

Sinclair Collins®

## SC2000 Series

*Stainless Steel, 350 PSI (24.1 Bar)  
Process Control Valves  
with Position Indicator*

*Catalog SC2000M/USA  
September 2004*



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## SINCLAIR COLLINS VALVES

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In setting the standards in process control applications for over 50 years, our reputation has been built on having the strongest product features in the valve industry.

### Designed for Durability

The unique design and reliable performance of the SC2000 Series Process Control Valves make them ideally suited for various process applications. These rugged cylinder-actuated stainless steel valves are designed for a bubble-tight seal. Their slimmer shape enables them to fit into applications where space is a consideration.

### Wide Range of Industrial Applications

Over the years, Sinclair Collins®

has served many industries in controlling the temperature and pressure of steam and water, as well as vacuum and oil. The new stainless steel valves allow Sinclair Collins® to address even more demanding applications in the following industries:

- Tire Curing
- Chemical/Industrial Processing
- Food and Beverage
- Pulp and Paper Products
- Foundry Operations
- Automobile
- Textiles
- Petroleum
- Semi-Conductors

### Quality from the Start

Parker Fluid Control Division is committed to providing our

customers with premier customer service. This means meeting customer requirements for product quality, service, and on time delivery. It also means anticipating our customer's future expectations for new products and services with innovative designs and systems.

Parker Fluid Control's Quality Management System meets all requirements and is third party registered to the International Standard ISO 9001:2000.

After assembly, each valve is fully tested at rated pressure prior to shipment and all material and workmanship is covered by a two-year warranty.



## WARNING

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure, and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

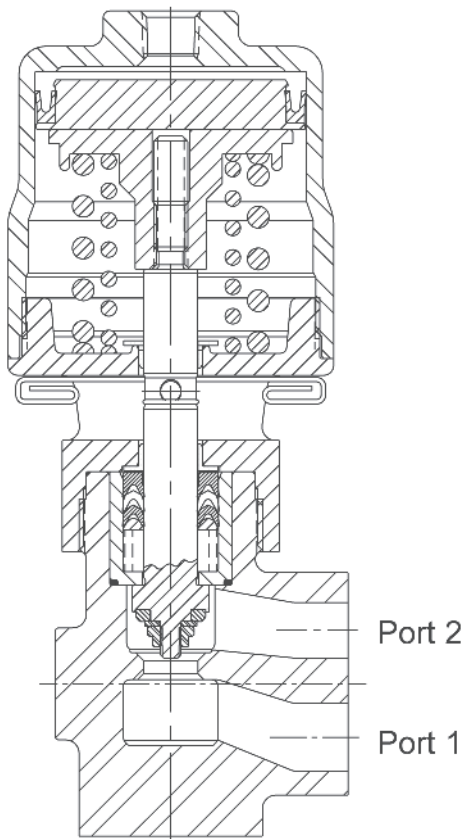
The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

## Offer of Sale

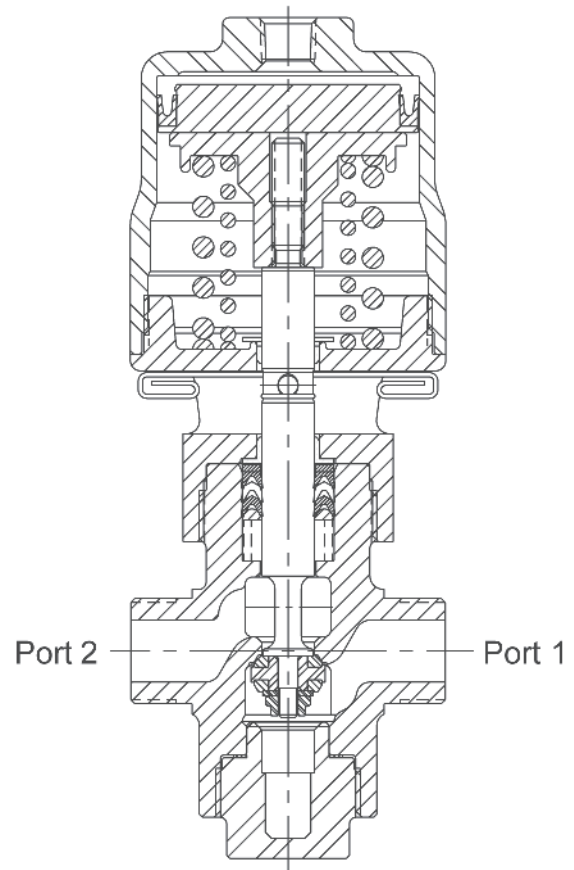
The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the full "Offer of Sale".

