

## Engineering Specification

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## Series LFC300, LFC300N

### Double Check Detector Assemblies

2½" – 10"

Series LFC300 and LFC300N Double Check Detector assemblies are used to prevent backflow of pollutants that are objectionable, but not toxic, from entering the potable water supply system. Both assemblies may be installed under continuous pressure service and may be subjected to backpressure. Series LFC300 and LFC300N are used primarily on fire line sprinkler systems when it is necessary to monitor unauthorized use of water, and for use in non-health hazard applications. The OS&Y model includes an option for an integrated supervisory switch on each gate valve.

#### Features

- Extremely compact design
- 70% Lighter than traditional designs
- 304 (Schedule 40) stainless steel housing and sleeve
- Groove fittings allow integral pipeline adjustment
- Patented Tri-Link check provides lowest pressure loss
- Unmatched ease of serviceability
- Available with grooved butterfly valve shutoffs
- May be used for horizontal, vertical, or N pattern installations
- Replaceable check disc rubber
- Includes an integrated supervisory switch as an option on each gate valve of the OS&Y model

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Inquire with governing authorities for local installation requirements.

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Ames Fire & Waterworks product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Ames Fire & Waterworks Technical Service. Ames Fire & Waterworks 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 Ames Fire & Waterworks products previously or subsequently sold.



LFC300-BFG

LFC300 OSY with supervisory switch

#### Specification

The Colt LFC300 and LFC300N Double Check Detector assemblies shall consist of two independent Tri-Link Check modules within a single housing, sleeve access port, four test cocks, and two drip tight shutoff valves. Tri-Link Checks shall be removable and serviceable, without the use of special tools. The housing shall be constructed of 304 (Schedule 40) stainless steel pipe with groove end connections. Tri-Link Checks shall have reversible elastomer discs and in operation shall produce drip tight closure against the reverse flow of liquid caused by backpressure or backsiphonage. The bypass assembly shall consist of a meter, which registers in either gallon or cubic measurement, a double check valve assembly and required test cocks. The assembly shall be produced with ASME/ANSI flanged end connections.

The integrated supervisory switch, an option on the OS&Y model, shall have continuity with the valve fully open and activate within two (2) turns from open. The device consists of two SPDT switches and is designed to send a tamper signal when the valve is closed and when the switch is removed from the valve. In the neutral position, the switch indicates the valve is fully open. Closing the valve causes the switch rod to come out of the valve stem groove, activating the switch. Removing the switch also triggers activation. (For more information, download ES-A-GateValve-TS-OSY.) The assembly shall be a Colt LFC300 or LFC300N as manufactured by Ames Fire & Waterworks.

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## Configurations

- Horizontal
- Vertical up
- “N” pattern horizontal

## Materials

Housing & Sleeve:	304 (Schedule 40) stainless steel
Elastomers:	EPDM, silicone, and Buna ‘N’
Tri-Link Checks:	Noryl®, stainless steel
Check Discs:	Reversible silicone or EPDM
Test Cocks:	Lead Free* bronze body
Pins & Fasteners:	300 Series stainless steel
Springs:	Stainless steel

## Model/Option

BFG	UL Classified and FM Approved grooved gear operated butterfly valves with tamper switch
OSY	UL Classified and FM Approved outside stem and yoke resilient seated gate valves
TS-OSY	Integrated supervisory switch (UL Certified, Safety Signaling, Control No. 3L38) on outside stem and yoke resilient seated gate valve
OSY FxG**	Flanged inlet gate connection and grooved outlet gate connection
OSY GxF**	Grooved inlet gate connection and flanged outlet gate connection
OSY GxG**	Grooved inlet gate connection and grooved outlet gate connection

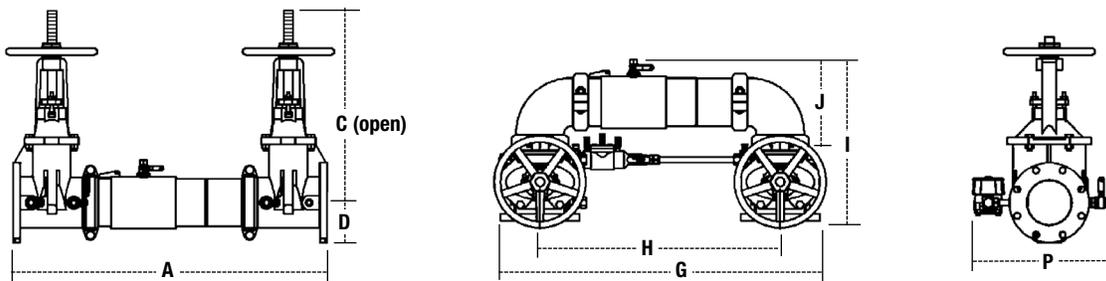
## Pressure – Temperature

Temperature Range: 33°F – 110°F (5°C – 43°C)

