

# WEGA 1 and 2

Regulators - Pressure Reducing

DCATLABO12105XEN2

## Specifications

For other materials or modifications, please consult TESCOM.

### FLUID MEDIA

Non-corrosive gases and gas mixtures up to 6.0 (99.999 Vol %) purities  
Stainless Steel versions for calibration gases with NH<sub>3</sub>, SO<sub>2</sub>, or NO content (ppm range)

### OPERATING PARAMETERS

#### Maximum Inlet Pressure

2900 psig / 200 bar  
4350 psig / 300 bar (optional)

#### Outlet Pressure Ranges

**Single-stage:** 7.3-58, 14.5-145, 29-290 psig  
0.50-4.0, 1.00-10.0, 2.0-20.0 bar

**Dual-stage:** 1.5-22, 7.3-58, 14.5-145 psig  
0.10-1.5, 0.50-4.0, 1.00-10.0 bar

#### Leakage Rate Against Atmosphere

10<sup>-8</sup> mbar l/s He

#### Nominal Flow

10 m<sup>3</sup>/h (depending on pressure and gas)

#### Inlet Connection

According to DIN 477-1 (2900 psig / 200 bar) or  
DIN 477-5 (4350 psig / 300 bar)  
Other national standards on request

#### Outlet Connection

**Regulator:** G 1/4" female

**Valve:** G 1/8" female

#### Standard Outlet Connection Mounted

6 mm compression fitting including 6 mm hose connector

#### Options at Outlet

Needle or diaphragm metering valve

### MEDIA CONTACT MATERIALS

#### Body

Stainless Steel 1.4404 / 316L or Nickel-plated Brass

#### Diaphragm

316L Stainless Steel

#### Relief Valve

FKM

### OTHER

#### Weight

**Wega 1:** 3.30 lbs / 1.5 kg

**Wega 1:** 3.75 lbs / 1.7 kg (with Flowmeter)

**Wega 2:** 4.20 lbs / 1.9 kg

**Wega 2:** 4.65 lbs / 2.1 kg (with Flowmeter)



TESCOM single-stage WEGA 1 and dual-stage WEGA 2 cylinder pressure regulators are for gas purities up to 6.0 quality. A relief valve is integrated into the body for low internal gas volume. Both models are lightweight with a compact design.

## Applications

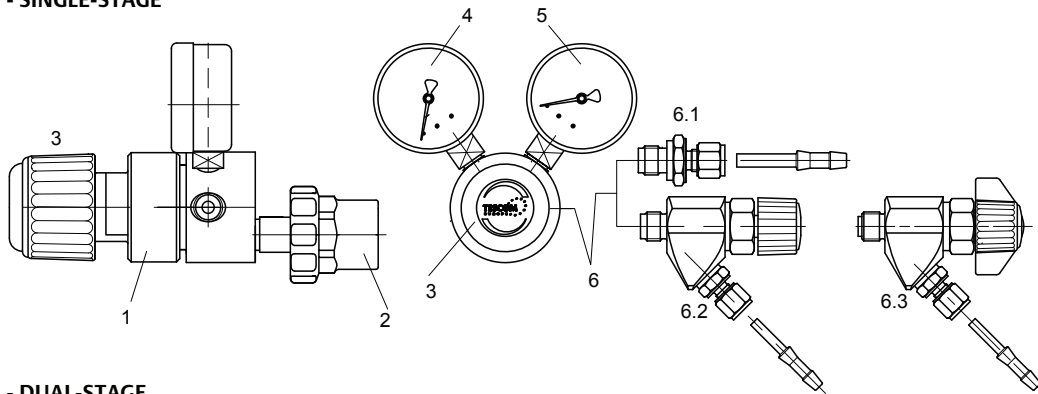
- Reduction of high pressure gases in storage cylinders to a low operating pressure
- For calibration gases with NH<sub>3</sub>, SO<sub>2</sub>, or NO content

