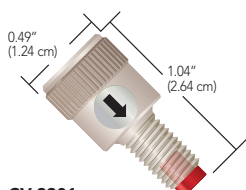
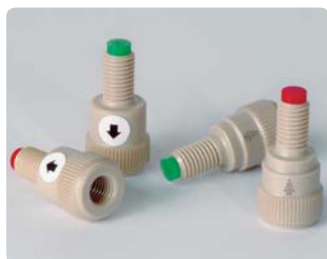


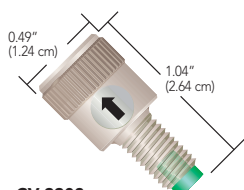
Standard 1/4-28 Inline Check Valves

- ▶ Add back-flow protection to any 1/4-28 flat-bottom port
- ▶ 15 psi (1 bar) and 3 psi (0.2 bar) cracking pressure versions
- ▶ Excellent chemical resistance
- ▶ Materials of construction: PEEK; PCTFE; perfluoroelastomer; PTFE (CV-3301 and CV-3302); stainless steel (CV-3301 and CV-3302); or gold-plated stainless steel (CV-3315 and CV-3316)

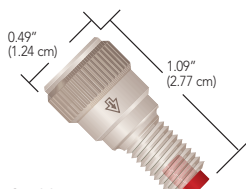
Connect these Upchurch Scientific® Inline Check Valves to any 1/4-28 flat-bottom port. Then thread your 1/4-28 flat-bottom fitting into the check valve to connect the tubing. Once installed, the spring-actuated sealing system eliminates back flow, helping to prevent upstream contamination or damage. In addition, the unique design of this product eliminates the additional tubing cuts and connections required to install conventional inline check valves.



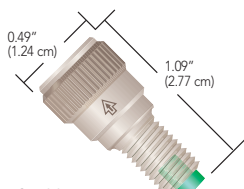
CV-3301
Standard, Inlet
1/4-28 FB Male to 1/4-28 FB Female
15 psi (1 bar) cracking pressure



CV-3302
Standard, Outlet
1/4-28 FB Male to 1/4-28 FB Female
15 psi (1 bar) cracking pressure



CV-3315
Standard, Inlet
1/4-28 FB Male to 1/4-28 FB Female
3 psi (0.2 bar) cracking pressure



CV-3316
Standard, Outlet
1/4-28 FB Male to 1/4-28 FB Female
3 psi (0.2 bar) cracking pressure

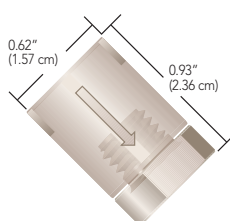
RELATED PRODUCTS

- ▶ 1/4-28 Inline Check Valves and Non-Metallic Check Valves with 1/4-28 flat-bottom ports (next page) can be used with any 1/4-28 Flangeless, Super Flangeless™, and VacuTight™ fitting on pages 21–28 of the Fittings Chapter.
- ▶ Micro-Volume Inline Check Valves and Non-Metallic Check Valves with 10-32 coned ports (next page) can be used with any 10-32 polymer Fingertight or SealTight™ fitting on pages 11–15. Connect capillary tubing using the optional ferrules listed on page 15 or the NanoTight™ Fittings and Tubing Sleeves on page 17.

Nonmetallic 10-32 Micro-Volume Inline Check Valve

- ▶ Cracking pressure of 8 psi (0.6 bar)
- ▶ Excellent chemical resistance
- ▶ Materials of construction: PEEK and perfluoroelastomer, suitable for biological applications

With a swept volume of only 7.4 μL, the Upchurch Scientific Inline Micro-Volume Check Valve is perfect for applications where low flow path volume is critical, such as delivery to lab-on-a-chip, single-cell analysis and micro- or nano-LC post-column derivatization. Once installed, this check valve helps prevent back flow and the potential for contamination or damage to sensitive upstream equipment.



CV-3500
Micro-Volume Inline
10-32 C Female to 10-32 C Female

NOTE

Check valves are specified by:

- ▶ **Cracking Pressure:** the pressure required for the valve to open in the direction of the arrow.
- ▶ **Maximum Pressure:** the maximum pressure the valve can experience in the reverse direction without leaking backwards.
- ▶ **Back Pressure Created:** the amount of back pressure generated by the check valve with 50 mL/min room temperature water flowing in the direction of the arrow.

SPECIFICATIONS & DETAILS

	Swept Volume	Thru-Hole	Max. Pressure Rating	Back Pressure Created	Cracking Pressure Tolerance
Standard 1/4-28 FB					
CV-3301, CV-3302	20 μL	0.020" (0.50 mm)	2,000 psi (138 bar)	45 psi (3.1 bar)	± 5 psi (0.34 bar)
CV-3315, CV-3316	16 μL	0.020" (0.50 mm)	2,000 psi (138 bar)	10 psi (0.7 bar)	± 1.5 psi (0.10 bar)
Nonmetallic 10-32 Coned Micro-Volume					
CV-3500	7.4 μL	0.010" (0.25 mm)	3,000 psi (207 bar)	25 psi (1.7 bar)	± 5 psi (0.34 bar)

Part No.	Description	Cracking Pressure
STANDARD 1/4-28 INLINE CHECK VALVES		
CV-3301	Inlet Check Valve, 1/4-28 FB, M to 1/4-28 FB, F*	15 psi (1 bar)
CV-3302	Outlet Check Valve, 1/4-28 FB, M to 1/4-28 FB, F*	15 psi (1 bar)
CV-3315	Inlet Check Valve, 1/4-28 FB, M to 1/4-28 FB, F*	3 psi (0.2 bar)
CV-3316	Outlet Check Valve, 1/4-28 FB, M to 1/4-28 FB, F*	3 psi (0.2 bar)
NONMETALLIC 10-32 MICRO-VOLUME INLINE CHECK VALVE		
CV-3500	Inlet/Outlet Check Valve, 10-32 C, F to 10-32 C, F*	8 psi (0.6 bar)

* M = Male (external) threads; F = Female (internal) threads; C = Coned; FB = Flat-Bottom