



Regulator Types Explained

Fixed Flow, Demand Flow, Vari-Flow, Dial-a-Flow, Push Button and Trigger Regulators for Calibration Gas Applications

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Regulator Types Explained

A Technical Buyer's Guide to Fixed Flow, Demand Flow, Vari-Flow, Dial-a-Flow, Push Button and Trigger Regulators

Oxford Valves

Precision gas valves, regulators, adaptors and gas control components

About This Guide

Calibration gas regulators are used to control how gas is delivered from a cylinder to a gas detector, calibration cap, analyser, tubing assembly, sampling system or test setup. The correct regulator type depends on the instrument, cylinder connection, required flow rate, gas mixture, pressure, material compatibility, seal compatibility and operating method.

This guide explains the main regulator types used in calibration gas, gas detection, bump testing, portable field calibration and gas control applications.

It is written for gas detection companies, calibration gas suppliers, cylinder fillers, safety equipment distributors, field service teams, laboratories, analyser companies, industrial safety teams and international technical buyers.

Oxford Valves supplies precision gas valves, regulators, adaptors and gas control components. Oxford Valves does not supply calibration gases, gas mixtures, gas generators, gas calibrators or complete gas distribution systems.

Oxford Valves products are manufactured under ISO 9001 quality processes and should be selected according to the specific application, gas, cylinder, pressure, flow, material, seal and connection requirements.

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1. Why Regulator Selection Matters

A calibration gas regulator is not just a connection between a gas cylinder and an instrument. It controls how gas is delivered.

The wrong regulator can create practical and technical problems, including:

- incorrect gas flow to the detector or analyser
- unnecessary gas waste
- unsuitable connection to the cylinder
- incompatible outlet connection
- poor match with pumped instruments
- incorrect pressure range
- unsuitable material for the gas mixture
- seal compatibility issues
- operator confusion during field testing
- unreliable calibration or bump testing procedure

For gas detector calibration and bump testing, regulator selection should be based on the complete setup:

- gas cylinder type
- cylinder connection
- gas mixture
- instrument type
- pumped or diffusion detector
- required flow rate
- required outlet pressure

- outlet tubing or calibration cap
- regulator material
- seal and seat material
- operating environment
- user procedure

The correct regulator type helps ensure that gas is delivered in the way required by the instrument or test method.

2. What a Calibration Gas Regulator Does

A calibration gas regulator controls gas delivery from a cylinder or gas source to downstream equipment.

Depending on the regulator type, it may:

- deliver one preset flow rate
- supply gas only when a pumped instrument creates demand
- allow selection from multiple preset flow rates
- release gas only when a button is pressed
- release gas only when a trigger is pressed
- reduce pressure to a controlled outlet pressure
- support automated gas release when combined with solenoid operation

This eBook focuses on six main regulator types used in calibration gas and gas detector support applications:

- Fixed Flow Regulators
- Demand Flow Regulators
- Vari-Flow Regulators
- Dial-a-Flow Regulators
- Push Button Regulators
- Trigger Regulators

Other Oxford Valves regulator types, such as Pressure Reducing Regulators, Septum Regulators and Solenoid Regulators, are covered in separate guides.

3. Fixed Flow Regulators

What Is a Fixed Flow Regulator?

A fixed flow regulator delivers gas at a preset constant flow rate. It is commonly used with calibration gas cylinders, handheld gas detectors, bump testing systems, gas analysis instruments and portable gas delivery setups.

Unlike adjustable or selectable flow regulators, a fixed flow regulator is normally supplied for one specific flow rate. The user does not normally change the flow during operation.

When to Use a Fixed Flow Regulator

A fixed flow regulator is usually selected when the test procedure requires a known and repeatable gas flow.

It is commonly used for:

- gas detector calibration
- gas detector bump testing
- portable calibration gas cylinders
- disposable calibration gas cylinders
- refillable calibration gas cylinders
- handheld gas detector testing
- environmental monitoring support
- industrial safety gas detection
- marine safety gas detection
- laboratory test gas applications

Why Fixed Flow Regulators Are Common

Fixed flow regulators are popular because they are simple to use and support repeatable gas delivery. They are often used in standard calibration kits where one gas flow rate is required for the detector or calibration cap.

