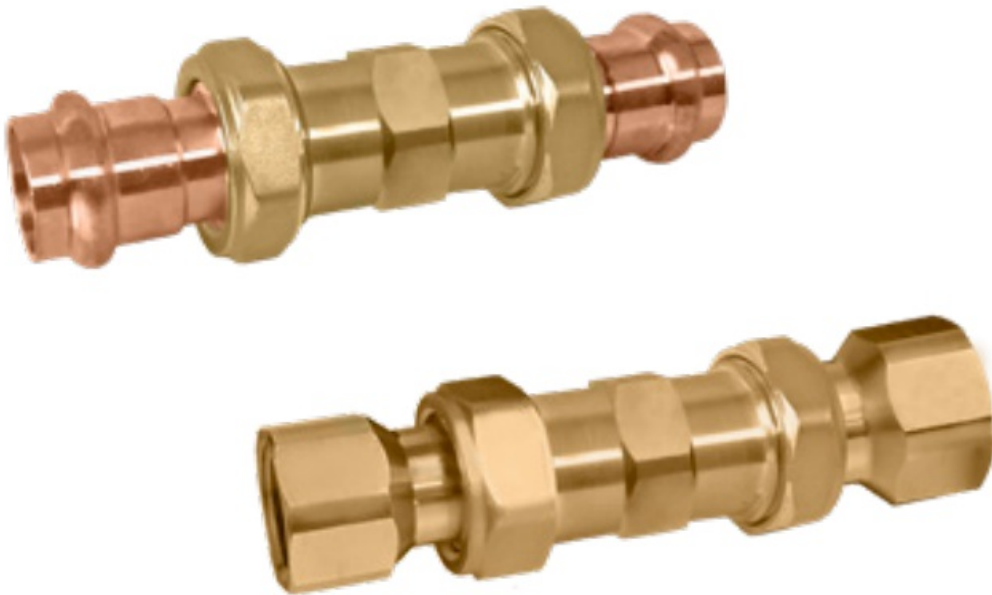


CALEFFI 3048 Series Dual Check Backflow Preventer Owner's Manual

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CALEFFI 3048 Series Dual Check Backflow Preventer



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Function

Low lead dual check valve backflow preventer is designed for residential domestic water supply lines or commercial low-hazard backflow applications. It prevents reverse flow of unsafe water into main system water supply. This can occur due to pressure changes in the distribution network that can force water flow in reverse, or backwards. The two inline serviceable check valves prevent any contact between the two systems, closing automatically when backflow conditions occur.

The Caleffi 3048 series FlowShield™ DuC complies with standards ASSE 1024, CSA B64.6, NSF/ANSI/CAN 61 (180 °F/82 °C Commercial Hot), NSF/ANSI/CAN 372 and codes IPC, IRC, UPC certified by ICCES.



Product range

3048 Series NPT male, NPT female, press, sweat, PEX crimp, PEX expansion union sizes 1/2", 3/4", 1"

Technical specifications

Materials

Body, retaining ring and lock nut: DZR low-lead brass CW724R-M
Check valve: EPDM, PPO
Spring: stainless steel
O-rings: peroxide-cured EPDM

Performance

Max. working pressure: 175 psi (12 bar)

Operating temperature range: 32 to 180 °F (0 to 82 °C)


Medium: water


Flow rate: see graph


The backflow preventer complies with standards ASSE 1024, CSA B64.6, NSF/ANSI/CAN 61 (180 °F/82 °C Commercial Hot), NSF/ANSI/CAN 372 and codes IPC, IRC, UPC certified by ICC-ES.


SAFETY INSTRUCTION


This safety alert symbol will be used in this manual to draw attention to safety related instructions. When used, the safety alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.**


 **WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warning.ca.gov.

 **CAUTION:** All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of systems in accordance with all applicable codes ordinances.

 **CAUTION:** Over-tightening and breakage can occur with the use of Teflon® pipe joint compounds. Teflon® provides lubricity so that care must be exercised not to over-tighten joints. Failure to follow these instructions could result in property damage and / or personal injury.

