# **BL – Bottle Configuration Sampling Systems for Liquids**

### **A Series**

# **BLA1 - On-off Type**

### **Features**

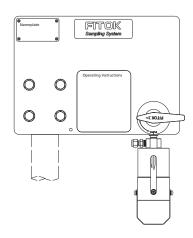
Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)

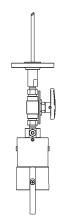
### **Basic Configuration**

Wetted Material	316 SS	inlet
Sleeve Assembly	250 ml sleeve with bottle retaining clip	Sample in
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	San
Sampling Valve	BF Series 2-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	Vent
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

# **Typical Installation Mode**

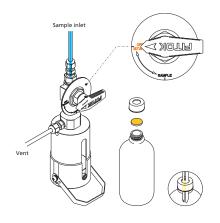




### Operation

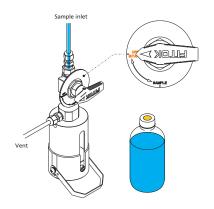
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



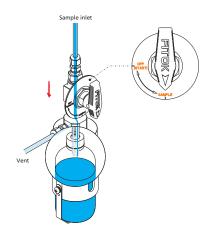
### 3 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



#### 2 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



# **BLA2 - System Purge Type**

### **Features**

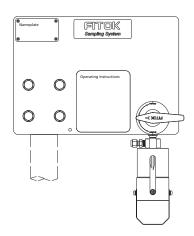
- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- System purge

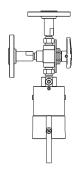
### **Basic Configuration**

Wetted Material	316 SS	 
Sleeve Assembly	250 ml sleeve with bottle retaining clip	ple outlet
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	Sample
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	Sample inlet
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

### **Typical Installation Mode**





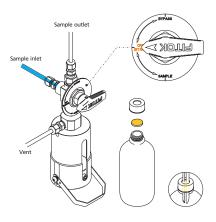
### Operation

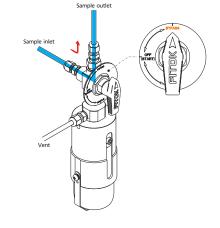
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



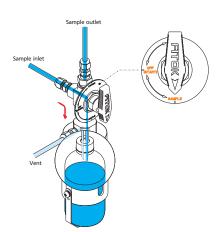
Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the system and purge system to ensure representative sampling.





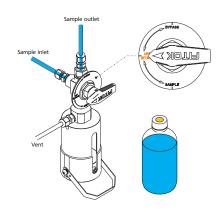
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



### 4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# **BLA3 - Back Purge Type**

### **Features**

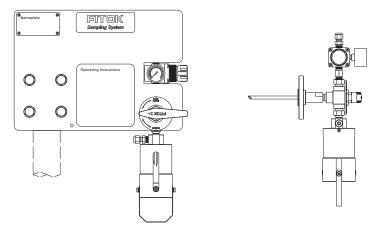
- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- Back purge

### **Basic Configuration**

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator  CV Series check valves
	Pressure gauge
Connections	1/4" tube fitting

Note: Products of other specifications are available upon request.

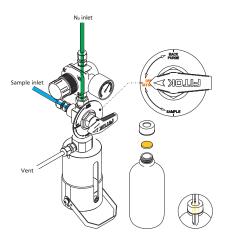
# **Typical Installation Mode**



### Operation

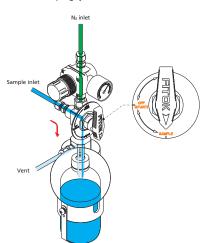
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



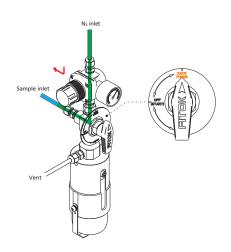
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



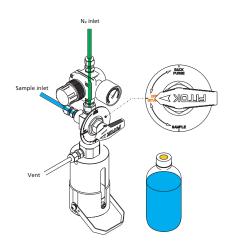
### 2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



### 4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# **BLA4 - Needle Purge Type**

### **Features**

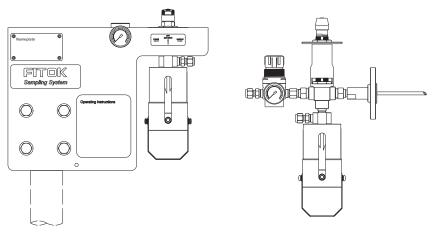
- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- Needle purge

### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	No inlet Sample inle
	Nitrogen regulator	
Nitrogen Branch	CV Series check valves	
	Pressure gauge	
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

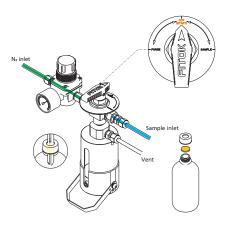
# **Typical Installation Mode**



### Operation

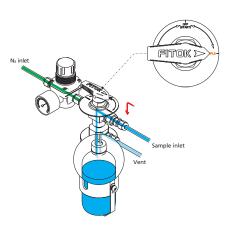
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



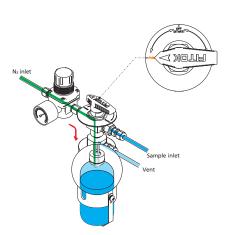
### 2 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



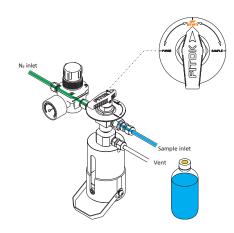
### 3 - Needle Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to force the residual sample from the needle assembly into the bottle.