## Features and Benefits

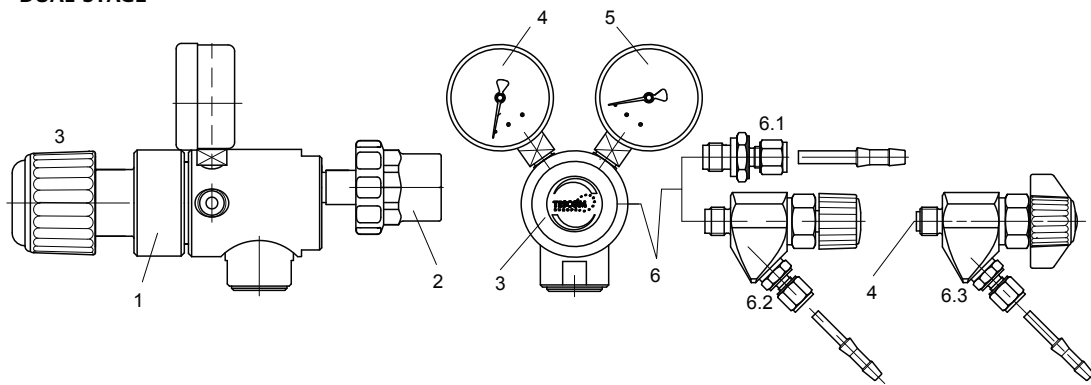
- Maximum inlet pressure of 2900 psig / 200 bar or 4350 psig / 300 bar (new 4350 psig / 300 bar cylinder technique)
- Modular inlet and outlet connectors offers versatility
- Relief valve integrated into the body
- Dual-stage version avoids decaying inlet pressure deviation
- Low internal gas volume
- Compact dual-stage version

### WEGA 1 and 2 Adjustable Regulator Drawings

#### WEGA 1 - SINGLE-STAGE



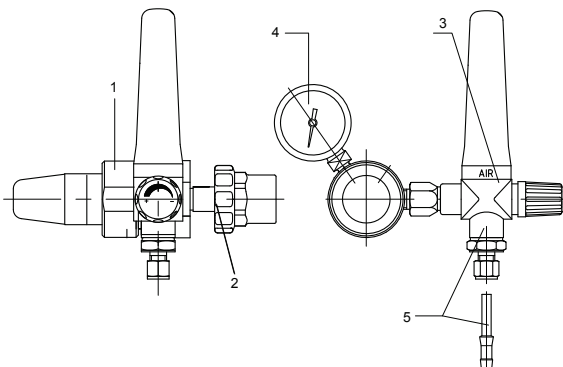
#### WEGA 2 - DUAL-STAGE



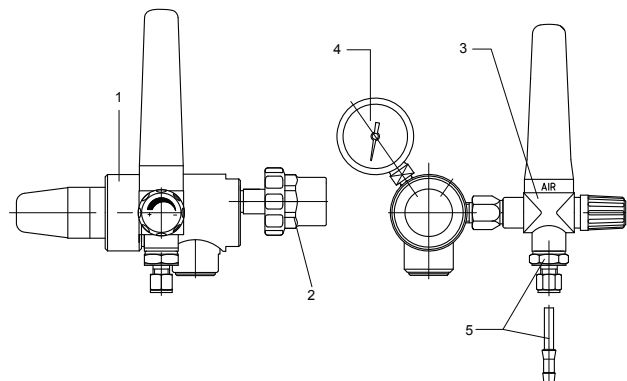
- 1 - BASIC UNIT
- 2 - INLET CONNECTION
- 3 - PRESSURE ADJUSTING HANDWHEEL
- 4 - HIGH PRESSURE GAUGE (P1)
- 5 - LOW PRESSURE GAUGE (P2)
- 6 - OUTLET CONNECTION
- 6.1 - COMPRESSION FITTING
- 6.2 - DIAPHRAGM METERING VALVE
- 6.3 - DIAPHRAGM SHUT-OFF VALVE

