

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Colt™ Series LFC300, LFC300N

Double Check Detector Assemblies

Sizes: 2½" – 10"

Colt™ 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. Colt 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.

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 tamper switch on each gate valve of the OSY 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.

*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-TS

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 integrated supervisory tamper switch on the OSY 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 tamper switch also activates the switch. Assembly shall be a Colt LFC300 or LFC300N as manufactured by Ames Fire & Waterworks.

This product is produced with ASME/ANSI flanged end connections.

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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

Available Models

Suffix:

OSY-TS	– UL/FM outside stem and yoke resilient seated gate valves with integrated tamper switch
BFG	– UL/FM grooved gear operated butterfly valves with tamper switch
OSY FxG**	– Flanged inlet gate connection and grooved outlet gate connection
OSY GxG**	– Grooved inlet gate connection and flanged outlet gate connection
OSY GxG**	– Grooved inlet gate connection and grooved outlet gate connection

** Consult factory for the following:

- Grooved NRS gate valves
- Post-indicator plate and operating nut
- Dimensions

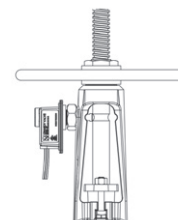
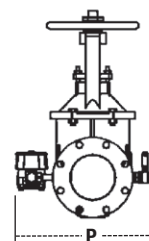
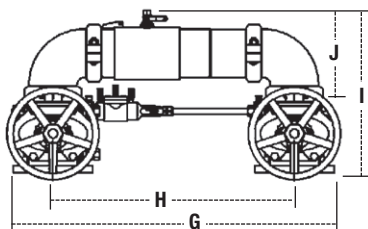
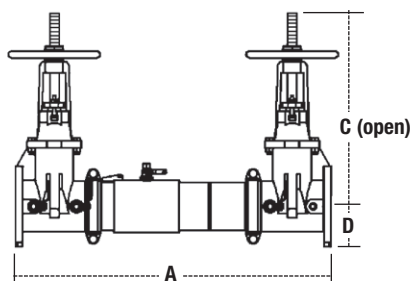
Dimensions — Weights

Metric dimensions are nominal pipe diameter. This product is produced with ASME/ANSI flanged end connections.

Pressure — Temperature

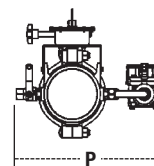
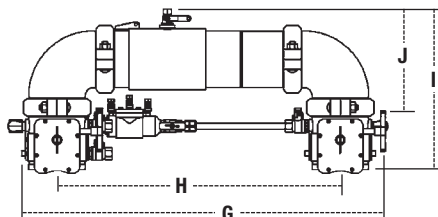
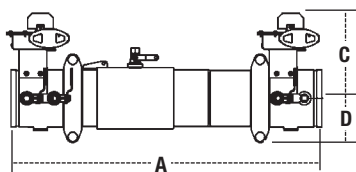
Temperature Range: 33°F – 110°F (5°C – 43°C)

Maximum Working Pressure: 175psi (12.06 bar)



LFC300, LFC300N

SIZE		DIMENSIONS												WEIGHT						
	A		C (OSY)		D		G		H		I		J		P		LFC300		LFC300N	
<i>in.</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>
2½	30¾	781	16¾	416	3½	89	29⅞	738	21½	546	15½	393	8⅓	223	13¾	335	144	65	152	69
3	31¾	806	18⅞	479	3⅞	94	30¼	768	22¼	565	17⅞	435	9⅞	233	14½	368	164	74	177	80
4	33¾	857	22¾	578	4	102	33	838	23½	597	18½	470	9⅞	252	15¾	386	180	81	203	92
6	43½	1105	30⅞	765	5½	140	44¾	1137	33¾	845	23¾	589	13⅞	332	19	483	314	142	355	161
8	49¾	1264	37¾	959	6⅞	170	54⅞	1375	40⅞	1019	27⅞	697	15⅞	399	21¾	538	499	226	574	260
10	57¾	1467	45¾	1162	8¾	208	66	1676	49½	1257	32½	826	17¾	440	24	610	800	363	970	440



LFC300BFG, LFC300NBFG

SIZE		DIMENSIONS												WEIGHT							
		A		C		D		G		H		I		J		P		LFC300BFG		LFC300NBFG	
<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>in.</i>	<i>mm</i>	<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>
2½	27¾	705	8	203	3½	89	29⅞	759	21½	546	14½ ₁₆	379	8½ ₁₆	223	13	330	70	32	78	35	
3	28¼	718	8⅝ ₁₆	211	3⅞ ₁₆	94	30⅞ ₁₆	779	22¼	565	15½ ₁₆	392	9½ ₁₆	233	13½	343	68	31	81	37	
4	29	737	8½ ₁₆	227	3⅞ ₁₆	94	31½ ₁₆	811	23½	597	16¼	412	9½ ₁₆	252	14	356	75	34	98	44	
6	36½	927	10	254	5	127	43¾	1097	33¼	845	19½ ₁₆	500	13½ ₁₆	332	14½	368	131	59	171	78	
8	42¾	1086	12¼	311	6½	165	51¼ ₁₆	1297	40⅝	1019	23¾ ₁₆	592	15½ ₁₆	399	18¾ ₁₆	462	275	125	351	159	

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.