A fixed flow regulator may be preferred when:

- the detector does not have an internal pump
- continuous flow is required during the test
- the required flow rate is already known
- users need a simple routine calibration setup
- repeatability is more important than flow flexibility

Oxford Valves Product

Fixed Flow Regulators — OV-FFR-300 Series

The OV-FFR-300 Series includes fixed flow regulator options for calibration gas and gas detection applications. The range includes configurations for different cylinder connections, pressure requirements, outlet connections and material requirements.

Selection Factors

Before selecting a fixed flow regulator, confirm:

- cylinder connection
 - maximum inlet pressure
 - required fixed flow rate
 - required outlet pressure
 - outlet connection
 - gauge requirement
 - gas mixture
 - material requirement
 - seat and seal compatibility
 - tubing or calibration cap requirement
 - gas detector or instrument procedure
-

4. Demand Flow Regulators

What Is a Demand Flow Regulator?

A demand flow regulator supplies gas only when the connected instrument creates demand. This demand is usually created by an internal pump, sampling pump or gas-drawing instrument.

When the instrument draws gas, the regulator opens and supplies gas. When the demand stops, the regulator shuts off.

When to Use a Demand Flow Regulator

A demand flow regulator is commonly selected when the instrument has its own pump.

It is used for:

- pump-based gas detector calibration
- pumped handheld gas detectors

- gas detector bump testing for pumped instruments
- gas analysis instruments
- sampling systems
- portable calibration gas cylinders
- environmental monitoring equipment
- industrial safety gas detection
- marine gas detection calibration
- laboratory test gas applications

Why Demand Flow Regulators Are Useful

Demand flow regulators help reduce unnecessary gas release because gas is supplied only when the instrument draws it.

They are especially relevant where:

- the instrument has an internal pump
- the calibration setup should not use continuous flow
- the detector or analyser controls the sample draw
- gas should be supplied only during active sampling
- the system is connected to docking or pumped sampling equipment

Oxford Valves Product

Demand Flow Regulators — OV-DFR-400 Series

The OV-DFR-400 Series includes demand flow regulator options for calibration gas and pump-based instrument applications, including C10, CGA600, high pressure and 45-degree configurations.

Selection Factors

Before selecting a demand flow regulator, confirm:

- whether the instrument is pump-based
- the instrument's required flow
- the instrument's vacuum or demand capability
- cylinder connection
- maximum inlet pressure
- outlet connection
- gauge requirement
- gas compatibility
- body material

- seat, seal and diaphragm compatibility
 - calibration or sampling procedure
-

5. Vari-Flow Regulators

What Is a Vari-Flow Regulator?

A Vari-Flow regulator allows the user to select from a series of preset flow rates. It is used where one regulator needs to support different gas detector models, calibration caps, tubing arrangements or test procedures.

A Vari-Flow regulator is not normally an infinitely adjustable flow device. It provides defined flow settings that the user selects manually.

When to Use a Vari-Flow Regulator

A Vari-Flow regulator may be suitable when:

- different instruments require different flow rates
- one service kit is used for multiple detector models
- the user wants selectable preset flow settings
- field technicians need flexibility without carrying multiple fixed flow regulators
- the application involves gas detector calibration or bump testing with changing flow requirements

Typical Applications

Vari-Flow regulators are used for:

- handheld gas detector calibration
- gas detector bump testing
- portable calibration gas cylinders
- C10 calibration gas cylinders
- gas detection service kits
- laboratory test gas applications
- environmental monitoring equipment
- marine gas detection calibration
- portable gas analysis applications

Oxford Valves Product

Vari-Flow Regulators — OV-VFR-500 Series

The OV-VFR-500 Series includes Vari-Flow regulator options for calibration gas and handheld gas detector applications, including selectable flow table configurations.

Selection Factors

Before selecting a Vari-Flow regulator, confirm:

- cylinder connection
 - maximum inlet pressure
 - required flow settings
 - selected flow table
 - outlet connection
 - gas compatibility
 - material configuration
 - seal compatibility
 - gauge requirement
 - detector or test procedure
-

6. Dial-a-Flow Regulators

What Is a Dial-a-Flow Regulator?

A Dial-a-Flow regulator allows the user to manually select from a series of preset flow rates using a dial. It is used when more than one flow setting may be required from a single regulator.

Like a Vari-Flow regulator, a Dial-a-Flow regulator provides defined flow positions rather than unlimited manual adjustment.

