

## Specifications

For other materials or modifications, please consult TESCOM.

### FLUID MEDIA

Non-corrosive / corrosive gases and mixtures up to 6.0 (99.9999 Vol%) purity

### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

#### Maximum Inlet Pressure

580 psig / 40.0 bar

#### Outlet Pressure Ranges

22, 58, 145 psig / 1.5, 4.0, 10.0 bar

#### Leak Rate

$10^{-8}$  mbar l/s He

#### Operating Temperature

-4°F to 158°F / -20°C to 70°C

#### Nominal Flow Rate

100 LPM based on Nitrogen

### MEDIA CONTACT MATERIALS

#### Body

316L Stainless Steel or Chrome-plated Brass

#### Diaphragm

Cobalt Chrome Nickel Alloy (Elgiloy®) or Nickel Alloy (Hastelloy®)

### OTHERS

#### Porting Inlet or Outlet

G 1/4" Female

Valve Outlet G 1/8" Female

Optional with Adapter 1/4" NPT

#### Inlet or Outlet Connections

See Part Number Selector

#### Mounting

Wall Mounting Plate 75x100 mm Aluminum Grey/White

#### Cleaning

Cleaned for Oxygen Service

#### Weight (approximate)

**Brass:** 1.5 lbs / 0.7 kg

**Stainless Steel:** 2.6 lbs / 1.2 kg

Hastelloy® is a registered trademark of Haynes International, Inc.

Elgiloy® is a registered trademark of Elgiloy Corp.



TESCOM MiniLabo 2 Point-of-Use regulator for non-corrosive/corrosive gases and mixtures up to 6.0 (99.9999 Vol %) purity with a compact, modular and ergonomic design.

## Applications

- Reduction of line pressure to working pressure
- Laboratory, R&D and analyzer applications
- Suitable for ECD (Electronic Capture Detector) applications

## Features and Benefits

- Clear indication of open/closed position (90°) of shut-off valve
- Minimal space for installation required because pressure regulator and shut-off valve are integrated in one body
- Reduced internal volume, short purging times
- Modular design featuring a pressure regulator, gauge, 1/4 turn shut-off valve and metering valve
- Easy installation due to wall mounting plate

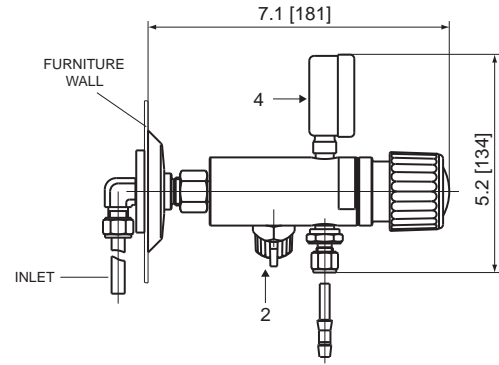
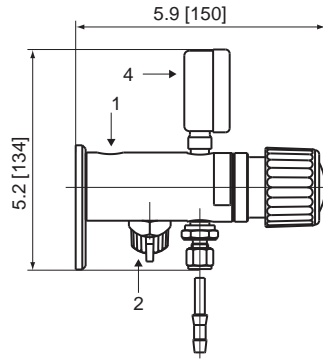
# MINILABO 2

## MiniLabo 2 Regulator Horizontal Drawings

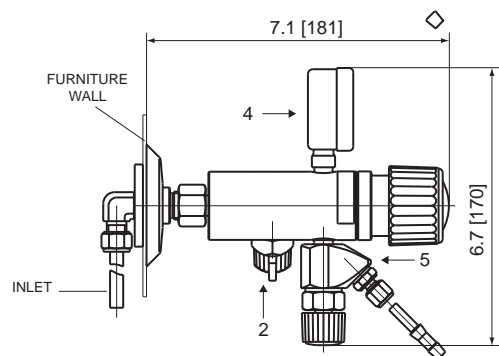
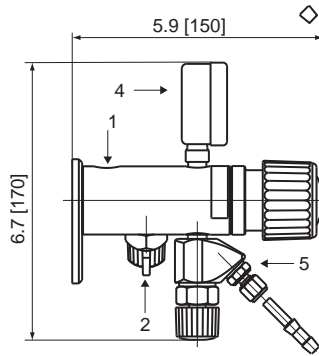
Wall Mounted Version  
(with wall plate)

