



28200 Series Stainless Steel Rectangular Valve



Product Features

- ❑ Virtually no particulate generation
- ❑ No vibration, smooth actuation
- ❑ Standard or custom flange options
- ❑ One million plus cycles before servicing, application dependent

Description

The HVA 28200 Series Direct Drive Rectangular Gate Valves offer one of the smallest interior surface areas in the vacuum valve industry. The body and internal components are vacuum furnace brazed at 1100°C ensuring maximum joint integrity. This eliminates the possibility of virtual leaks or entrapment areas and minimizes body distortion, which can occur in conventionally welded valves. Furnace brazing 304 stainless steel reduces its outgassing, which results in obtaining a system base pressure in a shorter time.

In the open position, the seal plate O-ring is completely out of sight preventing any particulate or media flow to accumulate on the sealing surface. In the closed position the one piece solid block design prevents any material buildup on the back side of the valve mechanism dramatically reducing service and maintenance requirements.

Application

This valve design is especially engineered to meet the mechanical interface and vacuum containment requirements of the industry. The 28200 Series Valve/Interface incorporates a Direct Drive Gate. Direct Drive eliminates mechanical linkages and greatly reduces internal valve components. Significant improvements in the gate valve design have resulted in exceptional uptime cycles and extremely low particulate generation even well past one million cycles. Valves have been tested for 1,000,000+ cycles with no failures.

In operation, the HVA 28200 Series Valves are quiet and reliable. Because they seal with lower pressure, they last longer, and there is less stress to make a perfect seal. To meet the specific needs of modular integrated processing systems, the HVA valves are designed to isolate vacuum pressure on either side of the gate.

They can be used singly or in pairs to provide appropriate pass through or seal for any part of the system. A narrow profile design, including both actuator and controller, allows tight mounting between central, load-lock, handling and process chambers.



28200 Series Stainless Steel Rectangular Valve

Standard Specifications

Materials

Valve body and mechanism	304 stainless steel
Welded bellows shaft seal	AM-350
Drive shaft and pins	Hardened stainless steel
Bonnet / gate seals	Viton® elastomer

Vacuum

Pressure range	
Standard	1 x 10 ⁻⁹ Torr
Leak rate	2 x 10 ⁻⁹ AtmCC/Sec
Differential pressure	760 Torr in either direction
Maximum Δ pressure before opening	20 Torr

Bakeout Temperature

Elastomer sealed bonnet	150°C
Actuator	60°C

Mechanism

Air service	80 psig
Solenoid	4.3 Watts

Latching-type solenoid, valve to remain in same position in the event of a power loss.

supplied voltage	120 VAC 50/60 Hz
optional voltages	24, 200, 240 VAC 50/60 Hz or 12, 24 VDC

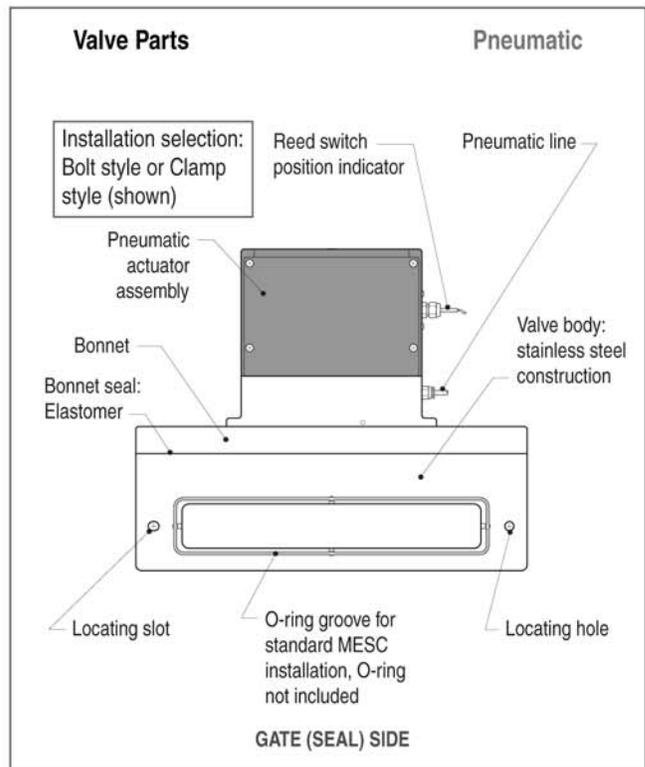
Position indicator, max.

