



G93 Series BASOTROL® Combination Automatic Gas Valves

The G93 Series BASOTROL® Gas Valve combines the automatic pilot valve, pressure regulator and automatic main valve functions in one valve. Typical applications include central heating units, unit heaters, commercial clothes dryers and similar applications.



Figure 1: G93 Combination Gas Valve

Features and Benefits	
<input type="checkbox"/> Bipolar Magnetic Operator Construction	Provides dependable operation and long life
<input type="checkbox"/> 200,000 Btu/hr (59 kW) Regulation Capacity	Standardizes on one valve
<input type="checkbox"/> Top or Bottom Regulation Adjustment	Provides application flexibility
<input type="checkbox"/> Compact Design	Permits installation in dimensionally restricted applications
<input type="checkbox"/> Selectable Pilot Tap Positions	Provides application flexibility
<input type="checkbox"/> Numerous Magnetic Operator Cover Styles Available	Allows various mounting options and connection choices to best suit your requirements

Product Overview

Application

The G93 valves are suitable for use with natural gas, Liquefied Petroleum (LP) gas or LP gas-air mixtures, at pressures up to 0.5 psi (35 mbar) and are suitable for operation over a temperature range of 32 to 155°F (0 to 68°C).

Note: This unit should be used only in applications that are within the limitations and provisions of the applicable American National and/or Underwriters Laboratories® (UL) standards.

Description

The G93 valves are supplied with a standard magnetic operator and are 100% shutoff valves when the pilot is extinguished. Bipolar construction of the operator reduces the possibility of the valve sticking in the open position from residual magnetism or from mechanical interference.

A leak limit orifice is supplied as standard on valves with a regulator stack.

Valve Constructions

The G93 series is available with 1/2 x 1/2 in. body connections with a 25, 120 or 240 VAC 2-wire magnetic operator. Some models are also available with a 208/240 VAC operator. Refer to the *Ordering Information* section for more information.

Additionally, the G93 series is available with other optional configurations.

Pressure Connections

The G93 valve is available with 1/8-27 NPT pressure taps when required (see Figure 4). Contact BASO Gas Products for details and ordering information.

Magnetic Operator Cover Styles

An aluminum magnetic operator cover with conduit hub and 30 in. (762 mm), 18 AWG stranded lead wires are supplied as standard on all line voltage models. The leads and hub position may be located at the top, over the outlet, on the right side or on the left side of the valve. Lead wires with 1/4 in. (6.35 mm) quick-connect terminals are also available.

The UL Listed steel operator cover is available with a top conduit hub only.

A plastic magnetic operator cover with 1/4 in. (6.35 mm) quick-connect male terminals is supplied as standard on all voltage models.

Contact BASO Gas Products for details and ordering of magnetic operator cover style and wiring requirements.

Pilot Gas

G93 valves are available with internal pilot gas flow.

Rotor "B" Valve

Figure 2 illustrates a typical installation showing a rotor "B" valve.

A rotor "B" valve (for pilot flame) with pilot flow adjuster is available. Various outlet positions are available.

Contact BASO Gas Products for details and ordering.

Regulator/Pilot Tap Options

The G93 is designed for various configurations. The top adjust or bottom adjust regulator and right or left-hand pilot tap options take advantage of space or access limitations.

