

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

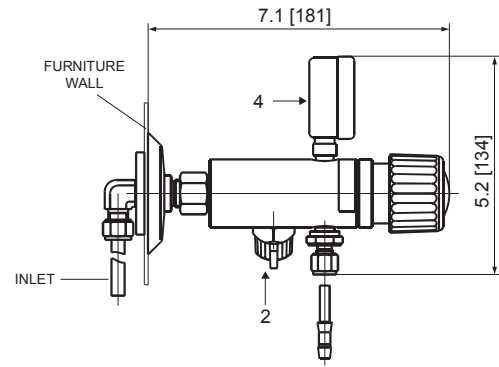
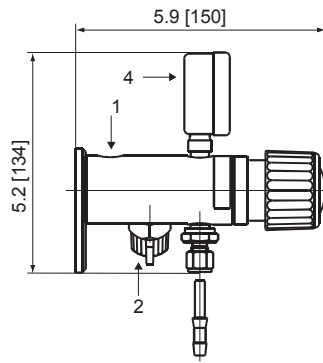
MINILABO 2

MiniLabo 2 Regulator Horizontal Drawings

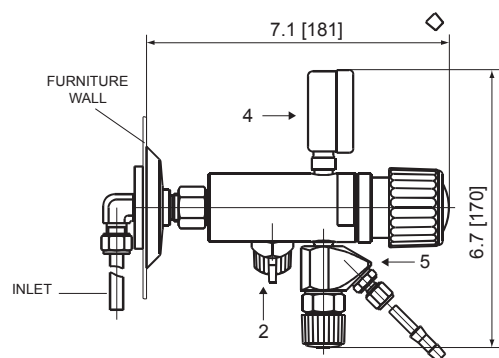
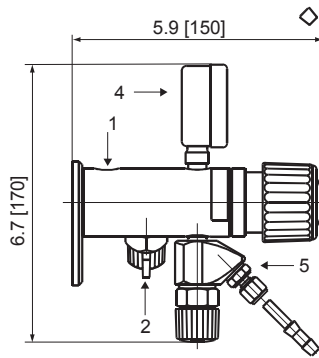
Wall Mounted Version
(with wall plate)

Furniture Installation Version

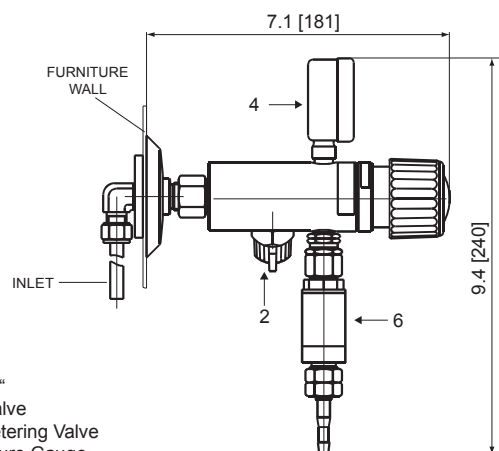
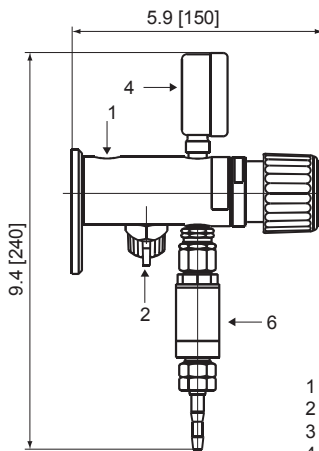
MiniLabo 2 horizontal
with shut-off valve