Reed switch	115 VAC or 28 VDC, 20 mA
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Microswitch, optional	115 VAC, 5 A
optional voltages	250 VAC, 5 A or 28 VDC, 5 A resistive load 28 VDC, 3 A inductive load

Cycles until service

All sizes, application dependent	1,000,000+ cycles
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Notes

- Dimensions given in U.S. System and [metric]
- Due to ongoing product development, prices, dimensions and specifications subject to change without notice

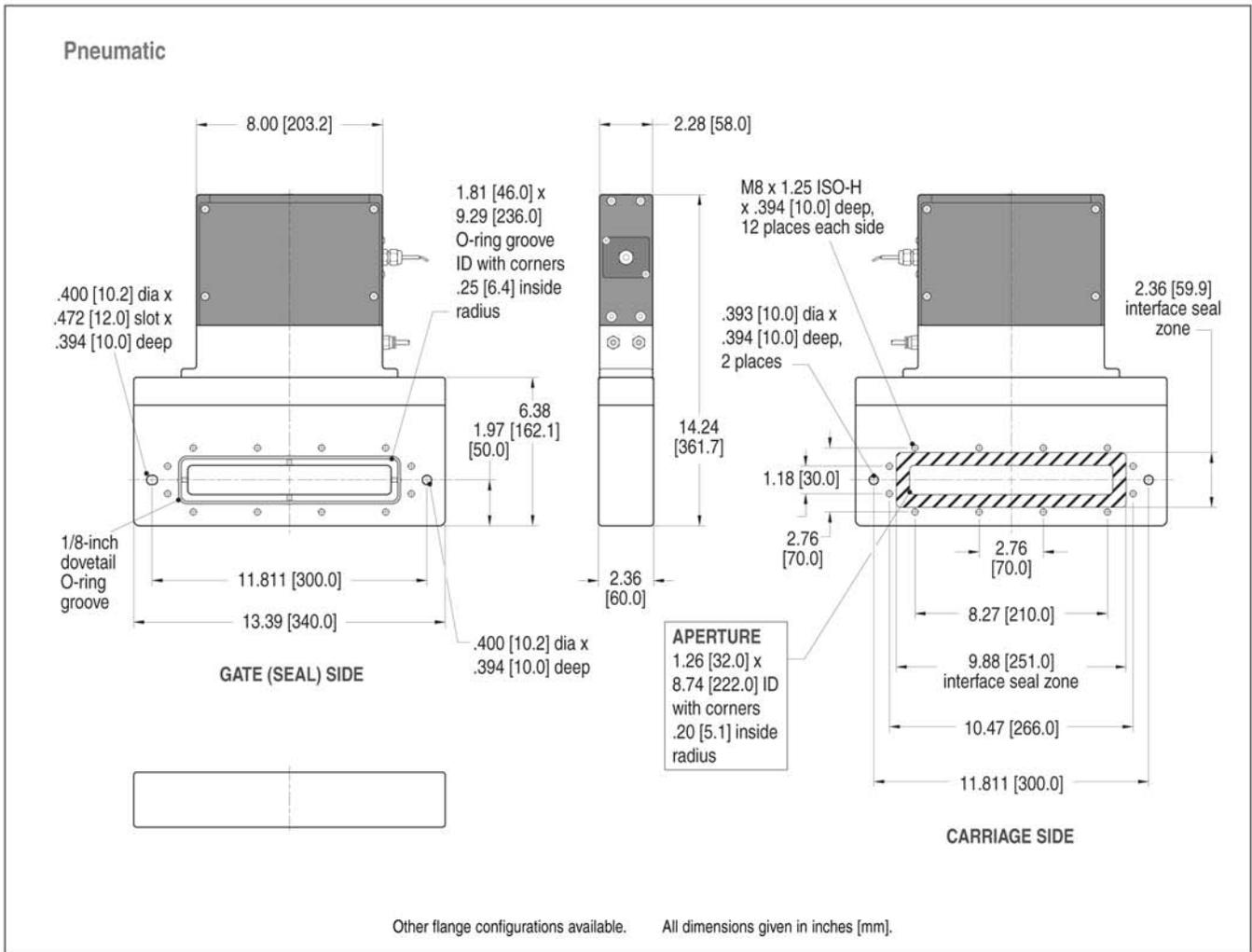
Options

All 28200 Series Valves may be equipped with alternative flanges, solenoids and seals. Contact HVA to discuss your requirements.

- Alternate voltage controls
- Custom flange sizes
- Gauge ports
- Microswitches for position indicators
- Roughing ports
- High temperature components, including O-rings, microswitches and actuator
- Custom materials, such as 316L, Inconel® or Kalrez®