### 4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# **BLA5 - Back and Needle Purge Type**

### **Features**

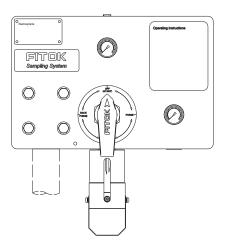
- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- Back purge and needle purge

### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BO Series 4-way ball valves: PTFE seat Max. working pressure: 2500 psig @ 70°F (172 bar @ 20°C) Temperature range: 50°F to 140°F (10°C to 65°C)	No inlet  PD  Sample inlet
Nitrogen Branch	Nitrogen regulator  CV Series check valves  Pressure gauge	Vent
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

# **Typical Installation Mode**

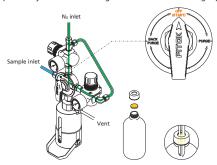




### Operation

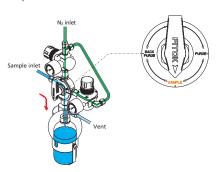
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



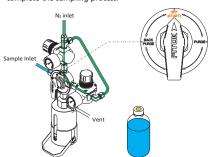
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle.



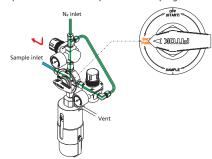
### 5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



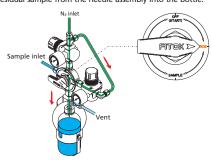
### 2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



### 4 - Needle Purge

When the required amount has been taken, turn the handle to the "PURGE" position, allowing Nitrogen to force the residual sample from the needle assembly into the bottle.



# **BLA6 - System Purge and Continuous Needle Purge Type**

### **Features**

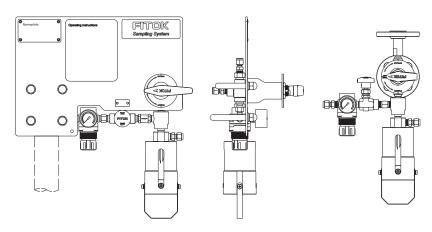
- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- System purge and continuous needle purge

### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	outlet
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	Sample
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	N <sub>2</sub> inlet
Nitrogen Branch	Nitrogen regulator  CV Series check valves, NB Series needle valves  Pressure gauge	Vent
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

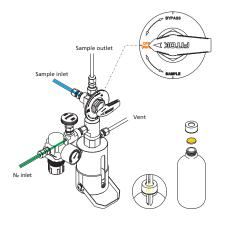
### **Typical Installation Mode**



### Operation

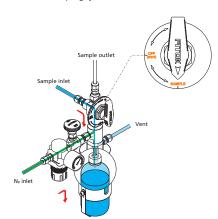
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



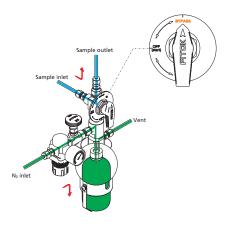
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



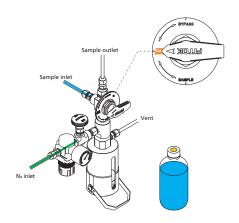
### 2 - Continuous Needle Purge and System Purge

Open the needle valve to purge the needle assembly and the bottle continuously with Nitrogen. Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the system and purge the system to ensure representative sampling.



### 4 - Off

Close the needle valve. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# **BLA7 - In-line and Needle Purge Type**

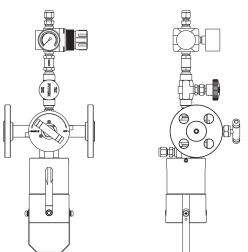
### **Features**

- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling valve to save sampling time
- Needle purge

### **Basic Configuration**

Note: Products of other specifications are available upon request.

### **Typical Installation Mode**



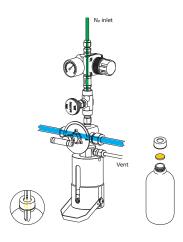
### Operation

### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.

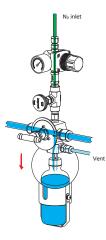


Turn the handle counterclockwise to open the sampling valve, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle clockwise to close the sampling valve.



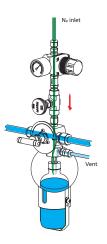


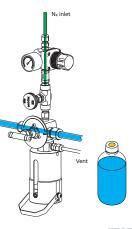
Open the valve on the Nitrogen branch, allowing Nitrogen to force the residual sample from the needle assembly and the valve into the bottle. Hold this position for a sufficient time.



### 4 - Off

Close the valve on the Nitrogen branch. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.







### **B** Series

# **BLB1 - On-off Type with In-line Ball Valve**

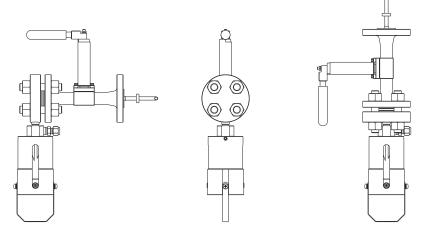
### **Features**

- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling
- Fire safe and antistatic ball valve

# **Basic Configuration**

Note: Products of other specifications are available upon request.