### WEGA 1 and 2 Preset Regulator with Flow Meter Drawings

#### WEGA 1 - SINGLE-STAGE WITH FLOW METER



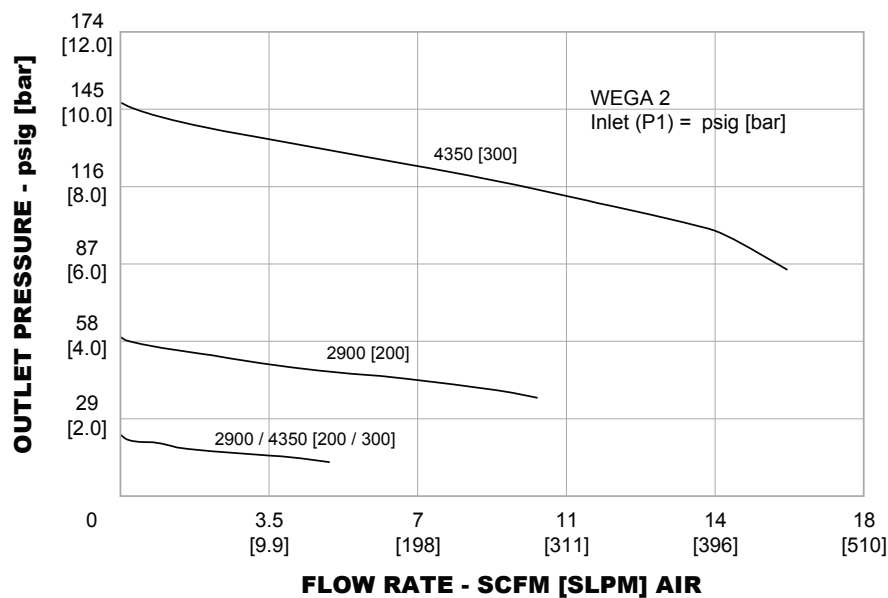
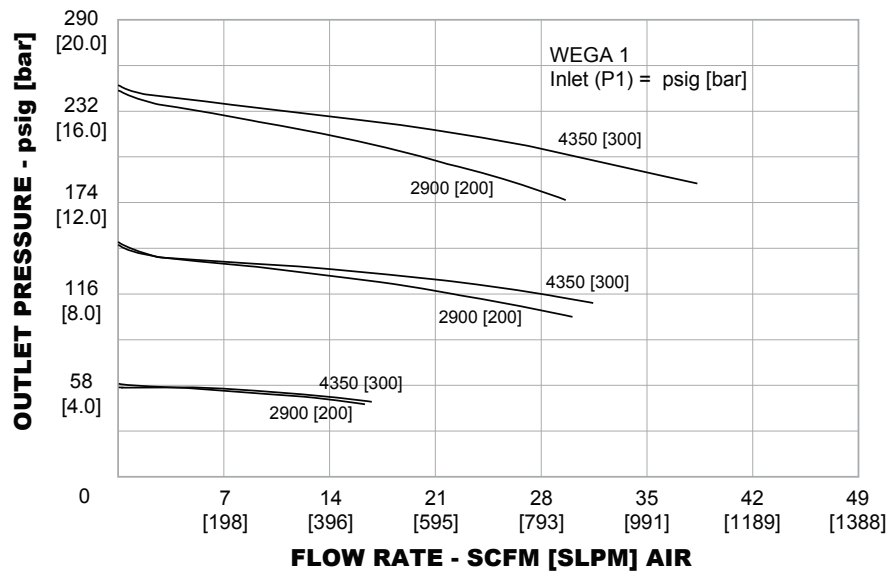
#### WEGA 2 - DUAL-STAGE WITH FLOW METER



- 1 - BASIC UNIT
- 2 - INLET CONNECTION
- 3 - METERING VALVE WITH FLOW METER
- 4 - HIGH PRESSURE GAUGE (P1)
- 5 - OUTLET CONNECTION (COMPRESSION FITTING)

## WEGA 1 and 2 Regulator Flow Charts

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](http://www.tescom.com).



