

# **T&B Liquidtight Systems®**

# Food and beverage solutions





- FDA compliant antimicrobial jacket
- IP69 ingress protection
- NSF certified

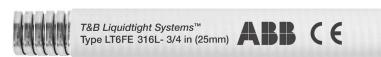
## **T&B Liquidtight Systems®**

## Food and beverage solutions

The T&B Liquidtight Systems brand encompasses a complete range of metallic flexible conduit system solutions for food and beverage applications requiring FDA antimicrobial materials, UL 4/4X and IP69 ingress ratings and NSF approvals.







#### Introduction

The T&B Liquidtight Systems portfolio includes one of the widest ranges of liquid-tight flexible cable protection system solutions for the food and beverage industry. Material selection and rigorous testing are the key factors to these highly engineered and superior performance cable protection solutions.

### Typical applications

- Food and beverage equipment
- · Pharmaceutical equipment
- · Bottling lines
- Packaging equipment
- Meat packing
- Dairy processing
- Coolers and freezer systems
- Canning plants
- Mixers, blenders and fillers
- Brewing and distillery
- · High-pressure washdown areas
- Commercial food service

### **System components**

Food and beverage installations require system solutions considering critical application parameters such as material specifications, temperature ratings, ingress ratings, trade sizes and approvals.

### Materials

T&B Liquidtight Systems food and beverage solutions are primarily designed with ANSI 316 stainless steel and FDA-compliant compounds. Materials are selected with cleanability, antimicrobial active ingredients, high-pressure washdown and maintenance-free long-term durability as priorities.

### Food and beverage protection system components

- Flexible metallic conduits
- Stainless steel liquid-tight fittings
- Seal gaskets
- Locknuts
- Supports

## Food and Beverage solutions

### **Metallic solutions**

Ingress protection		UL Type 4/4X, IP69	NEMA 4/4X, IP69		
Liquid-tight flexible conduits (LFMC)					
Product offering	LT6FE SS 316 antimicrobial	LTFU steel	LTFU steel antimicrobial		
	T&B Liquiditipht Systems" Type L16FE 316L-344 in (25mm) ABB ( €	TaB Liquidight Systems" ABB (1) (E C C C C C C C C C C C C C C C C C C	TAB Liquidilight Systems* ABB (%) (F C)		
	C € (NSE)				
	Food and bev, SST 316L		Food and bev, steel galv		
Approvals and certifications					
UL 360	No	Yes	Yes		
CSA C22.2, No 56	No	Yes	Yes		
CSA C22.2, No. 56 - "Heavy Duty"	No	Yes	Yes		
CE certification	Yes	Yes	Yes		
RoHS	Yes	Yes	Yes		
NSF approval	Yes	Yes	Yes		
Trade sizes					
UL (inches)	³/s to 4	³/s to 4	³/ <sub>8</sub> to 4		
CSA (mm)	12 to 103	12 to 103	12 to 103		
Materials					
Core	Stainless steel 316L	Steel galvanized	Steel galvanized		
Jacket material	PVC, FDA compliant	PVC, FDA compliant	PVC, FDA compliant		
Antimicrobial	Yes	No	Yes		
Jacket color (standard)	White	White	Blue		
UL bond wire (1/2 to 1 1/4 in.)		Yes	Yes		
Temperature — dry (see technical data	a sheets for complete ratings)				
CSA	30 to +60 °C (-22 to +140 °F)				
UL		-30 to +80 °C (-22 to +176 °F	-30 to +105 °C (-22 to +221 °F)		
CE	-45 to +105 °C (-49 to +221 °F)	-25 to +90 °C (-13 to +194 °F)	-25 to +90 °C (-13 to +194 °F)		
General	-55 to +105 °C (-67 to +221 °F)				
Technical data sheet	TDS000086	TDS000021	TDS000569		

Liquid-tight metallic fittings

Product offering	SS 316 LT fittings
	53xxSST6
	SST316 (standard and high temp)
Approvals and certifications	
UL 514B listing	Yes
CSA C22.2, No 56	Yes
CE certification	Yes
RoHS	Yes
NSF 169	Yes

Materials	
Metal components	Stainless steel 316
Seals, insulators and gaskets	Nylon
Thread types	NPT and metric
Ground cone options	Steel galvanized (Opt6, SS 316)
Working temperature (static)*	
UL 514B	-20 to +105
CSA 22.2 No 18	-20 to +105
Ingress protection	
UL liste/CSA certified	Type 3, 3R, 4, 4X, 6, 12, 13
NEMA 250	Type 3, 3R, 4, 4X, 6, 12, 13
ICE/EN 60529	IP66, 67, 68, 69
Technical data sheet	TDS000126

Note: Product must be installed in accordance with applicable national and local electrical codes. \*Please refer to TDS000124 for temperature range of high temperature fittings.

