

**SPECIFICATION SHEET** 

# Series 806YD

## Double Check Detector Assemblies

Size: 3" - 10" (80mm - 250mm)

The FEBCO Series 806YD Double Check Detector Assemblies are designed for automatic fire sprinkler systems containing non-toxic substances.

### Features

- DuraCheck features all stainless steel spring assemblies for corrosion resistance, reduced fouling and longer valve life.
- DuraCast ductile iron bodies for superior strength, corrosion resistance and lighter weight.
- Prevents contamination of potable water by backflow from the fire protection system and detects leaks or unauthorized water use at all flow rates.
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.
- Flow curve generated by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.
- Low head loss.
- End Detail (shutoffs) – Flanged ANSI B16.1

### Operation

In a nonflow condition, check valves in the by-pass and mainline units are closed. Flows from zero to approximately 5 gpm will flow through the by-pass. This operation at low flow rates is accomplished by designing the differential pressure drop across the by-pass line to be slightly less than the mainline check valve. Therefore, any flow through the fireline system is registered by the by-pass meter.

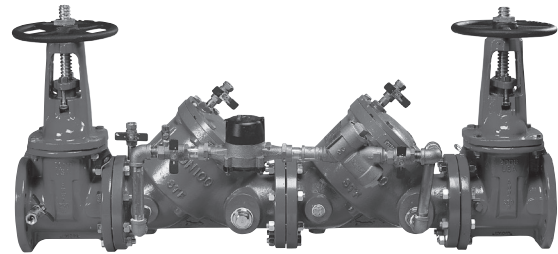
Flows in excess of approximately 5 gpm will open the mainline check valves causing flow to occur through the mainline assembly and the by-pass line.

### Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.\*
- ANSI/AWWA Conformance (C510-89)



\* Valves must be supplied with resilient seated shutoff valves for USC to be in effect. Standard Meter is GPM. UL and FM Listings only applicable with approved OS&Y gates.



806YD

### Models

- Less Gates
- Optional Meter Type
- Left hand by-pass
- Remote Reader
- Meter CFM/GPM

### Specifications

Double check detector assembly shall consist of mainline double check assemblies in parallel with a by-pass double check and meter assembly. Mainline check assemblies shall be of the spring loaded center stem guided type.

Ductile iron bodies shall be flanged ANSI B16.1, Class 125, epoxy coated internally 10-20 mils and fusion coated externally.

The by-pass meter assembly shall consist primarily of a bronze water meter in series with a bronze double check valve. All low flow demands up to a minimum of 3 gpm (0.189 L/s) are to pass through the by-pass meter and meter-size double check valve assembly and be accurately recorded. All flows above that of 3 gpm will pass through both the line-size double check valve assembly and by-pass without accurate registration by or damage to the meter.

Mainline shutoff valves shall be resilient wedge. OS&Y, UL/FM for fireline service and are considered integral to the assembly along with full port ball valve testcocks. Assemblies must be factory assembled and tested to assure proper mainline/by-pass balance and cross-over performance.

The assembly shall meet or exceed requirements of USC. Double check detector assemblies shall be FEBCO 806YD, or prior approved equal.

### Pressure – Temperature

Maximum Working Pressure:	175psi (12.1 bar)
Hydrostatic Test Press:	350psi (24.1 bar)
Temperature Range:	32°F to 140°F (0°C to 60°C)
Fluid:	Water

Job Name \_\_\_\_\_

Job Location \_\_\_\_\_

Engineer \_\_\_\_\_

Approval \_\_\_\_\_

Contractor \_\_\_\_\_

Approval \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Representative \_\_\_\_\_

FEBCO product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact FEBCO. FEBCO reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on FEBCO products previously or subsequently sold.

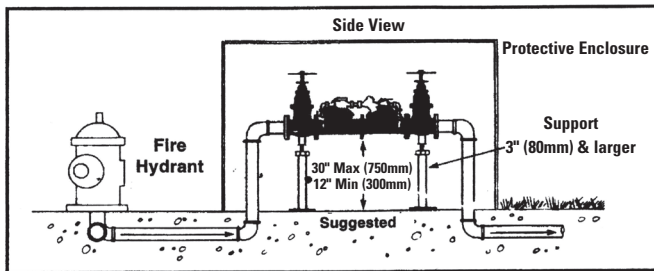
## Materials

Main Valve Body:	Ductile iron ASTM A-536 grade 65-45-12 epoxy coated internal 10-20 mils
Trim:	Bronze
By-Pass Valve Body:	Bronze
By-Pass Meter:	Totalizing, 1 to 20 gpm, size 5/8" x 3/4"
Main Valve Shutoffs:	OS&Y, UL/FM
Elastomers:	Nitrile
Mainline Check Assembly:	Stainless Steel
Shutoffs:	Standard gates OS&Y, resilient wedge
Remote reading flow meters available.	

