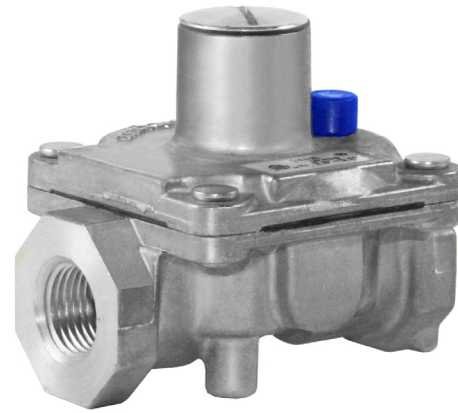


RV SERIES

Rubber Seat Poppet Design

The compact RV poppet regulators are designed primarily for main burner and pilot load applications. Typical applications include residential and commercial cooking appliances, barbecues, hearth products, and pilot lines. Maxitrol rubber seat poppet models offer the ultimate in design features and performance capabilities to meet your specific appliance or utility requirements.



RV47

Specifications

- Pipe Sizes** 1/8" thru 3/4" threaded connections with NPT or ISO7-1 threads.
(Other connections available, please consult Maxitrol Company.)
- Housing Material** RV12, RV20, RV47, RV48, CV47: aluminum.
- Mounting** All models, with the exception of "D" suffix models, are suitable for multi-positional mounting. Other than upright position will result in a slight difference in outlet pressure. "D" suffix models are to be mounted upright only.
NOTE: All Maxitrol gas pressure regulators should be installed and operated in accordance with Maxitrol Safety Warning Instructions (see GPR_MI_EN.ES or GPR_CSA_MI_EN.FR).
- Certifications** RV Series: ANSI Z21.18/CSA 6.3 Gas Appliance Pressure Regulators.
CV47 Series: ANSI Z21.78/CSA 6.20 Combination Gas Controls for Gas Appliances.
- Gas Types (RV Series)** Suitable for natural, manufactured, mixed gases, liquefied petroleum gases, and LP gas-air mixtures.
- Gas Types (CV47 Series)** Suitable for natural or liquefied petroleum gases.
- Maximum Inlet Pressure** 1/2 psi (3.4 kPa)
- Emergency Exposure Limits** 2.5 psi (17.2 kPa)
- Ambient Temperature Ranges**... RV20, RV47, RV48, CV47: 32° to 225°F (0° to 107°C)
RV12: -40° to 225°F (-40° to 107°C)
RV12T: -40° to 275°F (-40° to 135°C)
RV20T: -40° to 300°F (-40° to 148°C)
RV48T: 32° to 275°F (0° to 135°C)
- Minimum Regulation**..... Suitable for pilot flow applications. (P) (Circle P) (0.15 CFH NG), (Δ) (Delta P) (0.50 CFH NG), None (1.5 CFH NG), N Models (3 CFH NG).

RV SERIES

Rubber Seat Poppet Design

Capacities and Pressure Drop

Capacities expressed in Btu/h (m³/h) @ 0.64 sp gr gas

Model	Pipe Size	Pressure Drop @ 0.3" w.c. or (0.07 kPa)	Range of Regulation		Individual Load	
			Main Burner	Main Burner & Pilot	Fixed Orifice	Ball Check Device
RV12	1/8" x 1/8"*	14,800 (0.42)	30,000 (0.85)	25,000 (0.71)	20,000 (0.56)	---
	3/16" x 3/16" Loxit	8,800 (0.25)		15,000 (0.43)		
RV20	1/4" x 1/4" 3/8" x 3/8"*	30,000 (0.85)	65,000 (1.84)	50,000 (1.4)	30,000 (0.85)	---
RV20C	1/4" x 1/4" 3/8" x 3/8"	30,000 (0.85)	75,000 (2.11)	50,000 (1.4)	15,000 (0.42)	---
CV47 RV47	3/8" x 3/8"	55,000 (1.5)	125,000 (3.5)	90,000 (2.5)	40,000 (1.1)	125,000 (3.5)
	1/2" x 1/2"*	60,000 (1.7)				
CV47A or C RV47A or C	3/8" x 3/8"	55,000 (1.5)	125,000 (3.5)	125,000 (3.5)	40,000 (1.1)	125,000 (3.5)
	1/2" x 1/2"	60,000 (1.7)				
RV48	1/2" x 1/2"	130,000 (3.7)	230,000 (6.5)	230,000 (6.5)	40,000 (1.1)	160,000 (4.5)
	3/4" x 3/4"	150,000 (4.2)	250,000 (7.1)	250,000 (7.1)		
RV48C	1/2" x 1/2"	130,000 (3.7)	400,000 (11.3)	275,000 Nat (7.8) 275,000 LP (3.1)	40,000 (1.1)	160,000 (4.5)
	3/4" x 3/4"	150,000 (4.2)				

*Also available as Loxit connection.

NOTE: CSA maximum capacities vary with spring range and pipe size. Please contact Maxitrol directly for CSA maximums. Minimum main burner regulation capacity for all models (except "N") is 150 Btu/hr (0.0042 m³/h). See pages 58-59 for Regulator Sizing Requirements and Examples.

