

# Parker Series C1DB 2-Way Cartridge Check Valve Service Manual

Catalog HY14-3200/US

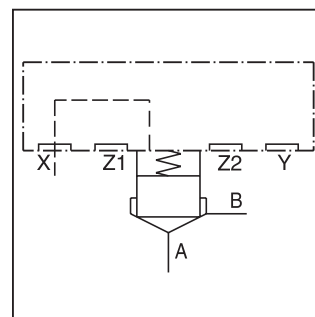
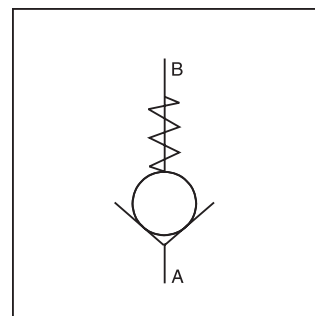
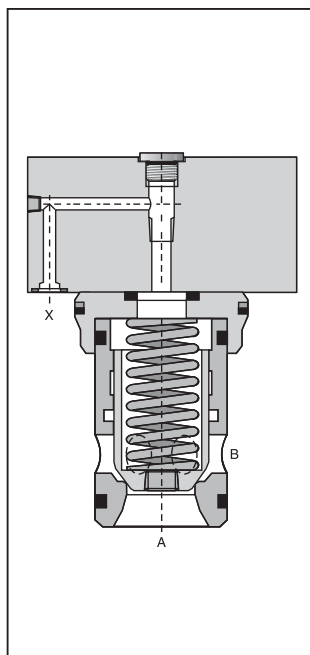
## Technical Information

### General Description

Series C1DB check valves consist of a slip-in valve, that is designed for a compact block installation.

### Features

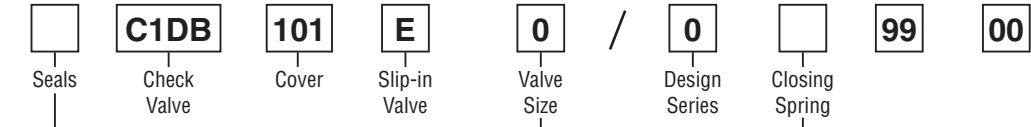
- Installation hole and mounting pattern according to ISO 7368.
- 5 different springs.
- 8 sizes NG16 to NG100.



### Specifications

General								
Size	NG16	NG25	NG32	NG40	NG50	NG63	NG80	NG100
Interface	2-way cartridge valve according to ISO 7368							
Mounting Position	Unrestricted							
Ambient Temperature	-40°C to +60°C (-40°F to +140°F)							
Hydraulic								
Maximum Operating Pressure	Ports A, B and X 350 Bar (5075 PSI), port Y 10 Bar (145 PSI) maximum							
Nominal Flow	250 LPM (66 GPM)	450 LPM (119 GPM)	900 LPM (238 GPM)	1300 LPM (344 GPM)	1800 LPM (476 GPM)	3600 LPM (952 GPM)	5250 LPM (1389 GPM)	8000 LPM (2116 GPM)
Flow Direction	See Symbols							
Fluid	Hydraulic oil according to DIN 51524 ... 536							
Viscosity Recommended	30 to 80 cSt (mm <sup>2</sup> /s)							
Viscosity Permitted	20 to 380 cSt (mm <sup>2</sup> /s)							
Fluid Temperature	-20°C to +60°C (-4°F to +140°F)							
Filtration	ISO 4406 (1999); 18/16/13 (meet NAS 1638:7)							
Nominal Pressure	350 Bar (5075 PSI)							
Opening Spring Pressure	L = 0.1 Bar (1.5 PSI), N = 0.5 Bar (7.3 PSI), S = 1.6 Bar (23.2 PSI), U = 4.0 Bar (58.0 PSI)							

**Ordering Information**



Code	Description
Omit	Nitrile
V	Fluorocarbon

Code	Description
16	NG16
25	NG25
32	NG32
40	NG40
50	NG50
63	NG63
80	NG80
100	NG100

Code	Description
L	0.1 Bar (1.5 PSI)
N	0.5 Bar (7.3 PSI)
S	1.6 Bar (23.2 PSI)
T	2.5 Bar (36.3 PSI)
U	4.0 Bar (58.0 PSI)

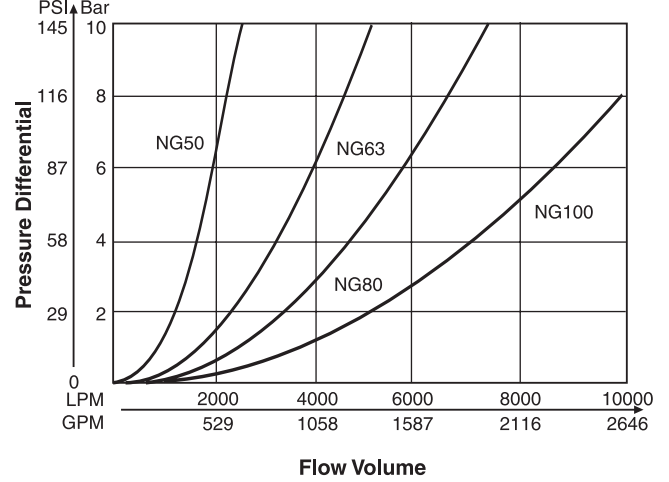
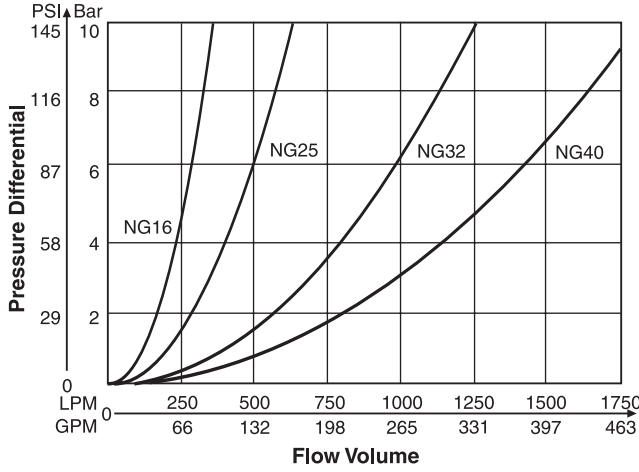
**Weight:**

