



# Aerospace

## Fluid Conveyance

Check Valves

### Eaton's Aeroquip brand Check Valves

Superior Hydraulic Directional Control Valve

Eaton Aerospace is proud to present Aeroquip brand check valves as a part of their high quality line of fluid conveyance products. Aeroquip brand check valves are superior in attaining ultra low pressure drops which conserves energy and ultimately saves operational costs over the life of the program. The check valves are currently utilized on high pressure system aircraft like the Airbus A380 and Lockheed Martin F-35.

The check valves were selected for their performance [weight, envelope, pressure drop, and reliability]. Eaton used the latest software techniques to optimize flow path through the valve to limit eddies and minimize acceleration of the fluid which effectively reduces energy loss. The exclusion of polymers allows for a greater range of temperatures and fluids that this check valve can operate under. The hardened interior poppet valve gives the check valve greater strength and durability to have a long life.

- Average Pressure Drop is 83% less for Redoil and 97% less for Phosphate-Ester Base Fluids compared to Max Pressure Drop (15 psid) at Rated Flow requirements\*
- Operating pressure: up to 5000 psig
- Temperature Range: -65°F to 450°F



### Key Features of the Aeroquip brand Check Valves

**Key Features:**

- Spring outside of fluid flow path
- Metal to metal seals
- Exclusion of polymers
- Constant Flow Area
- Hardened poppet valve

**Ultimate Result:**

- Smooth flow
- Minimal Leakage
- Withstands greater range of temps
- Ultra Low Pressure Drops
- Long Life

### Guaranteed Weights Based off Male Flareless (AS33514) to Female Flareless

Dash Size	Low Pressure (<1000 psi) (lbs)	High Pressure (<5000 psi) (lbs)
-4	0.06	0.062
-6	0.095	0.102
-8	0.198	0.096
-10	0.246	0.211
-12	0.479	0.253
-16	0.606	0.63
-20	1.1	1.195

*\*Meets the performance requirements of: MIL-PRF-25675C & ARP 4946*

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