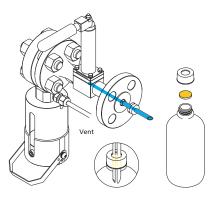
### **Typical Installation Mode**



### Operation

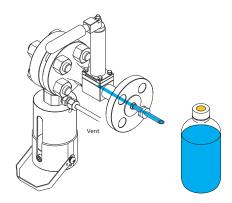
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



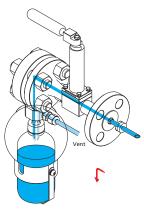
#### 3 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



### 2 - Sampling

Open the in-line ball valve, allowing the sample to flow into the bottle. When the required amount has been taken, release the handle to close the valve automatically.



# **BLB2 - On-off Type with In-line Needle Valve**

### **Features**

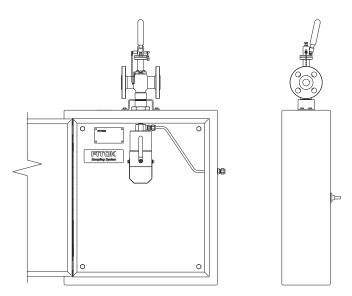
- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling

### **Basic Configuration**

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	In-line needle valve: PTFE packing and PCTFE seat Max. working pressure: 276 psig @ 70°F (19 bar @ 20°C) Temperature range: -18°F to 298°F (-28°C to 148°C)
Connections	Process: NPS 3/4, ANSI B16.5 Class 150 RF flange
Connections	Vent: 1/4" tube fitting
Others	Spring return handle

Note: Products of other specifications are available upon request.

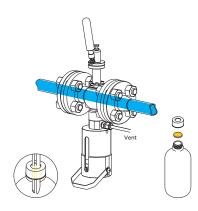
# **Typical Installation Mode**



### Operation

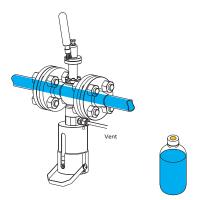
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



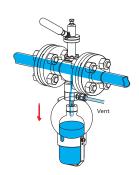
### 3 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



### 2 - Sampling

Open the in-line needle valve, allowing the sample to flow into the bottle. When the required amount has been taken, release the handle to close the valve automatically.



# **BLB3 - In-line and Continuous Needle Purge Type**

### **Features**

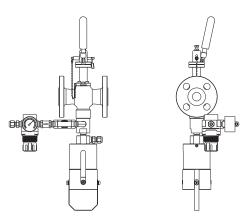
- O Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling
- Sampling for viscous liquids
- O Needle purge

### **Basic Configuration**

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	In-line needle valve: PTFE packing and PCTFE seat Max. working pressure: 276 psig @ 70°F (19 bar @ 20°C) Temperature range: -18°F to 298°F (-28°C to 148°C)
-	Nitrogen regulator
Nitrogen Branch	CV Series check valves, NB Series needle valves
	Pressure gauge
Connections	Process: NPS 3/4, ANSI B16.5 Class 150 RF flange
Connections	Vent/purge: 1/4" tube fitting
Others	Spring return handle, purge connection

Note: Products of other specifications are available upon request.

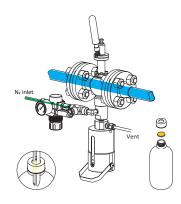
# **Typical Installation Mode**



### Operation

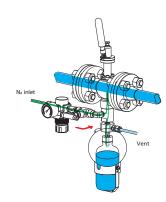
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



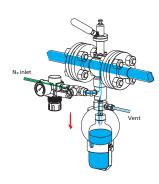
### 3 - Needle Purge

Open the valve on the Nitrogen branch, allowing Nitrogen to force the residual sample from the system into the bottle.



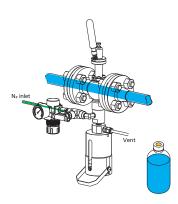
### 2 - Sampling

Open the in-line needle valve, allowing the sample to flow into the bottle. When the required amount has been taken, release the handle to close the valve automatically.



### 4 - Off

Close the valve on the Nitrogen branch. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



### **C** Series

# **BLC1 - Purge Type**

### **Features**

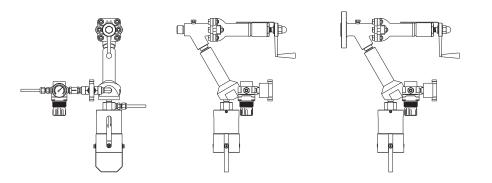
- O Sampling from vacuum, low or high pressure devices or process lines
- O Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- Needle purge

# **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	No inlet
Nitrogen Branch	Nitrogen regulator  CV Series check valves, NB Series needle valves  Pressure gauge	Vent
Connections	Process: 1/2" MNPT	
	Vent/purge: 1/4" tube fitting	

Note: Products of other specifications are available upon request.

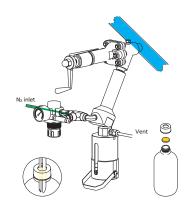
### **Typical Installation Mode**



### Operation

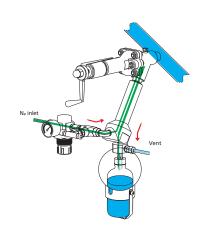
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



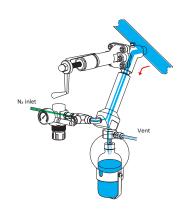
### 3 - Needle Purge

Open the valve on the Nitrogen branch, allowing Nitrogen to force the residual sample from the system into the bottle.