Spring Selection Chart: inches w.c. (kPa)

Model	Available Springs										
RV12	1 to 3.5* (0.25 to 0.9) Brown	2.8 to 5.2 (0.69 to 1.3) Plated	---	4 to 8 (1 to 2) Orange	---	---	---	---	6 to 10 (1.5 to 2.5) Red	8 to 12 (2 to 3) Blue	---
RV20	1 to 3.5* (0.25 to 0.9) Brown	2.8 to 5.2 (0.69 to 1.3) Plated	---	4 to 8 (1 to 2) Orange	---	---	---	---	6 to 10 (1.5 to 2.5) Red	8 to 12 (2 to 3) Blue	9 to 12* (2.25 to 3) Plated
RV47 CV47	1 to 3.5* (0.25 to 0.9) Brown	2.8 to 5.2 (0.69 to 1.3) Plated	3.8 to 4.3 (0.95 to 1.08) Black	4 to 8 (1 to 2) Orange	4 to 12 (1 to 3) Violet	4.7 to 5.3 (1.18 to 1.33) Green	---	5.6 to 6.4 (1.4 to 1.6) Red	6 to 10 (1.5 to 2.5) Red	8 to 12 (2 to 3) Blue	9.7 to 11.3 (2.42 to 2.83) Plated
RV48	1 to 3.5* (0.25 to 0.9) Brown	3.0 to 6.0 (0.75 to 1.5) Plated	---	4 to 8 (1 to 2) Orange	---	---	5 to 12 (1.25 to 3) Blue	---	6 to 10 (1.5 to 2.5) Red	8 to 12* (2 to 3) Blue	---

*Uncertified Spring

NOTE: See pages 56-57 for complete Spring Selection Chart.

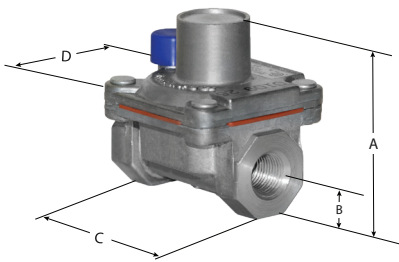
RV SERIES

Rubber Seat Poppet Design

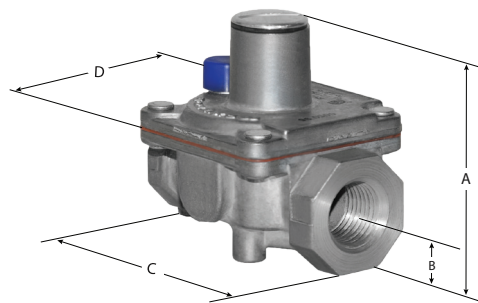
Dimensions

Model	Pipe Size	Vent	Swing Radius	Dimensions			
				A	B	C	D
RV12	1/8" 3/16"Loxit	Integral	1.4" (35 mm)	1.7" (43 mm)	0.4" (10 mm)	1.7" (43 mm)	1.4" (35 mm)
RV20	1/4", 3/8"	Integral or 5/16-24	1.6" (41 mm)	2.1" (54 mm)	0.5" (13 mm)	2.4" (61 mm)	1.8" (45 mm)
RV47 CV47	3/8", 1/2"	Integral "D" or "L" suffix	1.9" (48 mm)	2.5" (64 mm)	0.6" (16 mm)	2.9" (75 mm)	2.3" (57 mm)
RV47A CV47A			1.6" (41 mm)	2.3" (57 mm)			
RV48	1/2", 3/4"	Integral or 1/8" NPT, 12A04 or 12A06 vent limiting device	2" (51 mm)	2.8" (70 mm)	0.8" (19 mm)	3.4" (86 mm)	3" (76 mm)

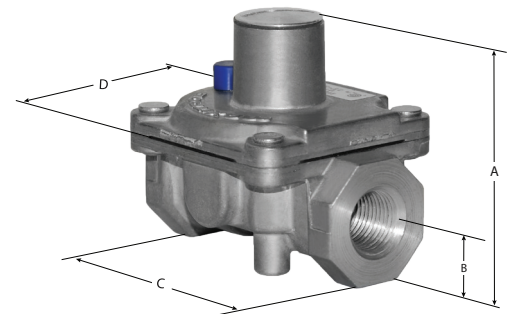
NOTE: Dimensions are maximums and to be used only as an aid in designing clearance for the valve.
Actual production dimensions may vary somewhat from those shown.



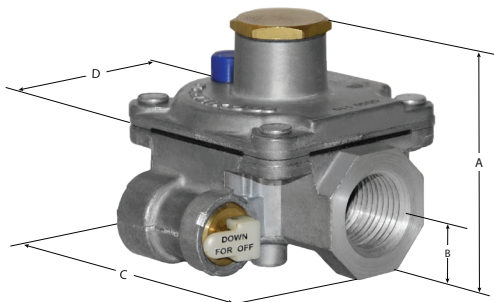
RV12



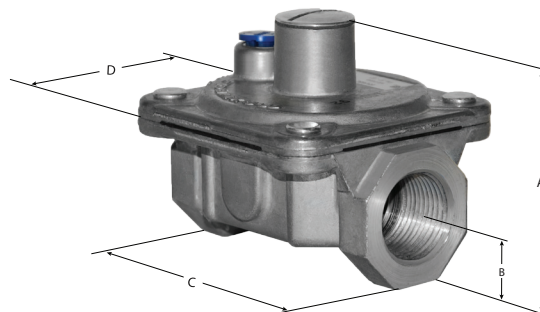
RV20



RV47, RV47A



CV47, CV47A



RV48