28200 Series Stainless Steel Rectangular Valve 32x222-mm 1x9-inch Bolt Style

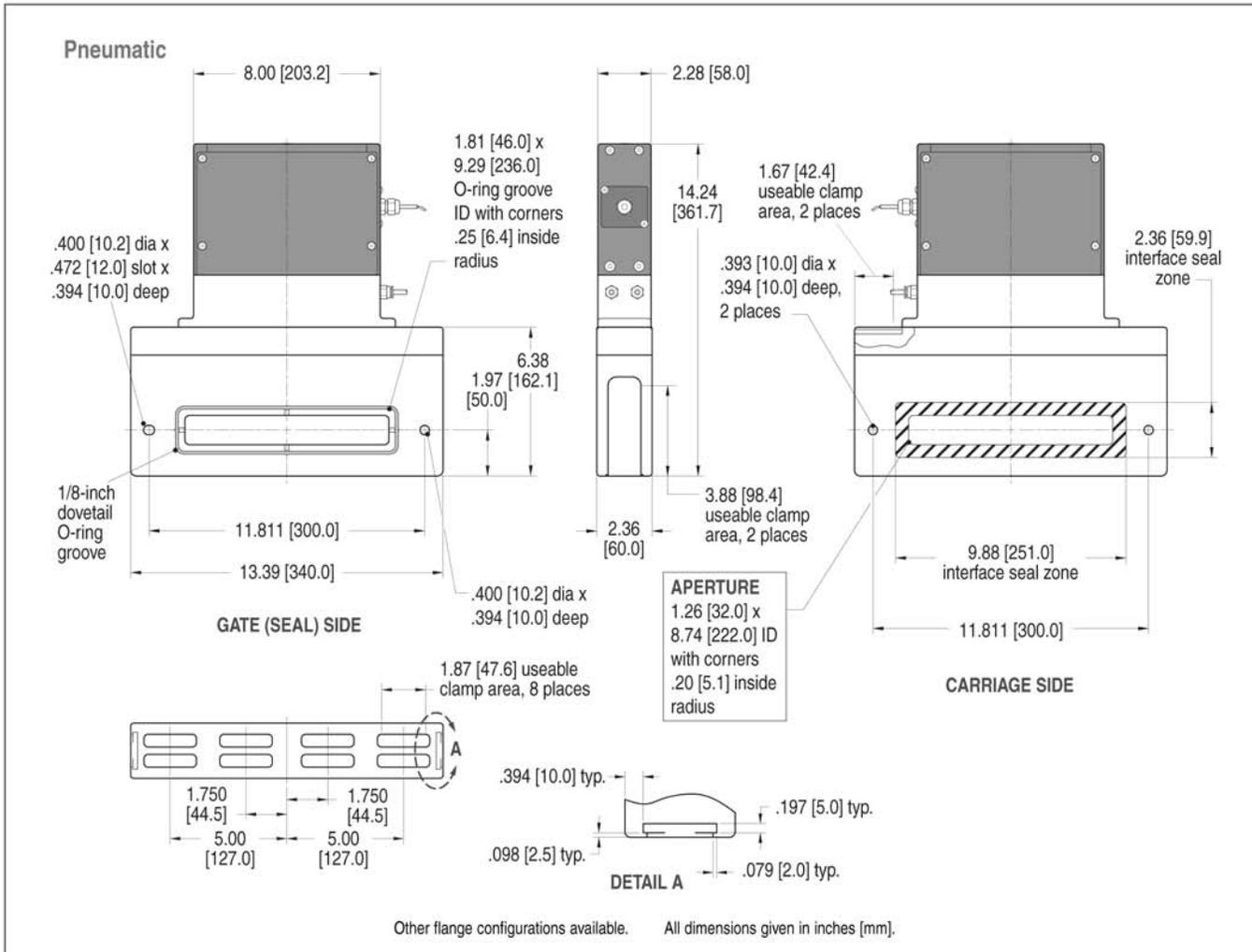


MESIC Flanges		32x222-mm 1x9-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Bolt	110 [50]	28212-0109RXJ