- 2-Way Normally Open and 2-Way Normally Closed operation.
- $C_v = 3.7$  to 23.5 (Port 1 to 2)
- Maximum operating pressure 350 PSI (24.1 Bar)
- 316L stainless steel body.
- Special stem seat material gives a bubble-tight seal.
- Cylinder actuator is 303 stainless steel with a floating anodized aluminum piston and spring energized PTFE seal.
- Cylinder operator pressure range:  
35 to 120 PSI (2.4 to 8.3 Bar)
- Actuator spring has high temperature coating for corrosion resistance.
- Inline or Manifold mounting.  
DN10 and DN20 for external thread valves.  
DN10, DN20 and DN32 for manifold valves.
- Dual bearing guided stem.
- Stem packer is spring loaded and self-adjusting for extended life.
- Temperature range:  $-40^{\circ}$  to  $435^{\circ}$ F ( $-40^{\circ}$  to  $224^{\circ}$ C)
- Stainless steel position indicator.
- Bottom cap gasket is spiral wound stainless steel with graphite filler for severe service.

**2-Way Normally Open  
Manifold**

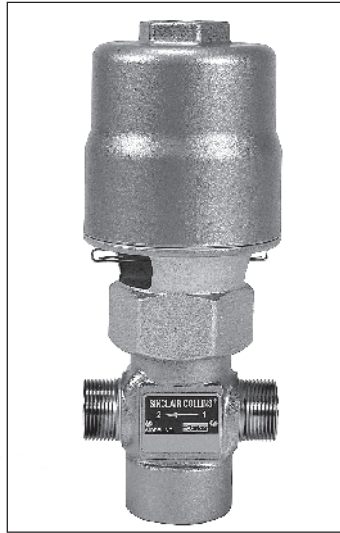


**2-Way Normally Closed  
External Thread**





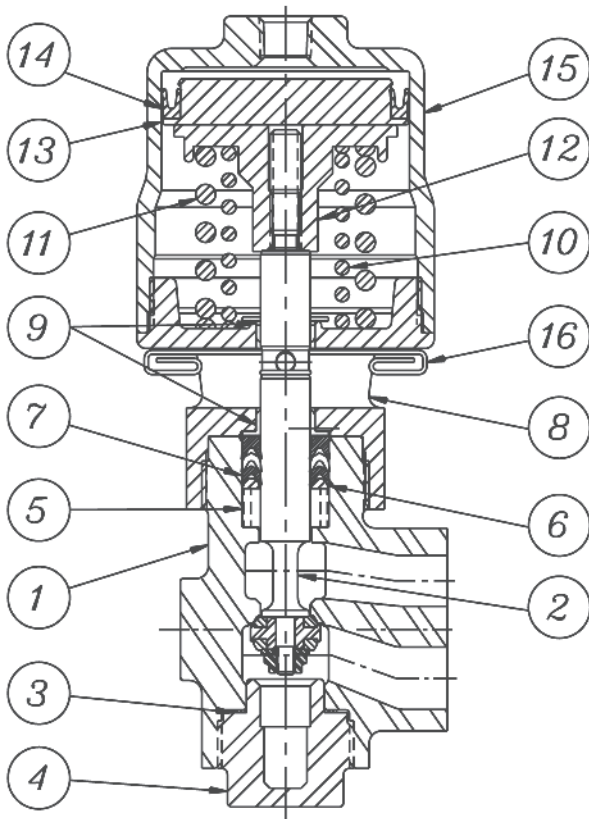
**Manifold**



**External Thread**

**Engineering Specifications**

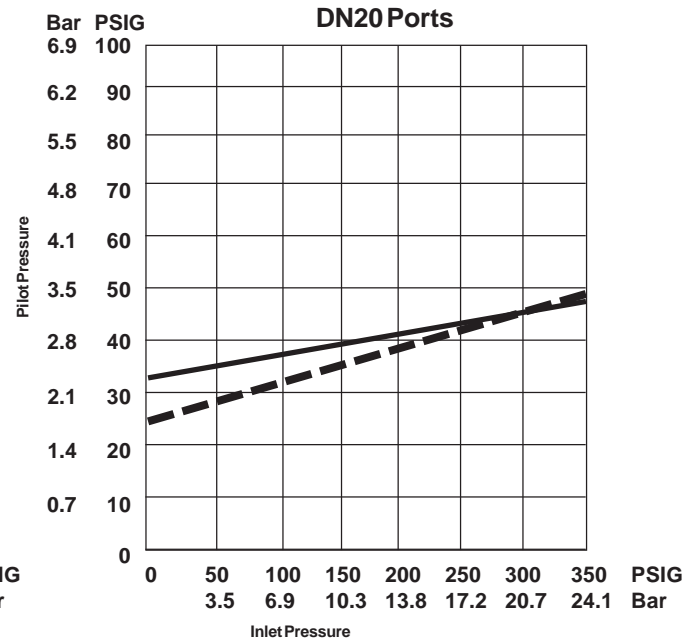
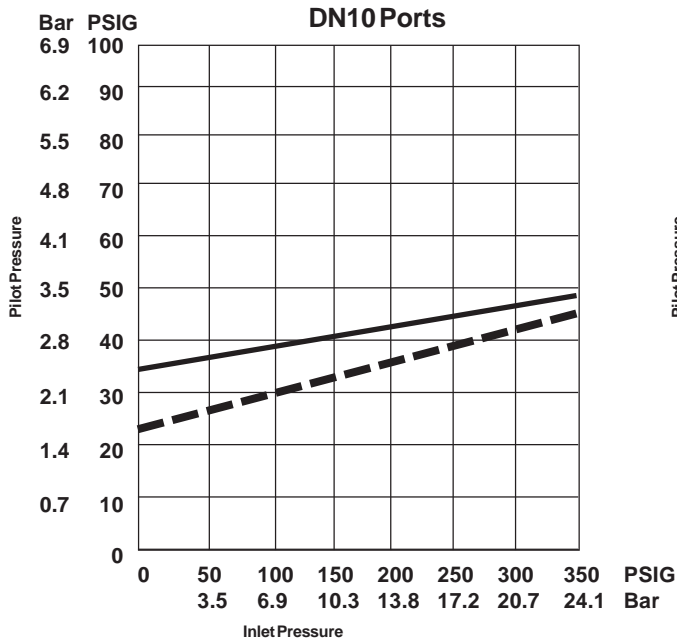
- **Sizes:**  
 DN10 & DN20 (External Threaded Valves)  
 DN10, DN20 & DN32 (Manifold Mounted Valves)
- **Media:**  
 Steam, hot or cold liquids, air and inert gas
- **Maximum Operating Pressure:**  
 350 PSI (24.1 Bar)
- **Actuator Pressure Range:**  
 35 to 120 PSI (2.4 to 8.3 Bar)
- **Temperature Range:**  
 -40° to 435°F (-40° to 224°C)