Maximum Working Pressure: 175 psi (12.06 bar)

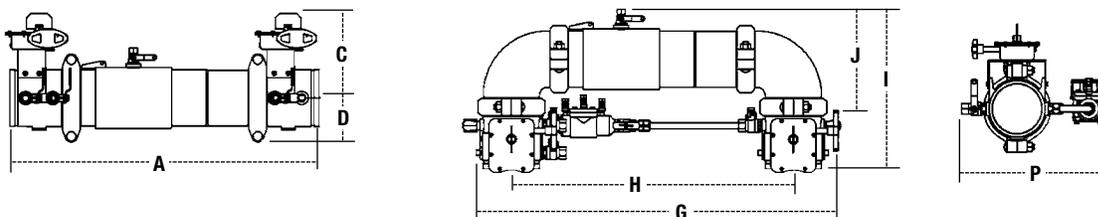
## Dimensions – Weights

Metric dimensions are nominal pipe diameter.



### LFC300, LFC300N

SIZE		DIMENSIONS										WEIGHT								
in.	mm	A	C (OSY)		D		G		H		I		J		P		LFC300		LFC300N	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb	kg	lb	kg	
2½	781	30¾	16⅜	416	3½	89	29⅛	738	21½	546	15½	393	8⅜	223	13⅜	335	144	65	152	69
3	806	31¾	18⅞	479	3⅞	94	30¼	768	22¼	565	17⅞	435	9⅞	233	14½	368	164	74	177	80
4	857	33¾	22¾	578	4	102	33	838	23½	597	18½	470	9⅞	252	15⅜	386	180	81	203	92
6	1105	43½	30⅞	765	5½	140	44¾	1137	33¼	845	23⅜	589	13⅞	332	19	483	314	142	355	161
8	1264	49¾	37¾	959	6⅞	170	54⅞	1375	40⅞	1019	27⅞	697	15⅞	399	21⅞	538	499	226	574	260
10	1467	57¾	45¾	1162	8⅞	208	66	1676	49½	1257	32½	826	17⅞	440	24	610	800	363	970	440



### LFC300BFG, LFC300NBFG

SIZE		DIMENSIONS										WEIGHT								
in.	mm	A	C		D		G		H		I		J		P		LFC300BFG		LFC300NBFG	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb	kg	lb	kg	
2½	705	27¾	8	203	3½	89	29⅞	759	21½	546	14⅞	379	8⅜	223	13	330	70	32	78	35
3	718	28¼	8⅞	211	3⅞	94	30⅞	779	22¼	565	15⅞	392	9⅞	233	13½	343	68	31	81	37
4	737	29	8⅞	227	3⅞	94	31⅞	811	23½	597	16¼	412	9⅞	252	14	356	75	34	98	44
6	927	36½	10	254	5	127	43⅞	1097	33¼	845	19⅞	500	13⅞	332	14½	368	131	59	171	78
8	1086	42¾	12¼	311	6½	165	51⅞	1297	40⅞	1019	23⅞	592	15⅞	399	18⅞	462	275	125	351	159

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\*\* Consult factory for the following: Grooved NRS gate valves, post indicator plate and operating nut, dimensions.

# Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC)
- AWWA C510-97

For additional approval information, contact the factory or check Ames Fire & Waterworks at watts.com.



