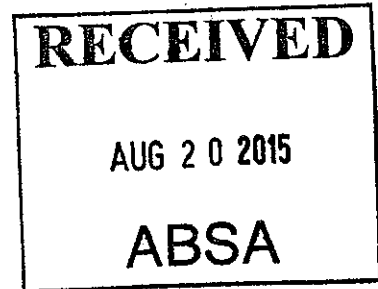




Inspection and Technical Services Manitoba
500 - 401 York Avenue
Winnipeg Manitoba R3C 0P8
T (204) 945-3373
F (204) 948-2309
www.firecomm.gov.mb.ca/codes_steam_pressure.html



August 12, 2015

ABSA
9410-20 Ave. NW
Edmonton, AB
T6N 0A4

Attn: Cynthia Formaniuk

REGISTRATION OF VALVES AND FITTINGS

Manufacturer: Parker Hannifin Corp., Instrumentation Products Division

The design(s) for the following Valves/Fittings has been received by us and has been examined and accepted for registration in the Province of Manitoba as follows.

DRAWING / CATALOGUE	CRN	FILE
CAT: 4135-CV	0C02206.24	35446

An invoice covering survey and registration fees is enclosed.

NOTE: CRN registered under reciprocal agreement & is conditional based on compliance with the notes set by the original issuing Jurisdiction: ABSA. See attached stamped "this is part of CRN" for scope of registration. This registration expires April 7, 2025.

This registration is valid until the indicated expiry date only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date. Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

The registration of this design does not relieve the manufacturer, the owner or his agent of the responsibility for the design or construction of a fitting in accordance with the applicable Acts, Codes and Standards. Inspection and Technical Services assumes no responsibility by registering designs, examining plans and/or inspecting equipment or facility.

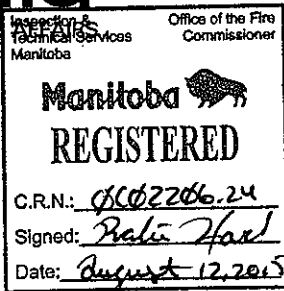
Yours truly,

Rabie Harb, E.I.T.

Design Surveyor
Office of the Fire Commissioner
Inspection and Technical Services Manitoba
500 - 401 York Avenue
Winnipeg, Manitoba, R3C 0P8
Phone: 204-945-3373
Email: rabie.harb@gov.mb.ca



MUNICIPAL



the pressure equipment safety authority

STATUTORY DECLARATION Registration of Fittings

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting. See Attached

I, Tony Wyszkowski,

General Manager

(company title, e.g. vice president, plant manager, chief engineer) (must be in a position of authority)

of Parker Hannifin Corporation, Instrumentation Products Division

(name of manufacturer)

located at 1005 A Cleaner Way, Huntsville, AL, with add'l manufacturing at 2651 Al Hwy 21 North, Jacksonville, AL

(plant address)

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (check one)

[] comply with the requirements of which specifies the dimensions, (title of recognized North American Standard)

materials of construction, pressure/temperature ratings and identification marking of the fittings, or

[X] are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with B31.1 as supported by the attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, Det Norske Veritas as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are C Series Check Valves

In support of this application, the following information, calculations and/or test data are attached:

Catalog 4135-CV, Check Valves Filters & Relief Valves, Dated December 2010, ISO QA Certificate

Scope of Registration Renewal 0C2206.2

DECLARED before me at Huntsville in the state of Alabama

this 5th day of May, 2015 (Month) (Year)

(print) Sheri Coggan

(sign) Sheri Coggan (A Commissioner for Oaths)

(Signature of Applicant)

For Office Use Only

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category C

Registration Number: 0C02206.24

Rali Hail (For the Administrator/Chief Inspector of Alberta)

Date Registered: August 12, 2015

Expiry Date: April 7, 2015



Parker Engineering Manual
Parker Hannifin Corporation
Instrumentation Connectors Division

Issued 6-25-79	Section IDENTIFICATION
Revised 1-15-98	Standard No. ES-703
Ecn No. ICD97055	Page 1 OF 6

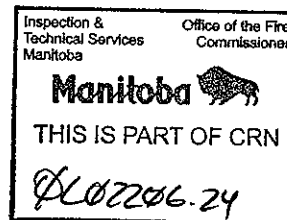
Subject: PRODUCT LOGO MARKING REQUIREMENTS	Parker Symbol ID-3
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GENERAL:

The following information is adapted from Parker's Corporation Communications and Identification Manual.

PRODUCT IDENTIFICATION:

It is important that Parker identification appear on the millions of components sold into the market place each year. For this reason, special versions of the Corporate Signature have been designed to accommodate difficult product marking situations. The three key variables which will govern the selection of proper identification techniques are the material on which the marking is to be applied, the surface contour, and identification area size. The order of preference for product marking usage is shown. When possible, the solid Signature should be used down to a minimum of 5/8 inch. For smaller applications, the solid Open Signature, with slightly more open space within the letterforms, should be used. The Linear Signature and the Helvetica Light Parker are approved only for especially difficult marking conditions and hard material surfaces. When the marking surface, contour or area size makes it impractical to use the complete Parker identification, a "P" may be used in order of preference shown. Critical dimensions for product identification only are provided in this section.





Issued 6-25-79	Section IDENTIFICATION
Revised 1-15-98	Standard No. ES-703
Ecn No. ICD97055	Page 2 OF 6

Subject:
PRODUCT LOGO MARKING REQUIREMENTS

Parker Symbol
 ID-3

- 1 Primary
 Corporate Signature
 Minimum Size 5/8"



- 2 Small Size
 Corporate Signature
 Maximum Size 5/8"



- 3 Linear
 Corporate Signature



- 4 Straight Type
 Identification—
 Helvetica Light

Parker

- 5 Small Size "P"
 Maximum Size 3/16"

