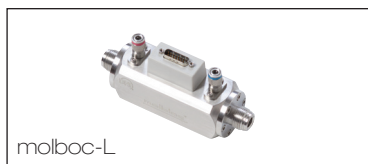
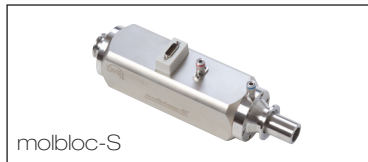




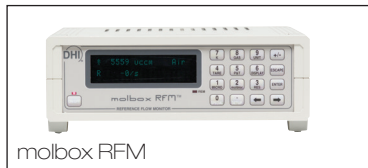
molbox1+



molboc-L



molboc-S



molbox RFM

## Gas flow standards

### molbox1+ Flow Terminal

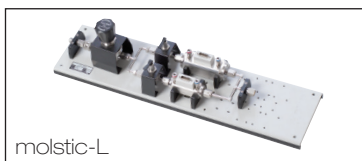
0.125 % of reading—lowest uncertainty for gas flow calibration.

- Allows coverage of flow range from less than 1 sccm to over 5000 slm with a single user interface and transportable system
- Real-time flow measurements makes adjusting analog flow devices fast and easy
- Perform fully-automated flow calibrations using molbox terminal with COMPASS for Flow software
- Updated design

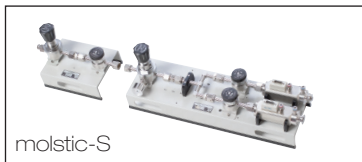
### molboc-L Laminar Flow Element

Laminar flow elements for flow from 1 sccm to 100 slm.

- Traceable to primary gravimetric mass flow measurements
- Multiple gases supported
- Useable with existing molbox1+ and molbox RFM mass flow terminals and COMPASS software
- Integrated filter to protect against contamination
- Integral gas temperature conditioning and measurement
- No moving parts that cause pressure/flow fluctuations or threaten reliability



molstic-L



molstic-S

### molboc-S Sonic Nozzle Flow Element

Sonic nozzle based molblobs for gas flow up to 5,000 slm.

- Covers ranges up to 5,000 slm in  $N_2$  and air
- Multiple gases supported
- Useable with molbox1+, or existing molbox1 and molbox RFM mass flow terminals and COMPASS software
- Proven critical flow venturi (sonic) nozzle operating principle traceable to primary gravimetric flow measurements

### molbox RFM Reference Flow Monitor

Compact terminal for making mass flow measurements using molboc-L and molboc-S flow elements.

- Economical alternative to molbox1+ terminal
- $\pm 0.5$  % of reading uncertainty
- Covers the flow range of 1 sccm to 100 slm with molboc-L, and up to 5000 slm with molboc-S
- 5141/5142/5144 kits feature molbox RFM, molboc-L and other hardware for a complete calibration system
- No moving parts that cause pressure/flow fluctuations or threaten reliability

### molstic Mounting Systems

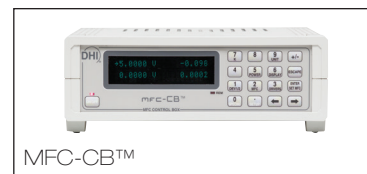
Used to conveniently mount and protect molboc elements, connect to units under test and provide flow and pressure control.

#### molstic-L used for molboc-L mass flow elements.

- Quick connector input
- 2 micron (0.5 micron for low flow) filter to protect the downstream components
- Adjustable regulator protects the molbox transducers

#### molstic-S used for molboc-S mass flow elements.

- Available in 1/2 inch or 1/4 inch system plumbing sizes
- Integrated flow shut-off/metering valves



MFC-CB™



MFC Switchbox



GFS™

## Gas Flow Automation Accessories

### MFC-CB™ Control Box

Stand-alone unit for setting/reading analog mass flow controllers (MFCs) and mass flow meters (MFMs).

- Set and read 0 to 5 V or 4 to 20 mA on two (2) channels
- Complete front panel local control and remote operation via RS-232 and IEEE-488 interfaces

### MFC Switchbox™

Supplies power and switches between up to five MFCs or MFMs on one molbox1+ or MFC-CB channel.

- Duplicates MFC channel without switching cables

## Primary gas flow standard

### GFS Dynamic Gravimetric Mass Flow Standard

True Primary Mass Flow Standard that makes the fundamental measurement of low gas mass flow rates practical.

- Covers the range of 0.2 to 200 mg/s in various gases (10 sccm to 10 slm  $N_2$ )
- Measurements can be transferred to higher flow ranges using Successive Addition method
- Flow measurement uncertainty as low as  $\pm 0.013$  % of reading