



## SILENT CHECK VALVE ♦ SINGLE DISC ♦ THREADED ENDS

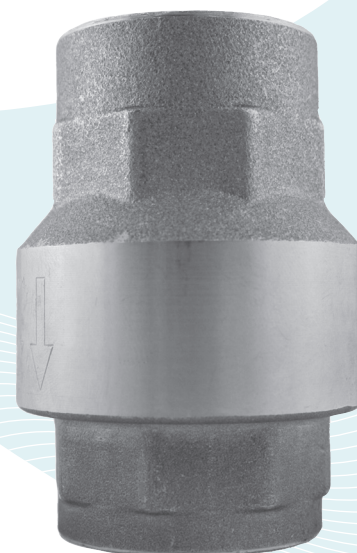
400 WOG ♦ BRASS BODY ♦ BUNA-N SEAT

### MODEL: CV 20-BR

BRASS BODY  
BUNA-N SEAT

## FEATURES

- ♦ **QUICK CLOSURE TO REDUCE WATER HAMMER**  
SILENT SHUT-OFF IS ACHIEVED VIA THE FULLY AUTOMATIC, SPRING ASSISTED DISC THAT CLOSURES NEAR ZERO FLOW VELOCITY. THE LIGHTWEIGHT, CENTER GUIDED DISC DESIGN CREATES A POSITIVE SHUTOFF PRIOR TO FLOW REVERSAL AND HELPS TO KEEP SLAMMING AND SURGES TO A MINIMUM.
- ♦ **VERSATILE AND ECONOMICAL DESIGN**  
CAN BE INSTALLED IN ANY POSITION (HORIZONTAL OR VERTICAL WITH UPWARD FLOW) - CONSULT FACTORY FOR VERTICAL WITH DOWNWARD FLOW. HEX ENDS ARE PROVIDED FOR QUICK AND EASY INSTALLATIONS.
- ♦ **BUBBLE TIGHT SEAL**  
BY UTILIZING A BUNA-N SEAT AND A PATENTED DISC GUIDE, THE CV 20-BZ IN-LINE CHECK VALVE MAINTAINS A BUBBLE TIGHT SEAL THAT MEETS OR EXCEEDS API 598 LEAKAGE REQUIREMENTS.
- ♦ **MINIMAL HEAD LOSS**  
THE CONTOUR OF BODY AND CHECK MODULE PROVIDE A FLOW PROFILE THAT GENERATES VERY LITTLE TURBULENCE. ADDITIONALLY, THE SPRING-LOADED, CENTER GUIDED DISC IS DESIGNED WITH LOW CRACKING PRESSURE WHICH REDUCES THE AMOUNT OF ENERGY REQUIRED TO OPEN THE VALVE.
- ♦ **DESIGNED FOR LONG SERVICE LIFE**  
HIGHLY ADVANCED MATERIALS COUPLED WITH A PATENTED DISC DESIGN CAN PROVIDE A LONG SERVICE LIFE FOR A WIDE VARIETY OF APPLICATIONS.



## TECHNICAL

### PRESSURE/TEMPERATURE RATING BRASS CW 617N - UNI EN 12165

WOG (Non-shock): 400 PSI @ 100 °F  
Max Liquid: Consult Factory  
Max Steam: Not Recommended

### SEAT MATERIAL MAXIMUM TEMPERATURE

Buna-N: 212 °F @ 170 PSI

### SPRING MATERIAL MAXIMUM TEMPERATURE

Series 300 Stainless Steel: 400 °F

### CHECK MODULE MATERIAL MAXIMUM TEMPERATURE

Polyetherimide: 365 °F

## APPLICATIONS

**MARKETS:** OIL & GAS PRODUCTION, GENERAL INDUSTRY, CHEMICAL INDUSTRY, PETROCHEMICAL INDUSTRY, POWER, FOOD & BEVERAGE INDUSTRIES.

**POLYETHERIMIDE:** PEI IS A HIGH PERFORMANCE THERMOPLASTIC. IT PROVIDES HIGH STRENGTH AND RIGIDITY AT ELEVATED TEMPERATURES, LONG TERM HEAT RESISTANCE, AND OUTSTANDING DIMENSIONAL STABILITY. IT IS INHERENTLY FLAME RETARDANT. PEI CAN RESIST CHEMICALS SUCH AS HYDROCARBONS, ALCOHOLS AND HALOGENATED SOLVENTS.