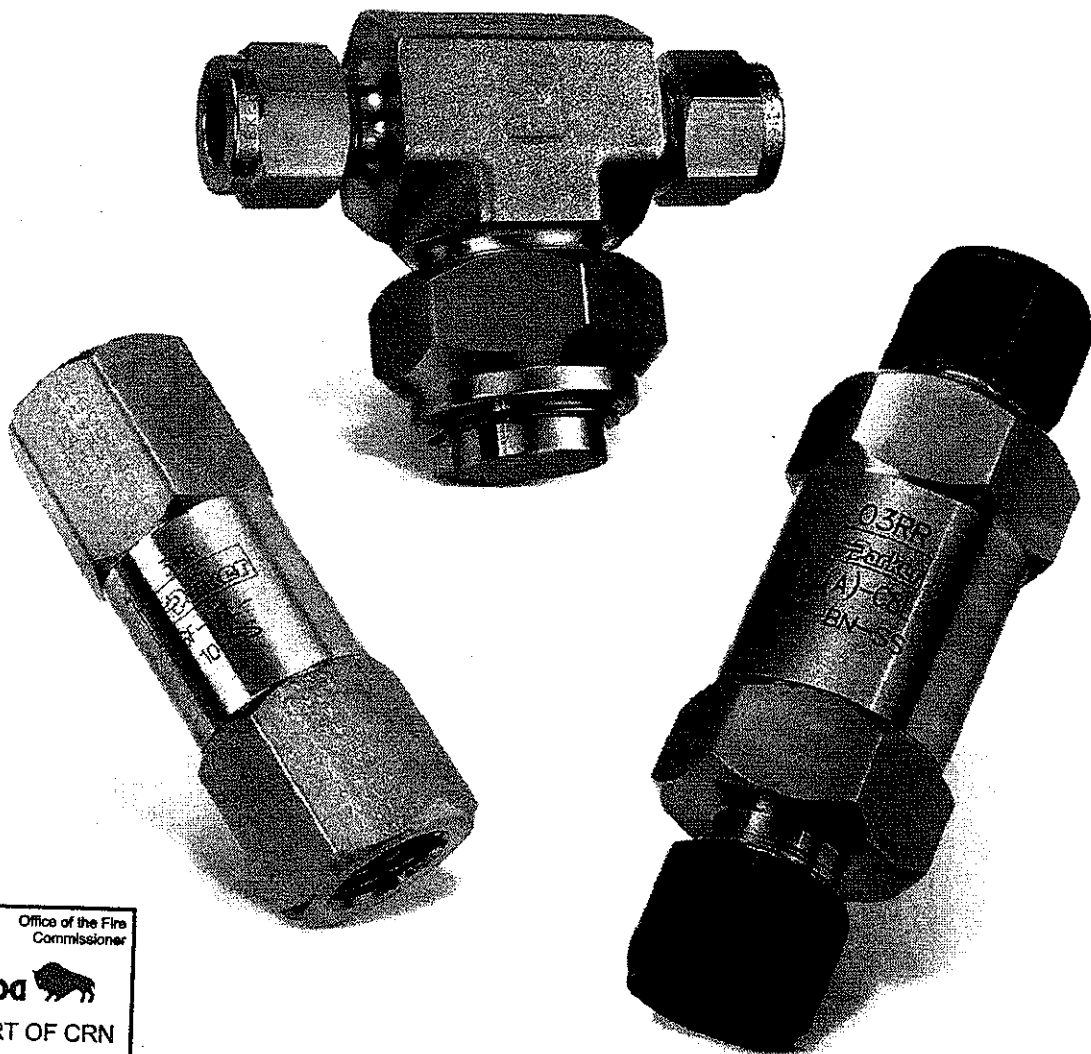


- 6 Linear "P"



- 7 Straight Type "P"
 Identification—
 Helvetica Light

P



Inspection & Technical Services
 Manitoba
 Office of the Fire Commissioner
Manitoba
 THIS IS PART OF CRN
 0602206.24

Check Valves, Filters and Relief Valves

Catalog 4135-CV

December 2010

aerospace
 climate control
 electromechanical
 filtration
 fluid & gas handling
 hydraulics
 pneumatics
 process control
 sealing & shielding



ENGINEERING YOUR SUCCESS.

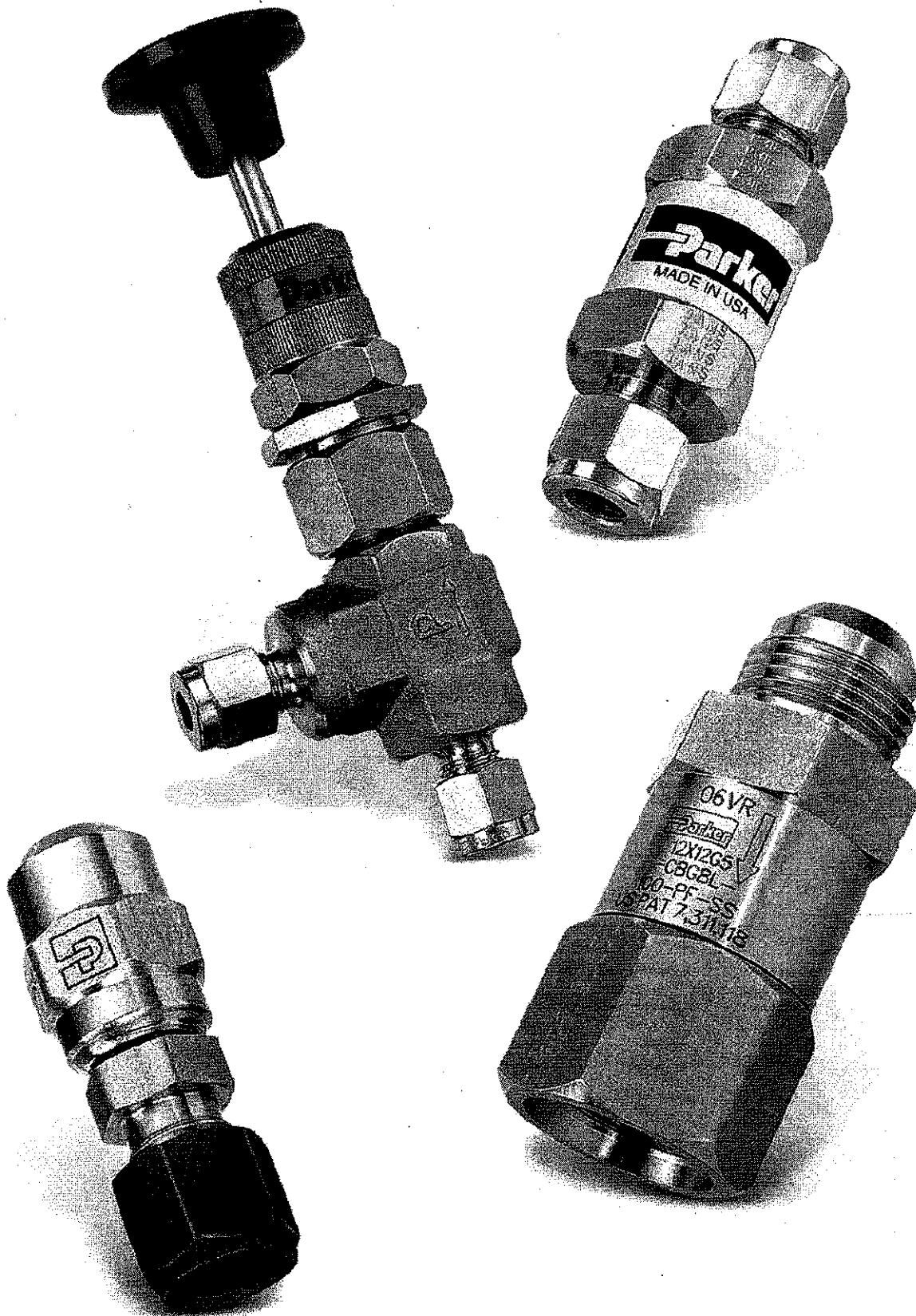


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C
CB
CBF
CO
LC
MPC
MPCB
F
FT
MPF
RH4
RL4
MPR
BV
MPBV
PG
End Conn

⚠ WARNING – USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS 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 or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

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 detailed "Offer of Sale" elsewhere in this document or available at www.parker.com/ipdus.