**Notice**

If you do not want to use the ordering system it is important to specify the following items:

- Gas or gas mixture
- Inlet pressure (P1): 2900 or 4350 psig / 200 or 300 bar
- Outlet pressure (P2): check last column of ordering information
- Flow per minute or hour
- Outlet connection e.g. compression fitting, hose connector, none (= female thread)
- Options such as shutoff or metering valve and flow meter
- For CO or gas mixtures containing CO, please choose Stainless Steel version

## WEGA 1 and 2 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:

D45170	-	NS	-	44	-	3
BASIC SERIES	INLET CONNECTION DEPENDING ON NATIONAL STANDARDS		OUTLET CONNECTION PROCESS GAS RANGE		OUTLET PRESSURE	
<b>D45170</b> - WEGA 1 single-stage, Nickel-plated Brass	Available inlet connectors / Cylinder valve standards: DIN 477-1- 2900 psig / 200 bar Germany		<b>00</b> – G 1/4" female		<b>1</b> – 1.5-22 psig*** / 0.10-1.5 bar	
<b>D45176</b> - WEGA 2 dual-stage, Nickel-plated Brass	DIN 477-5- 4350 psig / 300 bar Germany		<b>05</b> – 6 mm fitting, with 6 mm hose connector		<b>2</b> – 7.3-58 psig / 0.50-4.0 bar	
<b>D45173</b> - WEGA 1 single-stage, Stainless Steel	NEN 3268 Netherlands		<b>08</b> – 8 mm fitting, with 8 mm hose connector***, *		<b>3</b> – 14.5-145 psig / 1.00-10.0 bar	
<b>D45179</b> - WEGA 2 dual-stage, Stainless Steel	BS 341 U.K.		<b>35</b> – Needle metering valve, 6 mm fitting, with 6 mm hose connector*		<b>4</b> – 29-290 psig**** / 2.0-20 bar	
	AFNOR / NF E 29-650 France		<b>44</b> – With diaphragm metering valve, 6 mm fitting, with 6 mm hose connector**			
	CGA-V1 U.S.A.		<b>62</b> – With diaphragm shut-off valve, 6 mm fitting, with 6 mm hose connector			
	UNI 11144 Italy					
	For other standards, please consult TESCOM.				* Only Brass ** Only Stainless Steel *** Only dual-stage **** Only single-stage	

- Please specify gas to identify inlet connector according to national standards.
- For gas mixtures, please consult your gas supplier for the connection number or cylinder valve thread.
- Please reference "Cylinder Valve Connections" in the TESCOM catalog for additional information.
- For CO or gas mixtures containing CO, please select Stainless Steel.

## WEGA 1 and 2 with Flow Meter Part Number Selector

D45395	-	NS	-	05	-	3
BASIC SERIES	INLET CONNECTION DEPENDING ON NATIONAL STANDARDS		OUTLET CONNECTION PROCESS GAS RANGE		FLOW	
<b>D45395</b> - WEGA 1 single-stage, Nickel-plated Brass with flow meter	Available inlet connectors / Cylinder valve standards: DIN 477-1- 2900 psig / 200 bar Germany		<b>00</b> – G 1/4" female		<b>A</b> – 0.06 to 1 SLPM	
<b>D45178</b> - WEGA 2 dual-stage, Nickel-plated Brass with flow meter	DIN 477-5- 4350 psig / 300 bar Germany		<b>05</b> – 6 mm fitting, with 6 mm hose connector		<b>B</b> – 0.5 to 4 SLPM	
	NEN 3268 Netherlands		<b>08</b> – 8 mm fitting, with 8 mm hose connector		<b>C</b> – 2 to 16 SLPM	
	BS 341 U.K.				<b>D</b> – 4 to 32 SLPM****	
	AFNOR / NF E 29-650 France					
	CGA-V1 U.S.A.					
	UNI 11144 Italy					
	For other standards, please consult TESCOM.				* Only Brass ** Only Stainless Steel *** Only dual-stage **** Only single-stage	

- Please specify gas to identify inlet connector according to national standards.
- For gas mixtures, please consult your gas supplier for the connection number or cylinder valve thread.
- Please reference "Cylinder Valve Connections" in the TESCOM catalog for additional information.
- For CO or gas mixtures containing CO, please choose Stainless Steel.

### REPAIR KITS:

PART NUMBER	REGULATOR SERIES
D43441	WEGA 1, Brass
D43442	WEGA 1, Stainless Steel
D43439	WEGA 2, Brass
D43440	WEGA 2, Stainless Steel

ACCESSORIES: Reference WEGA Accessories datasheet

# WEGA Corrosive Gases and Purging Regulators - Pressure Reducing

DCATLAB012104XEN2

## Specifications

For other materials or modifications, please consult TESCOM.