* R = Reed switch, standard
M = Microswitch, optional



28200 Series Stainless Steel Rectangular Valve 32x222-mm 1x9-inch Clamp Style

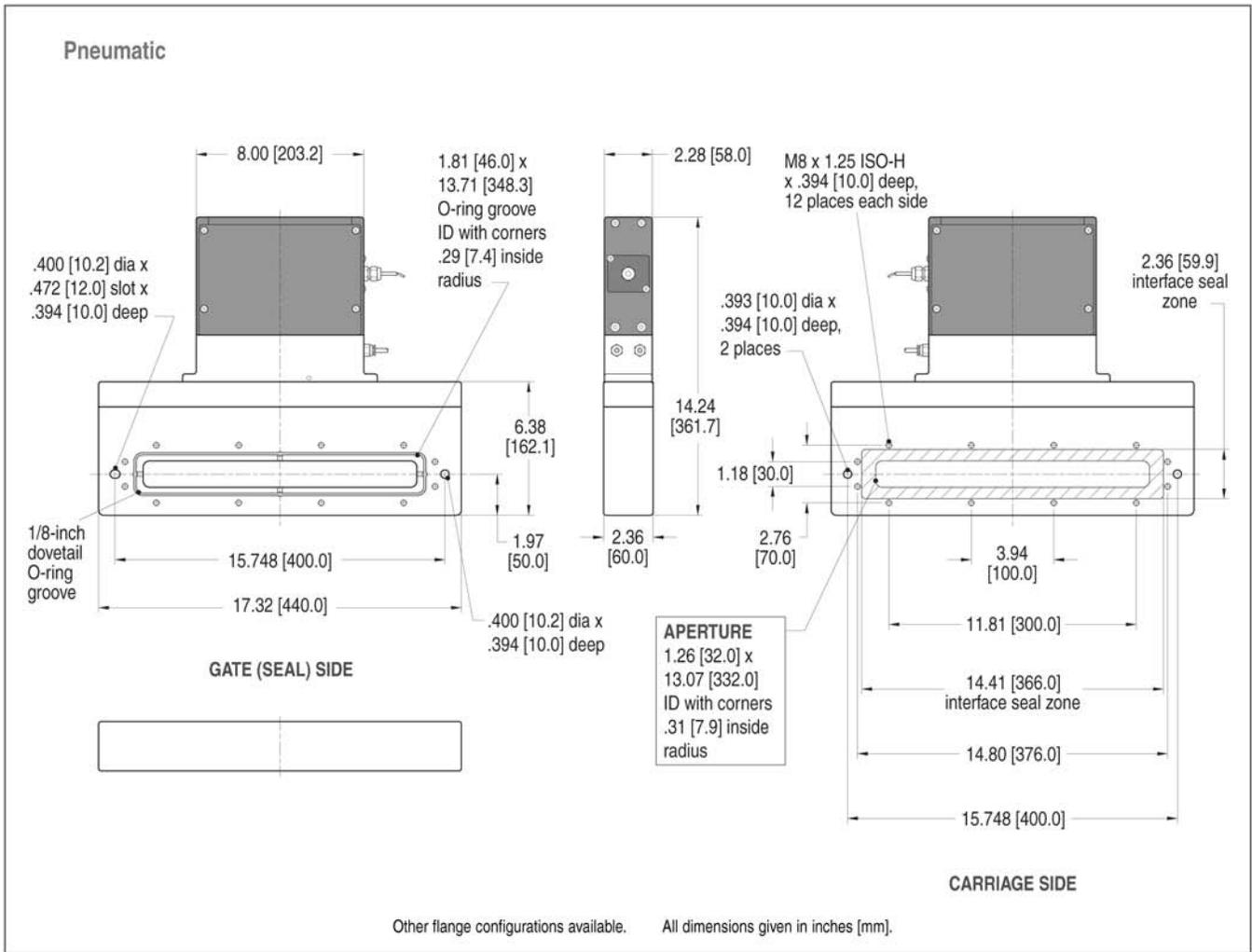


MESIC Flanges		32x222-mm 1x9-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Clamp	110 [50]	28212-0109RXX