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Introduction

Parker C Series Check Valves are designed for uni-directional flow control of fluids and gases in industries such as chemical processing, oil and gas production and transmission, pharmaceutical, pulp and paper, power and utilities.

Features

- ▶ Resilient, custom molded, blow-out resistant seat design
- ▶ Back stopped poppet minimizes spring stress
- ▶ 100% factory tested for both crack and reseal
- ▶ Cracking pressures include: 1/3, 1, 5, 10, 25, 50, 75, and 100 psi.
- ▶ Port connections include male and female NPT, CPI™, A-LOK®, UltraSeal, VacuSeal, BSP, SAE and Seal-Lok®
- ▶ Heat code traceability

Specifications

Pressure Rating:**

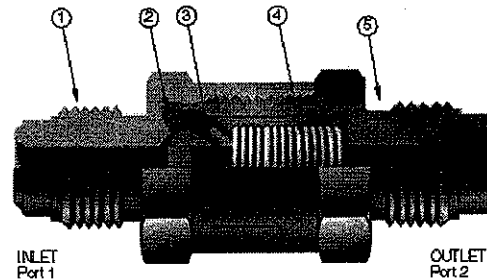
316 SS – 1/8" to 3/4":	6000 psig (414 bar) CWP
1":	5000 psig (345 bar) CWP
PTFE Seats, all sizes:	4000 psig (276 bar) CWP
Brass – 1/8" to 1":	3000 psig (207 bar) CWP

Temperature Rating:

Fluorocarbon Rubber	-15°F to +400°F (-26°C to +204°C)
Nitrile	-30°F to +275°F (-34°C to +135°C)
Ethylene Propylene Rubber	-70°F to +275°F (-57°C to +135°C)
Neoprene Rubber	-45°F to +250°F (-43°C to +121°C)
PTFE	-65°F to +400°F (-54°C to +204°C)
Highly Fluorinated Fluorocarbon Rubber	-15°F to +200°F (-26°C to +93°C)

Orifice:078" to .656" (2.0 mm to 16.7 mm)

C_v: 18 to 6.56



Model Shown: 4V-C4L-5-SS

Materials of Construction

Item #	Part Description	Stainless Steel	Brass
1	Cap	ASTM A 276, Type 316	ASTM B 16, Alloy C36000
2	Seat*	Fluorocarbon Rubber*	
3	Poppet	ASTM A 479, Type 316	ASTM B 16, Alloy C36000
4	Spring	316 Stainless Steel	
5	Body	ASTM A 276, Type 316	ASTM B 16, Alloy C36000

* Optional seat materials are available. See How to Order section. Lubrication: Perfluorinated Polyether.

Note: PTFE seated valves employ an additional PTFE coated 316 SS gasket between the seat and the body and are distinguishable from elastomeric seated valves by the gap designed between the body and cap.

**See Pressure Rating note on page 4.

Flow Calculations with 1000 psig (69 bar) Inlet Pressure

Valve Series	Maximum C _v	Pressure Drop ΔP		Water @ 60°F (16°C)		Air @ 60°F (16°C)	
		psig	bar	gpm	m ³ /hr	SCFM	m ³ /hr
C2	0.31	10	0.7	1.0	0.2	30.8	52.1
		50	3.4	2.2	0.5	67.2	112.8
		100	6.9	3.1	0.7	92.0	155.3
C4	0.75	10	0.7	2.4	0.5	74.6	126.1
		50	3.4	5.3	1.2	162.7	273.0
		100	6.9	7.5	1.7	222.8	376.2
C6	2.26	10	0.7	7.1	1.6	225.3	380.9
		50	3.4	16.0	3.6	495.2	831.0
		100	6.9	22.6	5.1	685.1	1157.2
C8	3.53	10	0.7	11.2	2.5	352.0	595.0
		50	3.4	25.0	5.6	774.3	1299.4
		100	6.9	35.3	8.0	1072.4	1811.6
C12	6.01	10	0.7	19.0	4.3	596.6	1008.3
		50	3.4	42.5	9.6	1287.5	2160.4
		100	6.9	60.1	13.7	1738.5	2934.5
C16	6.56	10	0.7	20.7	4.7	648.9	1096.6
		50	3.4	46.4	10.5	1379.4	2314.7
		100	6.9	65.6	14.9	1824.4	3077.6



Crack and Re-Seal Performance

Check Valve Rated Crack Pressure		Minimum Acceptable Crack Pressure		Maximum Acceptable Crack Pressure		Maximum Re-seal Back Pressure	
psig	bar	psig	bar	psig	bar	psig	bar
1/3	0.02	0	0.00	1	0.07	4	0.28
1	0.07	0	0.00	3	0.21	4	0.28
5	0.34	3	0.21	8	0.55	3 BCP	0.21 BCP
10	0.69	7	0.48	13	0.90	3 BCP	0.21 BCP
25	1.72	20	1.38	30	2.07	4 BCP	0.28 BCP
50	3.45	40	2.76	60	4.14	5 BCP	0.34 BCP
75	5.17	60	4.14	90	6.21	7 BCP	0.48 BCP
100	6.89	80	5.52	120	8.27	10 BCP	0.69 BCP

BCP means "Below Cracking Pressure."

Cracking pressure is defined as the upstream pressure at which a detectable flow is measured.

Re-seal pressure is defined as the downstream pressure at which the check valve closes bubble-tight.

Example: For a valve with a spring having a rated cracking pressure of 25 psig (1.72 bar), the actual cracking pressure ranges between 20 and 30 psig (1.38 and 2.07 bar). The re-seal pressure range would be 16 to 20 psig (1.10 to 1.38 bar). Check valves having springs with rated crack pressures of 3 psig (0.21 bar) or less may require up to 4 psig (0.28 bar) back pressure to re-seal bubble-tight.