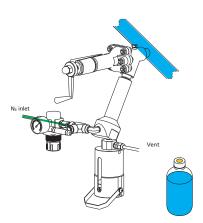
### 2 - Sampling

Open the piston valve, allowing the sample to flow into the bottle. When the required amount has been taken, close the piston valve.



### 4 - Off

Close the valve on the Nitrogen branch. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# **BLC2 - Fixed Volume and Purge Type**

### **Features**

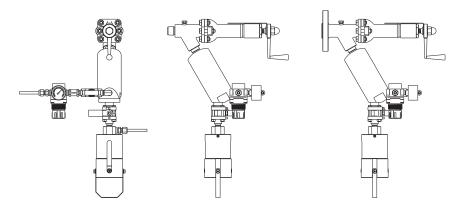
- O Sampling from vacuum, low or high pressure devices or process lines
- Fixed volume sampling
- O Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- O Needle purge

### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Nitrogen Branch	Nitrogen regulator  CV Series check valves, NB Series needle valves  Pressure gauge	N <sub>2</sub> inlet
Connections	Process: 1/2" MNPT  Vent/purge: 1/4" tube fitting	

Note: Products of other specifications are available upon request.

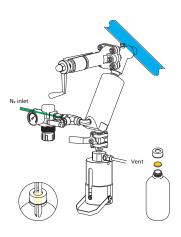
# **Typical Installation Mode**



### Operation

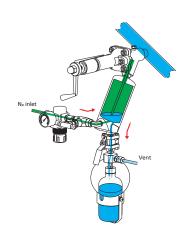
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



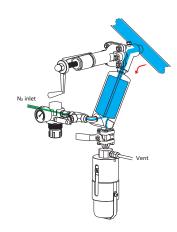
### 3 - Sampling

Open the valve on the Nitrogen branch and the valve above the needle assembly, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the system.



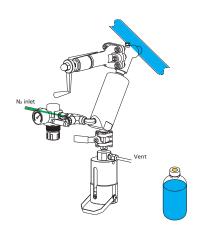
### 2 - Pre-sampling

Open the piston valve, allowing the sample to flow into the sample chamber. The amount of sample depends on the sample chamber volume and process pressure. Close the piston valve.



### 4 - Off

Close the valve on the Nitrogen branch and the valve above the needle assembly. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# **BLC3 - Fixed Volume Type with Heating/Cooling Jacket**

### **Features**

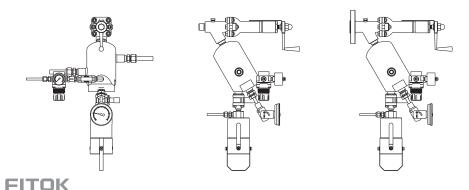
- O Sampling from vacuum, low or high pressure devices or process lines
- Fixed volume sampling
- O Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- O Heating/cooling jacket to ensure sampling within a certain range of temperature
- Needle purge

### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	Heating/cooling
Nitrogen Branch	Nitrogen regulator  CV Series check valves, NB Series needle valves	Heating/cooling)————————————————————————————————————
Connections	Process: 1/2" MNPT  Vent/purge: 1/4" tube fitting	Vent
	Heating/cooling: 3/8" FNPT	
Others	Heating/cooling jacket, sample chamber (200 ml), thermometer, BH Series ball valves	

Note: Products of other specifications are available upon request.

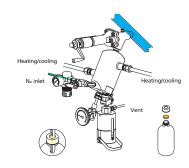
### **Typical Installation Mode**



### Operation

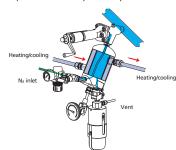
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



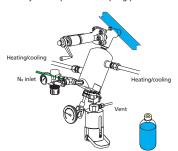
### 3 - Heating/cooling

Allow the heating/cooling fluid to flow through the heating/cooling jacket. Hold for a sufficient time until the sample reaches the required temperature.



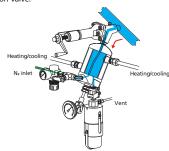
#### 5 - Off

Close the valve on the Nitrogen branch and the valve above the needle assembly. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



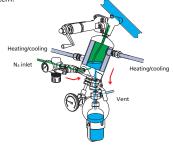
### 2 - Pre-sampling

Open the piston valve, allowing the sample to flow into the sample chamber. The amount of sample depends on the sample chamber volume and process pressure. Close the piston valve.



### 4 - Sampling

Open the valve on the Nitrogen branch and the valve above the needle assembly, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the system.



# **BLC4 - Solvent Purge Type**

### **Features**

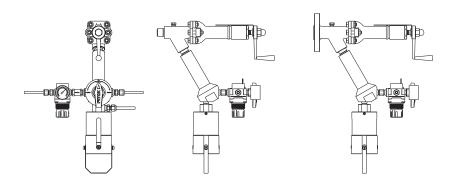
- O Sampling from vacuum, low or high pressure devices or process lines
- O Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- Needle purge and solvent purge

### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	Nz inlet
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Purge Branch	Nitrogen regulator  CV Series check valves, BF Series 3-way ball valves  Pressure gauge	Vent Vent Vent
Connections	Process: 1/2" MNPT  Vent/purge/solvent: 1/4" tube fitting	Solver

Note: Products of other specifications are available upon request.