* R = Reed switch, standard
M = Microswitch, optional



28200 Series Stainless Steel Rectangular Valve 32x332-mm 1x13-inch Bolt Style

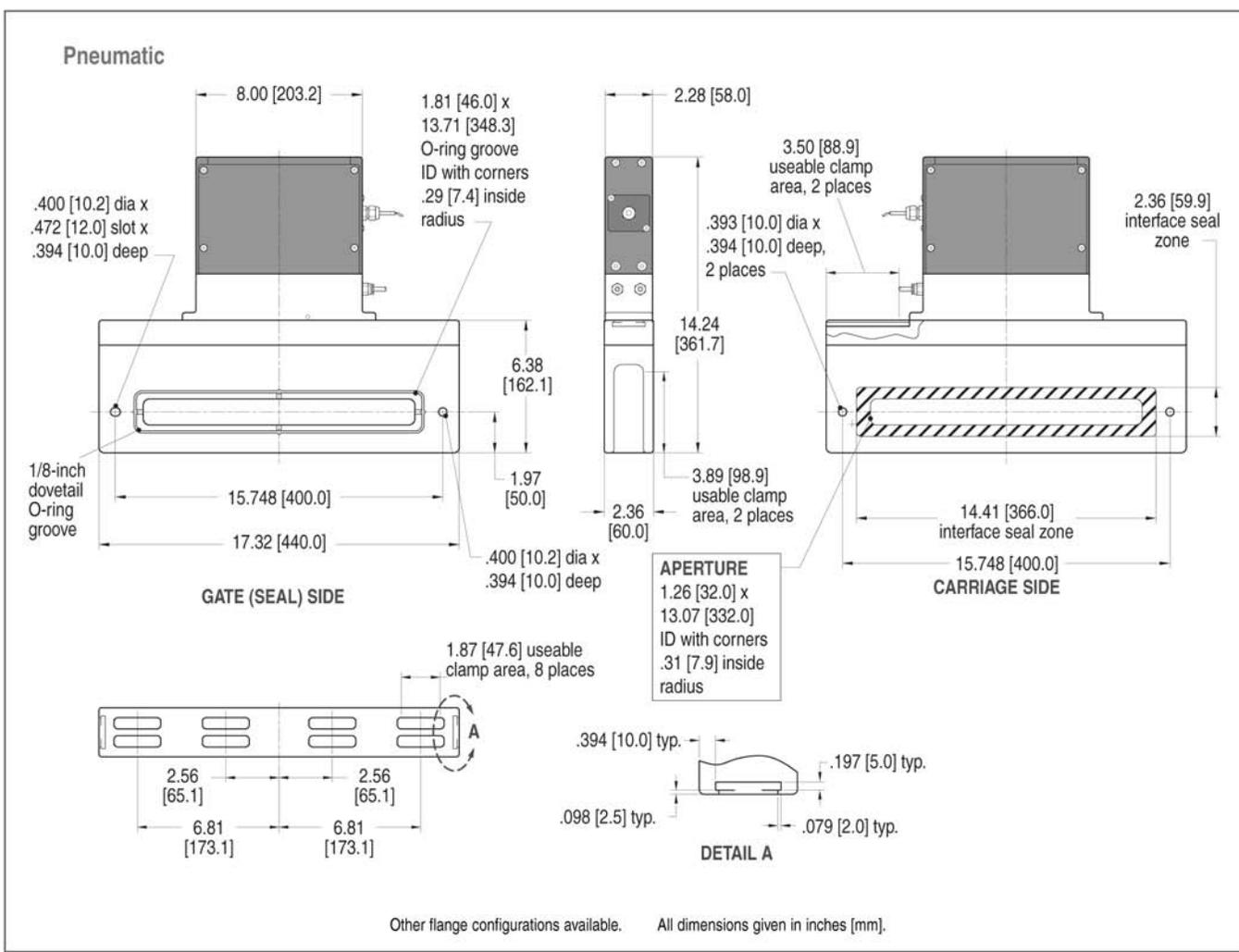


MESIC Flanges		32x332-mm 1x13-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Bolt	115 [53]	28212-0113RXJ