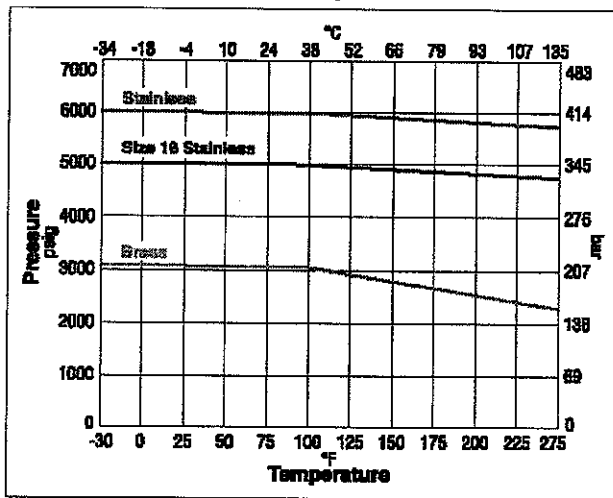
Note: Check valves which are not actuated for a period of time may initially crack at higher than the above crack pressure ranges.

PTFE seated valves require a minimum back pressure of 100 psig (6.9 bar) to insure a leak-tight re-seal.

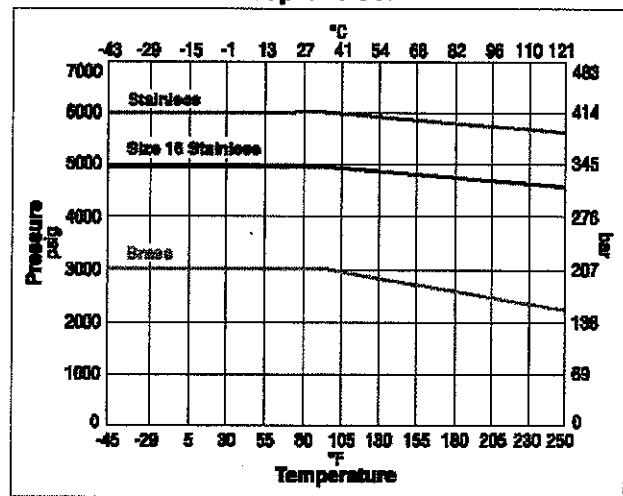
Pressure vs. Temperature

Note: To determine MPa, multiply bar by 0.1

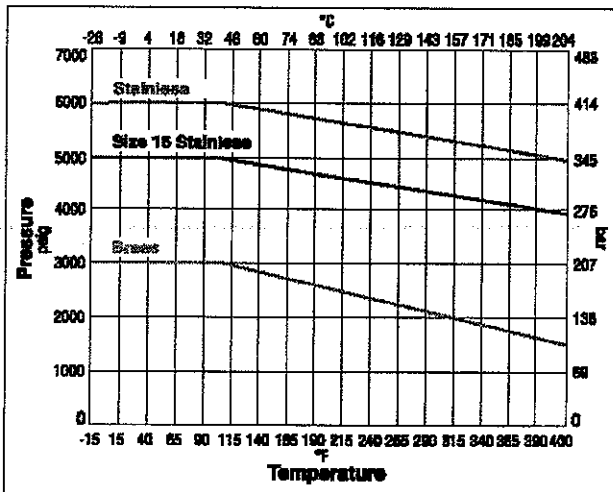
Nitrile Seat



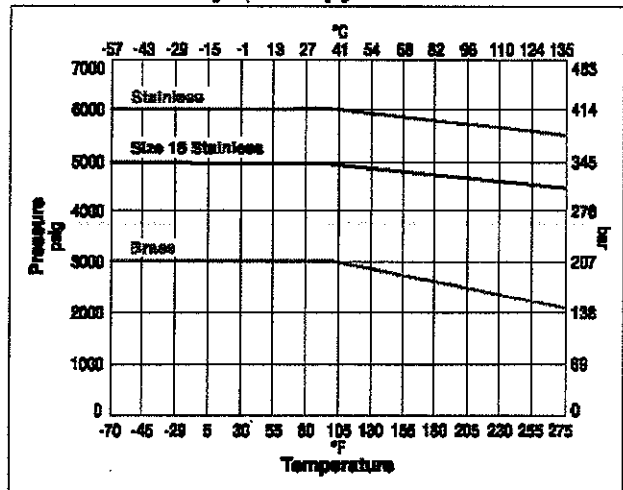
Neoprene Seat



Fluorocarbon Seat



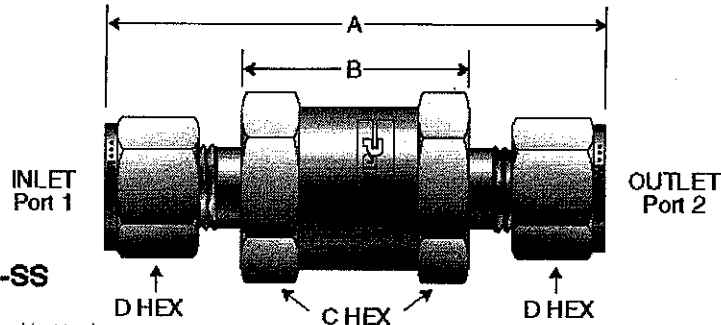
Ethylene Propylene Seat



C Series Check Valves

Catalog 4135-CV

Flow Data/Dimensions



Model Shown: 4Z-C4L-1-SS

Dimensions in inches (millimeters) are for reference only, subject to change.