Item	Description	Standard Material
1	Body	316L Stainless Steel
2	Stem	Stainless Steel
3	Gasket	Spiral wound stainless steel with graphite filler
4	End Cap	316L Stainless Steel
5	Packer Spring	Stainless Steel
6	Packer Spreader	Brass
7	Packing	Virgin and Filled PTFE
8	Yoke	Bronze ASTM B61
9	Bearing	Engineered Plastics
10	Actuator Spring (Inner) (DN10 Only)	Squared & Ground Chrome Vanadium with Hi Temp Coating
11	Actuator Spring (Outer)	
12	Spring Retainer	Aluminum/Bronze
13	Piston	Anodized Aluminum
14	Piston Seal	Spring Energized PTFE Seal
15	Cover	303 Stainless Steel
16	Position Indicator	Stainless Steel

**Actuator Pressure vs. Line Pressure**

Port 1 (NC) **-----** Port 1 (NO) **—————**



**Flow Values for Line-Mounted Valves**

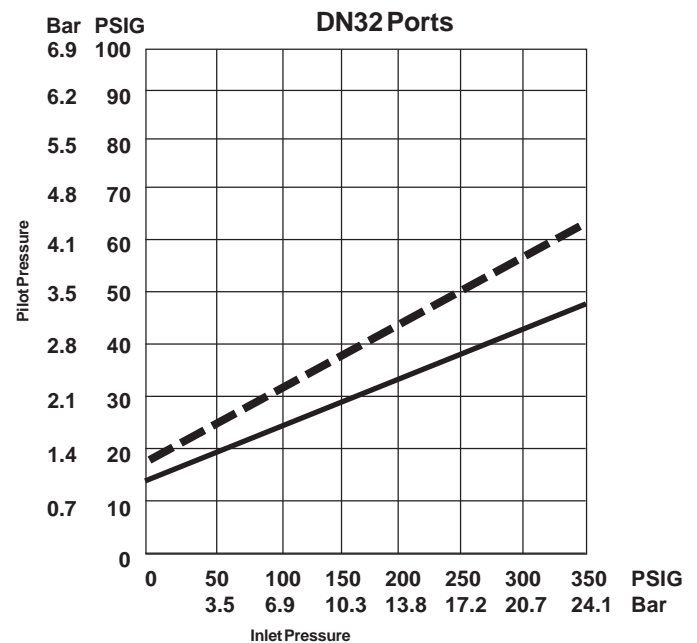
Valve Size	N.C.		N.O.	
	Cv	Kv	Cv	Kv
DN 10	3.53	3.03	4.07	3.49
DN 20	6.27	5.38	6.71	5.76

**Flow Values for Manifold Mounted**

Valve Size	N.C.		N.O.	
	Cv	Kv	Cv	Kv
DN 10	4.90	4.20	7.04	6.04
DN 20	6.70	5.75	8.21	7.04
DN 32	26.20	22.48	33.77	28.97

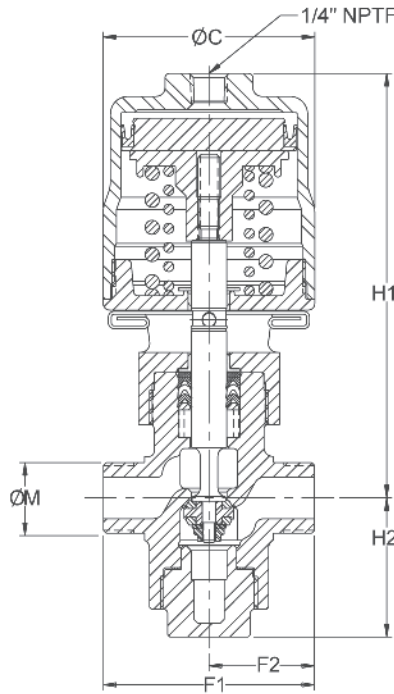
**Piping Connections**

Valve Type	Connection	
	Port 1	Port 2
2-Way N.O.	Inlet	Outlet
2-Way N.C.	Inlet	Outlet