* R = Reed switch, standard
M = Microswitch, optional



28200 Series Stainless Steel Rectangular Valve 32x332-mm 1x13-inch Clamp Style

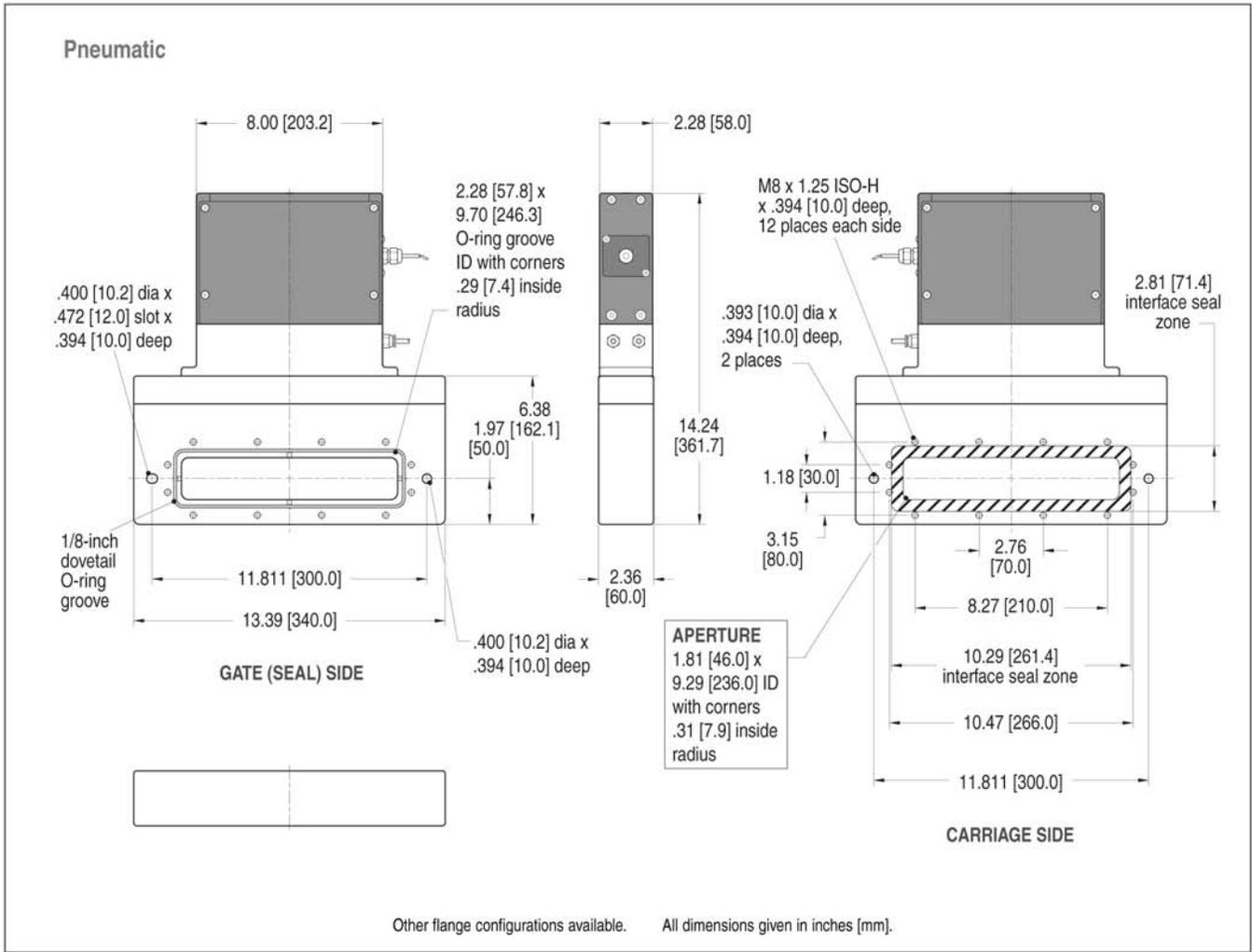


MESIC Flanges		32x332-mm 1x13-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Clamp	115 [53]	28212-0113RXK