### FLUID MEDIA

For corrosive gases and gas mixtures.  
For calibration gases with corrosive content.

### OPERATING PARAMETERS

#### Maximum Inlet Pressure

2900 psig / 200 bar

#### Outlet Pressure Range

7.3-22, 7.3-58, 14.5-102, 14.5-145 psig  
0.50-1.5, 0.50-4.0, 1.00-7.0, 1.00-10.0 bar

#### Leakage Rate Against Atmosphere

$10^{-8}$  mbar l/s He (for each connection)

#### Nominal Flow

10 m<sup>3</sup>/h (acc. to pressure and used gas)

**44-2200 Series Regulator:**  $C_v = 0.06$

**44-2800 Series Regulator:**  $C_v = 0.16$

**44-3400 Series Regulator:**  $C_v = 0.05$

#### Options

Shut-off valve at outlet dual stage  
Also available as absolute pressure 44-46 Series

### MEDIA CONTACT MATERIALS

#### Body

316L Stainless Steel

#### Diaphragm

316L Stainless Steel and Hastelloy®

### OTHERS

#### Inlet Port

According to National Standard

#### Outlet Port

**Regulator:** 1/4" NPTF Female

**Valve:** G 1/8" Female

#### Connections

6 mm compression fitting

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



TESCOM WEGA Corrosive Gases and Purging cylinder pressure regulators are designed with a captured bonnet for use with corrosive gases and gas mixtures (based on the highly reliable 44-2200 and 44-2800 Series regulator technology). Dual-stage version is available.

## Applications

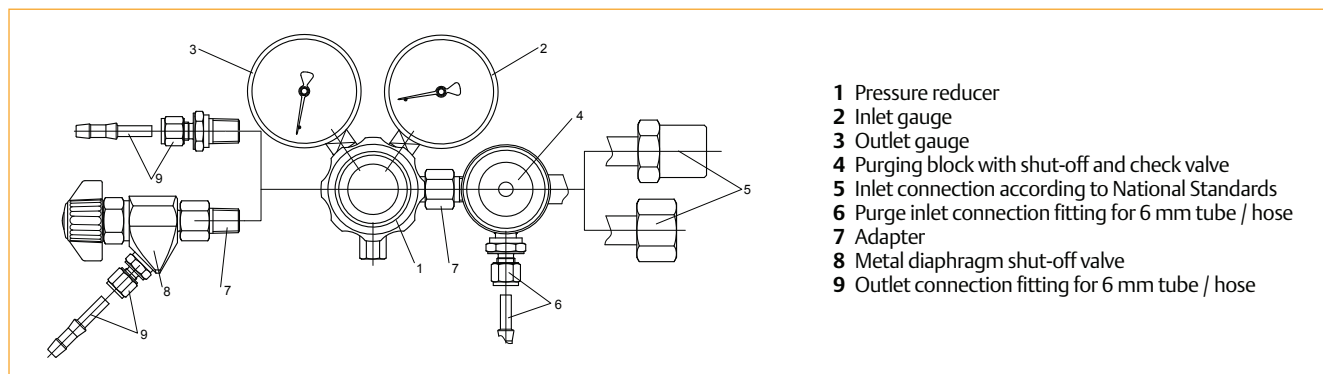
- Reduction of high pressure gases in storage cylinders to a low operating pressure
- Suitable for inert gas purging

