FlowShield™ DC

Double check backflow prevention assembly

3049 Series

Submittal Data 02181-25 NA — Issue Date 10/2025

Application

The Caleffi FlowShield™ 3049 Series double check backflow prevention assembly is designed to protect potable water supplies from backflow of non-health hazard (pollution) substances. It is commonly applied in commercial, industrial, and residential plumbing systems where backflow protection is required for equipment, fixtures, or secondary systems not considered a health hazard. Typical installations include irrigation systems, commercial kitchens, radiant system make-up water, and other low-hazard cross-connections. The assembly provides reliable backflow protection with two independently acting check valves in series, is fully testable in-line, and features serviceable internal components for simplified maintenance.

Typical Specification

Furnish and install, as shown on the plans, a FlowShield™ 3049 Series double check backflow prevention assembly as manufactured by Caleffi. Each assembly shall be a horizontal installation type with NPT female threaded connections, sizes ½", ¾", 1", 1 ¼", 1 ½", and 2". The body and access cover shall be dezincification-resistant low-lead brass (CW724R). Check valve bodies and obturators shall be glass-reinforced thermoplastic (PPO/GF) with peroxide-cured EPDM seals and stainless steel springs. Shut-off valve bodies shall be low-lead brass with stainless steel balls and aluminum handles. Test cocks shall be bronze with stainless steel balls and low-lead brass bonnets, incorporating PTFE and NBR seals. The assembly shall have a maximum working pressure of 175 psi and a maximum working temperature of 150 °F. The assembly shall be suitable for potable water service and shall comply with the "lead free" requirements of the U.S. Safe Drinking Water Act, with a weighted average lead content of less than 0.25% in wetted surfaces. The assembly shall be listed and certified to ASSE Standard 1015, CSA Standard B64.5, NSF/ANSI/CAN 61, and NSF/ANSI/CAN 372. Each assembly shall be Caleffi 3049 Series FlowShield DC or approved equal. (See product instructions for detailed installation requirements.)

Certifications

1015 B64.5 LOW LEAD

Listed and certified by ASSE to Standard 1015.
Listed and certified by CSA to Standard B64.5.
NSF/ANSI/CAN 61 compliant, certified by ICC-ES.
NSF/ANSI/CAN 372 compliant, certified by ICC-ES.
US and Canadian plumbing code compliant, certified by IAPMO.

Technical specifications

Materials

Assembly	
- Body:	dezincification resistant low-lead* brass (CW724R)
- Access cover:	dezincification resistant low-lead* brass (CW724R)
- Seals	peroxide-cured EPDM
Test cocks	
- Body:	low-lead* bronze (C89833)
- Ball:	stainless steel (AISI 304)
- Bonnet and ball stem:	low-lead* brass (C46500)
- Seals:	PTFE and NBR
Shut-off valves	
- Body:	dezincification resistant low-lead* brass (CW724R)
- Ball:	stainless steel (AISI 304)
- Handle:	aluminum
Check valves	
- Body & Obturator:	glass-reinforced thermoplastic (PPO / GF)
- Seals:	peroxide cured EPDM
- Springs:	stainless steel (AISI 302)

* Meets the "lead free" requirement of Section 1417 of the Safe Drinking Water Act (SDWA). This product has a weighted average lead content of less than 0.25% for its wetted surfaces contacted with consumable water.