Basic Part Number	End Connections		Flow Data				Dimensions							
	Inlet Port 1	Outlet Port 2	Orifice Inch	Orifice mm	C_v	X_T	A1 Inch	A1 mm	B Inch	B mm	C Inch	C mm	D Inch	D mm
2A-C2L	1/8" A-LOK® Compression	1/8" A-LOK® Compression	.093	2.4	.22	0.46	2.29	58.2	1.09	27.7	.625	15.9	.438	11.1
2F-C2L	1/8" Female NPT	1/8" Female NPT	.125	3.2	.31	0.52	1.86	47.2	-	-	.625	15.9	-	-
2F5-C2L	1/8" Male SAE	1/8" Male SAE	.063	1.6	.16	0.42	1.69	42.9	1.09	27.7	.625	15.9	-	-
2G5-C2L	1/8" Female SAE	1/8" Female SAE	.063	1.6	.16	0.42	1.86	47.2	-	-	.625	15.9	-	-
2KF-C2L	1/8" Female BSP/ISO Tapered	1/8" Female BSP/ISO Tapered	.125	3.2	.31	0.52	1.86	47.2	-	-	.625	15.9	-	-
2KM-C2L	1/8" Male BSP/ISO Tapered	1/8" Male BSP/ISO Tapered	.125	3.2	.31	0.52	1.77	45.0	1.00	25.4	.625	15.9	-	-
2M-C2L	1/8" Male NPT	1/8" Male NPT	.125	3.2	.31	0.52	1.77	45.0	1.01	25.7	.625	15.9	-	-
2TA-C2L	1/8" Tube Adapter	1/8" Tube Adapter	.078	2.0	.18	0.43	2.07	52.6	.88	22.4	.625	15.9	-	-
2Z-C2L	1/8" CPI™ Compression	1/8" CPI™ Compression	.093	2.4	.22	0.46	2.29	58.2	1.09	27.7	.625	15.9	.438	11.1
M3A-C2L	3mm A-LOK® Compression	3mm A-LOK® Compression	.086	2.2	.20	0.45	2.30	58.4	1.05	26.7	.625	15.9	.472	12.0
M3Z-C2L	3mm CPI™ Compression	3mm CPI™ Compression	.086	2.2	.20	0.45	2.30	58.4	1.05	26.7	.625	15.9	.472	12.0
2M2A-C2L	1/8" Male NPT	1/8" A-LOK® Compression	.093	2.4	.22	0.46	2.03	51.6	1.05	26.7	.625	15.9	.438	11.1
2M2F-C2L	1/8" Male NPT	1/8" Female NPT	.125	3.2	.31	0.52	1.81	46.0	1.43	36.3	.625	15.9	-	-
2M2Z-C2L	1/8" Male NPT	1/8" CPI™ Compression	.093	2.4	.22	0.46	2.03	51.6	1.05	26.7	.625	15.9	.438	11.1
2F-C4L	1/8" Female NPT	1/8" Female NPT	.187	4.7	.75	0.53	2.01	51.1	-	-	.750	19.1	-	-
2M-C4L	1/8" Male NPT	1/8" Male NPT	.187	4.7	.75	0.53	1.82	46.2	1.06	26.9	.750	19.1	-	-
4A-C4L	1/4" A-LOK® Compression	1/4" A-LOK® Compression	.187	4.7	.75	0.53	2.42	61.5	1.03	26.2	.750	19.1	.563	14.3
4F-C4L	1/4" Female NPT	1/4" Female NPT	.187	4.7	.75	0.53	2.40	61.0	-	-	.750	19.1	-	-
4F5-C4L	1/4" Male SAE	1/4" Male SAE	.172	4.4	.66	0.52	2.02	51.3	1.15	29.2	.750	19.1	-	-
4G5-C4L	1/4" Female SAE	1/4" Female SAE	.172	4.4	.66	0.52	2.20	55.9	-	-	.750	19.1	-	-
4KF-C4L	1/4" Female BSP/ISO Tapered	1/4" Female BSP/ISO Tapered	.187	4.7	.75	0.53	2.40	61.0	-	-	.750	19.1	-	-
4KM-C4L	1/4" Male BSP/ISO Tapered	1/4" Male BSP/ISO Tapered	.281	7.1	1.11	0.74	2.18	55.4	1.06	26.9	.750	19.1	-	-
4L-C4L	1/4" Seal-Lok®	1/4" Seal-Lok®	.172	4.4	.66	0.52	1.82	46.2	1.03	26.2	.750	19.1	-	-
4M-C4L	1/4" Male NPT	1/4" Male NPT	.187	4.7	.75	0.53	2.18	55.4	1.04	26.4	.750	19.1	-	-
4O-C4L	1/4" UltraSeal	1/4" UltraSeal	.180	4.6	.72	0.53	1.97	50.0	1.04	26.4	.750	19.1	-	-
4V-C4L	1/4" VacuSeal	1/4" VacuSeal	.187	4.7	.75	0.53	2.22	56.4	.98	24.9	.750	19.1	-	-
4TA-C4L	1/4" Tube Adapter	1/4" Tube Adapter	.156	4.0	.58	0.52	2.35	59.7	1.07	27.2	.750	19.1	-	-
4Z-C4L	1/4" CPI™ Compression	1/4" CPI™ Compression	.187	4.7	.75	0.53	2.42	61.5	1.03	26.2	.750	19.1	.563	14.3
6A-C4L	3/8" A-LOK® Compression	3/8" A-LOK® Compression	.187	4.7	.75	0.53	2.55	64.8	1.03	26.2	.750	19.1	.688	17.5
6Z-C4L	3/8" CPI™ Compression	3/8" CPI™ Compression	.187	4.7	.75	0.53	2.55	64.8	1.03	26.2	.750	19.1	.688	17.5
M6A-C4L	6mm A-LOK® Compression	6mm A-LOK® Compression	.187	4.7	.75	0.53	2.43	61.7	1.03	26.2	.750	19.1	.551	14.0
M6Z-C4L	6mm CPI™ Compression	6mm CPI™ Compression	.187	4.7	.75	0.53	2.43	61.7	1.03	26.2	.750	19.1	.551	14.0
4M4A-C4L	1/4" Male NPT	1/4" A-LOK® Compression	.187	4.7	.75	0.53	2.29	58.2	1.02	25.9	.750	19.1	.563	14.3
4M4F-C4L	1/4" Male NPT	1/4" Female NPT	.187	4.7	.75	0.53	2.29	58.2	1.72	43.7	.750	19.1	-	-
4M4Z-C4L	1/4" Male NPT	1/4" CPI™ Compression	.187	4.7	.75	0.53	2.29	58.2	1.02	25.9	.750	19.1	.563	14.3
4M6A-C4L	1/4" Male NPT	3/8" A-LOK® Compression	.187	4.7	.75	0.53	2.35	59.7	1.02	25.9	.750	19.1	.688	17.5
4M6Z-C4L	1/4" Male NPT	3/8" CPI™ Compression	.187	4.7	.75	0.53	2.35	59.7	1.02	25.9	.750	19.1	.688	17.5
6A-C6L	3/8" A-LOK® Compression	3/8" A-LOK® Compression	.281	7.1	1.11	0.74	3.27	83.1	1.75	44.5	1.000	25.4	.688	17.5
6F-C6L	3/8" Female NPT	3/8" Female NPT	.359	9.1	2.26	0.77	3.03	77.0	-	-	1.000	25.4	-	-
6F5-C6L	3/8" Male SAE	3/8" Male SAE	.264	6.7	2.05	0.74	2.71	68.8	1.76	44.7	1.000	25.4	-	-
6G5-C6L	3/8" Female SAE	3/8" Female SAE	.264	6.7	2.05	0.74	2.96	75.2	-	-	1.000	25.4	-	-
6KF-C6L	3/8" Female BSP/ISO Tapered	3/8" Female BSP/ISO Tapered	.359	9.1	2.26	0.77	3.03	77.0	-	-	1.000	25.4	-	-
6KM-C6L	3/8" Male BSP/ISO Tapered	3/8" Male BSP/ISO Tapered	.359	9.1	2.26	0.77	2.96	75.2	1.84	46.7	1.000	25.4	-	-
6L-C6L	3/8" Seal-Lok®	3/8" Seal-Lok®	.264	6.7	2.05	0.74	2.65	67.3	1.77	45.0	1.000	25.4	-	-
6M-C6L	3/8" Male NPT	3/8" Male NPT	.359	9.1	2.26	0.77	2.96	75.2	1.82	46.2	1.000	25.4	-	-
6O-C6L	3/8" UltraSeal	3/8" UltraSeal	.250	6.4	2.02	0.73	2.75	69.9	1.80	45.7	1.000	25.4	-	-
6TA-C6L	3/8" Tube Adapter	3/8" Tube Adapter	.281	7.1	1.11	0.74	3.24	82.3	1.80	45.7	1.000	25.4	-	-
6Z-C6L	3/8" CPI™ Compression	3/8" CPI™ Compression	.281	7.1	1.11	0.74	3.27	83.1	1.75	44.5	1.000	25.4	.688	17.5