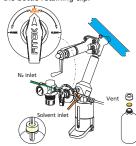
### **Typical Installation Mode**



### Operation

### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



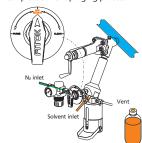
#### 4 - Off

Turn the handle to the "OFF" position. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically.



#### 7 - Off

Turn the handle to the "OFF" position. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete solvent purging process.



### 2 - Sampling

Open the piston valve, allowing the sample to flow into the bottle. When the required amount has been taken, close the piston valve.



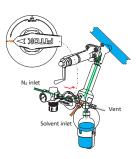
#### 5 - Solvent Purge

Replace the bottle with a new one. Turn the handle to the "CLEAN" position, allowing the solvent to flow through the system into the bottle.



### 3 - Nitrogen Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to force the residual sample from the system into the bottle.



### 6 - Nitrogen Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to force the residual solvent from the system into the sample bottle.



### **D** Series

# **BLD1 - Threaded Connection Type**

### **Features**

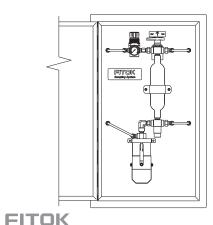
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge and needle purge
- Easy operation with a single handle by linkage valve

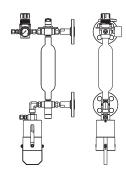
### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	T-PD
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	N <sub>2</sub> inlet
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Nitrogen Branch	Nitrogen regulator  CV Series check valves	Vent Sample inlet
	Pressure gauge	
Connections	1/4" FNPT	
Others	Sample chamber (200 ml)	

Note: Products of other specifications are available upon request.

### **Typical Installation Mode**

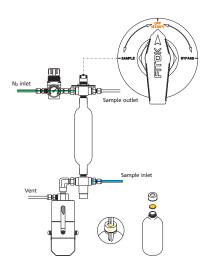




### Operation

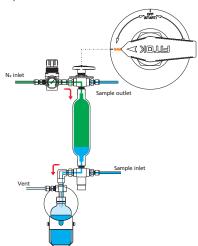
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



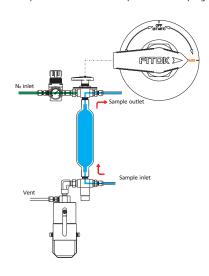
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.



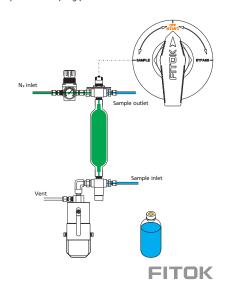
#### 2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



#### 4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



### **BLD2 - Continuous Needle Purge Type**

### **Features**

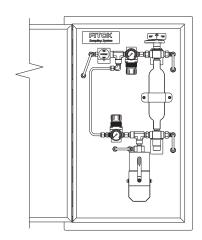
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- O Continuous needle purge and system purge
- Easy operation with a single handle by linkage valve

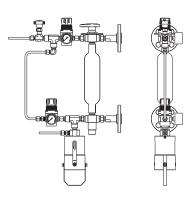
### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	T
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	N <sub>2</sub> inlet
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Nitrogen Branch	Nitrogen regulator  CV Series check valves, NB series needle valves  Pressure gauge	Vent Sample inl
Connections	1/4" tube fitting	
Others	Sample chamber (200 ml)	

Note: Products of other specifications are available upon request.

### **Typical Installation Mode**

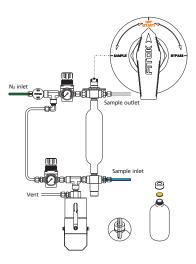




### Operation

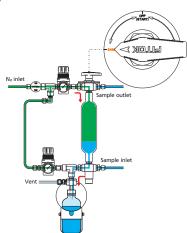
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



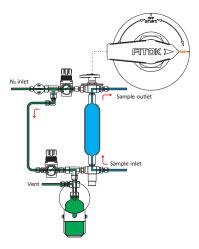
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.



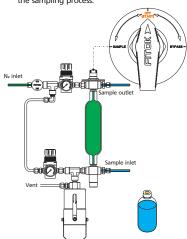
### 2 - Needle Purge and System Purge

Open the needle valve, allowing Nitrogen to purge the needle assembly and bottle continuously. Turn the handle to the "BYPASS" position to allow a continuous flow of sample through the sample chamber. Hold for a period of time to ensure representative sampling.



### 4 - Off

Close the needle valve. Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





### **BLD3 - Heating/Cooling Type**

### **Features**

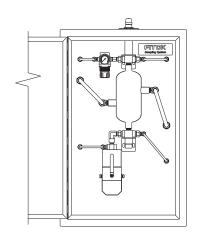
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- O System purge and needle purge
- O Heating/cooling jacket to ensure sampling within a certain range of temperature
- Easy operation with a single handle by linkage valve

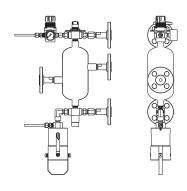
### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	_
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTEE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	N2 inlet   Sample outlet   Heating/cooling
Nitrogen Branch	Nitrogen regulator  CV Series check valves  Pressure gauge	Heating/cooling Sample inlet
Connections	Process/vent/purge: 1/4" tube fitting Heating/cooling: 3/8" FNPT	
Others	Heating/cooling jacket, sample chamber (200 ml)	

Note: Products of other specifications are available upon request.

