

# COMBUSTEX

## BURNER IGNITION & CONTROL SYSTEMS

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## The Combustex Series 100

*C/I Safety Shutoff Valve*

*Reliable pressure control for all fuel gas applications.*

Phone: (403) 342-4494 | Email: [sales@combustex.com](mailto:sales@combustex.com) | Web: [www.combustex.com](http://www.combustex.com)

Call Us Toll Free: 1-855-226-2582

**CANALTA**  
CONTROLS GROUP

## The *Combustex Series 100*

Standard Control Valve is designed for safety and efficiency, offering throttling or on/off control of low pressure liquid and gas flow. This “fail-closed” valve was specifically developed to be a C/I Safety Shutoff Valve in compliance with CSA B149.3-10, CSA 6.5-05 and ANSI 21.21-05, meeting or exceeding the requirements for safe operation of fired heaters.

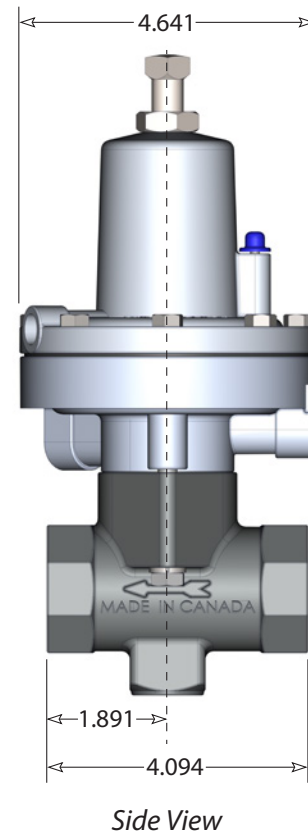
With tapped vent ports, sealed spring case and HNBR sealing components, the Combustex Series 100 Standard Control Valve is designed to be used with either air or natural gas as the diaphragm operating medium.

This valve is capable of effective operation in a wide variety of applications and industries where on / off or proportional control with a positive seat seal are required.

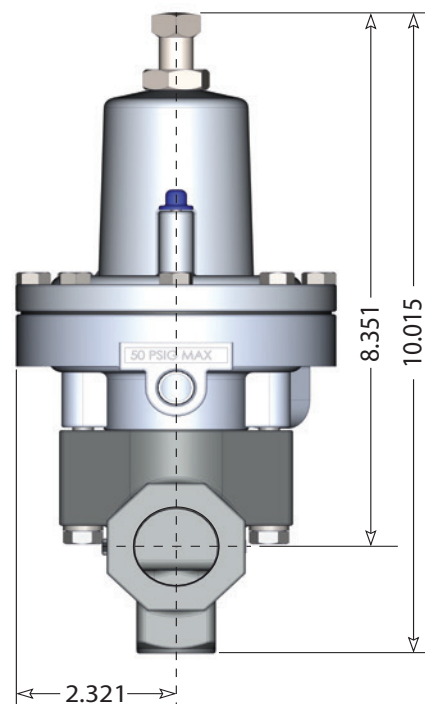


**CONNECTIONS**  
 Packing Vent - 1/4" FNPT  
 Supply - 1/4" FNPT

Inlet - 1" FNPT  
 Outlet - 1" FNPT



Side View



Upstream End View

## KEY FEATURES

- **Balanced Plug Design with Soft Seat**

These features enable the valve to provide high flow and full bubble-tight shutoff over the complete pressure range of the valve.

- **Corrosive Fluid Compatibility**

Thanks to the standard 316 SS valve plug and cage material, this valve is capable of effective operation with a wide selection of corrosive fluids and gasses.

- **H<sub>2</sub>S Gas Service Compliant**

Optional materials are available for NACE MR-01-75 compliance.

- **Ease of Maintenance**

Actuator disassembly is not required to service the process sealing components. The valve plug, cage and seat sealing components can be easily accessed simply by removing two body bolts.

- **Ease of Installation**

Compact, lightweight construction permits installation in close quarter applications.

- **Leak Protection**

With double block and bleed designed packing, process fluids cannot weep into the actuator cavities or *vice versa*.

- **Natural Gas Actuated Capability**

The actuator diaphragm, seals and spring case are designed to allow for use with air or natural gas as the actuating medium. All vents are tapped 1/4" NPT, enabling leaked control gases to be piped away to a safe location.

- **Visual Indication of Valve Position**

With a brightly colored indicator, the position of the actuating diaphragm provides the operator or service technician an easy guide to the position of the valve plug.