Capacity

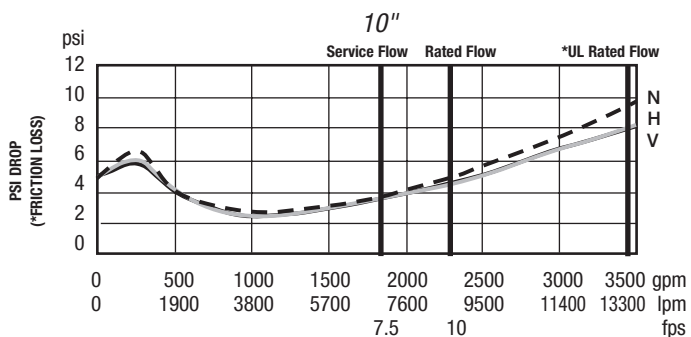
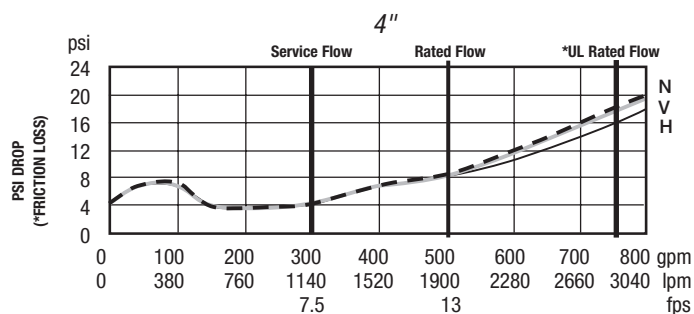
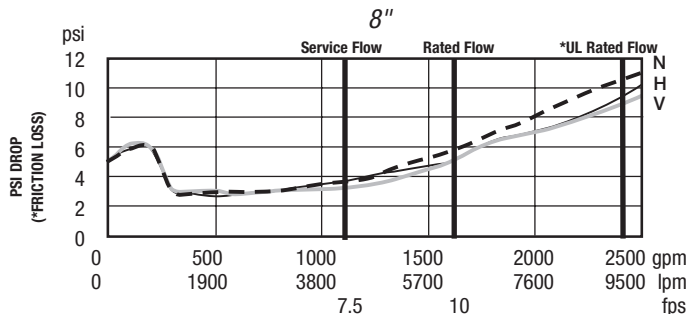
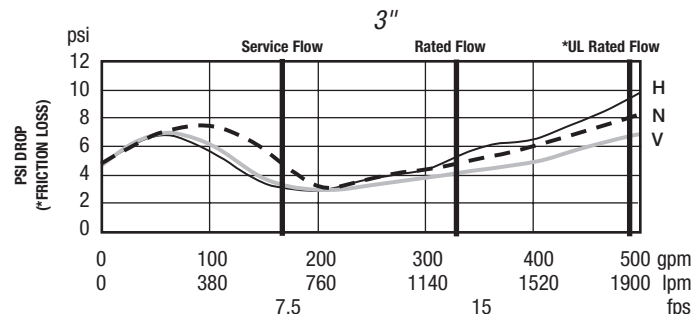
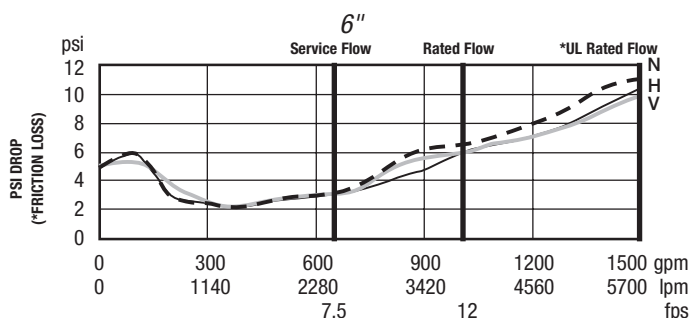
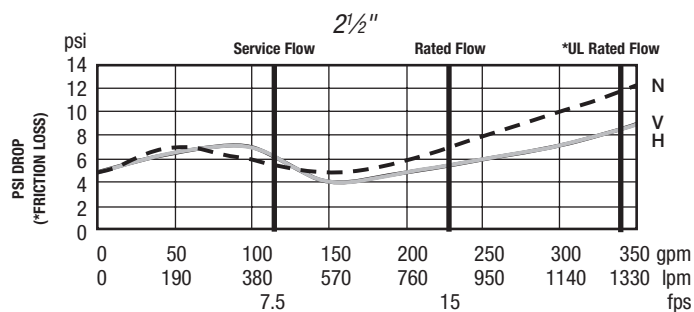
UL/FM Certified Flow Characteristics

Flow characteristics collected using butterfly shutoff valves

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

- Service Flow is typically determined by a rated velocity of 7.5fps 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 10fps.

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



NOTICE

Inquire with governing authorities for local installation requirements.



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