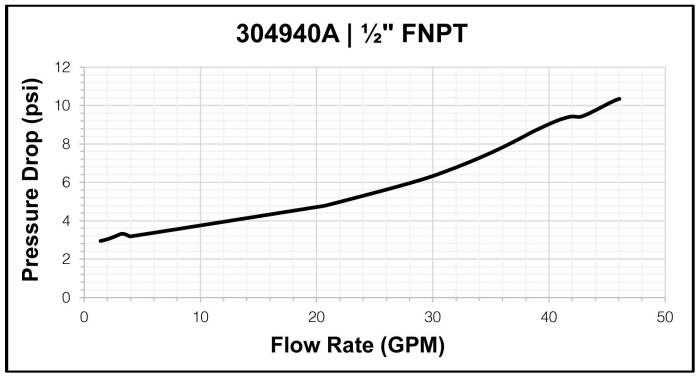
Performance

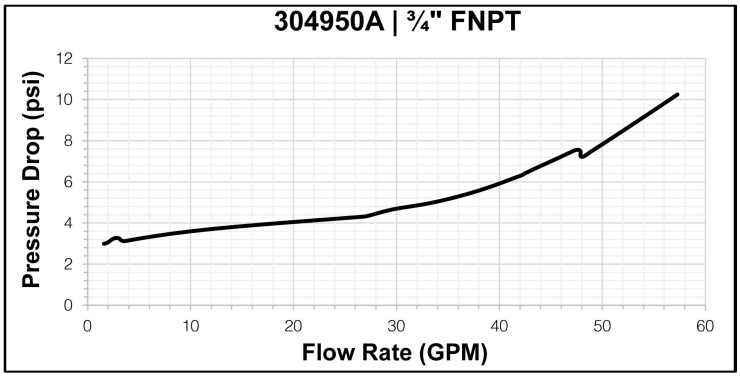
Suitable fluids:	potable water
Orientation:	horizontal installations only
Maximum working pressure:	175 psi
Maximum working temperature:	150 °F

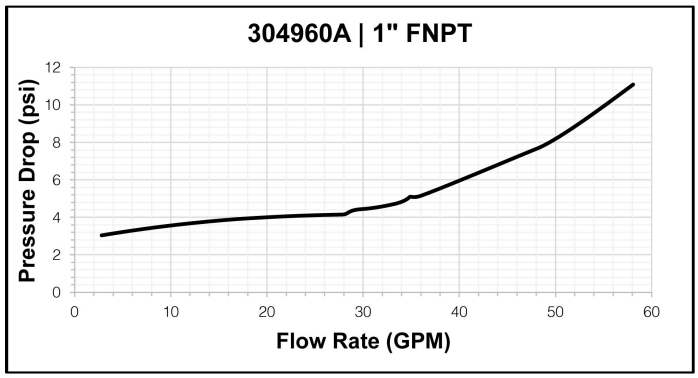
Connections:

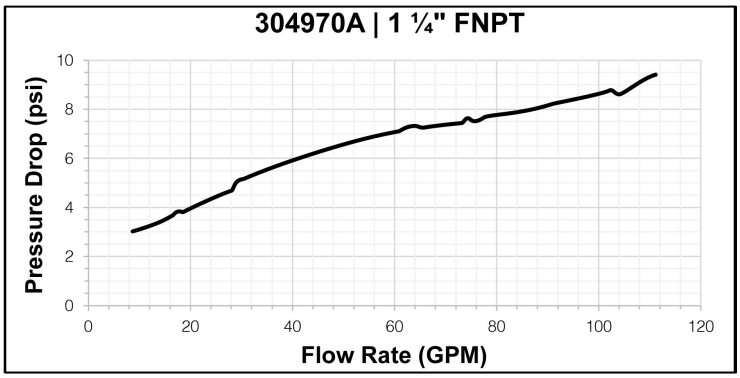
Valve body:	½", ¾", 1", 1¼",1½", 2" NPT female
Test cocks:	¼" NPT female

