0.1	0.060
	ULT-100	10-100 ml	1.0 ml	0.5	0.500	0.1	0.100

The error limits (Accuracy and Coefficient of Variation) mentioned above are in accordance with the nominal capacity (or maximum volume) indicated on the instrument. These are obtained by using the instrument with distilled water at equilibrium, the ambient temperature of 20 °C while operating it smoothly and steadily. The error limits are in accordance with DIN EN ISO 8655-5.

The precision and accuracy of our liquid handling instruments is twice better than industry standards.\*

\*ISO 8655 is the globally accepted industry standard for piston-operated volumetric apparatus. The evaluation was performed by trained and certified personnel at an ISO17025 accredited lab.

# MICROLIT LENTUS<sup>®</sup> For Hydrofluoric Acid

The instrument is fully autoclavable at 121 °C and 15 psi for a duration of 15 - 20 minutes.

SPRING-  
LESS  
VALVE

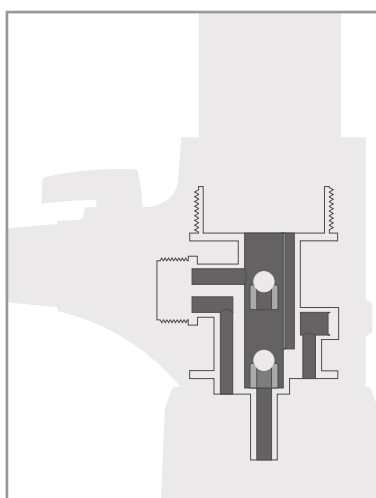
**Springless Valve<sup>®</sup> Technology**  
Operate Jam-free and Work without  
Hassles with Springless Valve<sup>®</sup> Technology



## Excellent compatibility with Hydrofluoric Acid

Hydrofluoric Acid (HF) is a highly corrosive liquid and standard organic & inorganic reagent dispensers are not designed to be used with it. MICROLIT LENTUS<sup>®</sup> is engineered with carefully selected and tested materials for use with Hydrofluoric Acid.

## Enhance your Productivity with Springless Valve<sup>®</sup> Technology



Traditional Bottle Top Dispensers contain two valves with glass balls:

**Inlet Valve** - This valve is vertical. It operates under gravity and does not require a spring to hold the glass ball in its position, in order to keep the valve closed.

**Outlet Valve** - This valve is horizontal. It requires a spring to keep the glass ball in its position, in order to keep the valve closed while aspirating reagents in the barrel. It opens only when a reagent is being dispensed. **The spring housed in the Outlet Valve, poses a lot of problems** including metal reactivity and availability of a surface for deposition of chemicals. This results in a piston jam, thereby compelling the user to repeatedly clean the valve, or replace it altogether.

Our product design engineers have expertly addressed these problems by designing a system where both Inlet and Outlet Valves are vertical and hence do not require any spring. This Springless Valve<sup>®</sup> Technology ensures that LENTUS<sup>®</sup> offers smooth, jam-free piston movement and also service-free operation. The valve system of MICROLIT LENTUS<sup>®</sup> consists of high purity ceramic components to ensure maximum resistance to Hydrofluoric Acid (HF).

MICROLIT LENTUS<sup>®</sup> is available in six unique volume ranges.

SPECIFICATIONS AND ORDERING INFORMATION	Model	Volume Range	Increment	Accuracy		CV	
				±%	±ml	±%	±ml
	LNT-HF-2.5	0.25-2.5 ml	0.05 ml	0.5	0.0125	0.2	0.005
	LNT-HF-5	0.5-5 ml	0.1 ml	0.5	0.025	0.2	0.010
	LNT-HF-10	1-10 ml	0.2 ml	0.5	0.050	0.1	0.010
	LNT-HF-30	2.5-30 ml	0.5 ml	0.5	0.150	0.1	0.030
	LNT-HF-60	5-60 ml	1.0 ml	0.5	0.300	0.1	0.060

The error limits (Accuracy and Coefficient of Variation) mentioned above are in accordance with the nominal capacity (or maximum volume) indicated on the instrument. These are obtained by using the instrument with distilled water at equilibrium, the ambient temperature of 20 °C while operating it smoothly and steadily. The error limits are in accordance with DIN EN ISO 8655-5.