* R = Reed switch, standard
M = Microswitch, optional



28200 Series Stainless Steel Rectangular Valve 46x236-mm 2x9-inch Bolt Style

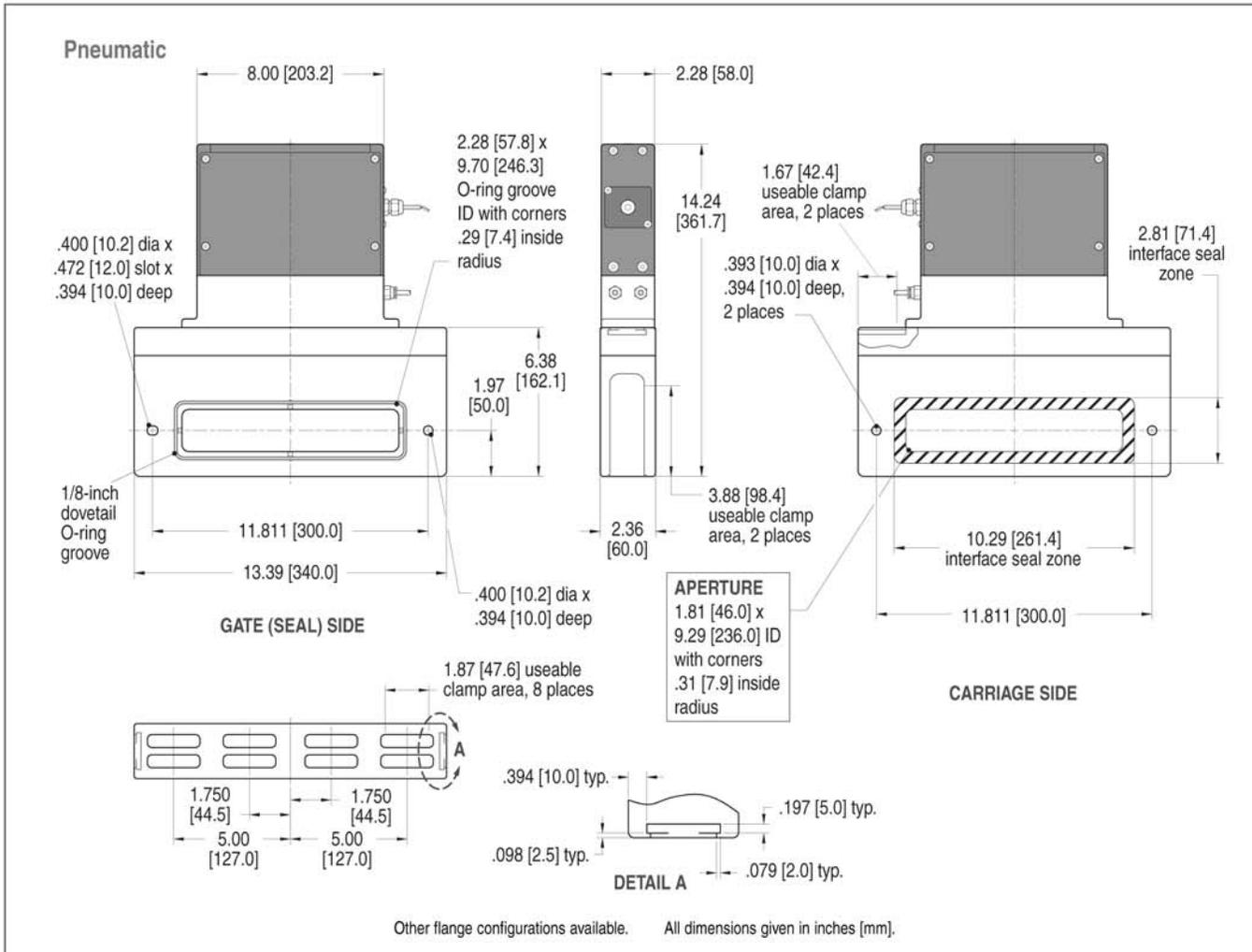


MESIC Flanges		46x236-mm 2x9-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Bolt	115 [53]	28212-0209RXJ

* R = Reed switch, standard
M = Microswitch, optional



28200 Series Stainless Steel Rectangular Valve 46x236-mm 2x9-inch Clamp Style

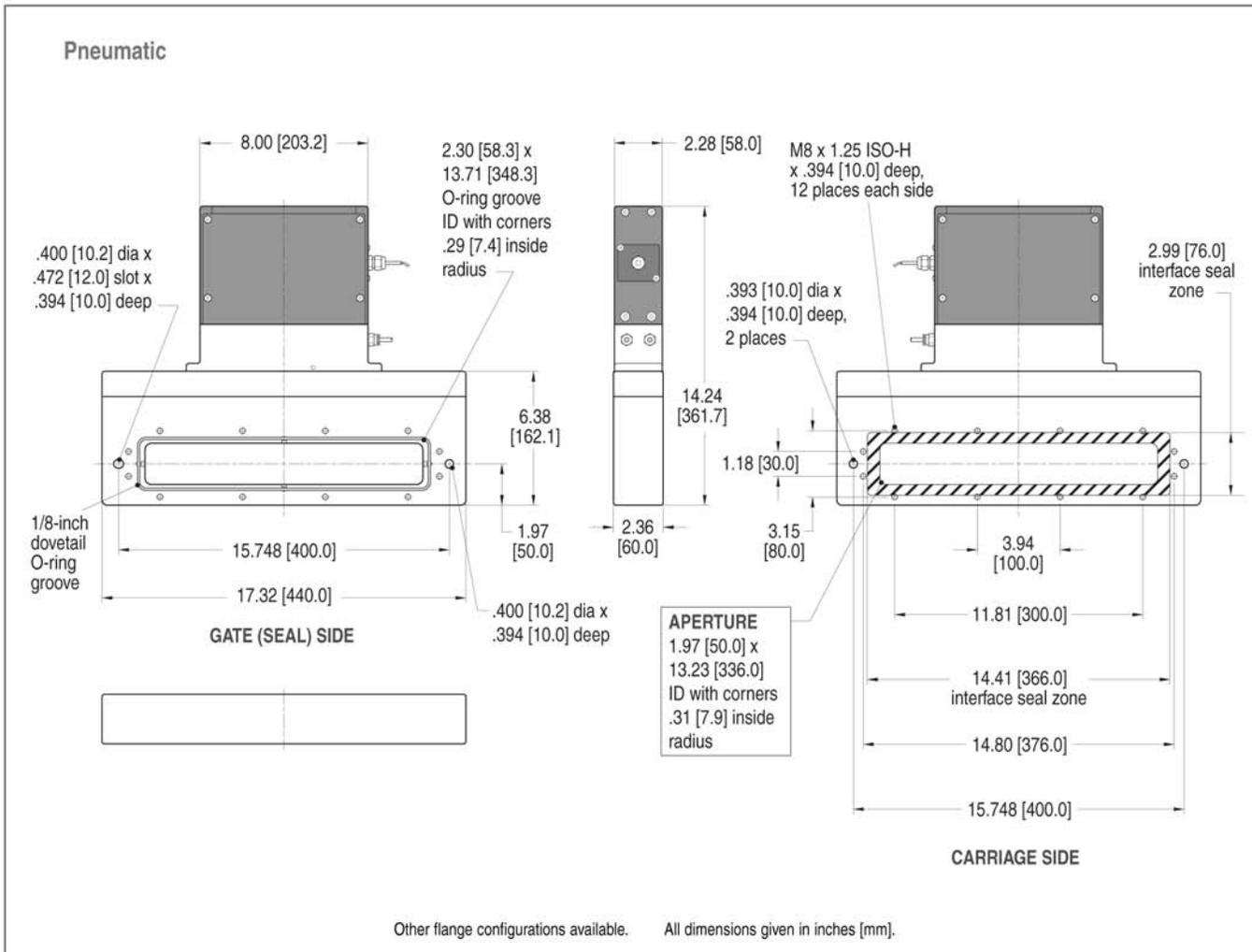


MESIC Flanges		46x236-mm 2x9-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Clamp	115 [53]	28212-0209RXK