When to Use a Dial-a-Flow Regulator

A Dial-a-Flow regulator may be suitable when:

- one regulator must support multiple flow rates
- the user works with different detector models
- the test method requires selectable preset flow settings
- a technical service team needs flexibility in the field
- higher-pressure configurations may be required, depending on model

Typical Applications

Dial-a-Flow regulators are used for:

- handheld gas detector calibration
- gas detector bump testing
- portable calibration gas cylinders
- C10 calibration gas cylinders
- high pressure calibration gas cylinders
- gas detection service kits
- laboratory test gas applications
- environmental monitoring equipment
- industrial safety gas detection systems
- marine gas detection calibration

Oxford Valves Product

Dial-a-Flow Regulators — OV-DAFR-600 Series

The OV-DAFR-600 Series includes Dial-a-Flow regulators for calibration gas and handheld gas detector applications, including C10 and high pressure configurations.

Selection Factors

Before selecting a Dial-a-Flow regulator, confirm:

- cylinder valve connection
 - maximum inlet pressure
 - required flow table
 - required flow setting range
 - outlet connection
 - material requirement
 - gas compatibility
 - seat and seal compatibility
 - gauge requirement
 - standard or high pressure application
-

7. Push Button Regulators

What Is a Push Button Regulator?

A push button regulator releases gas when the operator presses a button. When the button is released, gas flow stops.

This type of regulator is used for short-duration gas release where continuous gas flow is not required.

When to Use a Push Button Regulator

A push button regulator may be suitable when:

- gas is needed only briefly
- the application is bump testing or detector response checking
- the user wants simple manual gas release
- the cylinder is used in the field
- reducing unnecessary gas release is important
- a continuous flow regulator is not preferred

Typical Applications

Push button regulators are used for:

- handheld gas detector bump testing
- gas detector calibration checks
- portable calibration gas cylinders
- C10 calibration gas cylinders
- manual gas release applications
- gas detection service kits
- industrial safety gas detection checks
- laboratory test gas applications
- environmental monitoring equipment
- marine gas detection calibration

Oxford Valves Product

Push Button Regulators — OV-PBR-1100 Series

The OV-PBR-1100 Series includes push button and push type regulator options for calibration gas and handheld gas detector applications.

Selection Factors

Before selecting a push button regulator, confirm:

- cylinder valve connection
- maximum inlet pressure
- fixed flow requirement
- outlet pressure

- outlet connection
 - gas compatibility
 - regulator material
 - seat and seal compatibility
 - gauge requirement
 - bump test or calibration procedure
-

8. Trigger Regulators

What Is a Trigger Regulator?

A trigger regulator releases gas when the user presses a trigger mechanism. When the trigger is released, gas flow stops.

The function is similar to a push button regulator, but the operator uses a trigger rather than a button.

When to Use a Trigger Regulator

A trigger regulator may be suitable when:

- the operator wants handheld manual gas control
- gas is required only during short exposure periods
- the application is field-based
- the user prefers trigger operation
- the test procedure involves short detector checks
- the regulator is used in a portable calibration kit

Typical Applications

Trigger regulators are used for:

- handheld gas detector calibration
- gas detector bump testing
- portable calibration gas cylinders
- C10 calibration gas cylinders
- manual gas release applications
- gas detection service kits
- laboratory test gas applications
- industrial safety gas detection checks
- portable gas testing systems

Oxford Valves Product

Trigger Regulators — OV-TR-700 Series

The OV-TR-700 Series includes C10 trigger regulator options for calibration gas, handheld gas detector testing, bump testing and manual gas release applications.

Selection Factors

Before selecting a trigger regulator, confirm:

- cylinder valve connection
- maximum inlet pressure
- fixed flow requirement
- outlet pressure
- outlet connection
- gas compatibility
- material requirement
- seat and seal compatibility
- gauge range
- calibration cap or tubing setup

9. Fixed Flow vs Demand Flow Regulators

Fixed flow and demand flow regulators are among the most common regulator types used in gas detector calibration. They are selected for different instrument types.

Feature	Fixed Flow Regulator	Demand Flow Regulator
Gas delivery method	Delivers gas continuously at a preset flow rate	Supplies gas only when the instrument creates demand
Typical instrument type	Diffusion-type detector or standard calibration cap setup	Pumped gas detector or sampling instrument
Gas usage	Gas flows while regulator is open	Gas flows only when drawn by the instrument
Main advantage	Simple, repeatable flow	Reduces unnecessary gas release for pumped systems
Common use	Routine calibration and bump testing	Pump-based calibration and sampling

Selection Rule

Use a fixed flow regulator when the test setup requires a continuous known flow.

Use a demand flow regulator when the instrument has an internal pump and is designed to draw gas.