Furniture Installation Version

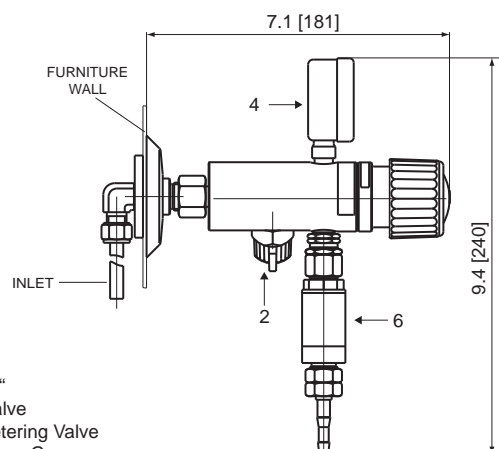
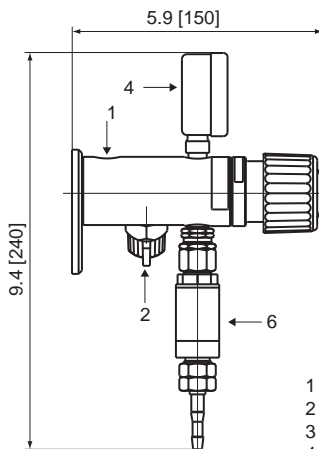
MiniLabo 2 horizontal  
with shut-off valve



MiniLabo 2 horizontal  
with shut-off valve  
and diaphragm metering valve



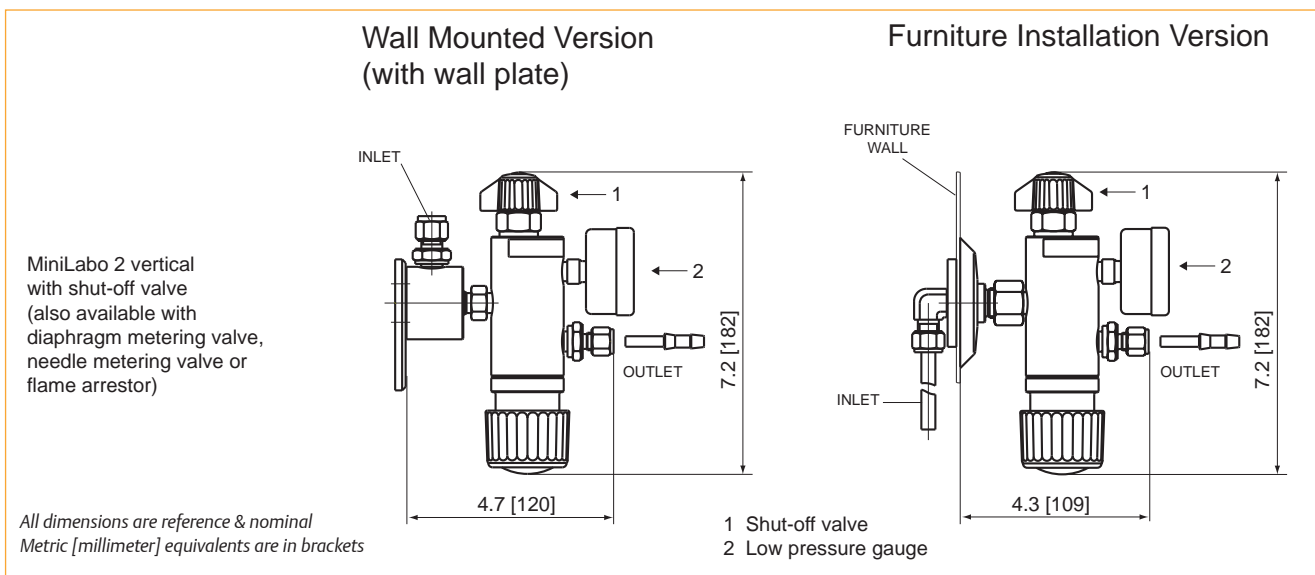
MiniLabo 2 horizontal  
with shut-off valve  
and flame arrestor