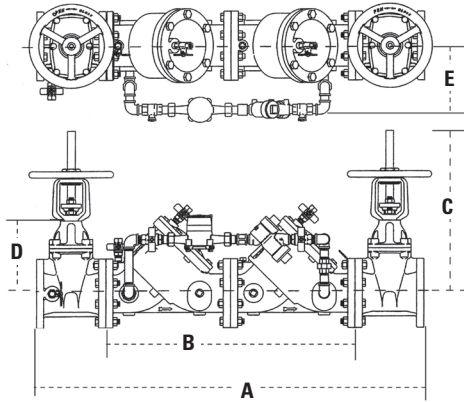
## Typical Installation

Double check detector assembly should be installed with a suggested minimum clearance of 12" (300mm) between device and floor or grade. They should be installed where easily accessible for testing and maintenance and must be protected from freezing. They should have support blocks to prevent flange damage. Thermal water expansion and/or water hammer down stream of the Backflow Preventer can cause excessive pressure. Excessive pressure situations should be eliminated to avoid possible damage to the system and device.

### FEBCO Series 806YD



## Dimensions – Weights

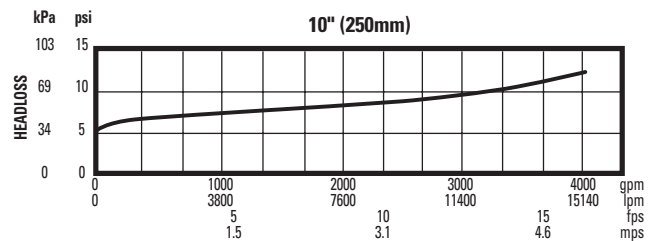
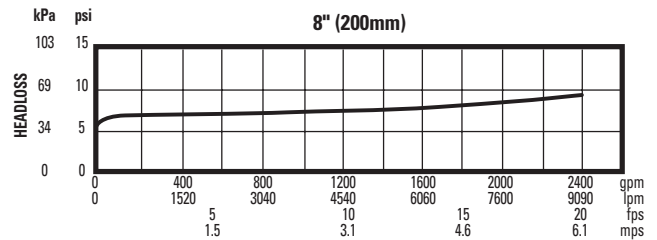
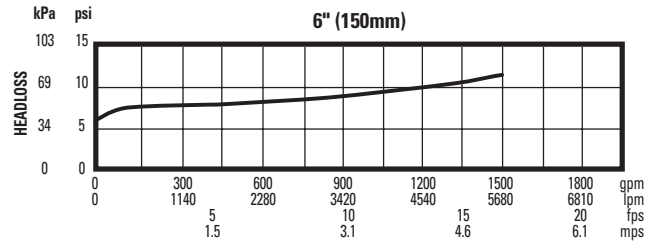
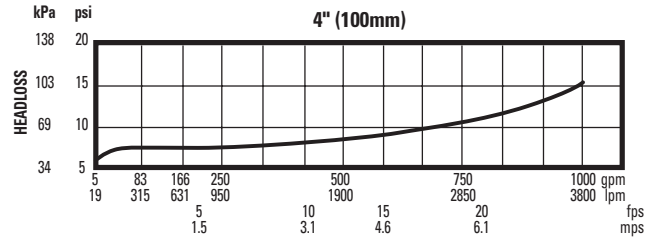
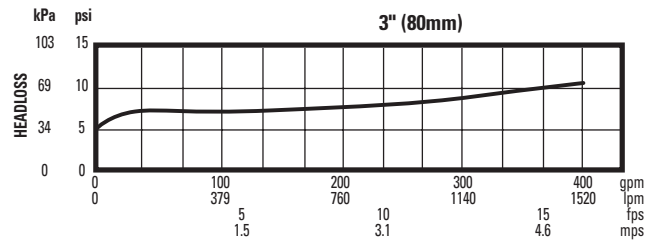


### Size: 3" - 10" (80 - 250mm)

SIZE (DN)		DIMENSIONS										WEIGHT			
		A		B		C (OS&Y Open)		D		E		gates		less gates	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.
3	80	41 <sup>1</sup> / <sub>16</sub>	1059	25 <sup>9</sup> / <sub>16</sub>	649	22 <sup>3</sup> / <sub>4</sub>	565	8 <sup>1</sup> / <sub>16</sub>	205	14 <sup>1</sup> / <sub>2</sub>	368	375	170	180	120
4	100	50 <sup>7</sup> / <sub>16</sub>	1281	32 <sup>5</sup> / <sub>16</sub>	821	23 <sup>3</sup> / <sub>4</sub>	591	11	279	15	381	515	234	265	120
6	150	59 <sup>11</sup> / <sub>16</sub>	1516	38 <sup>9</sup> / <sub>16</sub>	980	30 <sup>3</sup> / <sub>8</sub>	765	14	356	16	406	740	336	400	181
8	200	69 <sup>3</sup> / <sub>16</sub>	1757	46 <sup>1</sup> / <sub>16</sub>	1170	37 <sup>3</sup> / <sub>4</sub>	959	18	457	17	432	1115	506	600	272
10	250	84 <sup>3</sup> / <sub>16</sub>	2138	58 <sup>1</sup> / <sub>16</sub>	1475	48	1219	22	559	20	508	1750	794	900	408

Dimensions shown are nominal, allowance must be made for normal manufacturing tolerances.

## Capacity



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