## Operational

BTU Rating .....	15,968,000 BTU/Hr. (@ 60 Psi supply with 10% P.D.)
Cv Rating .....	8.1
Fail Postition .....	Closed
Max. Working Pressure .....	60 PSIG (377 kPa)
Ambient Temp. Range .....	-40°C to +40°C (-40°F to +104°F)
Body Connection Size .....	1" Female NPT - Inlet & Outlet
Supply / Vent Connection Size .....	1/4" Female NPT
Valve Plug Style .....	Tapered Balanced Plug
Valve Seat Diameter .....	3/4" (19.05mm)
Valve Plug Travel .....	3/4" (19.05mm)
Maximum Pressure Drop .....	60 PSIG (377 kPa)
Actuator Spring Range .....	Standard: 3 to 15 PSIG (18.9 to 94.4 kPa) Optional: 6 to 30 PSIG (37.7 to 189 kPa)
Max. Spring Case Pressure .....	50 PSIG (315 kPa)

## Materials

Body .....	A216 WCB, A352 LCC Steels
Bonnet .....	Aluminum (A216 WCB optional)
Spring Case .....	Aluminum
Valve Plug, Cage & Stem .....	316 Stainless Steel
Soft Seat .....	HNBR Standard (other materials optional)
Packing .....	Teflon and HNBR Standard
Diaphragm & Assoc. Seals .....	HNBR
Body Bolting .....	Standard: Clear Zinc Plated Steel Optional: B7M Bolting
Spring Case Bolting .....	Clear Zinc Plated Steel
Springs .....	Clear Zinc Plated Steel
Unit Weight .....	~ 6 lbs. (2.73 Kg.)

## CONTACT

# COMBUSTEX

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6759 65th Ave.  
Red Deer, AB T4P 1X5  
CANADA

# COMBUSTEX

## BURNER IGNITION & CONTROL SYSTEMS

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### The Combustex Series 100 P.O.C.

*C/I Proof of Closure Safety Shutoff Valve*

*When safety is the priority, prove it.*

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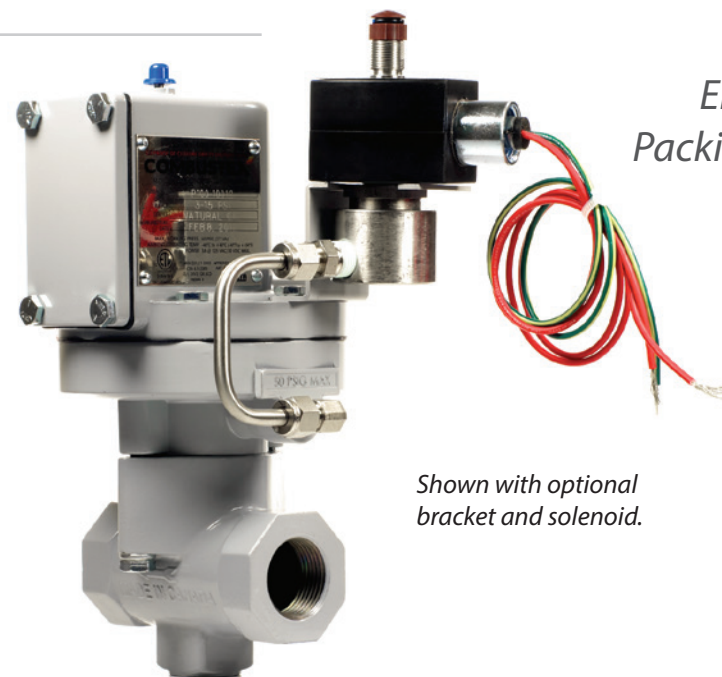
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**CANALTA**  
CONTROLS GROUP

The **Combustex Series 100 P.O.C.** Proof of Closure Control Valve is designed for safety and efficiency, serving as a main shutdown valve and providing additional verification of valve closure through an electrical switch. This “fail-closed” valve was specifically developed to be a C/I Proof of Closure Safety Shutoff Valve in compliance with CSA B149.3-05, CSA 6.5-10 and ANSI 21.21-05. This valve meets or exceeds the requirements for safe operation of fired heaters.

With tapped vent ports, sealed spring case and HNBR sealing components, the Combustex Series 100 Proof of Closure Control Valve is designed to be used with either air or natural gas as the diaphragm operating medium.

This valve operates effectively in a wide variety of applications and service environments where on / off control and proof of a positive seat seal are required.

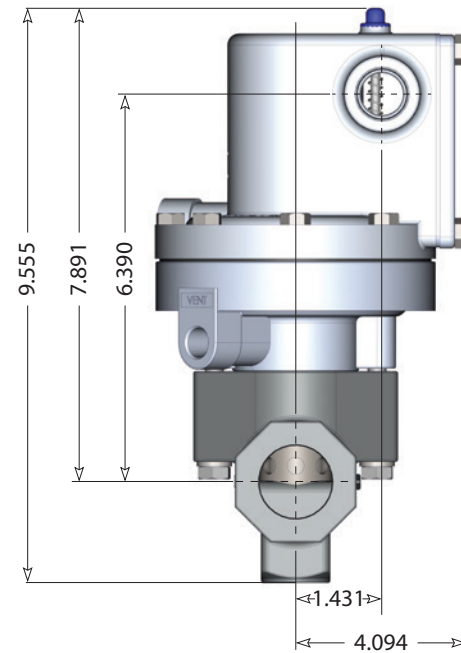


Shown with optional bracket and solenoid.

