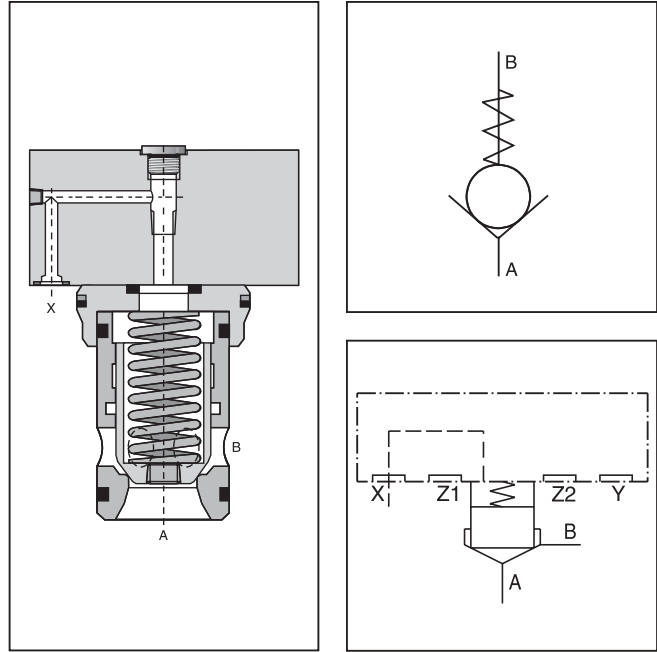


General Description

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

Features

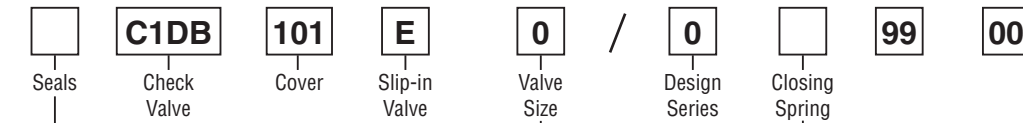
- Installation hole and mounting pattern according to ISO 7368.
- 5 different springs.
- 8 sizes NG16 to NG100.



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 ² /s) | | | | | | | |
| Viscosity Permitted | 20 to 380 cSt (mm ² /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) |

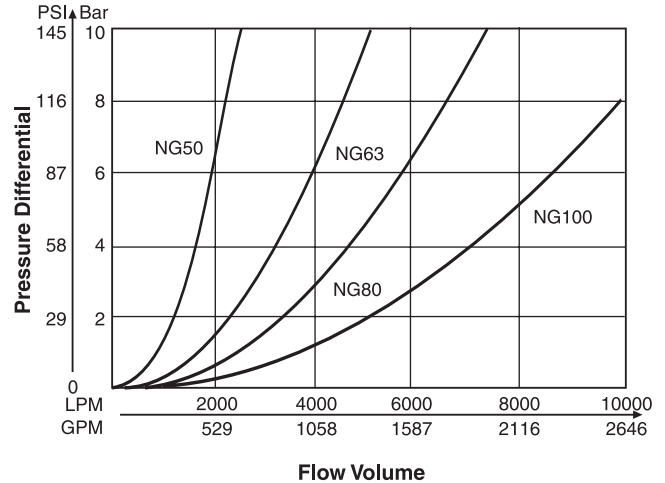
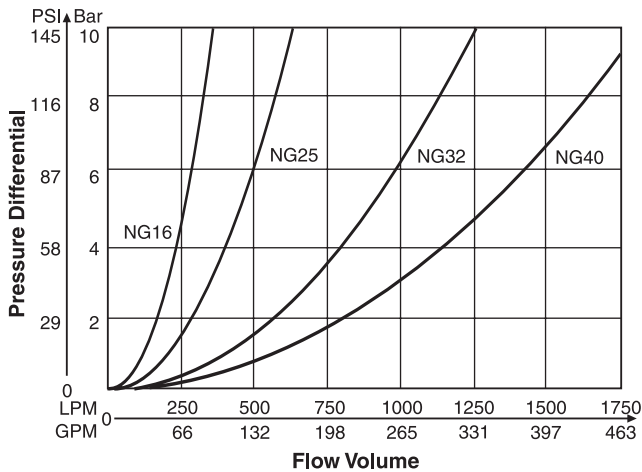
Weight:

| | |
|---------|----------------------|
| 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.) |

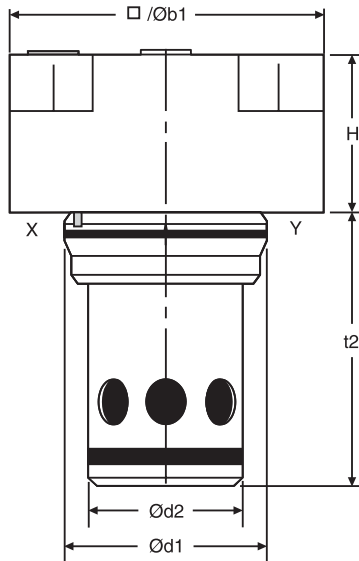
Springs

| 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 ^{H7} | 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 ^{H7} | 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 ^{+0.1} | 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 |