## Features and Benefits

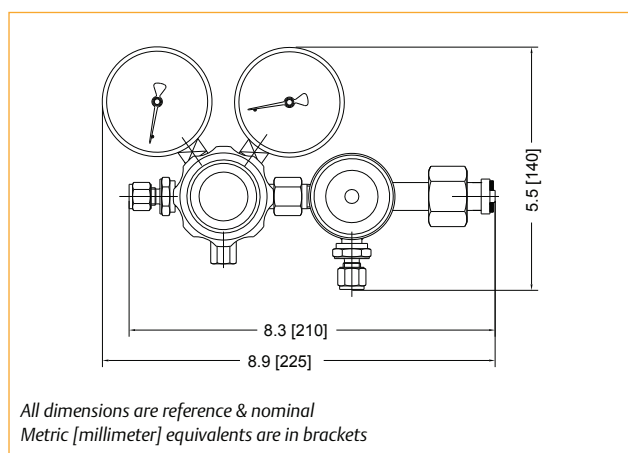
- Captured bonnet for the use of corrosive gases, leak-tight construction, safe and reliable
- Effective purging due to integrated shut-off valve and check valve, low purge gas consumption, minimized risk of corrosion
- Based on 44-2200 and 44-2800 Series regulators
- Dual-stage version available as an option (44-3400 Series)
- Multiple outlet connections are available

## WEGA Corrosive Gases and Purging Regulator Drawing

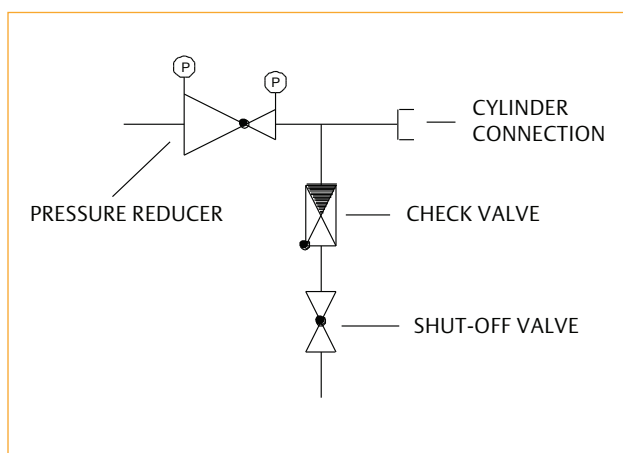
### Assembly Drawing



### Dimensional Drawing



### Functional Drawing



## WEGA Corrosive Gases and Purging 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:

BASIC SERIES	INLET CONNECTION DEPENDS ON NATIONAL STANDARDS	OUTLET PRESSURE PORT	REGULATOR	OUTLET PRESSURE RANGE	INLET PRESSURE PORT
D43276	Available inlet connectors / Cylinder valve standards:  DIN 477-1 - 2900 psig / 200 bar Germany DIN 477-5 - 4351 psig / 300 bar Germany NEN 3268 Netherlands BS 341 U.K. AFNOR / NF E 29-650 France CGA-V1 U.S.A. UNI 11144 Italy	00 - 1/4" NPTF Female 05 - 6 mm fitting with 6 mm hose connector 62 - Diaphragm shut-off valve with 6 mm fitting and 6 mm hose connector	A - 44-22 for NH <sub>3</sub> , SO <sub>2</sub> , NO and calibration gas C - 44-28 for CL <sub>2</sub> , HCL, H <sub>2</sub> S	1 - 7.3-22 psig 0.50-1.5 bar 2 - 7.3-58 psig 0.50-4.0 bar 3 - 14.5-102 psig 1.00-7.0 bar 4 - 14.5-145 psig 1.00-10.0 bar	Without - Hand tightening nut with O-Ring seal K - Hexagon coupling nut, Stainless Steel, with flat gasket CL <sub>2</sub> , HCL, NO, H <sub>2</sub> S and calibration gas M - Monel Hexagon coupling nut, (available only for DIN connections number 6 and 7)
<i>Note: For other standards, please consult TESCOM.</i>					

- Please specify gas to identify inlet connector according to national standards.
- For gas mixtures, please consult your gas supplier for the connection number or cylinder valve thread.
- Please reference "Cylinder Valve Connections" in the TESCOM catalog for additional information.

# WEGA Mini

## Regulators - Pressure Reducing

DCATLABO12109XEN2

### Specifications

For other materials or modifications, please consult TESCOM.

#### FLUID MEDIA

For high purity gases and calibration gases without corrosive components except NO, NH<sub>3</sub>, SO<sub>2</sub> (ppm range).