# **Typical Installation Mode**

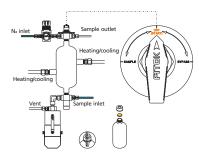




### Operation

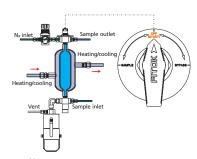
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



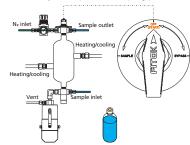
### 3 - Heating/cooling

Turn the handle to the "OFF" position, allowing the heating/cooling fluid to flow through the heating/cooling jacket. Hold for a sufficient time until the sample reaches the required temperature.



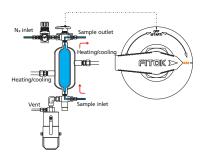
#### 5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the sample bottle from the sleeve. The septum reseals automatically to complete the sampling process.



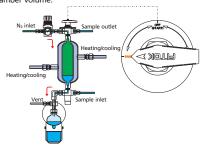
#### 2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



### 4 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.



# **BLD4 - Sampling by Gravity Type**

### **Features**

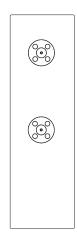
- O Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge
- O Sampling by gravity without Nitrogen purge
- © Easy operation with a single handle by linkage valve

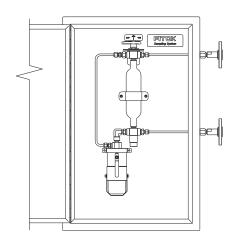
### **Basic Configuration**

Wetted Material	316 SS	_ 1
Sleeve Assembly	250 ml sleeve with bottle retaining clip	Sample outlet
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	Sample inlet
Connections	1/4" tube fitting	
Others	Sample chamber (200 ml)	

Note: Products of other specifications are available upon request.

# **Typical Installation Mode**

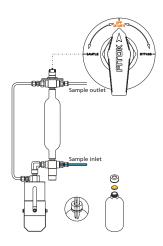




### Operation

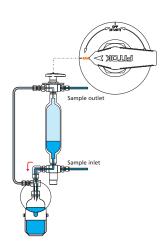
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



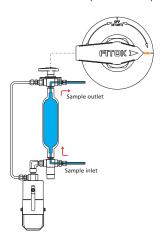
#### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle by gravity. Hold this position for a sufficient time. The amount of sample depends on the sample chamber volume.



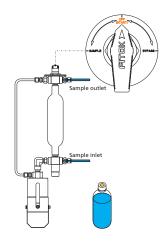
### 2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



#### 4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



### **BLD5- Sampling by Gravity Type with Heating/Cooling Jacket**

### **Features**

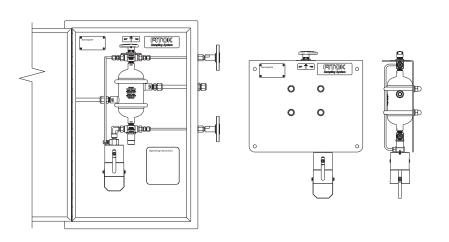
- O Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge
- Sampling by gravity without Nitrogen purge
- O Heating/cooling jacket to ensure sampling within a certain range of temperature
- Easy operation with a single handle by linkage valve

### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	/1
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	Sample outlet
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	Heating/cooling   Heating/cooling   Sample inlet
Connections	Process: 1/4" tube fitting	
Connections	Heating/cooling: 3/8" FNPT	]
Others	Heating/cooling jacket, sample chamber (200 ml)	

Note: Products of other specifications are available upon request.

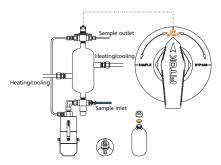
### **Typical Installation Mode**



### **Operation**

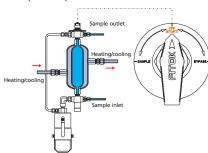
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



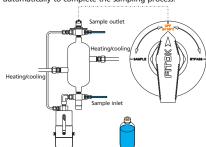
### 3 - Heating/cooling

Turn the handle to the "OFF" position, allowing the heating/cooling fluid to flow through the heating/cooling jacket. Hold for a sufficient time until the sample reaches the required temperature.



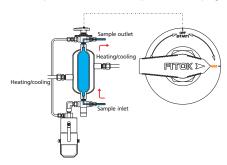
#### 5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



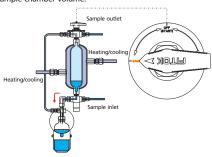
### 2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



#### 4 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle by gravity. Hold this position for a sufficient time. The amount of sample depends on the sample chamber volume.