Pressure Rating and Tubing Selection: For working pressures of A-LOK® and CPI™ tube connections, please see the Instrument Tubing Selection Guide (Bulletin 4200-TS), found in the Technical Section of the Parker Instrumentation Process Control Binder, or the Parker Instrument Tube Fitting Installation Manual (Bulletin 4200-B4).

For working pressures of valves with external or internal pipe threads, please see Catalog 4260, Instrumentation Pipe Fittings.

* Tested in accordance with ISA S75.02. Gas flow will be choked when $P_2 - P_1 / P_1 = X_T$.

† For CPI™ and A-LOK®, dimensions are measured with nuts in the finger tight position.



Flow Data/Dimensions (Continued)

Dimensions in inches (millimeters) are for reference only, subject to change.

Basic Part Number	End Connections		Flow Data				Dimensions							
	Inlet Port 1	Outlet Port 2	Orifice		C _v	X _T *	A		B		C		D	
			Inch	mm			Inch	mm	Inch	mm	Inch	mm	Inch	mm
8A-C6L	1/2" A-LOK® Compression	1/2" A-LOK® Compression	.359	9.1	2.26	0.77	3.55	90.2	1.81	46.0	1.000	25.4	.875	22.2
8Z-C6L	1/2" CPI™ Compression	1/2" CPI™ Compression	.359	9.1	2.26	0.77	3.55	90.2	1.81	46.0	1.000	25.4	.875	22.2
M8A-C6L	8mm A-LOK® Compression	8mm A-LOK® Compression	.250	6.4	2.02	0.73	3.33	84.6	1.87	47.5	1.000	25.4	.630	16.0
M8Z-C6L	8mm CPI™ Compression	8mm CPI™ Compression	.250	6.4	2.02	0.73	3.33	84.6	1.87	47.5	1.000	25.4	.630	16.0
M10A-C6L	10mm A-LOK® Compression	10mm A-LOK® Compression	.312	7.9	2.16	0.75	3.35	85.1	1.81	46.0	1.000	25.4	.748	19.0
M10Z-C6L	10mm CPI™ Compression	10mm CPI™ Compression	.312	7.9	2.16	0.75	3.35	85.1	1.81	46.0	1.000	25.4	.748	19.0
6M6A-C6L	3/8" Male NPT	3/8" A-LOK® Compression	.281	7.1	2.09	0.74	3.09	78.5	1.76	44.7	1.000	25.4	.688	17.5
6M6F-C6L	3/8" Male NPT	3/8" Female NPT	.359	9.1	2.26	0.77	2.95	74.9	2.38	60.5	1.000	25.4	-	-
6M6Z-C6L	3/8" Male NPT	3/8" CPI™ Compression	.281	7.1	2.09	0.74	3.09	78.5	1.76	44.7	1.000	25.4	.688	17.5
6M8A-C6L	3/8" Male NPT	1/2" A-LOK® Compression	.359	9.1	2.26	0.77	3.26	82.8	1.82	46.2	1.000	25.4	.875	22.2
6M8Z-C6L	3/8" Male NPT	1/2" CPI™ Compression	.359	9.1	2.26	0.77	3.26	82.8	1.82	46.2	1.000	25.4	.875	22.2
8A-C8L	1/2" A-LOK® Compression	1/2" A-LOK® Compression	.423	10.7	3.30	0.77	4.08	103.6	2.34	59.4	1.250	31.8	.875	22.2
8F-C8L	1/2" Female NPT	1/2" Female NPT	.453	11.5	3.53	0.81	3.56	90.4	-	-	1.250	31.8	-	-
8F5-C8L	1/2" Male SAE	1/2" Male SAE	.378	9.6	2.96	0.71	3.45	87.6	2.34	59.4	1.250	31.8	-	-
8G5-C8L	1/2" Female SAE	1/2" Female SAE	.453	11.5	3.53	0.81	3.56	90.4	-	-	1.250	31.8	-	-
8KF-C8L	1/2" Female BSP/ISO Tapered	1/2" Female BSP/ISO Tapered	.453	11.5	3.53	0.81	3.56	90.4	-	-	1.250	31.8	-	-
8KM-C8L	1/2" Male BSP/ISO Tapered	1/2" Male BSP/ISO Tapered	.453	11.5	3.53	0.81	3.56	90.4	2.06	52.3	1.250	31.8	-	-
8L-C8L	1/2" Seal-Lok®	1/2" Seal-Lok®	.378	9.6	2.96	0.71	3.22	81.8	2.21	56.1	1.250	31.8	-	-
8M-C8L	1/2" Male NPT	1/2" Male NPT	.453	11.5	3.53	0.81	3.56	90.4	2.05	52.1	1.250	31.8	-	-
8Q-C8L	1/2" UltraSeal	1/2" UltraSeal	.375	9.5	2.93	0.71	3.28	83.3	2.33	59.2	1.250	31.8	-	-
8TA-C8L	1/2" Tube Adapter	1/2" Tube Adapter	.375	9.5	2.93	0.71	4.04	102.6	1.78	45.2	1.250	31.8	-	-
8V-C8L	1/2" VacuSeal	1/2" VacuSeal	.406	10.3	3.17	0.75	3.56	90.4	2.05	52.1	1.250	31.8	-	-
8Z-C8L	1/2" CPI™ Compression	1/2" CPI™ Compression	.423	10.7	3.30	0.77	4.08	103.6	2.34	59.4	1.250	31.8	.875	22.2
M12A-C8L	12mm A-LOK® Compression	12mm A-LOK® Compression	.375	9.5	2.93	0.71	4.06	103.1	2.34	59.4	1.250	31.8	.866	22.0
M12Z-C8L	12mm CPI™ Compression	12mm CPI™ Compression	.375	9.5	2.93	0.71	4.06	103.1	2.34	59.4	1.250	31.8	.866	22.0
8M8A-C8L	1/2" Male NPT	1/2" A-LOK® Compression	.423	10.7	3.30	0.77	3.82	97.0	2.19	55.6	1.250	31.8	.875	22.2
8M8F-C8L	1/2" Male NPT	1/2" Female NPT	.453	11.5	3.53	0.81	3.56	90.4	2.80	71.1	1.250	31.8	-	-