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

##### Maximum Inlet Pressure

2900 psig / 200 bar

##### Outlet Pressure Ranges

Maximum 60 psig / 4.1 bar or 145 psig / 10.0 bar

##### Leak Rate

10<sup>-8</sup> mbar l/sec He for each connection

##### Nominal Flow Rate

**Outlet Pressure 145 psig / 10.0 bar:** Maximum 20 SLPM

**Outlet Pressure 60 psig / 4.1 bar:** Maximum 10 SLPM

##### Flow Capacity

C<sub>v</sub> = 0.02

#### MEDIA CONTACT MATERIALS

##### Body

Nickel-plated Brass or Stainless Steel

##### Diaphragm

316L Stainless Steel

##### Seat

NBR

#### OTHERS

##### Inlet Connection

DIN 477-1 or other national standards

##### Outlet Connection

**Regulator:** 1/4" NPTF internal

**Fittings:** Compression fitting 6 mm with additional hose connector 6 mm

##### Weight

1.9 lbs / 0.85 kg



TESCOM WEGA Mini is a cylinder pressure reducer for gas purities up to 6.0 (99.9999 Vol %) used for lecture bottle and mobile applications. Lightweight and compact design due to the relief valve integrated into the body.

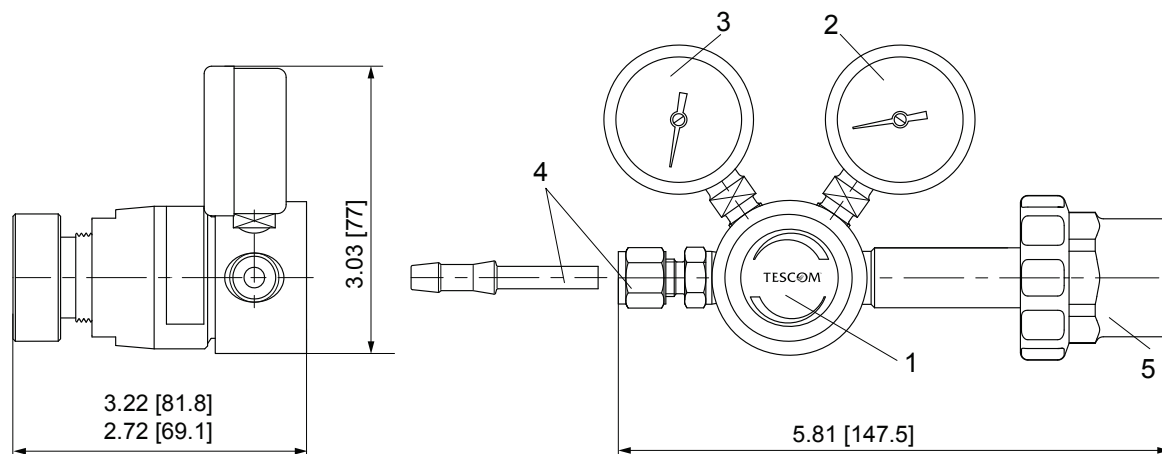
### Applications

- Lecture bottles
- Mobile applications

### Features and Benefits

- Lecture bottle regulator with metal diaphragm
- Based on the field proven TESCOM 04 Series
- Ideal for space saving installations

## WEGA Mini Regulator Drawing



- 1 Basic regulator with integrated relief valve and hand wheel
- 2 Inlet gauge
- 3 Outlet gauge
- 4 Compression fitting 6 mm with hose connector 6 mm
- 5 Cylinder connector

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

## WEGA Mini 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:

D45390	-	06	-	05	-	2
BASIC SERIES		INLET CONNECTION*		OUTLET CONNECTION		OUTLET PRESSURE
D45390 – Nickel-plated Brass D45394 – Stainless Steel		01 - Flammable Gases 06 - Inert Gas, CO <sub>2</sub> , SF <sub>6</sub> , CF <sub>4</sub> 10 - Nitrogen 11 - Nitrous Oxide 13 - Compressed Air 14 - Calibration Gas		00 - 1/4" NPTF internal 05 - 6 mm fitting with 6 mm hose connector		2 - 60 psig / 4.1 bar 3 - 145 psig / 10.0 bar

\* Please ask for national standards other than DIN 477-1