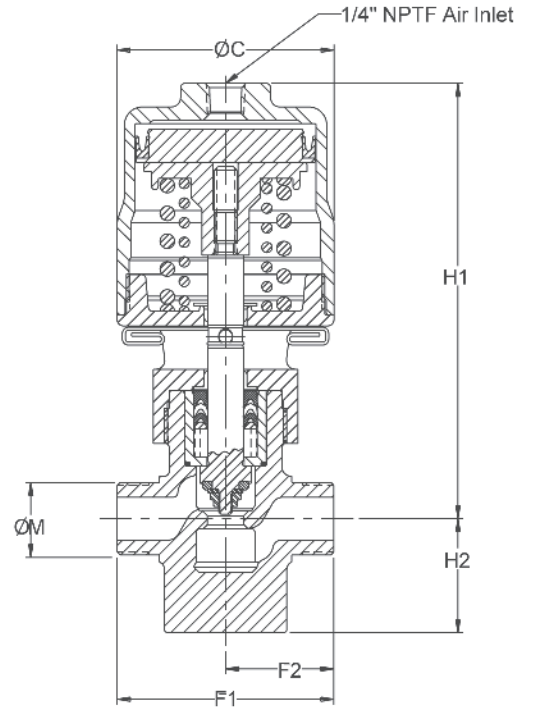
**External Thread Valve**

**2-Way Normally Closed**

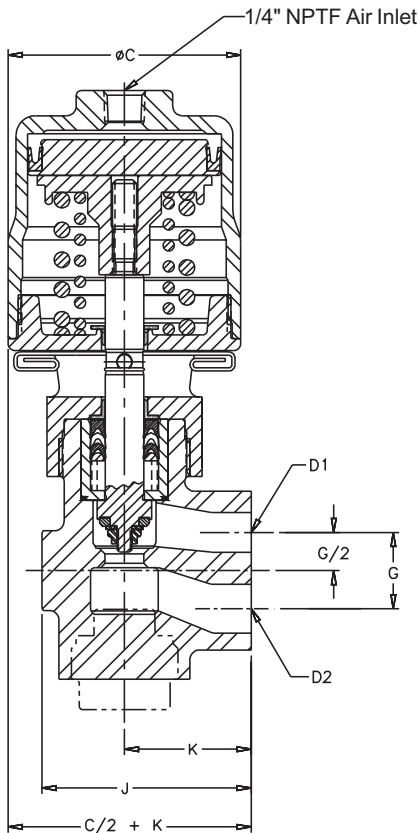


Port Size	DN10	DN20
ØC	3.00 (76.2)	3.50 (88.9)
F1	2.99 (76)	3.94 (100)
F2	1.50 (38)	1.97 (50)
H1	6.02 (153)	7.44 (189)
H2 N.C.	1.97 (50)	2.60 (66)
H2 N.O.	1.61 (40.9)	2.01 (51)
ØM	25 x 1.5	36 x 2.0

