

# MasterSeries® Type II Bypass

## Detector Backflow Preventers

### What is a detector assembly and when should it be used?

Detector assemblies are used on fire protection systems to prevent backflow and detect both system leaks and unauthorized water use which can compromise fire protection systems and be a revenue loss to the water purveyor.

Typically, fire service lines are unmetered. A metered bypass assembly informs a water purveyor whether water service is only being used for its intended purpose of providing fire protection or not. The detector assembly meter shows movement created by downstream leaks or unauthorized usage.

### What is a Type II Bypass?

Type II detector assemblies were developed to respond to requests from the fire protection industry for lower overall pressure loss in a more compact, economical design.

Type II detector assemblies provide the same level of protection as Type I assemblies but with fewer functional components.

The Type II Bypass is available for both Double Check Detector Backflow Assemblies and Reduced Pressure Detector Backflow Assemblies, and includes a water meter and a single check valve on the bypass.

### FEBCO Valves with Type II Bypasses



LF856 DCDA-II



LF866-FS RPDA-II



LF876V DCDA-II



LF886V-FS RPDA-II

## How does a Type II Bypass work?

The Type II Bypass is configured to use the first check of the mainline assembly. In the case of the RPDA-II, the bypass also uses the reduced pressure zone and relief valve of the mainline assembly. The bypass on the Type II assemblies only bypasses the second check of the mainline assembly, so only a single check is required on the bypass. The Type II Bypass features a water meter and a testable single check valve. Bypass piping for Type II assemblies include two shutoff valves and two test cocks.

- The static differential pressure across the bypass single check valve must be at least 1.0 psid.
- The bypass single check valve is marked with the model and serial number for recording on test forms and in backflow prevention software applications.

## Are Type II detector assemblies approved?

Type II Bypass assemblies are approved by The Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC) and all relevant agencies.



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Certified to NSF/ANSI 61-G



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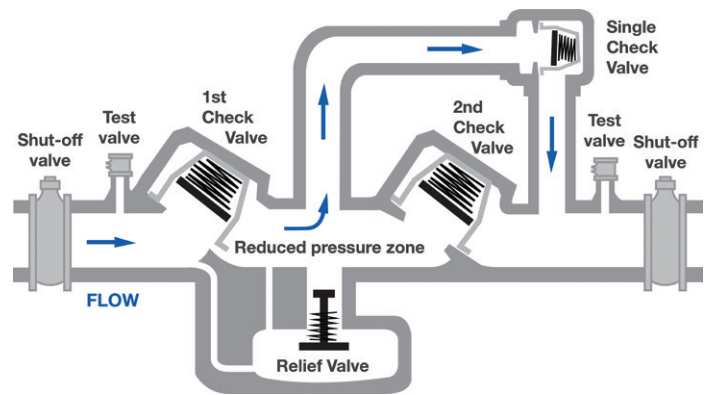
\*Assembly configured with UL Classified and FM Approved OS&Y gate valves. Less gate valve assemblies are not UL Classified and FM Approved configurations.

Series LF866-FS and LF886V-FS include an integrated flood sensor on the relief valve. (Add-on connection kit required for sensor activation.) When excessive discharge occurs, the sensor energizes a relay signaling flood detection and triggers real-time notification of potential flood conditions. Compatible with BMS and cellular communication.



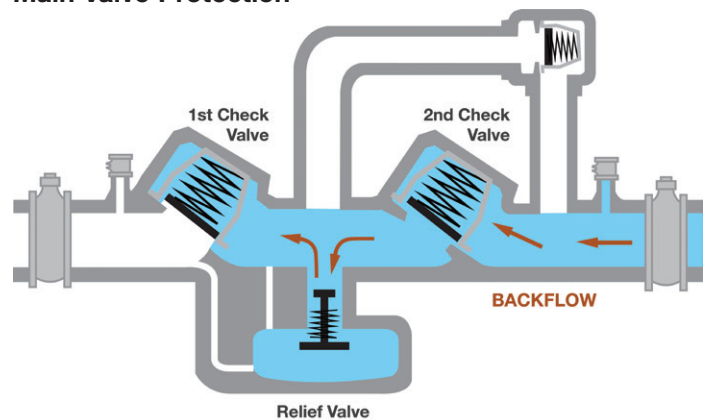
A WATTS Brand

## Flow Through the Type II Bypass



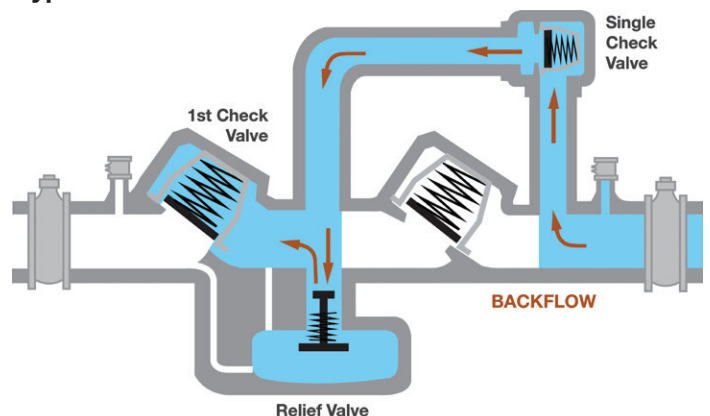
## Type II Bypass — 3 Levels of Protection

### Main Valve Protection



The main valve provides three backflow control mechanisms. Backflow first encounters the main body second check valve, next the relief valve, and then the first check valve.

### Bypass Protection



The bypass in use with the main valve provides three backflow control mechanisms. Backflow first encounters the bypass single check valve, next the relief valve, and then the first check valve.