C1DB16	1.2 kg (2.6 lbs.)
C1DB25	2.5 kg (5.5 lbs.)
C1DB32	3.9 kg (8.6 lbs.)
C1DB40	7.0 kg (15.4 lbs.)
C1DB50	11.4 kg (25.1 lbs.)
C1DB63	21.8 kg (48.1 lbs.)
C1DB80	45.0 kg (99.2 lbs.)
C1DB100	74.0 kg (163.2 lbs.)

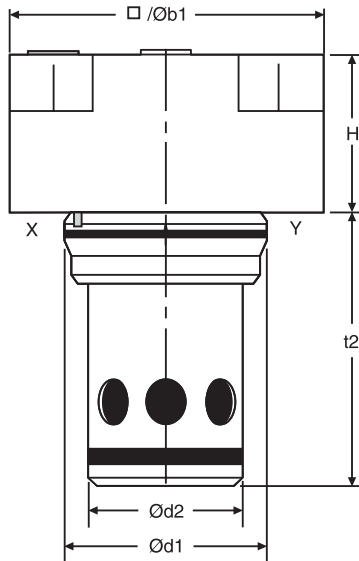
**Springs**

Spring Type	Ordering Number							
	NG16	NG25	NG32	NG40	NG50	NG63	NG80	NG100
L (0.1 Bar) (1.5 PSI)	45051368	45051375	45051376	45051382	45051384	45051388	45051395	45051400
N (0.5 Bar) (7.3 PSI)	45051369	45051374	45051377	45051381	45051385	45051389	45051396	45051401
S (1.6 Bar) (23.2 PSI)	45051370	45051372	45051378	45051380	45051386	45051390	45051397	45051402
T (2.5 Bar) (36.3 PSI)	45051670	45051671	45051672	45051673	45051674	—	—	—
U (4.0 Bar) (58.0 PSI)	45051371	45051373	45051379	45051383	45051387	45051391	45051398	45051403




**Performance Curves**



Inch equivalents for millimeter dimensions are shown in (\*\*)



Size	NG16	NG25	NG32	NG40	NG50	NG63	NG80	NG100
H	40.0 (1.57)	45.0 (1.77)	50.0 (1.97)	60.0 (2.36)	70.0 (2.76)	85.0 (3.35)	105.0 (4.13)	120.0 (4.72)
b1	65.0 (2.56)	85.0 (3.35)	102.0 (4.02)	125.0 (4.92)	140.0 (5.51)	180.0 (7.09)	250.0 (9.84)	300.0 (11.81)
d1 <sup>H7</sup>	32.0 (1.26)	45.0 (1.77)	60.0 (2.36)	75.0 (2.95)	90.0 (3.54)	120.0 (4.72)	145.0 (5.71)	180.0 (7.09)
d2 <sup>H7</sup>	25.0 (0.98)	34.0 (1.34)	45.0 (1.77)	56.0 (2.20)	68.0 (2.68)	90.0 (3.54)	110.0 (4.33)	135.0 (5.31)
t2 <sup>+0.1</sup>	55.5 (2.19)	72.0 (2.83)	85.0 (3.35)	105.0 (4.13)	122.0 (4.80)	155.0 (6.10)	205.0 (8.07)	245.0 (9.65)

NG	Bolt Kit - 		Kit 	
			Nitrile	Fluorcarbon
16	BK414 (BK84)	33 Nm (24.3 lb.-ft.)	SK-CB-E160	SK-CB-E160V
25	BK391 (BK77)	115 Nm (54.8 lb.-ft.)	SK-CB-E250	SK-CB-E250V
32	BK415 (BK85)	281 Nm (207.2 lb.-ft.)	SK-CB-E320	SK-CB-E320V
40	BK416 (BK86)	553 Nm (407.8 lb.-ft.)	SK-CB-E400	SK-CB-E400V
50	BK417 (BK87)	553 Nm (407.8 lb.-ft.)	SK-CB-E500	SK-CB-E500V
63	BK418 (BK88)	1910 Nm (1408.6 lb.-ft.)	SK-CB-E630	SK-CB-E630V
80	BK419 (BK135)	935 Nm (689.6 lb.-ft.)	SK-CB-E630	SK-CB-E630V
100	BK420 (BK90)	1910 Nm (1408.6 lb.-ft.)	SK-CB-E630	SK-CB-E630V