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



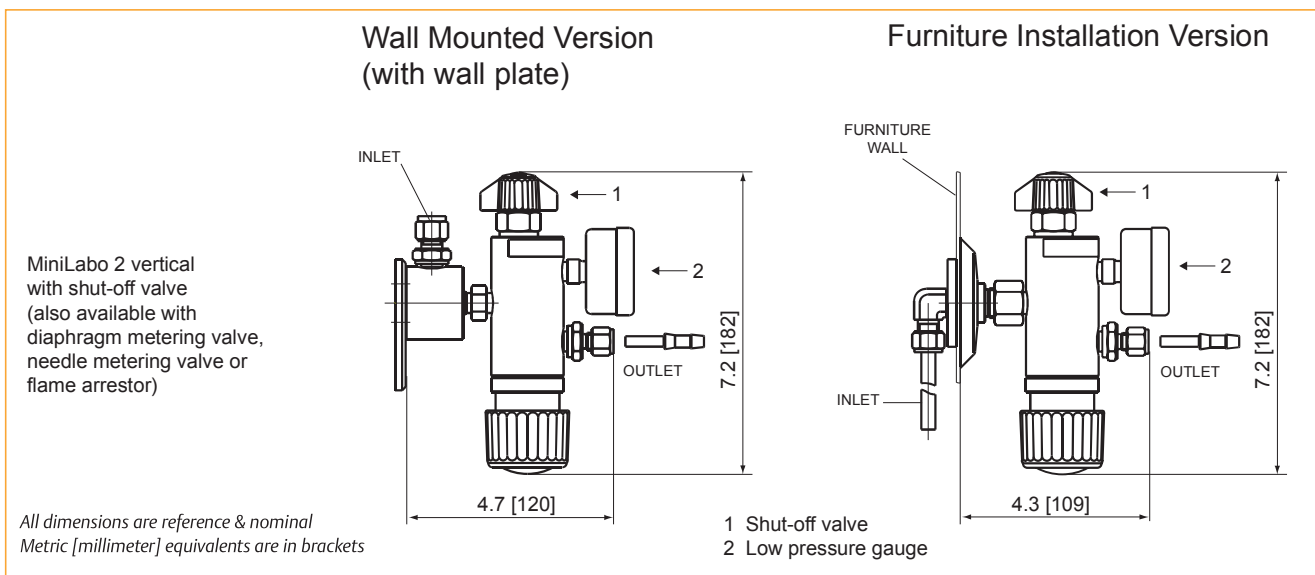
MiniLabo 2 horizontal
with shut-off valve
and flame arrestor



- 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

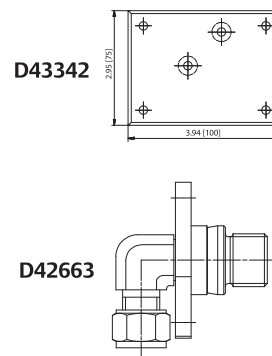
All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

MiniLabo 2 Regulator Vertical Drawings



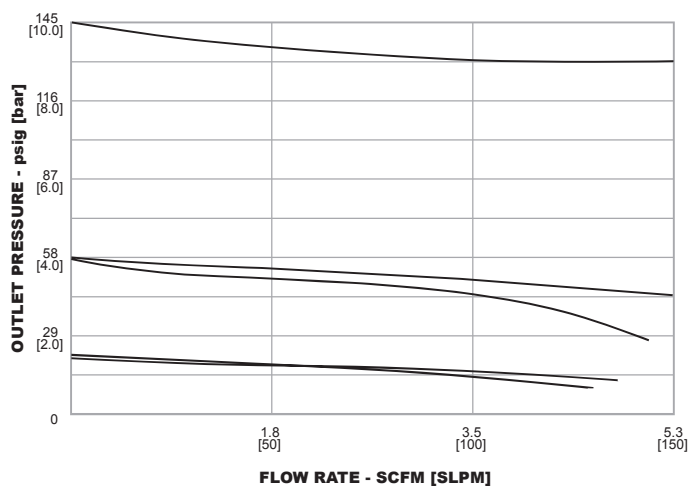
Accessories for Wall Mounting

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		
MiniLabo 2 Horizontal Brass																												
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	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	X
D43375	Brass flame arrestor	X	X		X	X					X	X	X	X	X	X	X	X	X	X	X	X	X**		X	X**		
MiniLabo 2 Horizontal Brass with Shut-Off Valve																												
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	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	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**		
MiniLabo 2 Horizontal Stainless Steel																												
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	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	X
MiniLabo 2 Horizontal Stainless Steel with Shut-Off Valve																												
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	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	X
MiniLabo 2 Vertical Brass																												
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.