8M8Z-C8L	1/2" Male NPT	1/2" CPI™ Compression	.423	10.7	3.30	0.77	3.82	97.0	2.19	55.6	1.250	31.8	.875	22.2
12A-C12L	3/4" A-LOK® Compression	3/4" A-LOK® Compression	.594	15.1	6.01	0.38	4.34	110.2	2.60	66.0	1.375	34.9	1.125	28.6
12F-C12L	3/4" Female NPT	3/4" Female NPT	.594	15.1	6.01	0.38	4.09	103.9	-	-	1.375	34.9	-	-
12F5-C12L	3/4" Male SAE	3/4" Male SAE	.594	15.1	6.01	0.38	4.05	102.9	2.59	65.8	1.375	34.9	-	-
12G5-C12L	3/4" Female SAE	3/4" Female SAE	.594	15.1	6.01	0.38	4.09	103.9	-	-	1.375	34.9	-	-
12KF-C12L	3/4" Female BSP/ISO Tapered	3/4" Female BSP/ISO Tapered	.594	15.1	6.01	0.38	4.09	103.9	-	-	1.375	34.9	-	-
12KM-C12L	3/4" Male BSP/ISO Tapered	3/4" Male BSP/ISO Tapered	.594	15.1	6.01	0.38	4.09	103.9	2.59	65.8	1.375	34.9	-	-
12L-C12L	3/4" Seal-Lok®	3/4" Seal-Lok®	.594	15.1	6.01	0.38	3.78	96.0	2.44	62.0	1.375	34.9	-	-
12M-C12L	3/4" Male NPT	3/4" Male NPT	.594	15.1	6.01	0.38	4.09	103.9	2.58	65.5	1.375	34.9	-	-
12O-C12L	3/4" UltraSeal	3/4" UltraSeal	.500	12.7	5.63	0.37	3.78	96.0	2.64	67.1	1.375	34.9	-	-
12TA-C12L	3/4" Tube Adapter	3/4" Tube Adapter	.594	15.1	6.01	0.38	4.24	107.7	2.18	55.4	1.375	34.9	-	-
12V-C12L	3/4" VacuSeal	3/4" VacuSeal	.594	15.1	6.01	0.38	4.64	117.9	2.64	67.1	1.375	34.9	-	-
12Z-C12L	3/4" CPI™ Compression	3/4" CPI™ Compression	.594	15.1	6.01	0.38	4.34	110.2	2.60	66.0	1.375	34.9	1.125	28.6
M20A-C12L	20mm A-LOK® Compression	20mm A-LOK® Compression	.594	15.1	6.01	0.38	4.32	109.7	2.56	65.0	1.375	34.9	1.260	32.0
M20Z-C12L	20mm CPI™ Compression	20mm CPI™ Compression	.594	15.1	6.01	0.38	4.32	109.7	2.56	65.0	1.375	34.9	1.260	32.0
M22A-C12L	22mm A-LOK® Compression	22mm A-LOK® Compression	.594	15.1	6.01	0.38	4.30	109.2	2.56	65.0	1.375	34.9	1.260	32.0
M22Z-C12L	22mm CPI™ Compression	22mm CPI™ Compression	.594	15.1	6.01	0.38	4.30	109.2	2.56	65.0	1.375	34.9	1.260	32.0
12M12A-C12L	3/4" Male NPT	3/4" A-LOK® Compression	.594	15.1	6.01	0.38	4.22	107.2	2.59	65.8	1.375	34.9	1.125	28.6
12M12F-C12L	3/4" Male NPT	3/4" Female NPT	.594	15.1	6.01	0.38	4.09	103.9	3.34	84.8	1.375	34.9	-	-
12M12Z-C12L	3/4" Male NPT	3/4" CPI™ Compression	.594	15.1	6.01	0.38	4.22	107.2	2.59	65.8	1.375	34.9	1.125	28.6
16A-C16L	1" A-LOK® Compression	1" A-LOK® Compression	.656	16.7	6.56	0.27	4.63	117.6	2.53	64.3	1.625	41.3	1.500	38.1
16F-C16L	1" Female NPT	1" Female NPT	.656	16.7	6.56	0.27	4.84	122.9	-	-	1.625	41.3	-	-
16F5-C16L	1" Male SAE	1" Male SAE	.656	16.7	6.56	0.27	4.10	104.1	2.64	67.1	1.625	41.3	-	-
16G5-C16L	1" Female SAE	1" Female SAE	.656	16.7	6.56	0.27	4.84	122.9	-	-	1.625	41.3	-	-
16KF-C16L	1" Female BSP/ISO Tapered	1" Female BSP/ISO Tapered	.656	16.7	6.56	0.27	4.84	122.9	-	-	1.625	41.3	-	-
16KM-C16L	1" Male BSP/ISO Tapered	1" Male BSP/ISO Tapered	.656	16.7	6.56	0.27	4.52	114.8	2.64	67.1	1.625	41.3	-	-
16M-C16L	1" Male NPT	1" Male NPT	.656	16.7	6.56	0.27	4.52	114.8	2.63	66.8	1.625	41.3	-	-
16L-C16L	1" Seal-Lok®	1" Seal-Lok®	.656	16.7	6.56	0.27	3.83	97.3	2.45	62.2	1.625	41.3	-	-
16TA-C16L	1" Tube Adapter	1" Tube Adapter	.656	16.7	6.56	0.27	5.11	129.8	2.52	64.0	1.625	41.3	-	-
16Z-C16L	1" CPI™ Compression	1" CPI™ Compression	.656	16.7	6.56	0.27	4.63	117.6	2.53	64.3	1.625	41.3	1.500	38.1
M25A-C16L	25mm A-LOK® Compression	25mm A-LOK® Compression	.656	16.7	6.56	0.27	4.74	120.4	2.64	67.1	1.625	41.3	1.496	38.0
M25Z-C16L	25mm CPI™ Compression	25mm CPI™ Compression	.656	16.7	6.56	0.27	4.74	120.4	2.64	67.1	1.625	41.3	1.496	38.0
16M16A-C16L	1" Male NPT	1" A-LOK® Compression	.656	16.7	6.56	0.27	4.58	116.3	2.59	65.8	1.625	41.3	1.500	38.1
16M16F-C16L	1" Male NPT	1" Female NPT	.656	16.7	6.56	0.27	4.68	118.9	3.73	94.7	1.625	41.3	-	-
16M16Z-C16L	1" Male NPT	1" CPI™ Compression	.656	16.7	6.56	0.27	4.58	116.3	2.59	65.8	1.625	41.3	1.500	38.1