- 1 Plug G 1/4"
- 2 Shut-off Valve
- 3 Needle Metering Valve
- 4 Low Pressure Gauge
- 5 Metal Diaphragm Metering Valve
- 6 Flame Arrestor

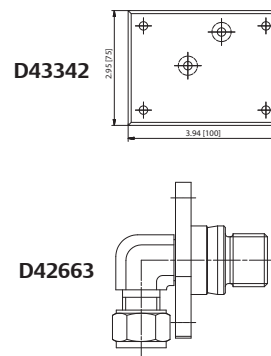
All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

### MiniLabo 2 Regulator Vertical Drawings



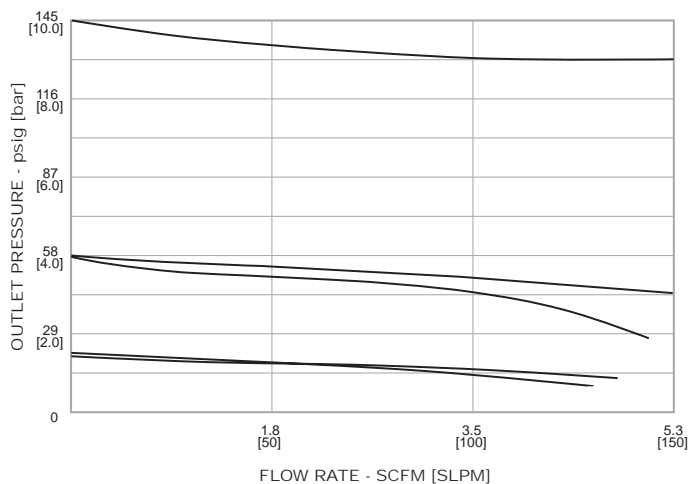
### Accessories for Wall Mounting

| PART NUMBER | DESCRIPTION   |
|-------------|---|
| D43342      | Wall mounting plate, grey white, thickness 6 mm                                 |
| D43371      | Kit countersunk screws + dowels for wall plate                                  |
| D42663-00-X | Wall plate, Brass, including elbow compression fitting 6, 8, or 10 mm           |
| D42663-22-X | Wall plate, Stainless Steel, including elbow compression fitting 6, 8, or 10 mm |
| V09166      | Wall plate cover  |
| D42572      | Gas label (please, state gas type)  |



### MiniLabo 2 Regulator Flow Chart

For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debul2007x012) in the TESCOM catalog or on www.tescom.com.



# MiniLabo 2 Regulator Part Number Selector

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

Example for selecting a part number:

D43483 - AR - 03 - D 1

| BASIC SERIES   | TYPE OF GAS   |                  |                      |               |                 | OUTLET CONNECTION    |                             |                                 |                                 |                                 | INLET CONNECTION  |                       |                           |                                   |                             | PRESSURE RANGE                                 |   |  |                        |   |  |                         |                                       |   |   |   |   |
|--|---|------------------|----------------------|---------------|-----------------|----------------------|-----------------------------|---------------------------------|---------------------------------|---------------------------------|---|-----------------------|---------------------------|-----------------------------------|-----------------------------|--|---|--|------------------------|---|--|-------------------------|---------------------------------------|---|---|---|---|
|  | AO - Oxygen   | AR - Other gases | AK - Corrosive gases | 20 - Ammonia* | 22 - Acetylene* | 23 - Carbon monoxide | 00 - None (G 1/4" internal) | 02 - Compression Fitting ø 1/8" | 03 - Compression Fitting ø 6 mm | 04 - Compression Fitting ø 1/4" | 05 - Compression Fitting ø 6 mm with hose connection ø 6 mm | A - G 1/4" female top | B - G 3/8" ball cone rear | C - G 3/8" metal cone fitting top | D - G 3/8" ball cone bottom | E - G 1/4" female top with wall mounting plate | F - Compression fitting 8 mm with wall mounting plate | G - Compression fitting 10 mm with wall mounting plate | H - G 1/4" female rear | J - Compression fitting 6 mm with wall mounting plate | K - Compression fitting 12 mm with wall mounting plate | 1 - 21.8 psig / 1.5 bar | 2 - 58 psig / 4 bar not for Acetylene | 3 - 145 psig / 10 bar not for Acetylene | 4 - 43.5 psig / 3 bar not for Acetylene | 5 - 72.5 psig / 5 bar not for Acetylene and Hydrogene |   |
| <b>MiniLabo 2 Horizontal Brass</b>                               |   |                  |                      |               |                 |                      |                             |                                 |                                 |                                 |   |                       |                           |                                   |                             |  |   |  |                        |   |  |                         |                                       |   |   |   |   |
| D43372   | Brass   | X                | X                    |               | X               | X                    |                             | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| D43374   | Brass, metal diaphragm metering valve                           | X                | X                    |               | X               | X                    |                             | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| D43375   | Brass flame arrestor  | X                | X                    |               | X               | X                    |                             |                                 |                                 |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| <b>MiniLabo 2 Horizontal Brass with Shut-Off Valve</b>           |   |                  |                      |               |                 |                      |                             |                                 |                                 |                                 |   |                       |                           |                                   |                             |  |   |  |                        |   |  |                         |                                       |   |   |   |   |
| D43376   | Brass, shut-off valve   | X                | X                    |               | X               | X                    |                             | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| D43378   | Brass, shut-off valve, metal diaphragm metering valve           | X                | X                    |               | X               | X                    |                             | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| D43379   | Brass, shut-off valve, flame arrestor                           | X                | X                    |               | X               | X                    |                             |                                 |                                 |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| <b>MiniLabo 2 Horizontal Stainless Steel</b>                     |   |                  |                      |               |                 |                      |                             |                                 |                                 |                                 |   |                       |                           |                                   |                             |  |   |  |                        |   |  |                         |                                       |   |   |   |   |
| D43482   | Stainless Steel   | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| D43483   | Stainless Steel, metal diaphragm metering valve                 | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| <b>MiniLabo 2 Horizontal Stainless Steel with Shut-Off Valve</b> |   |                  |                      |               |                 |                      |                             |                                 |                                 |                                 |   |                       |                           |                                   |                             |  |   |  |                        |   |  |                         |                                       |   |   |   |   |
| D43484   | Stainless Steel, shut-off valve                                 | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| D43485   | Stainless Steel, shut-off valve, metal diaphragm metering valve | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     | X                         | X                                 | X                           | X  | X   | X  | X                      | X   | X  | X                       | X                                     | X                                       | X                                       | X   | X |
| <b>MiniLabo 2 Vertical Brass</b>                                 |   |                  |                      |               |                 |                      |                             |                                 |                                 |                                 |   |                       |                           |                                   |                             |  |   |  |                        |   |  |                         |                                       |   |   |   |   |
| D43380   | Brass, shut-off valve   | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     | X                         |                                   |                             |  |   |  |                        |   |  |                         |                                       | X                                       | X                                       | X   |   |
| D43381   | Brass, shut-off valve with needle valve                         | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     | X                         |                                   |                             |  |   |  |                        |   |  |                         |                                       | X                                       | X                                       | X   |   |
| D43382   | Brass, shut-off valve with metal diaphragm metering valve       | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     |                           |                                   |                             |  |   |  |                        |   |  |                         |                                       | X                                       | X                                       | X   |   |
| D43383   | Brass, shut-off valve with flame arrestor                       | X                | X                    | X             | X               | X                    | X                           | X                               | X                               |                                 | X   | X                     |                           |                                   |                             |  |   |  |                        |   |  |                         |                                       | X                                       | X                                       | X   |   |

**X available**

\* Only for outlet pressure 22 psig / 1.5 bar

\*\* Not for Acetylene and Hydrogen

Gas specific label available on request. Please mention gas type when ordering.