



Vertically Integrated, Made in the USA
www.specialtymfg.com

THE SPECIALTY MFG. CO.

5858 Centerville Road
St. Paul, MN 55127

SMC will quote alternate materials or customize our standard products when quantities ensure competitive pricing.

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687 SERIES POPPET CHECK VALVE

3/4" NPT



Design Considerations

- The 687 Poppet Check Valve incorporates a thin elastomer disc supported by a poppet that seals on the seat
- Pressure in the flow direction moves the seal off the seat at about 1/3 psi before pressure builds enough to move the poppet away from the seat
- Maximum operating pressure of 125 psi covers a wide range of air and fluid applications
- Compact design with a light cracking pressure, high flow rate, and a positive seal at very low back pressure or slight vacuum
- An embedded O-Ring Poppet is supplied for cracking pressure applications 1/2 psi and higher
- Hastelloy® is a superior chemically resistant spring material

Example of how to order

<u>Material</u>	<u>Inlet Port</u>	<u>Outlet Port</u>	<u>Seal</u>	<u>Spring</u>
White Glass Filled Polypropylene	3/4 Female NPT	3/4 Female NPT	Buna	1/3 psi

Part Numbers are a description of the check valve as read left to right, Inlet Port to Outlet Port.
WFP CHK 687-12F12F-B,DP,1/3# = White Glass Filled Polypropylene Check Valve, 3/4 Female NPT Inlet x 3/4 Female NPT Outlet, Disc Poppet, Buna Seals, 1/3 psi Spring

Specifications

Material	Black Glass Filled Polypropylene, White Glass Filled Polypropylene Black PVDF (Kynar®)
Inlet End	3/4 Female NPT
Outlet End	3/4 Female NPT
Seal Option	Buna-N, Ethylene Propylene, Fluoroelastomer (Viton®), AFLAS® *** Please ask us about Seal Materials not listed above. ***
Spring Option: Cracking Pressure and Material	1/3 psi - 302 Stainless (Disc Poppet) .5 psi - 302 Stainless (O-Ring Poppet) 1 psi - 302 Stainless (O-Ring Poppet) 2 psi - 302 Stainless (O-Ring Poppet) 9 psi - 302 Stainless (O-Ring Poppet) 1/3 psi - Hastelloy® (Disc Poppet) .5 psi - Hastelloy® (O-Ring Poppet) .7 psi - Hastelloy® (O-Ring Poppet) 1.5 psi - Hastelloy® (O-Ring Poppet) 3 psi - Hastelloy® (O-Ring Poppet) 7 psi - Hastelloy® (O-Ring Poppet) No Spring
Maximum Flow Diameter	0.812 in

Cv	12.5 with 3/4 Female NPT Ends
Maximum Operating Pressure	125 psi
Maximum Operating Temperature	140 °F
Compatibility Statement	<p>It is the sole responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products.</p> <p>Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or product damage.</p>
Pricing and Minimum Order Requirement	<p>Our Minimum Order Requirements are \$100.00 Domestic - \$250.00 International. Pricing is based on the quantity ordered.</p> <p>Please indicate a typical order quantity or Estimated Annual Usage when requesting pricing.</p>