### **E** Series

# **BLE1 - Back Purge Type with Vacuum Connection**

### **Features**

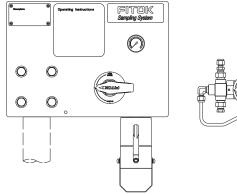
- O Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge
- © Easy operation with a single handle by linkage valve

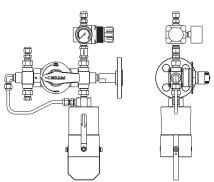
### **Basic Configuration**

Wetted Material	316 SS	inlet
Sleeve Assembly	250 ml sleeve with bottle retaining clip	n s
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	1 I
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	(a) Ty
Nitrogen Branch	Nitrogen regulator  CV Series check valves	Sample inlet
	Pressure gauge	
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

### **Typical Installation Mode**

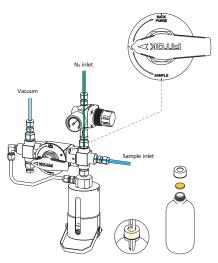




### Operation

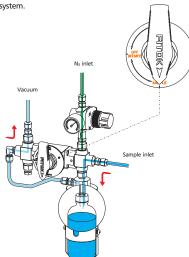
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



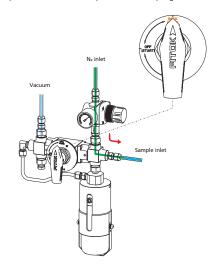
#### 3 - Sampling

Turn the handle to the "SAMPLE" position, connecting the bottle with the vacuum connection to create a vacuum in the sample bottle. The sample flows into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



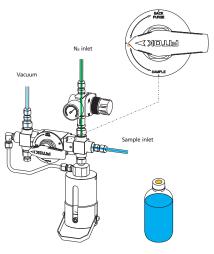
### 2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



### 4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





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# **BLE2 - Back and Needle Purge Type with Vacuum Connection**

### **Features**

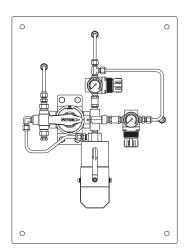
- O Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge and needle purge
- Easy operation with a single handle by linkage valve

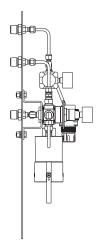
### **Basic Configuration**

Wetted Material	316 SS	inlet
Sleeve Assembly	250 ml sleeve with bottle retaining clip	N   N   N   N   N   N   N   N   N   N
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves and BO Series 4-way ball valves (gearbox linkage): PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 300°F (-18°C to 148°C)	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c
Nitrogen Branch	Nitrogen regulator  CV Series check valves  Pressure gauge	Sample inlet
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

### **Typical Installation Mode**

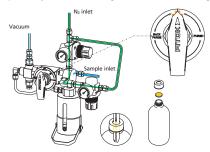




### **Operation**

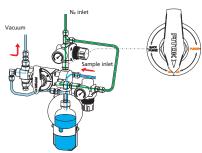
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



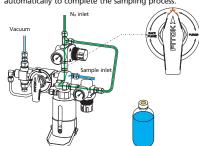
#### 3 - Sampling

Turn the handle to the "SAMPLE" position, connecting the bottle with the vacuum connection to create a vacuum in the sample bottle. The sample flows into the bottle. When the required amount has been taken, turn the handle to the "PURGE" position.



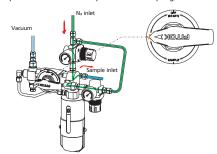
### 5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



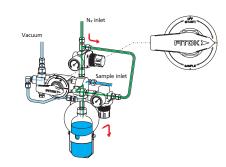
### 2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



### 4 - Needle Purge

Allow Nitrogen to force the residual sample from the needle assembly into the bottle. Hold this position for a sufficient time.



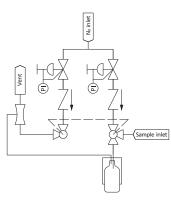
# **BLE3 - Back Purge Type with Venturi Unit**

### **Features**

- O Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge
- Easy operation with a single handle by linkage valve

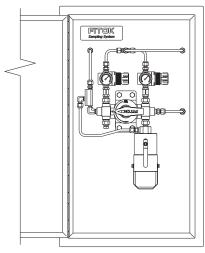
### **Basic Configuration**

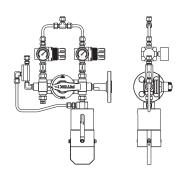
Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator  CV Series check valves  Pressure gauge
Venturi Unit	Creating a vacuum in the sample bottle; sampling at atmospheric pressure or vacuum condition
Connections	1/4" tube fitting



Note: Products of other specifications are available upon request.

### **Typical Installation Mode**

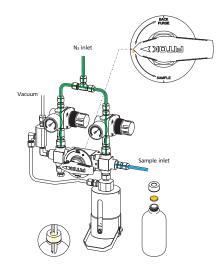




### Operation

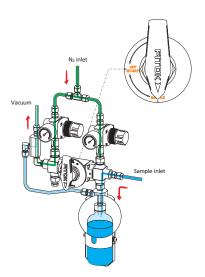
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



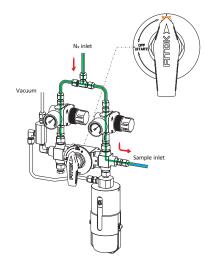
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle vacuumized by the venturi unit. When the required amount has been taken, turn the handle to the "OFF" position.



