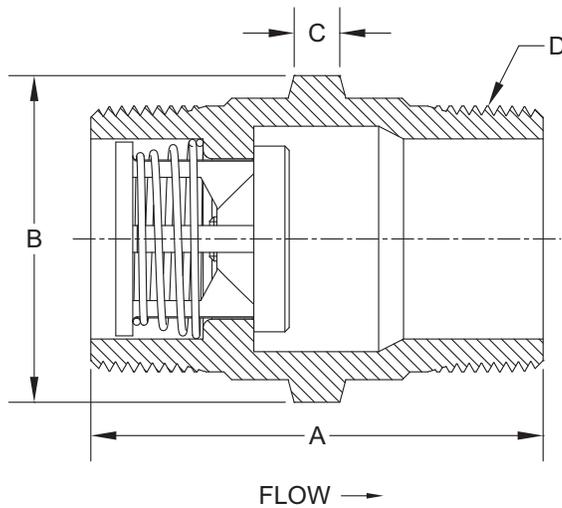


The **Connector (CN, CR)** valve is a check valve with a pipe nipple or connector housing. It is designed to be used in installations where a check valve with male pipe threads is required. The CN valve is adaptable for use as a low pressure relief valve or vacuum breaker by using the desired spring settings. Two valves used in combination make an excellent pressure vacuum vent. NPT threads are per ASME B1.20.1. Also available with ISO 7 "R" threads (CR).



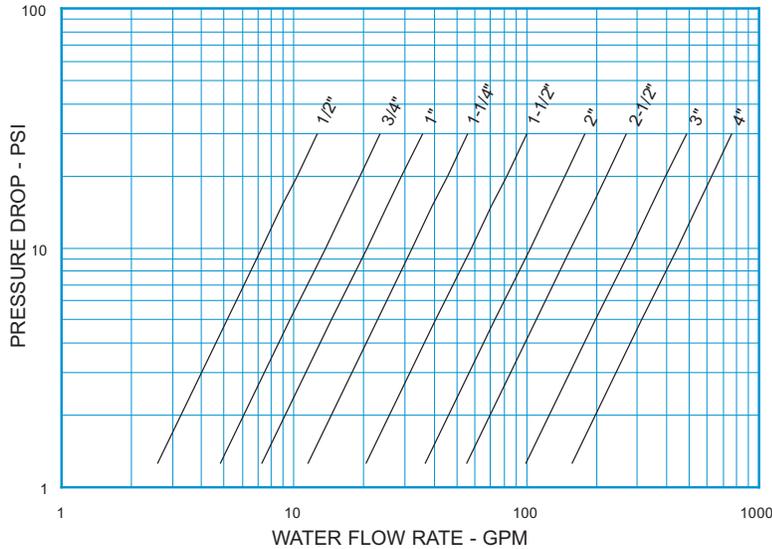
Nom. Pipe Size	Size Code	A	Hex <sup>1</sup> Size B	C	D	Orifice Diameter
1/2	D	2.34	7/8	0.28	1/2 NPT	0.348
3/4	F	2.34	1-1/8	0.27	3/4 NPT	0.464
1	H	3.00	1-3/8	0.35	1 NPT	0.593
1-1/4	I	3.00	1-3/4	0.33	1-1/4 NPT	0.890
1-1/2	J	3.19	2	0.32	1-1/2 NPT	1.135
2	K	3.68	2-1/2	N/A	2 NPT	1.385
2-1/2	L	5.00	3-1/4	N/A	2-1/2 NPT	1.555
3	M	5.50	4	N/A	3 NPT	2.025
4	N	5.00	4-1/2	N/A	4 NPT	2.560

<sup>1</sup>May be larger and/or round.

Body Material <sup>2</sup>	Availability	Non-Shock Pressure-Temperature Rating	
316 Stainless Steel (SS)	Standard	1/2" - 3" 3000 PSIG @ 100°F (1500 PSIG for o-ring seats)	4" 1500 PSIG @ 100°F
Carbon Steel (CS)			
Brass (BR)			
Alloy 20 (A2)	Semi-standard		
Alloy C-276 (HC)			
Alloy 400 or Monel <sup>®</sup> (MO)			
Alloy B (HB)	Contact the factory for these or other materials		
Titanium (TI)			

<sup>2</sup>See page 53 for material grade information.