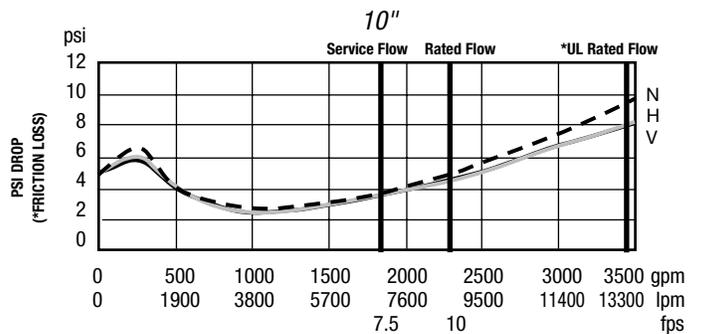
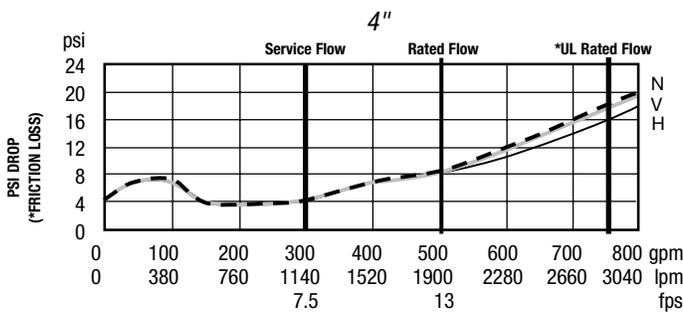
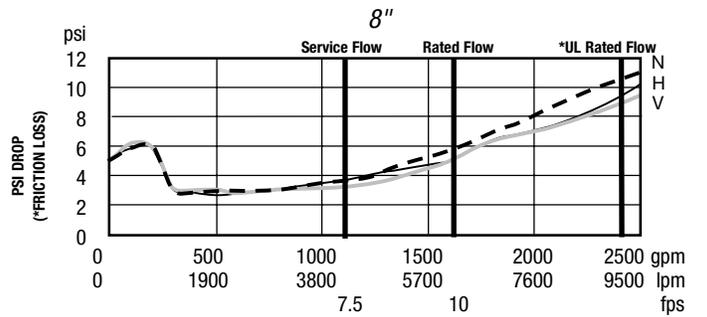
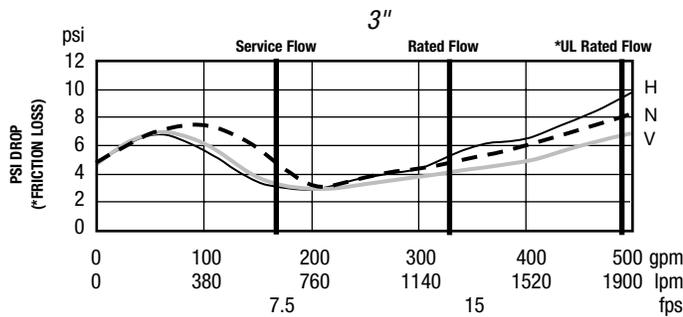
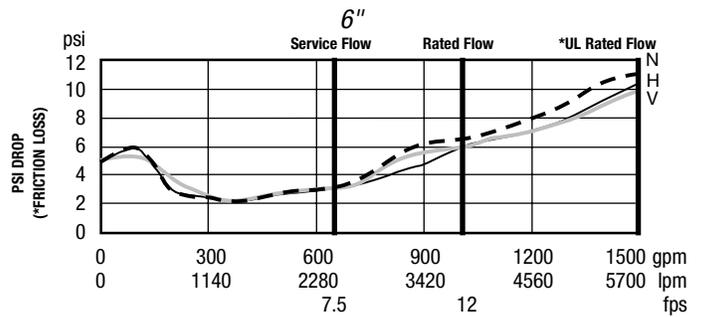
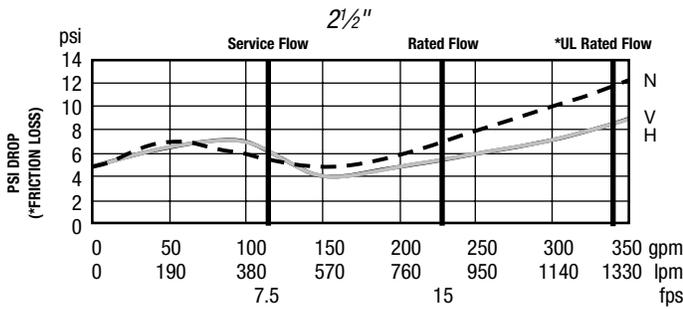
# Flow capacity chart identifies valve performance based upon rated water velocity up to 25 fps.

- Service Flow is typically determined by a rated velocity of 7.5 fps based upon Schedule 40 pipe.
- Rated Flow identifies maximum continuous duty performance determined by AWWA.
- UL Flow Rate is 150% of Rated Flow and is not recommended for continuous duty.
- AWWA Manual M22 (Appendix C) recommends that the maximum water velocity in services be not more than 10 fps.

# Capacity

UL and FM Certified Flow Characteristics  
Flow characteristics collected using butterfly shutoff valves

— Horizontal — N-Pattern - - - - Z-Pattern





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**USA: Control Valves** T: (713) 943-0688 • [AmesFireWater.com](http://AmesFireWater.com)  
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