The final choice should always follow the detector manufacturer's instructions and the approved site procedure.

10. Vari-Flow vs Dial-a-Flow Regulators

Vari-Flow and Dial-a-Flow regulators both provide selectable preset flow rates. They are useful where one regulator needs to support more than one flow requirement.

Feature	Vari-Flow Regulator	Dial-a-Flow Regulator
Flow control style	Selectable preset flow positions	Selectable preset flow positions using a dial
Main use	Multiple gas detector or test flow requirements	Multiple preset flow settings from one regulator
Typical connection	C10 configurations depending on model	C10 and high pressure configurations depending on model
Typical user	Field service teams, gas detection technicians, technical buyers	Field service teams, gas detection technicians, technical buyers
Selection basis	Flow table, connection, pressure, material	Flow table, connection, pressure, material

Important Note

Neither product should automatically be treated as an infinitely adjustable regulator. Flow settings should be selected according to the available flow table and the instrument requirement.

11. Push Button vs Trigger Regulators

Push button and trigger regulators are both manual gas release regulators. They are used when gas should flow only while the user operates the regulator.

Feature	Push Button Regulator	Trigger Regulator
Operation	Gas flows when button is pressed	Gas flows when trigger is pressed
Gas release type	Manual short-duration release	Manual short-duration release
Common use	Bump testing, detector checks, field kits	Bump testing, detector checks, field kits
Advantage	Simple button operation	Handheld trigger control
Selection basis	User preference, outlet, flow, pressure, material	User preference, outlet, flow, pressure, material

Selection Rule

Choose between push button and trigger operation based on user handling preference, field procedure, outlet requirement, regulator configuration and gas compatibility.

12. Regulator Selection by Application

Gas Detector Calibration

Common product options:

- Fixed Flow Regulators
- Demand Flow Regulators
- Vari-Flow Regulators
- Dial-a-Flow Regulators
- Push Button Regulators
- Trigger Regulators

Selection depends on whether the detector is pumped or diffusion-based, the required flow rate, the cylinder connection and the calibration procedure.

Bump Testing

Common product options:

- Fixed Flow Regulators
- Push Button Regulators
- Trigger Regulators
- Demand Flow Regulators for pumped instruments
- Vari-Flow or Dial-a-Flow Regulators where different flow settings are required

Bump testing often uses short gas exposure. Manual regulators may be useful where gas should only be released briefly.

Portable Field Calibration

Common product options:

- Fixed Flow Regulators
- Demand Flow Regulators
- Push Button Regulators
- Trigger Regulators
- C10 Regulators
- Adaptors

Field calibration requires practical handling, correct outlet connection, suitable pressure rating and compatibility with the cylinder package.

Gas Detection Service Kits

Common product options:

- Vari-Flow Regulators
- Dial-a-Flow Regulators
- Fixed Flow Regulators
- Demand Flow Regulators
- Push Button Regulators
- Trigger Regulators

Service teams often work with multiple instruments. Selectable flow regulators may reduce the need to carry multiple fixed flow regulators.

Pump-Based Instruments

Common product option:

- Demand Flow Regulators

A pumped instrument normally draws gas through its internal pump. A demand flow regulator is generally selected where gas should be supplied only when the instrument demands it.

Manual Short-Duration Gas Release

Common product options:

- Push Button Regulators

- Trigger Regulators

These are used where the operator wants to release gas only during a short test or response check.

13. Connection, Pressure and Outlet Considerations

Regulator selection must consider more than regulator type.

Cylinder Connection

Common connection considerations include:

- C10 connection
- CGA600 connection
- NPT connection
- high pressure cylinder connection
- cylinder-specific connection requirement

The regulator inlet must match the cylinder valve or gas source connection. A regulator should never be forced onto an incompatible connection.

Maximum Inlet Pressure

The regulator must be rated for the maximum pressure of the cylinder or upstream gas source.

Confirm:

- cylinder pressure
- regulator maximum inlet pressure
- gauge range
- pressure rating of connected adaptors
- pressure rating of downstream components

Outlet Pressure

Some regulator types include a defined outlet pressure. The outlet pressure must be suitable for the downstream tubing, calibration cap, instrument or gas delivery equipment.

Outlet Connection

Common outlet options may include:

- hose barb
- straight tube outlet
- taper outlet
- NPT outlet
- compression outlet

The outlet must match the tubing, calibration cap, adaptor or instrument setup.