 **CAUTION:** System fluids under pressure or temperature can be hazardous. Be sure the pressure has been reduced to zero and the system temperature is below 100 °F (38 °C). Failure to follow these instructions could result in property damage and/or personal injury.

 **CAUTION:** Clean the pipes of any debris, rust, incrustations, welding slag and any other contaminants. For optimal operation, air in the system must be removed.

 **CAUTION:** If the device is not installed properly, according to the instructions contained in this manual, it may not operate correctly and may endanger the user.

 **CAUTION:** Make sure that all the connecting pipework is water tight.

Caleffi shall not be liable for damages resulting from stress corrosion, misapplication or misuse of its products.

Installation

The Caleffi 3048 series FlowShield DuC dual check backflow preventer is typically installed downstream of a water meter. A pressure reducing valve (if required) may be installed on either side of the dual check backflow preventer, all subject to local codes and standards.

The dual check backflow preventer can be installed in either a horizontal or vertical pipe; the checks are spring loaded and will function independent of orientation. Verify that the flow direction matches the flow indication arrow on the dual check backflow preventer.

If installing models with sweat tailpiece connectors, always sweat the connectors in place then install the 3048

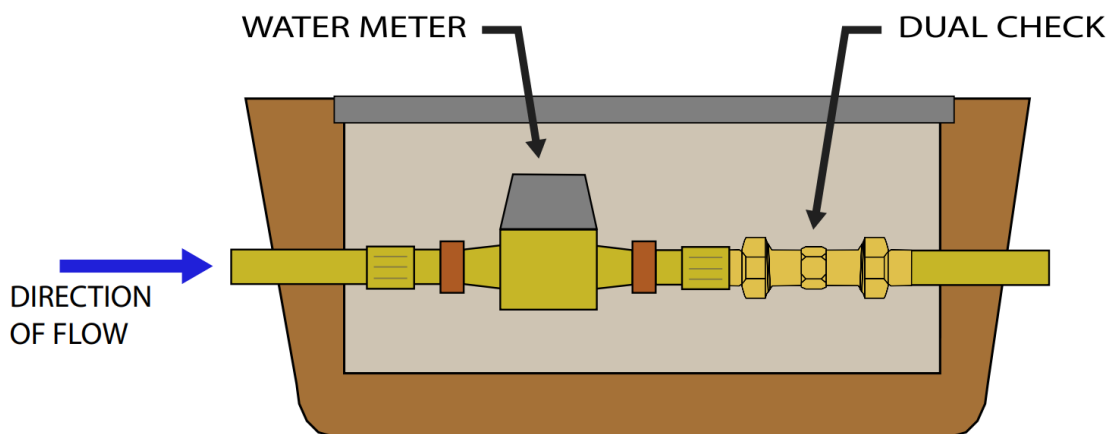
union body. Attempting to sweat the fittings with the body in place may damage the check valves.

For serviceability, always install the 3048 FlowShield DuC in an accessible location and protect the 3048 from potential freezing conditions. Installing isolation valves is highly recommended to permit disassembly for servicing.