**BUNA-N PROPERTIES:** MOST WIDELY USED ELASTOMER. GOOD FOR MOST PETROLEUM OILS AND FLUIDS, SILICONE GREASES AND OILS, AND COLD WATER. EXCELLENT COMPRESSION SET, TEAR, AND ABRASION RESISTANCE. POOR WEATHER RESISTANCE AND MODERATE HEAT RESISTANCE. NOT RECOMMENDED FOR SEVERE OZONE-RESISTANT APPLICATIONS.

*The above data represents common market and service applications. No representation or guarantee, expressed or implied, is given due to the numerous variations of concentrations, temperatures and flow conditions that may occur during actual service.*

**TITAN FLOW CONTROL, INC.**  
**YOUR PIPELINE TO THE FUTURE!**

Tel: 910-735-0000 ♦ Fax: 910-738-3848 ♦ titan@titanfci.com ♦ www.titanfci.com  
290 Corporate Drive ♦ PO Box 7408 ♦ Lumberton, NC 28358

**TITAN FLOW CONTROL, Inc.**

290 Corporate Drive  
Lumberton, NC 28358  
Tel: 910.735.0000  
Fax: 910.738.3848

E-mail: titan@titanfci.com  
Web: www.titanfci.com

**IN-LINE • SILENT CHECK VALVE**  
**CENTER GUIDED • THREADED ENDS**
**MODEL: CV 20-BR**

Brass Body • BUNA-N Seat

1/4" ~ 2"

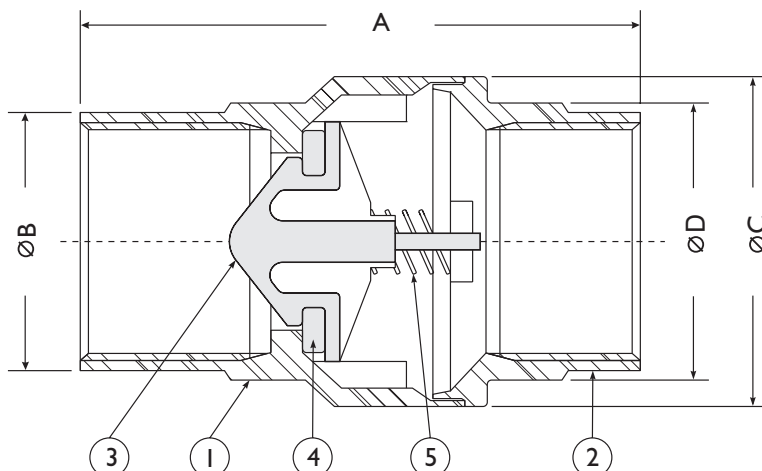
400 WOG

**BILL OF MATERIALS <sup>(1)</sup>**

| No. | PART                | MATERIAL                   |
|-----|---------------------|----------------------------|
| 1   | BODY                | Brass CW 617N              |
| 2   | END CONNECTION      | Brass CW 617N              |
| 3   | CHECK MODULE        | POLYETHERIMIDE             |
| 4   | SEAT <sup>(2)</sup> | Buna-N                     |
| 5   | SPRING              | Series 300 Stainless Steel |

**Notes:**

1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. Denotes recommended spare parts.

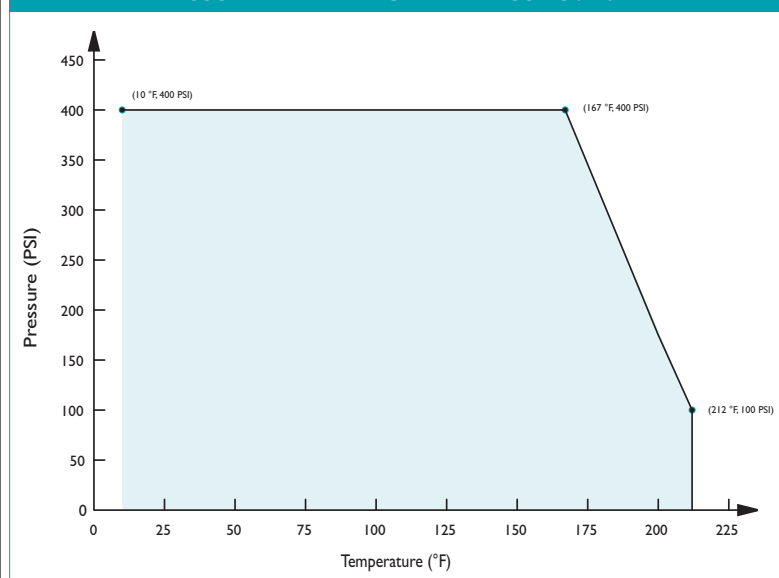
**DIMENSIONS AND PERFORMANCE DATA <sup>(1)</sup>**