Flow Rate

Confirm the required flow rate from:

- detector manufacturer instructions
- calibration cap requirement
- site procedure
- analyser or instrument requirement
- tubing arrangement
- docking or sampling method

Flow rate should not be guessed.

14. Material and Seal Considerations

Material and seal selection is important because gas control components are in contact with the gas.

Body Materials

Oxford Valves regulator ranges may include:

- brass nickel plated configurations
- stainless steel configurations
- aluminium or aluminium anodised configurations

The correct material depends on the gas mixture, pressure, moisture content, concentration and application.

General Material Guidance

Stainless steel is commonly selected where stronger material compatibility is required.

Brass nickel plated configurations are generally used for compatible non-reactive gas applications.

Aluminium or aluminium anodised configurations may be selected where lower weight is useful and the gas mixture is compatible.

Final selection must always be reviewed against the actual gas mixture and operating conditions.

Seat and Seal Materials

Oxford Valves regulator ranges may include seat and seal materials such as:

- Viton
- Buna-N
- Teflon
- PCTFE
- HNBR where applicable in related product ranges

Compatibility should be checked against:

- gas mixture
- concentration
- balance gas
- moisture content
- pressure
- temperature
- exposure time
- operating environment

No regulator should be assumed suitable for all gases.

15. Product Comparison Table

Regulator Type	How It Works	Typical Use	Key Selection Factors
Fixed Flow Regulator	Delivers one preset constant flow rate	Routine calibration, bump testing, standard detector kits	Flow rate, cylinder connection, inlet pressure, outlet connection, material
Demand Flow Regulator	Supplies gas only when the instrument draws gas	Pumped gas detectors, sampling instruments	Instrument pump capability, vacuum demand, inlet pressure, outlet connection, material

Regulator Type	How It Works	Typical Use	Key Selection Factors
Vari-Flow Regulator	Allows selection from multiple preset flow rates	Multiple detector models or flow requirements	Flow table, C10 connection, inlet pressure, material, outlet connection
Dial-a-Flow Regulator	Allows selection from preset flow rates using a dial	Field kits, multiple flow settings, C10 or high pressure applications	Flow table, inlet pressure, connection, material, outlet connection
Push Button Regulator	Releases gas while button is pressed	Short bump tests, manual gas release	Flow, inlet pressure, outlet connection, user procedure, material
Trigger Regulator	Releases gas while trigger is pressed	Handheld field checks, short gas release	Flow, inlet pressure, outlet connection, user preference, material

16. Common Selection Mistakes

Choosing a Regulator Only by Cylinder Connection

Cylinder connection is important, but it is not enough. Flow rate, pressure, outlet connection, material, seal compatibility and instrument type must also be checked.

Using Fixed Flow on a Pumped Instrument Without Review

A pumped instrument may require a demand flow regulator. Using a continuous flow regulator where demand flow is expected can affect the procedure.

Using Demand Flow on a Non-Pumped Instrument

Demand flow regulators require instrument demand. If the detector does not draw gas, a fixed flow regulator may be more suitable.

Selecting the Wrong Flow Rate

The regulator flow should match the detector, calibration cap, tubing and test procedure. Incorrect flow may affect detector response or waste gas.

Assuming Selectable Flow Means Infinite Adjustment

Vari-Flow and Dial-a-Flow regulators provide preset flow positions. They should not be treated as unlimited adjustable flow regulators unless specifically designed that way.

Using the Wrong Material for the Gas

Brass nickel plated, stainless steel and aluminium configurations have different compatibility considerations. Gas compatibility must be reviewed before selection.

Ignoring Seal Compatibility

Seat and seal materials must be suitable for the gas mixture, pressure and operating conditions.

Overlooking Outlet Connection

A regulator can have the correct inlet and pressure rating but still be unsuitable if the outlet does not match the tubing or instrument.

Exceeding the Pressure Rating

No regulator should be used above its specified maximum inlet pressure.

17. Technical Buyer Checklist

Before requesting a regulator quote, collect the following information.