* R = Reed switch, standard
M = Microswitch, optional



28200 Series Stainless Steel Rectangular Valve 50x336-mm 2x13-inch Bolt Style

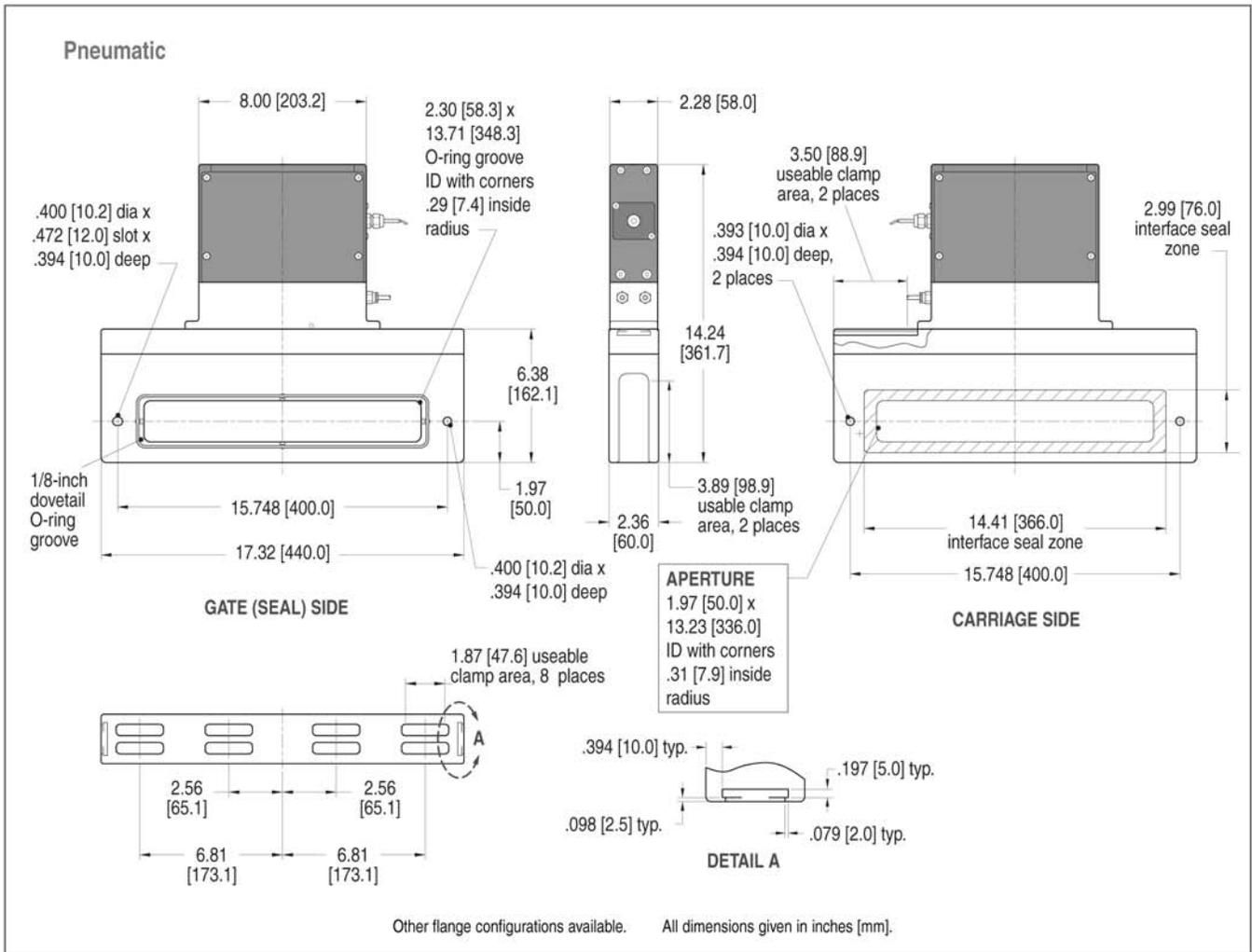


MESIC Flanges		50x336-mm 2x13-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Bolt	124 [57]	28212-0213RXJ

* R = Reed switch, standard
M = Microswitch, optional



28200 Series Stainless Steel Rectangular Valve 50x336-mm 2x13-inch Clamp Style



MESIC Flanges		50x336-mm 2x13-inch	
Bonnet-Gate	Flange Type	Ship Wt lbs [kg]	Model Number *
Pneumatic			
Viton-Viton	Clamp	124 [57]	28212-0213RXK

* R = Reed switch, standard
M = Microswitch, optional