| SIZE                                  | in             | 1/4  | 3/8  | 1/2  | 3/4   | 1     | 1 1/4 | 1 1/2 | 2     |
|---------------------------------------|----------------|------|------|------|-------|-------|-------|-------|-------|
|                                       | mm             | 8    | 10   | 15   | 20    | 25    | 32    | 40    | 50    |
| <b>A DIMENSION</b><br>FACE TO FACE    | in             | 2.32 | 2.32 | 2.32 | 2.56  | 2.76  | 2.93  | 3.17  | 3.37  |
|                                       | mm             | 59   | 59   | 59   | 66    | 71    | 75    | 81    | 86    |
| <b>ØB DIMENSION</b><br>END DIAMETER   | in             | .98  | .98  | .98  | 1.20  | 1.48  | 1.87  | 2.10  | 2.68  |
|                                       | mm             | 25   | 25   | 25   | 31    | 38    | 48    | 54    | 69    |
| <b>ØC DIMENSION</b><br>BODY DIAMETER  | in             | 1.35 | 1.35 | 1.35 | 1.65  | 1.92  | 2.40  | 2.87  | 3.46  |
|                                       | mm             | 35   | 35   | 35   | 42    | 49    | 61    | 73    | 88    |
| <b>ØD DIMENSION</b><br>OCTAGONAL ENDS | in             | .98  | .98  | .98  | 1.22  | 1.50  | 1.89  | 2.12  | 2.64  |
|                                       | mm             | 25   | 25   | 25   | 31    | 39    | 49    | 54    | 68    |
| <b>ASSEMBLED WEIGHT</b>               | lb             | .22  | .37  | .32  | .49   | .68   | 1.13  | 1.61  | 2.28  |
|                                       | kg             | .1   | .2   | .1   | .2    | .3    | .5    | .7    | 1.0   |
| Flow Coefficient                      | C <sub>v</sub> | 4.55 | 4.55 | 6.07 | 10.97 | 16.92 | 27.42 | 39.09 | 60.68 |
| Cracking Pressure <sup>(2)</sup>      | psi            | ≤ .5 | ≤ .5 | ≤ .5 | ≤ .5  | ≤ .5  | ≤ .5  | ≤ .5  | ≤ .5  |

**Additional Notes:**

1. End connection is female to female per ANSI B 1.20.1.
2. Perfect sealing both at high and low pressures with wide temperature range: +10 ~ 210 °F
3. Low cracking pressure, approximately 1/2 PSI.
4. Low profile designed to minimize head loss.
5. High technology materials to ensure best resistance in any condition.

1. Dimensions, weights, and flow coefficients are provided for reference only. When required, always request certified drawings.
2. This listed valve cracking pressure only applies to horizontal installations. For vertical installations, cracking pressure is higher. Please consult factory.

**PRESSURE-TEMPERATURE RATINGS - CV 20-BR****REFERENCED STANDARDS & CODES**

| CODE         | DESCRIPTION                    |
|--------------|--------------------------------|
| ANSI B1.1    | Unified Inch Screw Threads     |
| ANSI B1.20.1 | Pipe Threads - General Purpose |
| ANSI B16.15  | Cast Bronze Threaded Fittings  |

**PRESSURE - TEMPERATURE RATING****Body Material - BRASS CW 617N - UNI EN 12165 - 400 WOG**

WOG (Non-shock): 400 PSI @ 100 °F

Max Liquid: Consult Factory

Max Steam: Not Recommended

**SEAT TEMPERATURE RATING**

| Seat Material | Maximum Temperature |
|---------------|---------------------|
| Buna-N:       | 212 °F @ 170 PSI    |

**SPRING TEMPERATURE RATING**

| Spring Material             | Maximum Temperature |
|-----------------------------|---------------------|
| Series 300 Stainless Steel: | 400 °F              |

**CHECK MODULE TEMPERATURE RATING**

| Check Module Material | Maximum Temperature |
|-----------------------|---------------------|
| Polyetherimide:       | 365 °F              |