Specifications

For other materials or modifications, please consult TESCOM.

FLUID MEDIA

For corrosive and non-corrosive gases and mixtures

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

580 psig / 40.0 bar

Maximum Outlet Pressure

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

Leakage Rate Against Atmosphere

10⁻⁸ mbar l/sec He each connection

Nominal Flow Rate

1-200 LPM based on Nitrogen

Operating Temperature

-4°F to 158°F / -20°C to 70°C

MEDIA CONTACT MATERIALS

Material

Body: 316L Stainless Steel

Diaphragm: Cobalt Chrome Nickel Alloy (Elgiloy®) / Nickel Alloy (Hastelloy®)

Seat

Valve: PCTFE

Pressure Reducer: PTFE

OTHER

Cleaning

Cleaned for Oxygen Service

Connections

Inlet and Outlet: 1/4" HPIC

High Purity Internal Connection (HPIC) designed for use with 1/4" swivel VCR® (or compatible fittings)

Gauge: 1/4" Internal VCR®

Weight (approximate)

2.7 lbs / 1.2 kg

Elgiloy® is a registered trademark of Elgiloy Corp.

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

VCR® is a registered trademark of Swagelok.



TESCOM Ultra High Purity MiniLabo 2 is a point-of-use regulator for high purity applications with a compact, modular ergonomic design. All connections are 1/4" Internal VCR® for reduced leak rates.

Applications

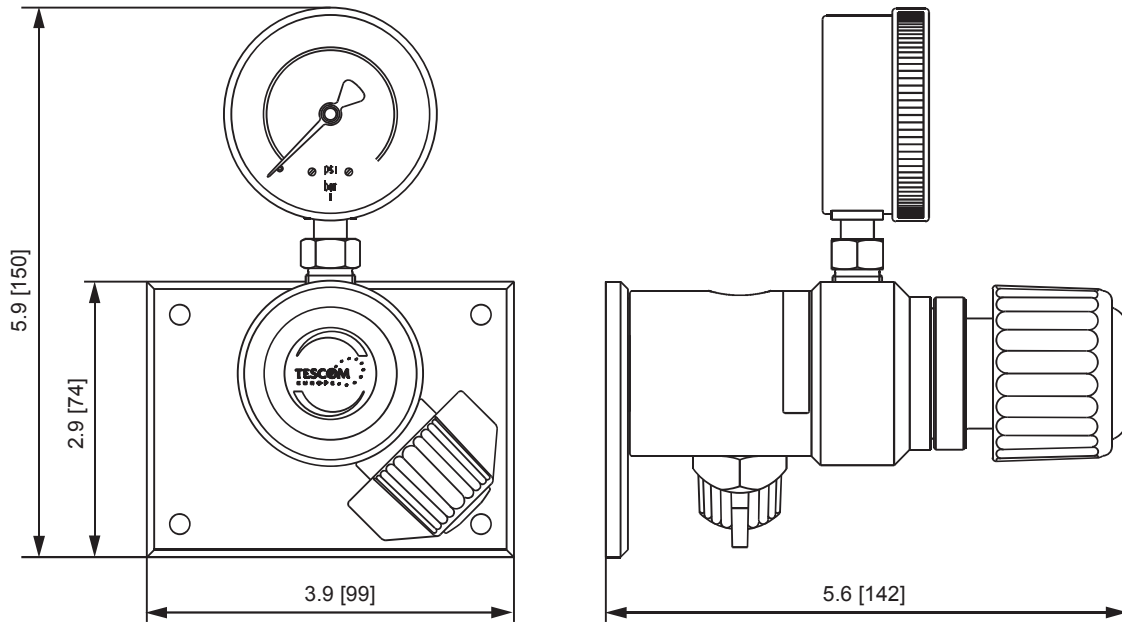
- High purity applications
- Reduces line pressure to working pressure
- Laboratory, research & development and analyzer applications

Features and Benefits

- Minimized internal volume
- All connections are 1/4" Internal VCR® for reduced leak rates
- Compact and economical design
- Ease of use by ergonomic handwheels
- Pressure regulator and 1/4 turn shut-off valve integrated in one body
- Includes low pressure gauge and a wall mounting plate
- Suitable for gases up to purity 6.0