## Experience the Power of Precision in Your Daily Laboratory Routine

Our Bottle Top Dispensers have the following features:



### Change Volume with EasyKnob®

EasyKnob® is a specially designed volume adjustment knob that allows 180° rotation for easy and effortless volume setting.



### Move Effortlessly with a PTFE Piston

A PTFE Piston with an ETP O-Ring facilitates smooth and effortless movement and ensures high chemical compatibility.



### Dispense Easily with FlexiNozzle®

FlexiNozzle® is an adjustable delivery nozzle. It offers a high degree of flexibility, facilitating easy dispensing in demanding laboratory conditions.



### Work Flexibly with a 360° Adapter

A specially designed Adapter allows 360° rotation, facilitating complete work flexibility.



### Be Assured with ISO 8655 Conformed Calibration

Microlit Bottle Top Dispensers are calibrated in an ISO 17025 accredited laboratory according to ISO 8655 standards. A calibration certificate is included inside the product package. A calibration tool is also included for quick in-lab recalibration.

## Work with a Sophisticated Accessory Range that Enhances Flexibility



### Adapters

Five adapters that comfortably fit most reagent bottles are provided in the sizes: 28 mm, 32 mm, 38 mm, 40 mm and 45 mm.

Available with all Bottle Top Dispensers



### Reservoir Covers

While working with Dual Inlet® Technology, for the second bottle, four reservoir covers are provided in the sizes: 32 mm, 36 mm, 40 mm and 45 mm.

Available with MICROLIT ULTIMUS



### Extendable Tubes

A Telescoping Tube, that can be adjusted according to a variety of bottle sizes, is also provided.

Available with all Bottle Top Dispensers

## Award-winning Design and Product Excellence

### INNOVATION AWARD

ACHEM 2018

2018 | Innovations Award: Achema  
Shortlisted, Ultimus

### AIMA

ALL INDIA MANAGEMENT ASSOCIATION

2019 | AIMA, Dr. J S Juneja Award for Creativity & Innovation  
India, Microlit



2019 | CII Design Excellence Awards  
India, Lilpet Pro



GOOD DESIGN  
AWARD 2019

2017 & 2019 | G Mark: Good Design Award  
Japan - Ultimus, Lilpet Pro



2016-21 | Mark (India Design Mark)  
Beatus, Ultimus, E-Burette, Lilpet Pro, NERO



2016-22 | CII Industrial Innovation Awards  
(Top 50 Innovative Companies in India)



2025 | Winner of Global Business  
Leadership Award (Season 12)

Microlit has been recognized for its innovation and leadership with several prestigious awards, including the **Japanese Good Design Award**, **CII Industrial Innovation Awards**, and a spot in the **Top 50 Most Innovative Companies of 2022**. This year, we proudly received the **Global Business Leadership Award** from **ET Now Leaders of Tomorrow 2025**, further solidifying our position as a global leader in Healthcare and Life Sciences Industry.





## OUR REACH



## YOUR SATISFACTION IS OUR PRIORITY

Established in 1991, Microlit is one of the world's leading manufacturers & exporters of laboratory liquid handling instruments. Our product range includes micropipettes, bottle top dispensers, electronic burette, electronic pipette filling device and other micropipette accessories. With our patented products, innovative technologies & unflinching trust of 8000+ consumers in 95+ countries, we are recognized as a respected & dependable brand in Healthcare and Lifesciences industry. Our offices are located in India (HQ), USA & Brazil. With a research-oriented & customer-centric team of product design engineers, our product design blends the best of functional performance & user experience. Our innovative products have helped us carve a niche in R&D industry while providing our users high level of precision & accuracy in their research work.

## CONTACT US

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