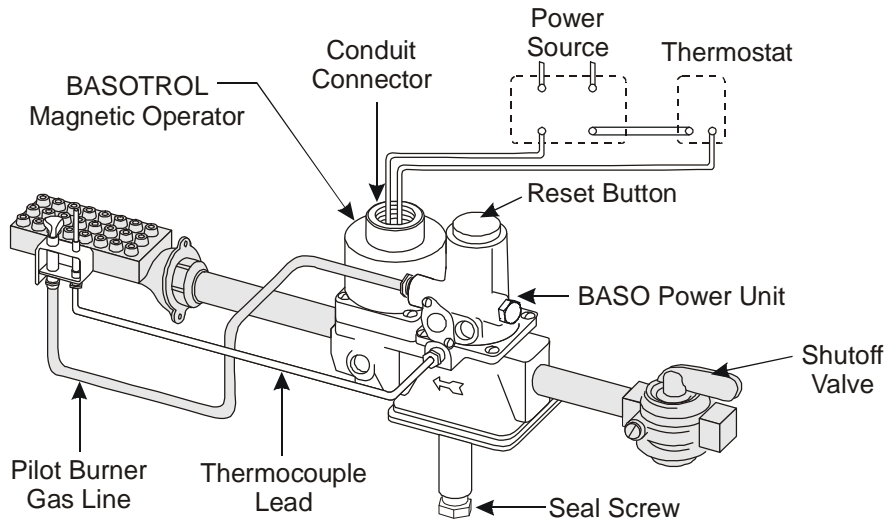


Figure 2: Typical Installation for Internal Pilot Gas Flow

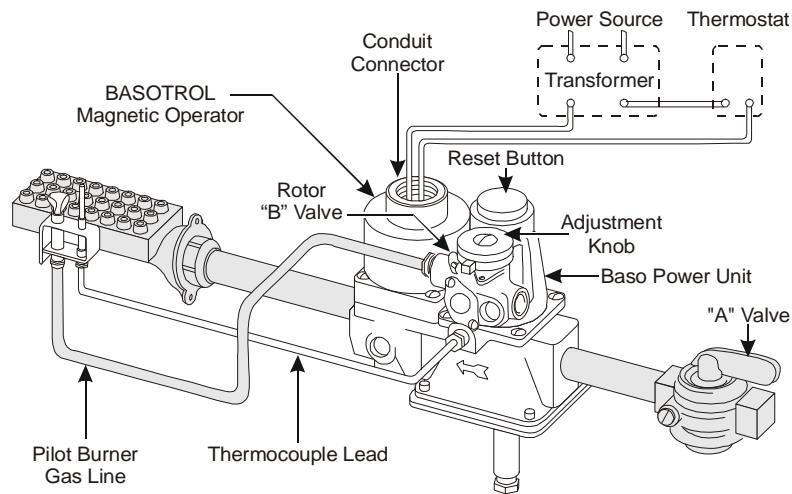
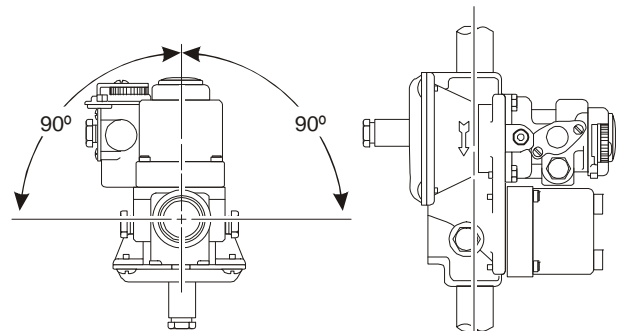


Figure 2: Typical Installation Showing Internal Pilot Gas Flow and Rotor "B" Valve

Mounting

Series G93 valves may be mounted on a horizontal manifold with the magnetic operator pointed up (vertical) or in a position not exceeding 90° from vertical. The valve may also be mounted on a vertical manifold in any position around its axis. See Figure 3.



Horizontal mounting limited to 90° from upright.

Vertical mounting may be 360° around its axis with the gas flow either up or down, but always in the direction of the arrow.

Figure 3: Mounting Positions

Dimensions

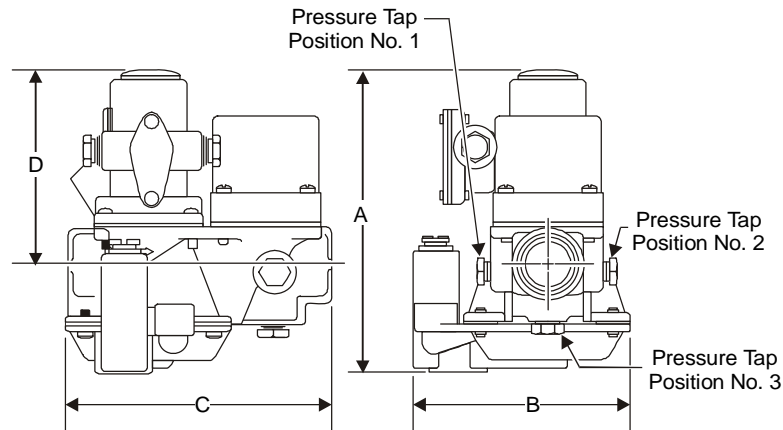


Figure 4: Lever-acting Regulator Model Dimensions Showing Optional Pressure Tap Positions