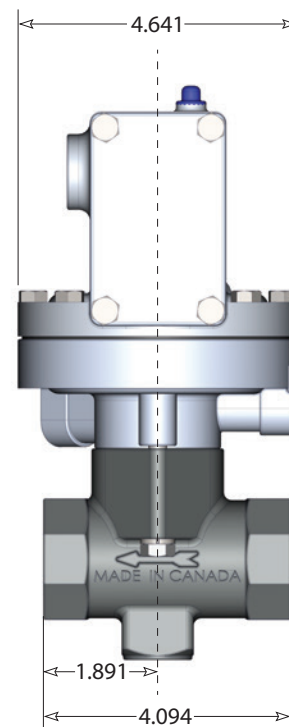
**CONNECTIONS**

Electrical - 1/2" FNPT  
 Packing Vent - 1/4" FNPT  
 Supply - 1/4" FNPT

Inlet - 1" FNPT  
 Outlet - 1" FNPT



Upstream End View



Side View

**KEY FEATURES**

• **Proof of Closure**

A uniquely designed diaphragm assembly provides over-travel after valve seat closure to provide true proof of closure. The explosion-proof SPDT dry contact switch provides either normally open or normally closed action for control purposes.

• **Balanced Plug Design with Soft Seat**

These features enable the valve to provide high flow and full bubble-tight shutoff over the complete pressure range of the valve.

• **Corrosive Fluid Compatibility**

Thanks to the standard 316 SS valve plug and cage material, this valve is capable of effective operation with a wide selection of corrosive fluids and gasses.

• **H<sub>2</sub>S Gas Service Compliant**

Optional materials are available for NACE MR-01-75 compliance.

• **Ease of Maintenance**

Actuator disassembly is not required to service the process sealing components. The valve plug, cage and seat sealing components can be easily accessed simply by removing two body bolts.

• **Ease of Installation**

Compact, lightweight construction permits installation in close quarter applications.

• **Leak Protection**

With double block and bleed designed packing, process fluids cannot weep into the actuator cavities or vice versa.

• **Natural Gas Actuated Capability**

The actuator diaphragm, seals and spring case are designed to allow for use with air or natural gas as the actuating medium. All vents are tapped 1/4" NPT, enabling leaked control gases to be piped away to a safe location.

• **Visual Indication of Valve Position**

With a brightly colored indicator, the position of the actuating diaphragm provides the operator or service technician an easy guide to the position of the valve plug.



## Operational

BTU Rating	15,968,000 BTU/Hr. (@ 60 Psi supply with 10% P.D.)
Cv Rating	8.1
Fail Position	Closed
Max. Working Pressure	60 PSIG (377 kPa)
Ambient Temp. Range	-40°C to +40°C (-40°F to +104°F)
Body Connection Size	1" Female NPT - Inlet & Outlet
Supply / Vent Connection Size	1/4" Female NPT
Valve Plug Style	Tapered Balanced Plug
Valve Seat Diameter	3/4" (19.05mm)
Valve Plug Travel	3/4" (19.05mm)
Maximum Pressure Drop	60 PSIG (377 kPa)
Actuator Spring Range	Standard: 3 to 15 PSIG (18.9 to 94.4 kPa) Optional: 6 to 30 PSIG (37.7 to 189 kPa)
Max. Spring Case Pressure	50 PSIG (315 kPa)

## Materials

Body	A216 WCB, A352 LCC Steels
Bonnet	Aluminum (A216 WCB optional)
Spring Case	Aluminum
Valve Plug, Cage & Stem	316 Stainless Steel
Soft Seat	HNBR Standard (other materials optional)
Packing	Teflon and HNBR Standard
Diaphragm & Assoc. Seals	HNBR
Body Bolting	Clear Zinc Plated Steel (B7M bolting optional)
Spring Case Bolting	Clear Zinc Plated Steel
Springs	Clear Zinc Plated Steel
Unit Weight	~ 6 lbs. (2.73 Kg.)

## Electrical

Enclosure	Class 1, Div. 2 (B, C, D) Haz. Loc. - NEMA 4
Connection	One 1/2" Female NPT
Lead Wires	Hermetically Sealed
SPDT	1 N/O, 1 N/C Dry Contact Switches
Power Requirements	3A - 125 Volt A.C., 30 Volt D.C.

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