**2-Way Normally Open**

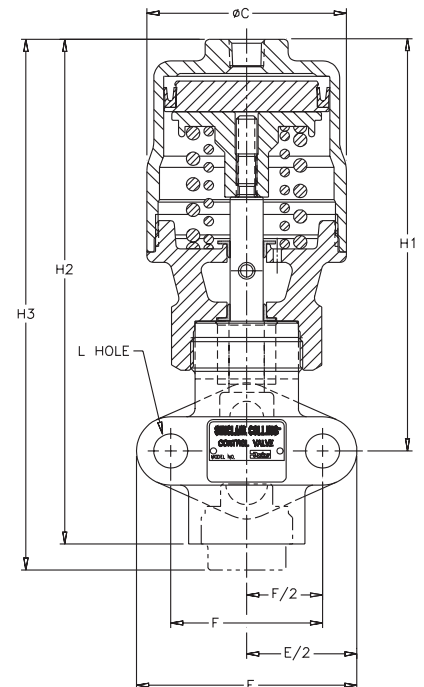


**Manifold Mounted Valve**



Port Size	DN10	DN20	DN32
ØC	3.00 (76.2)	3.50 (88.90)	4.61 (117)
C/2 + K	3.13 (79.5)	3.65 (92.7)	4.80 (122)
D1	0.51 (13)	0.75 (19)	1.26 (32)
D2	0.63 (16)	0.75 (19)	1.26 (32)
E	3.31 (84)	3.54 (90)	4.88 (124)
F	2.28 (58)	2.52 (64)	3.54 (90)
G	0.98 (25)	1.57 (40)	1.97 (50)
H1	6.18 (157)	7.91 (201)	11.81 (300)
H2 n.o.	7.60 (193)	9.45 (240)	14.80 (376)
H3 n.c	7.93 (199)	10.04 (255)	15.39 (391)
J	2.7 (68.5)	2.95 (75)	4.25 (108)
K	1.63 (41.5)	1.90 (48.2)	2.50 (63.5)
L HOLE	0.52 (13)	0.52 (13)	0.67 (17)

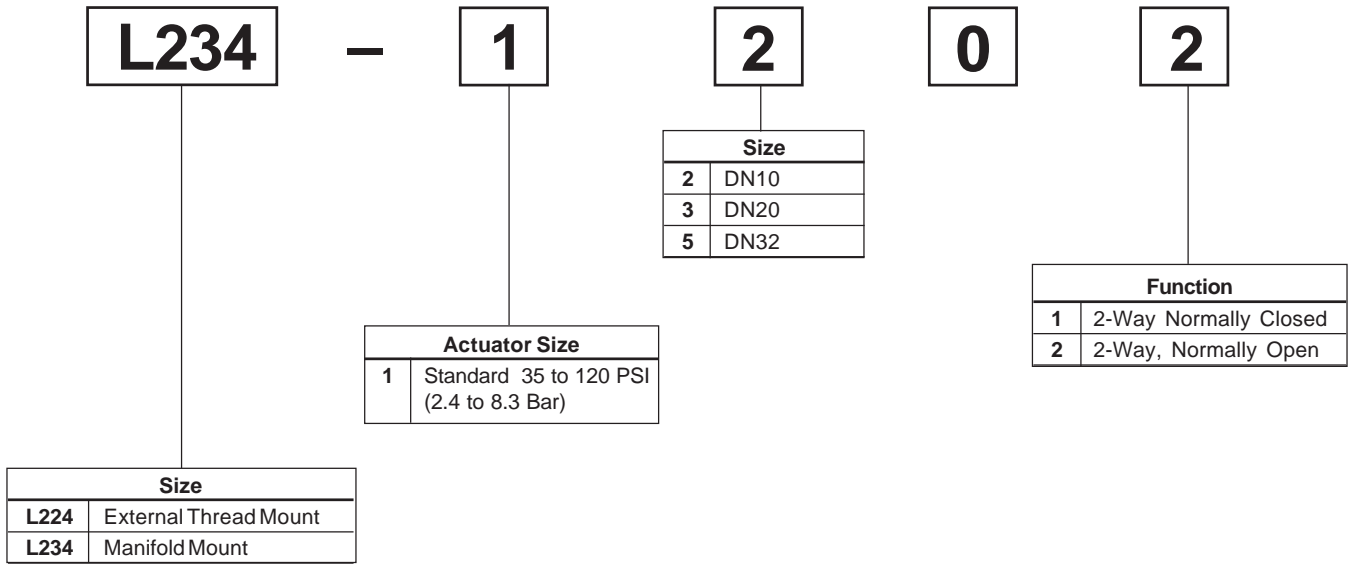
**2-Way Normally Open/Closed  
 Mounting Dimensions**



**Examples:**

**L234-1202** = 1/2" (DN10) 2-Way, Normally Open Manifold Mounted Valve

**L224-1201** = 1/2" (DN10) 2-Way, Normally Closed, External Thread, Inline Mounted Valve



**L214 Series Inline Mounted Valves. Catalog reference SC2000/USA**

## Setting the Standards for Control Valves in Industrial Processes

**Call for a free catalog on other  
quality products from Sinclair Collins:**

- Bronze and Stainless Steel Process Control Valves for pressures up to 500 psi (34 Bar)
- Bronze and Stainless Steel Modulating Control Valves
- High Pressure Service Control Valves for pressures up to 6000 psi (414 Bar)



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