ULTRA HIGH PURITY MINILABO 2

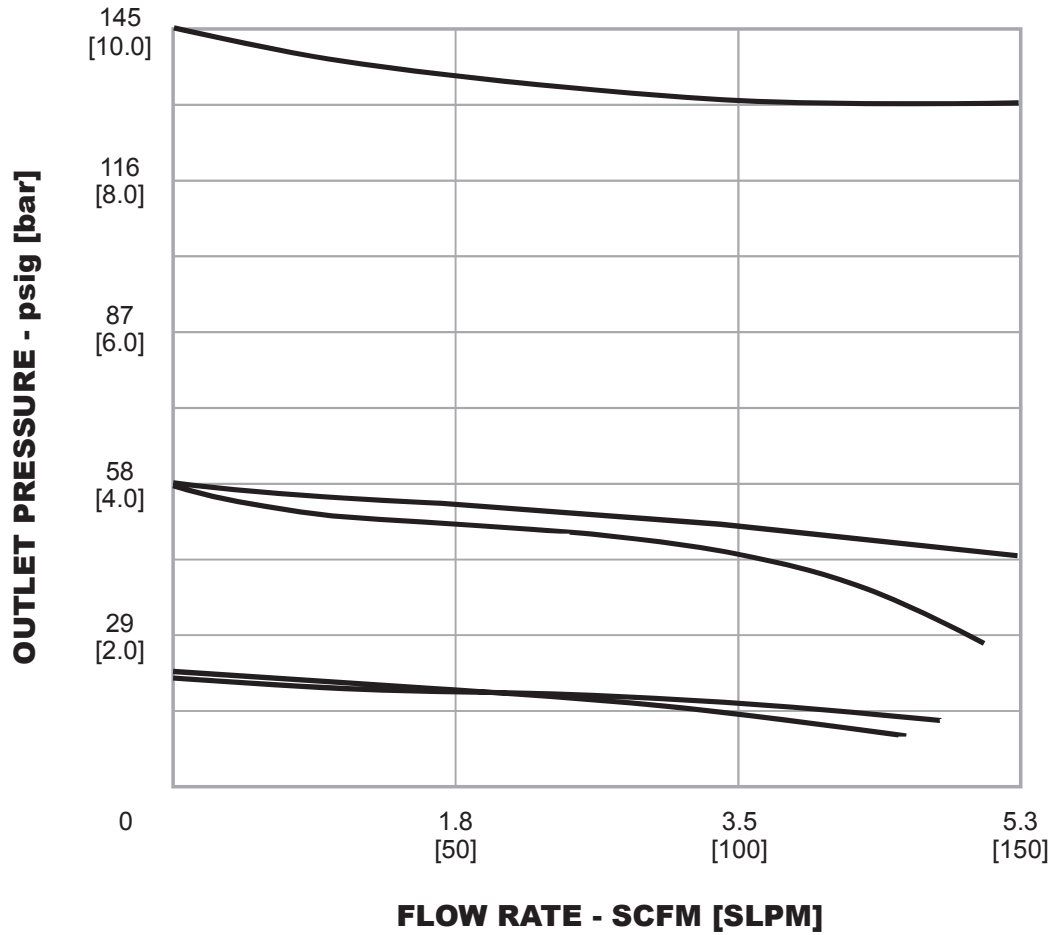
Ultra High Purity MiniLabo 2 Regulator Drawing



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

Ultra High Purity 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 TESCO catalog or on www.tescom.com.



ULTRA HIGH PURITY MINILABO 2

Ultra High Purity 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:

D45372 -	2
BASIC SERIES	PRESSURE RANGE
D45372 MiniLabo 2 Ultra High Purity Point-of-use regulator with wall mounting plate and metal diaphragm	1 22 psig / 1.5 bar 2 58 psig / 4.0 bar 3 145 psig / 10.0 bar

Accessories for Wall Mounting

D43371 Supplied with D45372-x	Kit countersunk screws + dowels for wall plate
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