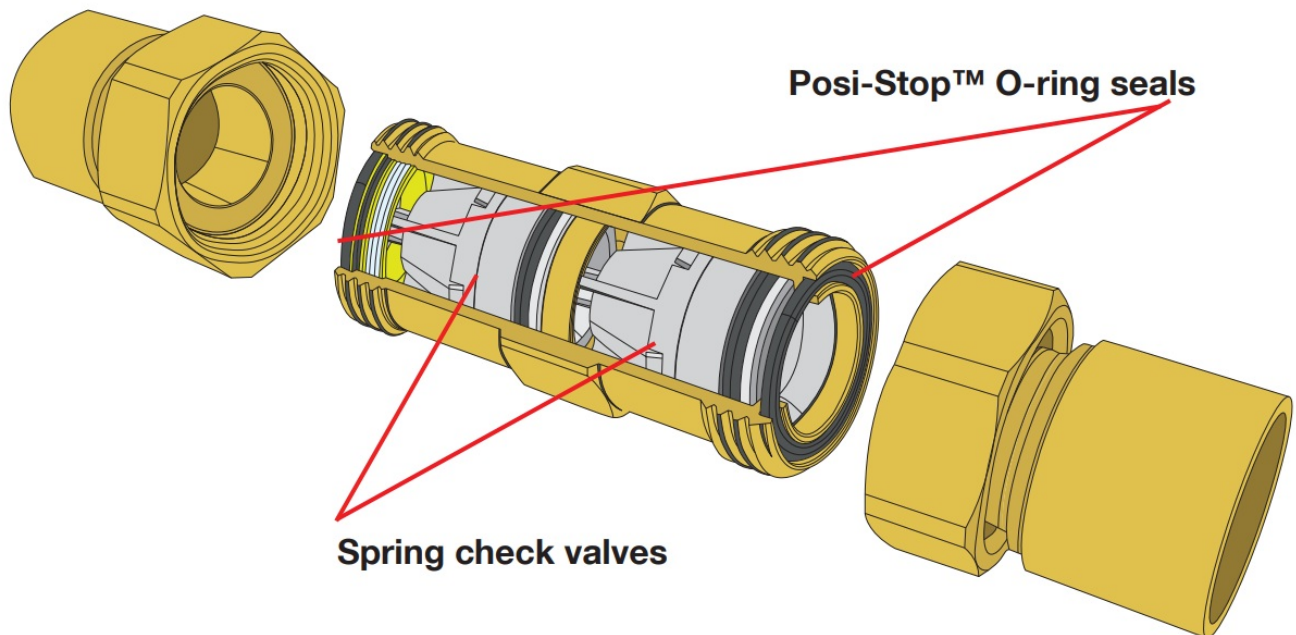
When installing the dual check backflow preventer, make sure not to over-tighten the connections. Over time, a material stress failure can occur with subsequent water leakage causing damage.

The 3048 FlowShield DuC has dual union connections with Posi-Stop o-ring seals which do not require pipe dope or tape. See graphic on next page.

Typical dual check backflow preventer pit installation:



3048 series FlowShield DuC dual check backflow preventer section view:

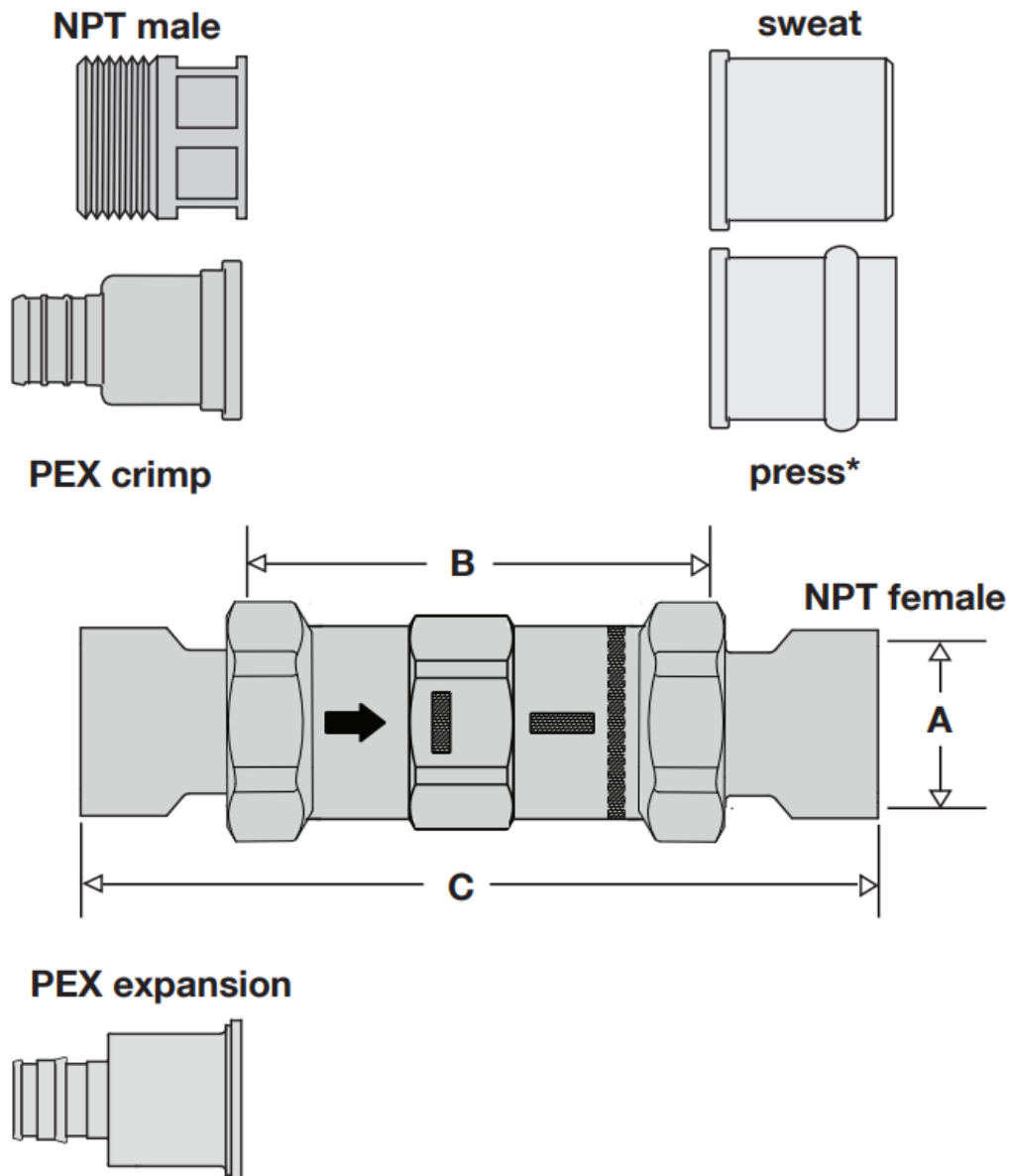


Service, maintenance

The Caleffi 3048 series FlowShield DuC dual check backflow preventer should be inspected and cleaned, rebuilt or replaced every 5 years. If excessive pressure drop is experienced in the domestic water supply, dirt or other debris may be causing higher than normal pressure drop in the dual check backflow preventer. The 3048 can be

easily inspected by removing the body from the dual union connectors. To disassemble the check valves, remove the sealing brass ring from the downstream side.

Dimensions



Code	A	B	C	Wt. (lb/kg)
NPT female threaded connections				
304843A	1/2"	213/16"	51/4"	1.2/0.5
304853A	3/4"	213/16"	51/2"	1.6/0.7
NPT male threaded connections				
304840A	1/2"	213/16"	55/16"	1.0/0.4
304850A	3/4"	213/16"	51/8"	1.2/0.5
304860A	1"	213/16"	513/16"	1.6/0.7
Sweat connections				
304849A	1/2"	213/16"	49/16"	1.2/0.5
304859A	3/4"	213/16"	51/16"	1.6/0.7
304869A	1"	213/16"	513/16"	1.6/0.7

Code	A	B	C	Wt. (lb/kg)
Press connections*				
304846A	1/2"	213/16"	53/16"	1.0/0.4
304856A	3/4"	213/16"	515/16"	1.2/0.5
304866A	1"	213/16"	57/8"	1.4/0.6
PEX crimp connections				
304847A	1/2"	213/16"	67/16"	1.0/0.4
304857A	3/4"	213/16"	67/16"	1.2/0.5
304867A	1"	213/16"	65/8"	1.4/0.6
PEX expansion connections				
304848A	1/2"	213/16"	77/16"	1.0/0.4
304858A	3/4"	213/16"	77/16"	1.2/0.5
304868A	1"	213/16"	77/16"	1.4/0.6