Pressure Rating and Tubing Selection: For working pressures of A-LOK® and CPI™ tube connections, please see the Instrument Tubing Selection Guide (Bulletin 4200-TS), found in the Technical Section of the Parker Instrumentation Process Control Binder, or the Parker Instrument Tube Fitting Installation Manual (Bulletin 4200-B4).

For working pressures of valves with external or internal pipe threads, please see Catalog 4260, Instrumentation Pipe Fittings.

* Tested in accordance with ISA S75.02. Gas flow will be choked when $P_1 - P_2 / P_1 = X_T$.

† For CPI™ and A-LOK®, dimensions are measured with nuts in the finger tight position.



C Series Check Valves

Catalog 4135-CV

How to Order

Dimensions in inches (millimeters) are for reference only, subject to change.

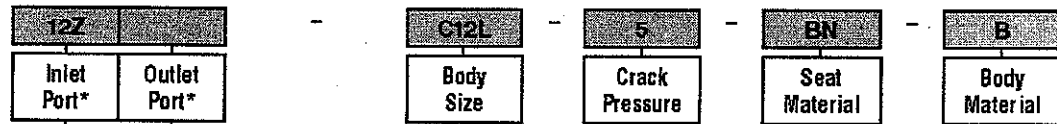
The correct part number is easily derived from the following example and ordering chart. The six product characteristics required are coded as shown in the chart.

Example 1 below describes a C Series Check Valve with 3/4" CPI™ compression inlet and outlet ports, a 5 psi cracking pressure, nitrile seal and brass body construction.

Example 2 below describes a C Series Check Valve with a 1" male NPT inlet port and a 1" A-LOK® outlet port, a 10 psi cracking pressure, neoprene seal and stainless steel body construction.

Example 1: 12Z-C12L-5-BN-B (shown in the part number blocks below)

Example 2: 16M16A-C16L-10-NE-SS



Inlet Port*				Outlet Port*				Body Size	Crack Pressure	Seat Material		Body Material	
2A	2G5	2M	M3A	2A	2G5	2M	M3A	C2L	1/3 psi	Blank	Fluorocarbon	B	Brass
2F	2KF	2TA	M3Z	2F	2KF	2TA	M3Z		1 psi		Rubber		SS
2F5	2KM	2Z		2F5	2KM	2Z			5 psi	BN	Nitrile	Stainless Steel	
4A	4KF	4Q	M6A	4A	4KF	4Q	M6A	C4L	10 psi	EPR	Ethylene		
4F	4KM	4TA	M6Z	4F	4KM	4TA	M6Z		25 psi		Propylene		
4F5	4L	4V		4F5	4L	4V			50 psi	Rubber			
4G5	4M	4Z		4G5	4M	4Z		75 psi	NE	Neoprene			
6A	6KF	6Q	M8Z	6A	6KF	6Q	M8Z	C6L	100 psi	**T	PTFE		
6F	6KM	6TA	M10A	6F	6KM	6TA	M10A		***KZ		Highly		
6F5	6L	6Z	M10Z	6F5	6L	6Z	M10Z			Fluorinated			
6G5	6M	M8A		6G5	6M	M8A		Fluorocarbon					
8A	8KF	8Q	M12A	8A	8KF	8Q	M12A	C8L			Rubber		
8F	8KM	8TA	M12Z	8F	8KM	8TA	M12Z						
8F5	8L	8V		8F5	8L	8V							
8G5	8M	8Z		8G5	8M	8Z							
12A	12KF	12Q	M20A	12A	12KF	12Q	M20A	C12L					
12F	12KM	12TA	M20Z	12F	12KM	12TA	M20Z						
12F5	12L	12V	M22A	12F5	12L	12V	M22A						
12G5	12M	12Z	M22Z	12G5	12M	12Z	M22Z						
16A	16G5	16L	16Z	16A	16G5	16L	16Z	C16L					
16F	16KF	16M	M25A	16F	16KF	16M	M25A						
16F5	16KM	16TA	M25Z	16F5	16KM	16TA	M25Z						

*If the inlet and outlet ports are the same, eliminate the outlet port designator.

Options

Oxygen Cleaning – Add the suffix -C3 to the end of the part number to receive filters cleaned and assembled for oxygen service in accordance with Parker specification ES8003. **Example:** 4A-C4L-1-BN-SS-C3

Laser Weld – Add the suffix -LW to the end of the part number to receive tamper-resistant stainless steel filters. **Example:** 2F-C2L-1-SS-LW

NGV Certification – To receive valves approved and certified by CSA America, Inc, ECE R110, and ISO 15500 for use on natural gas vehicles, please contact the Instrumentation Products Division or your local authorized Parker distributor.



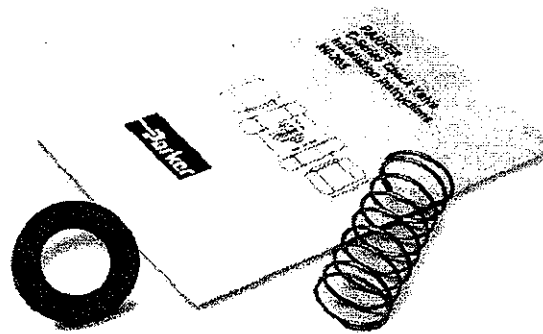
Kit Information

To order repair kits for the C Series Check Valves simply fill in the designators from the chart below.

Size	Crack Pressure	Seat Material	
C2	1/3 psi	V	Fluorocarbon Rubber
C4	1 psi	BN	Nitrile
C6	5 psi	EPR	Ethylene Propylene Rubber
C8	10 psi	NE	Neoprene Rubber
C12	25 psi	*T	PTFE
C16	75 psi	KZ	Highly Fluorinated Fluorocarbon
	100 psi		

*PTFE kits can only be used to replace factory installed PTFE seats. It cannot be interchanged with seats of any other material.

Examples: KIT-C8-10-V, KIT-C16-100-BN



Check Valve Kits Contain:

- Seat
- Spring
- Instructions