Table 1: Dimensions

Series Number	A Height		B Width		C Length		D Height	
	in.	mm	in.	mm	in.	mm	in.	mm
Top Adjust G93	4.84	123	3.42	87	4.23	107	3.19	80

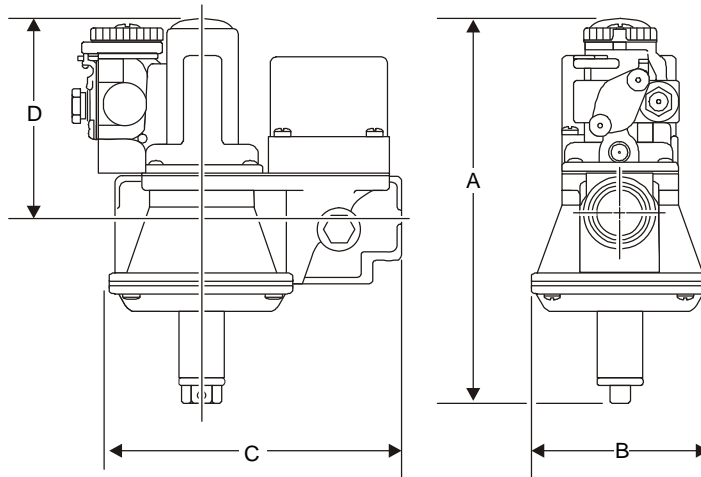


Figure 5: Direct-acting Regulator Model Dimensions

Table 2: Dimensions

Series Number	A Height		B Width		C Length		D Height	
	in.	mm	in.	mm	in.	mm	in.	mm
Bottom Adjust G93	5.66	144	2.66	67	4.23	107	3.19	80

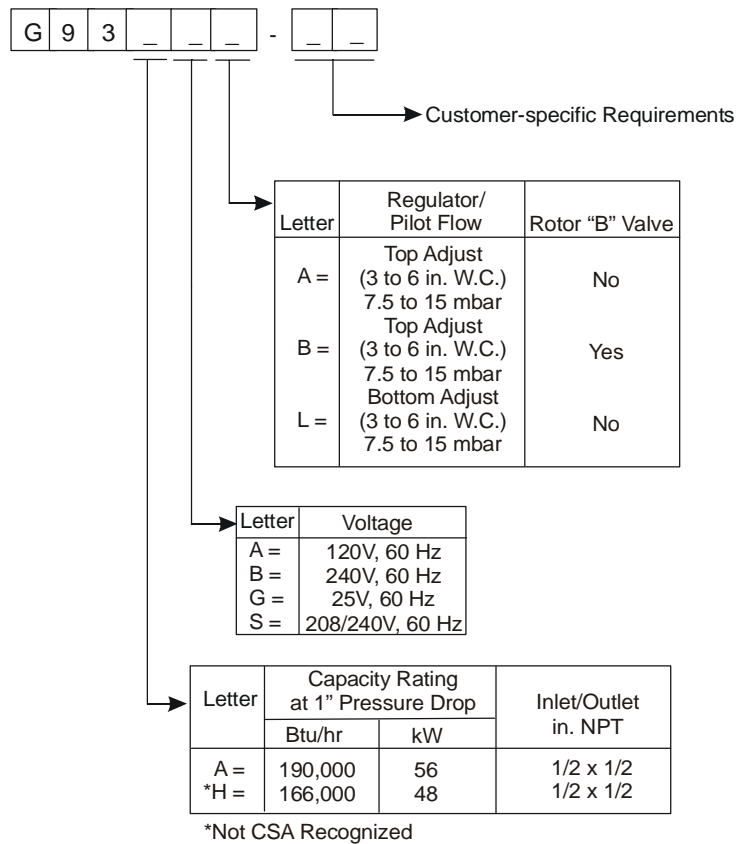
Range of Regulation

Table 3: Range of Regulation

Model	Q _{MINIMUM}		Q _{MAXIMUM}	
	cf/h	m ³ /h	cf/h	m ³ /h
All G93	20	0.57	200	5.7