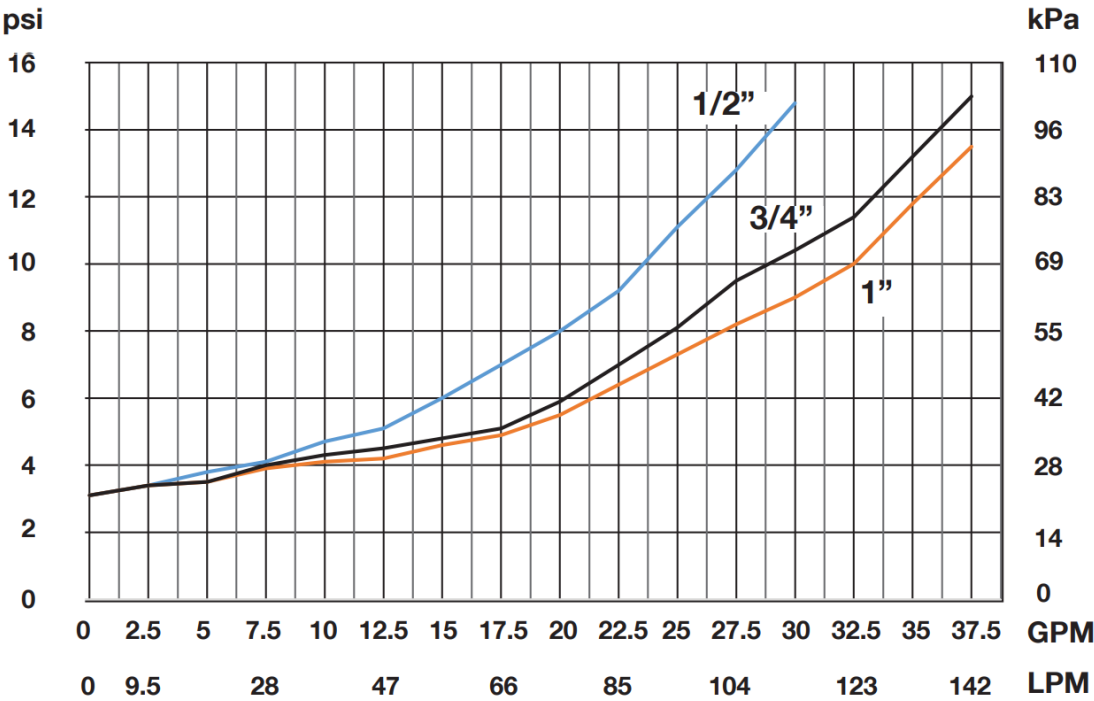
*Lay length for press:

size 1/2": 3 1/2 inch
size 3/4": 3 3/8 inch
size 1": 3 7/8 inch

⚠ Safety

If the 3048 FlowShield DuC dual check backflow preventer valve is not installed, commissioned and maintained properly in accordance with these instructions, it may not operate correctly, and may cause damage to objects and/or people. Make sure all the connections are watertight.

Hydraulic characteristics



3048 series	1/2 inch	3/4 inch	1 inch
Cv	8.0	9.5	10.5


Customers Support

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For Technical Support call 1-[414-338-6338](tel:414-338-6338), or
email techsupport.us@caleffi.com



Documents / Resources

	<p>CALEFFI 3048 Series Dual Check Backflow Preventer [pdf] Owner's Manual 304858A, 304840A, 304846A, NA10884.01, 3048 Series Dual Check Backflow Preventer, 3048 Series, Dual Check Backflow Preventer, Check Backflow Preventer, Backflow Preventer, Preventer</p>
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References

- [CALEFFI Hydronic Solutions | Caleffi S.p.a.](#)
- [P65Warnings.ca.gov](#)
- [User Manual](#)

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