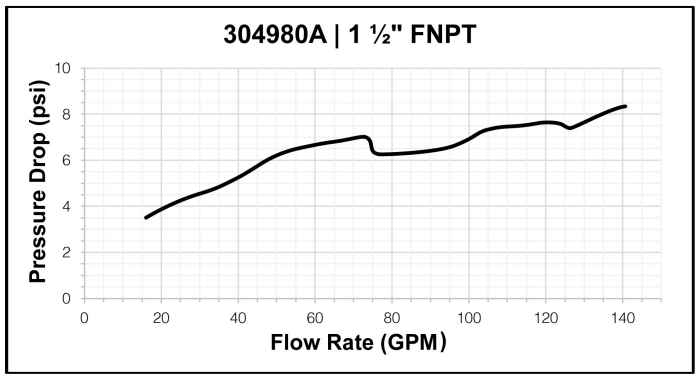
Hydraulic characteristics

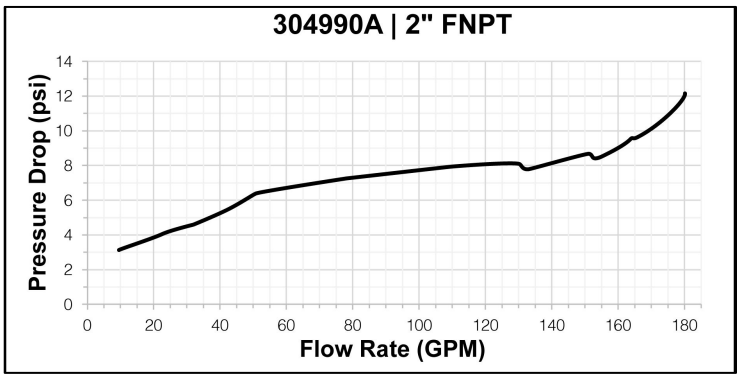




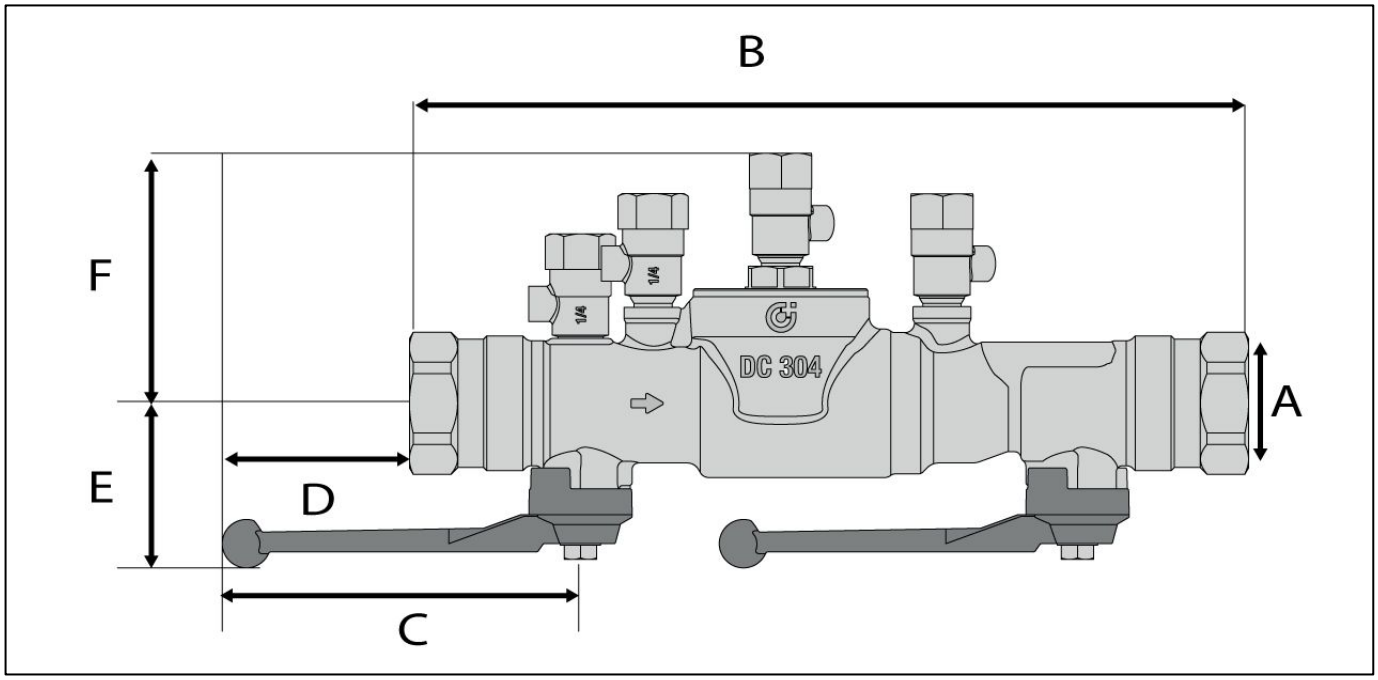








Dimensions



Code	A	B	C	D	E	F	Weight
304940A	½" FNPT	9 1/16"	4 3/8"	2 7/8"	2"	3 1/16"	3.8
304950A	¾" FNPT	9 1/16"	4 3/8"	2 7/8"	2"	3 1/16"	3.7
304960A	1" FNPT	10 1/4"	4 3/8"	2 1/4"	2"	3 1/16"	4
304970A	1 1/4" FNPT	13 3/8"	5 7/8"	3 3/4"	3 1/8"	3 1/2"	12.3
304980A	1 1/2" FNPT	13 3/8"	5 7/8"	3 3/4"	3 1/8"	3 1/2"	12.2
304990A	2" FNPT	14 1/8"	5 7/8"	3 3/8"	3 1/8"	3 1/2"	12.6

Job name _____ Size _____
Job location _____ Quantity _____
Engineer _____ Approval _____
Mechanical contractor _____ Service _____
Contractor's P.O. No. _____ Tag No. _____
Representative _____ Notes _____

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