**Connector**  
For Water at 72°F



**Note:** All flow curves and Cv values presume the valves are fully open with 1/2 PSI cracking pressure springs. Consult the factory for more information.

STYLE CN C <sub>v</sub> VALUES & VALVE WEIGHTS		
C <sub>v</sub>	SIZE	ALL MATL
2.3	1/2	2.5 oz.
4.3	3/4	3.9 oz.
6.5	1	7.5 oz.
10.2	1-1/4	10.9 oz.
18.3	1-1/2	1.5 lb.
32.7	2	2.7 lb.
49.2	2-1/2	5.0 lb.
89.0	3	8.9 lb.
140	4	11.1 lb.

See page 49 for Flow Formulae.  
Valve weights are approximate.

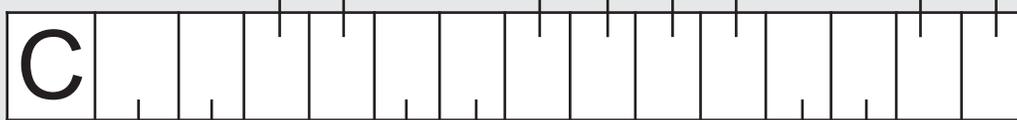
**HOW TO ORDER  
CHECK-ALL STYLE CN**

**BODY MATERIAL**  
 ALLOY 20 = A2  
 BRASS = BR  
 CARBON STEEL = CS  
 ALLOY B = HB  
 ALLOY C-276 = HC  
 ALLOY 400 OR MONEL® = MO  
 316 SS = SS  
 TITANIUM = TI  
**See p. 3 for temperature ratings**

**SPRING CRACKING PRESSURES (PSI)**  
 Must use decimal as a character unless selecting NO SPRING. *Specify Exact Setting*  
**SPRING RANGES**      **EXAMPLE**  
 .000 TO .999      =      .500  
 1.00 TO 9.99      =      1.50  
 10.0 TO 85.0      =      15.0  
 NO SPRING      =      NOSPRG  
**STANDARD CRACKING PRESSURES ①**  
 .125    .500    1.50    3.50  
 (Sizes D-J Only)

**Note:** Many other cracking pressures are available. All spring tolerances +/- 15%.

**SPECIAL OPTIONS**  
 T = FEP ENCAPSULATED SPRING  
**See p. 4 for temperature rating**  
 Contact the factory for more options



**VALVE STYLE**  
 NPT Threads = CN  
 ISO 7 R Threads = CR

**SIZE**  
 1/2 = D  
 3/4 = F  
 1 = H  
 1-1/4 = I  
 1-1/2 = J  
 2 = K  
 2-1/2 = L  
 3 = M  
 4 = N

**SEAT MATERIAL ②**  
 AFLAS® = AS  
 BUNA -N = BN  
 EPDM ③ = EP  
 KALREZ® = KZ  
 "METAL-TO-METAL" = MT  
 NEOPRENE = NE  
 PTFE = TF  
 VITON® = VT  
**See p. 3 for temperature ratings**

**SPRING MATERIAL**  
 316 SS = SS  
 ALLOY C-276 = HC  
 ALLOY B = HB  
 ALLOY X750 OR INCONEL® X750 = IX  
 ALLOY 400 OR MONEL® = MO  
 17-7PH SS = PH  
 TITANIUM = TI  
**See p. 4 for temperature ratings**

Listed above are the most common material selections. Please contact the factory for additional options.

- ① .500 PSI is the only standard cracking pressure for spring materials other than Stainless Steel. .125 PSI springs are not recommended for installations with flow vertical down.
- ② Seat materials other than "metal-to-metal" have a maximum pressure rating of 1500 PSI. "Metal-to-Metal" and PTFE seats are not resilient. See page 50 for allowable leakage rates.
- ③ EP seats not recommended for use with Carbon Steel valves.