Model 3533

DESCRIPTION

The Model 3533 single-stage regulator features compact size and high purity construction. This regulator is ideal for controlling gases or mixtures in systems where brass is acceptable and in which the small outlet pressure change caused by cylinder pressure decay is not objectionable.

APPLICATIONS

This regulator is ideally suited for critical laboratory techniques involving high purity gases in which brass is acceptable.

DESIGN FEATURES

- **All parts in contact with the gas stream are either metal or Teflon®** . . . Assurance that system purity will be maintained in non-corrosive gas systems.
- **Compact Size** . . . Fits into tight systems and keeps system weight at a minimum.
- **Simple Construction** . . . Keeps cost low and allows easy maintenance.
- **Brass, diaphragm sealed packless outlet valve** . . . Maintains system purity even at regulator outlet.

MATERIALS OF CONSTRUCTION

Body:	Brass
Diaphragm:	301 Stainless Steel Teflon® Lined
Seats and Seals:	Kel-F/Nylon
Bonnet:	Nickel Plated Brass Bar Stock
Gauge:	Brass Bourdon Tube Type
Outlet Valve:	4373 Brass Diaphragm Sealed Packless

SPECIFICATIONS

Maximum Inlet Pressure:	3000 psig (20,700 kPa)
Operating Temperature Range:	– 40 to 150°F (– 40 to 65°C)
Flow Coefficient:	Cv = 0.022
Body Ports:	¼" NPT
Outlet Fitting:	¼" Flareless Tube Fitting (Brass)
Overall Dimensions:	8"w x 9½"h x 4"d (20 x 24 x 10 cm)
Shipping Weight:	4 lb. 2 oz. (1.9 kg)
Delivery Pressure Range:	0-25 psig
Delivery Pressure Gauge:	30" vac-0-30 psig
Cylinder Pressure Gauge:	0-3000 psig

MODEL

3533 (Specify CGA)

OPTION

Helium Leak Rate Certification — Consists of a five-minute check of helium diffusion into the regulator. Maximum acceptable leak rate is 2×10^{-10} ccs.

Model 3590

Low Dead Volume Regulator

DESCRIPTION

This Ultra High Purity stainless steel pressure regulator features excellent outlet pressure control in minimum internal volume design. This internal volume, dead volume, is limited to a scant 7 cubic centimeters. To achieve the low dead volume design, the regulator is built with no gauge ports. The outlet pressure is set by adjusting the pressure adjust knob until the bottom edge of the knob intersects the pressure scale marked on the regulator bonnet.

APPLICATIONS

The Matheson Model 3590 low dead volume regulator is recommended for applications involving trace level mixtures of reactive and/or adsorptive gases and vapors and for ultra high purity (Matheson Purity, UHP and Research) pure gases. The low dead volume minimizes contamination and the time required to deliver a stable supply of mixture or pure gas to your system. Such applications include:

EPA protocol measurement NBS traceability measurement
High Accuracy Trace impurity analysis

DESIGN FEATURES

- **Stainless Steel 316 body and diaphragm** . . . Assures high system purity and allows high vacuum on regulator interior without diaphragm distortion.
- **Ultrasonically cleaned** . . . Allows high purity gas handling without costly "pre-cleaning".
- **Helium Leak Rate Certification Available**
- **Low Dead Volume** . . . Assures minimum time to stabilize gas flow from regulator to increase precision of analytical results.

MATERIALS OF CONSTRUCTION

Body:	316 Stainless Steel
Diaphragm:	316 Stainless Steel
Seals:	Silver
Seat:	Kel-F
Poppet:	316 Stainless Steel
Bonnet:	Nickel Plated Brass

SPECIFICATIONS

Delivery Pressure Range:	2-100 psi (14-690 kPa)
Maximum Inlet Pressure:	3,000 psi (20,700 kPa)
Temperature Range:	– 40 to 200°F (– 40 to 93°C)
Maximum Flow of Air:	21 cfh (10 lpm)
Inlet Port in Body:	1/4" NPT
Outlet Connection:	1/8" Stainless Steel flareless tube fitting
Overall Dimensions:	6"w x 2"h x 5¼"d (15 x 5 x 13 cm)
Shipping Weight:	3 lbs. 8 oz. (1.6 kg)

OPTION

Helium Leak Rate Certification — Consists of a five-minute check of helium diffusion into the regulator. Maximum acceptable leak rate is 2×10^{-10} ccs.