Notes: 1 m³/h = 10.67 kW (1 cf/h = 1,000 Btu/hr) natural gas at 0.64 sp gr
For LP flow rate, see Figure 6.

Ordering Information



The presence of a particular construction in this information does not guarantee its availability. Consult BASO Gas Products for available constructions.

Figure 7: Ordering Matrix

Technical Data

Product	G93 Series BASOTROL Combination Automatic Gas Valve		
Maximum Operating Pressure	0.5 psi (35 mbar)		
Valve Body	Aluminum		
Permissible Ambient (Surface) Temperature	CSA:	32 to 155°F (0 to 68°C)	
	UL:	32 to 125°F (0 to 52°C)	
Available Magnetic Operator Cover Styles	Aluminum side conduit hub Aluminum top conduit hub Aluminum top without conduit hub Aluminum side outlet with eyelet Steel top conduit hub Plastic with 1/4 in. (6.35 mm) male quick-connect terminals		
Electrical Rating	25 VAC, 60 Hz, 0.3 ampere draw 120 VAC, 60 Hz, 0.05 ampere draw 240 VAC, 60 Hz, 0.03 ampere draw 208/240 VAC, 60 Hz, 0.037 ampere draw		
Recommended Thermocouple Lead Lengths	K15:	12 to 48 in. (305 to 1,220 mm)	
	K16:	12 to 72 in. (305 to 1,830 mm)	
	K19:	18 to 72 in. (457 to 1,830 mm)	
Wiring Connections	1/4 in. (6.35 mm) male quick-connect terminals, or 30 in. (762 mm) lead wires (other lengths are optional)		
Regulator Adjustment	3 to 6 in. W.C. (7.5 to 15 mbar), top and bottom adjust regulator, natural gas 6 to 12 in. W.C. (15 to 30 mbar), top adjust regulator, LP gas 8 to 12 in. W.C. (20 to 30 mbar), bottom adjust regulator, LP gas		
Inlet and Outlet Body Connections	1/2 x 1/2 in. NPT		
Types of Gas	Natural, Liquefied Petroleum (LP) or LP gas-air mixtures		
Accessories	Conversion Kits:	Natural gas to LP gas:	top adjust regulator Y71GF-4 bottom adjust regulator Y71GF-3
		LP gas to natural gas:	top adjust regulator Y71QH-2 bottom adjust regulator Y71QH-3
Packaging	Bulk pack supplied to original equipment manufacturer (individual pack optional).		
Bulk Pack Quantity	32		
Bulk Pack Weight	51 lb (23 kg)		
Agency Listing	CSA Certificate Number 229521-1656066 (excludes G93H_ _) UL Recognized File Number MH2926		
Specification Standards	ANSI Z21.78, CSA 6.20 UL Standard 372 and 429		

Performance specifications are nominal and conform to acceptable industry standards. All agency certification of BASO products is performed under dry and controlled indoor environmental conditions. Use of BASO products beyond these conditions is not recommended and may void the warranty. Product must be protected if exposed to water (dripping, spraying, rain, etc.) or other harsh environments. The original equipment manufacturer or end user is responsible for the correct application of BASO products. Consult BASO Gas Products LLC for questionable applications. BASO Gas Products LLC shall not be liable for damages or product malfunctions resulting from misapplication or misuse of its products.

Refer to the G93 Series BASOTROL® Combination Automatic Gas Valve Installation Instructions (BASO-INS-G93) for necessary information on the installation, use, and servicing of this product.

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Printed in U.S.A.