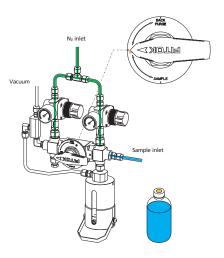
### 2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



#### 4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





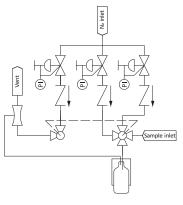
# **BLE4 - Back and Needle Purge Type with Venturi Unit**

### **Features**

- O Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge and needle purge
- Easy operation with a single handle by linkage valve

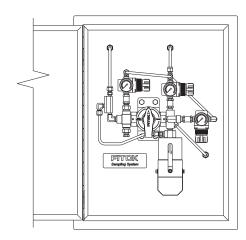
### **Basic Configuration**

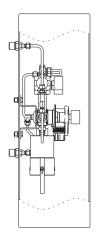
Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves and BO Series 4-way ball valves (gearbox linkage): PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 300°F (-18°C to 148°C)	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c
Nitrogen Branch	Nitrogen regulator  CV Series check valves  Pressure gauge	
Venturi Unit	Creating a vacuum in the sample bottle, sampling at atmospheric pressure or vacuum condition	
Connections	1/4" tube fitting	



Note: Products of other specifications are available upon request.

### **Typical Installation Mode**

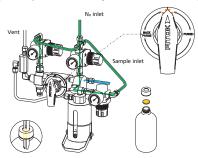




### Operation

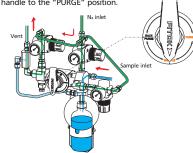
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



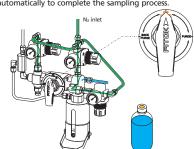
#### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle vacuumized by the venturi unit. When the required amount has been taken, turn the handle to the "PURGE" position.



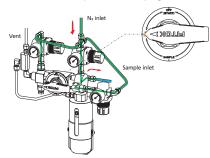
### 5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



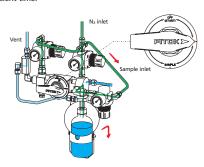
### 2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



### 4 - Needle Purge

Allow Nitrogen to force the residual sample from the needle assembly into the bottle. Hold this position for a sufficient time.



# **BLE5 - Overflow Type with Vacuum Connection**

### **Features**

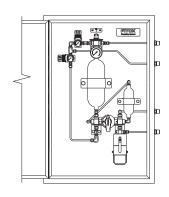
- Sampling from process lines at atmospheric pressure or vacuum condition
- Fixed volume sampling
- Overflow sampling and back purge
- © Easy operation with a single handle by linkage valve

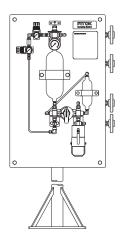
### **Basic Configuration**

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	(a) Vacuum
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	N <sub>2</sub> inlet
	Nitrogen regulator	
Nitrogen Branch	CV Series check valves	1 4
-	Pressure gauge	
Connections	1/4" tube fitting	
Others	Overflow cylinder, sample chamber (200 ml), ball valve	]

Note: Products of other specifications are available upon request.

### **Typical Installation Mode**

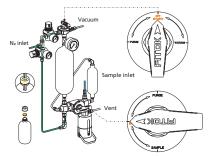




### **Operation**

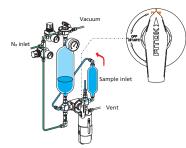
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



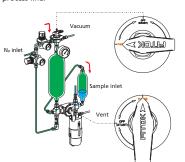
### 3 - System Purge

Turn the main handle to the "PURGE" position, allowing the sample to flow from the process line into the vacuumized overflow cylinder through the sample chamber to ensure representative sampling.



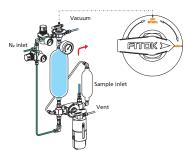
### 5 - Back Purge

Turn the main handle and the handle on the top of the overflow cylinder to the "PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line.



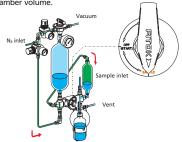
#### 2 - Vacuum

Turn the handle on the top of the overflow cylinder to the "VACUUM" position to vacuumize the overflow cylinder. Turn the handle to the "OFF" position.



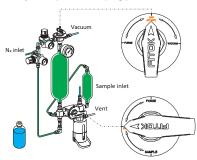
### 4 - Sampling

Turn the main handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.



### 6 - OFF

Turn the two handles to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# **BLE6 - Fixed Volume Type**

### **Features**

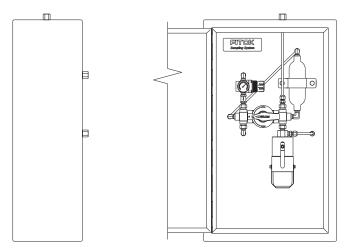
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge and needle purge
- © Easy operation with a single handle by linkage valve

### **Basic Configuration**

Wetted Material	316 SS	E	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	N <sub>2</sub> in let	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")		
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)		Sample inlet
Nitrogen Branch	Nitrogen regulator		
	CV Series check valves		Vent
	Pressure gauge	e outlet	
Connections	1/4" tube fitting	Sample	
Others	Sample chamber (200 ml)		

Note: Products of other specifications are available upon request.

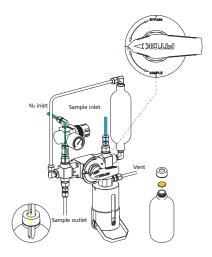
### **Typical Installation Mode**



### Operation

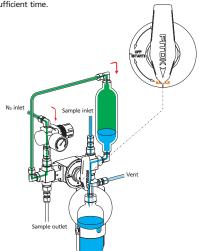
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



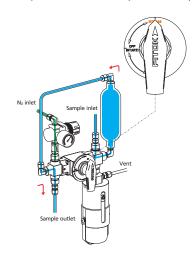
### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. This position can be held for a sufficient time.



### 2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



#### 4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.