Application

- gas detector calibration
- bump testing
- portable field calibration
- fixed gas detection calibration
- gas analysis
- environmental monitoring
- laboratory test gas
- manual gas release
- pumped instrument sampling

Instrument Information

- detector or analyser type

- pumped or diffusion-based instrument
- required flow rate
- calibration cap requirement
- tubing arrangement
- docking or sampling requirement
- manufacturer procedure where available

Cylinder Information

- cylinder type
- cylinder pressure
- cylinder valve connection
- refillable or non-refillable cylinder format
- cylinder size or package type

Gas Information

- gas mixture
- concentration
- balance gas
- moisture content
- reactive or non-reactive classification
- any compatibility concerns

Regulator Requirement

- fixed flow
- demand flow
- selectable flow
- push button release
- trigger release
- high pressure requirement
- C10 or CGA600 connection
- outlet pressure requirement
- outlet connection

Material and Seal Information

- brass nickel plated requirement
- stainless steel requirement
- aluminium or aluminium anodised requirement
- seat material

- seal material
- diaphragm material where relevant
- compatibility notes

Commercial Information

- quantity
 - destination country or region
 - existing part reference
 - drawings or samples if available
 - required documentation
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18. Oxford Valves Product Mapping

Fixed Flow Regulators — OV-FFR-300 Series

Used where a preset constant gas flow is required for calibration gas delivery, gas detector calibration, bump testing and portable gas delivery applications.

Demand Flow Regulators — OV-DFR-400 Series

Used where the instrument has an internal pump or sampling system and should draw gas only when required.

Vari-Flow Regulators — OV-VFR-500 Series

Used where multiple preset flow settings are required from one regulator, especially for handheld gas detector calibration and field service kits.

Dial-a-Flow Regulators — OV-DAFR-600 Series

Used where selectable flow settings are needed, including C10 and high pressure regulator configurations depending on application.

Push Button Regulators — OV-PBR-1100 Series

Used where the operator releases gas manually by pressing a button, typically for short-duration bump testing or detector response checks.

Trigger Regulators — OV-TR-700 Series

Used where the operator releases gas manually by pressing a trigger, typically for handheld detector testing and portable field calibration.

Related Oxford Valves Products

- C10 Valves — OV-C10-200 Series
 - Adaptors — OV-A-800 Series
 - Flow Control Valves — OV-FCV-1000 Series
 - Integrated C10 Valves — OV-IC10-900 Series
 - Pressure Reducing Regulators — OV-PRR-1500 Series
 - Solenoid Regulators — OV-SR-1300 Series
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19. Frequently Asked Questions

What is the most common regulator for gas detector calibration?

Fixed flow regulators are commonly used for routine gas detector calibration and bump testing where a preset continuous flow rate is required.

When should I use a demand flow regulator?

A demand flow regulator should be considered when the instrument has an internal pump or sampling system that draws gas as required.

What is the difference between fixed flow and demand flow regulators?

A fixed flow regulator delivers gas continuously at a preset flow rate. A demand flow regulator supplies gas only when the instrument creates demand.

What is a Vari-Flow regulator?

A Vari-Flow regulator allows the user to select from multiple preset flow rates. It is useful where one regulator needs to support several detector models or procedures.

What is a Dial-a-Flow regulator?

A Dial-a-Flow regulator is a regulator that allows users to select from preset flow rates using a dial. It is used where multiple flow settings are required.

Is a Dial-a-Flow regulator the same as an adjustable regulator?

Not exactly. A Dial-a-Flow regulator normally provides preset flow positions, while an adjustable regulator may allow continuous manual adjustment depending on design.

What is a push button regulator?

A push button regulator releases gas when the operator presses a button. Gas flow stops when the button is released.

What is a trigger regulator?

A trigger regulator releases gas when the operator presses a trigger mechanism. Gas flow stops when the trigger is released.

Which regulator is best for bump testing?

The correct regulator depends on the detector and procedure. Fixed flow, push button, trigger and demand flow regulators may all be suitable depending on whether the instrument is pumped, diffusion-based or manually checked.

Can one regulator be used for all gases?

No. Regulator suitability depends on the gas mixture, concentration, moisture content, pressure, body material, seat material and seal compatibility.

Does Oxford Valves supply calibration gas?

No. Oxford Valves supplies gas valves, regulators, adaptors and gas control components. Oxford Valves does not supply calibration gases, gas mixtures, gas generators, gas calibrators or complete gas distribution systems.

20. Request Technical Support

For support selecting a regulator, please provide:

- application
- gas type or mixture
- cylinder type
- cylinder connection
- cylinder pressure
- pumped or diffusion instrument
- required flow rate
- required outlet pressure
- outlet connection
- regulator type preferred
- material preference

- seal or seat requirement
 - quantity
 - destination country or region
 - drawings, samples or existing references if available
-



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Final product suitability should always be confirmed against the specific gas, cylinder, pressure, flow, connection, material, seal and application requirements.