### Food & Beverage Antimicrobial - Liquidtight flexible metal conduit

Type LTFU - CSA certified, UL Listed



#### Type LTFU - Antimicrobial

Food & Beverage, CSA certified UL Listed liquid-tight flexible metal conduit provides excellent antimicrobial and liquid-tight performance for food industry equipment

Materials: Galvanized Steel Core, Smooth PVC Jacket, Antimicrobial, FDA compliant compound with copper bonding wire from 3/8 to 1-1/4" Colour: Blue (Standard)

### **Approvals**











Conduit sizes 1/2" up to 2" meets CSA Heavy duty requirements, when used with series 5200/5300 liquidtight fittings.

												_			
Trad	e Size			Coil Length Sp										pecifica	ations
UL	CSA	ISO/ A BS EN	Stan	dard Carto	n S	Small Cart	on		Bulk	Reel		ID R	ange (Nominal)		Inside Radius
Inch	mm	mm	Part No.	Ft 1	1 Part No.	Ft	М	Part No.	Ft	м	UL Bond Wire	Inch	mm	Inch	mm
3/8	12	16	LTFUS01L-C	100 3	D LTFUS01L-A	25	8				Yes	0.484 to 0.505 (0.493)	12.3 to 12.8 (12.5)	2.0	51
1/2	16	20	LTFUS02L-C	100 3	D LTFUS02L-A	25	8				Yes	0.622 to 0.642 (0.632)	15.8 to 16.3 (16.0)	3.0	76
3/4	21	25	LTFUS03L-C	100 3	D LTFUS03L-A	25	8				Yes	0.820 to 0.840 (0.830)	20.8 to 21.3 (21.1)	4.2	107
1	27	32	LTFUS04L-C	100 3	LTFUS04L-A	25	8				Yes	1.041 to 1.066 (1.053)	25.4 to 27.1 (26.8)	5.5	140
11/4	35	40	LTFUS05L-B	50 1	5 LTFUS05L-A	25	8				Yes	1.380 to 1.410 (1.395)	35.1 to 35.8 (35.5)	7.0	178
1½	41	50	LTFUS06L-B	50 1	5 LTFUS06L-A	25	8				No	1.575 to 1.600 (1.587)	40.0 to 40.6 (40.3)	4.5	114
2	53	63	LTFUS07L-B	50 1	5 LTFUS07L-A	25	8				No	2.020 to 2.045 (2.032)	51.3 to 51.9 (51.6)	6.0	152
21/2	63	70	LTFUS08L-A	25	3						No	2.480 to 2.505 (2.492)	63.0 to 63.6 (63.3)	8.0	203
3	78	80	LTFUS09L-A	25	3						No	3.070 to 3.100 (3.085)	78.0 to 78.7 (78.4)	10.0	254
4	103	100	LTFUS11L-A	25	3						No	4.000 to 4.040 (4.020)	101.6 to 102.6 (102.1)	12.0	305

### **System Ingress Ratings**

UL 50E "Listed"	
Indoor	Type 4, 4X, 6, 12, 13
Outdoor	Type 3, 3R, 4, 4X, 6
NEMA 250	Type 3, 3R, 4, 4X, 6, 12, 13
CSA C22.2, No. 94	Type 3, 3R, 4, 4X, 12, 13
IEC 60529	IP66, IP67, IP68, IP69

CSA certified for Direct Burial Application.

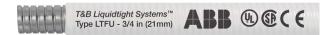
### **System Temperature Ratings**

UL	Dry: -30 to +105°C (-22 to +221°F)
	Oil: -30 to +70°C (-22 to +158°F)
	Wet: -30 to +60°C (-22 to +140°F)
CSA	Dry: -30 to +105°C (-22 to +221°F)
	Oil: -30 to +75°C (-22 to +167°F)
	Wet: -30 to +75°C (-22 to +167°F)
IEC/CE	Gen: -25 to +90°C (-13 to +194°F)

For more information see Technical Data Sheet TDS000569. For download on our website.

### Food & Beverage - Liquidtight flexible metal conduit

Type LTFU - CSA certified, UL Listed



#### **Type LTFU - General Purpose**

Food & Beverage, UL Listed, NSF Certified T&B Liquidtight
Flexible Metallic Conduit provide excellent strength and
Liquidtight performance for food industry equipment

Materials: Galvanized Steel Core, Smooth PVC Jacket, FDA
compliant compound with copper bonding wire from 3/8 to 1-1/4"

Colour: White (Standard)

### Approvals











Conduit sizes 1/2" up to 2" meets CSA Heavy duty requirements, when used with series 5200/5300 liquidtight fittings.

Trade	Size									Coil Le	ngth			s	pecifica	ations
UL	CSA	ISO/ BS EN	Stan	dard Ca	arton		Small	Reel		Bulk Reel			ID Range (Nominal)			Inside Radius
												UL Bond				
Inch	mm	mm	Part No.	Ft	М	Part No.	Ft	М	Part No.	Ft	М	Wire	Inch	mm	Inch	mm
3/8	12	16	LTFUS01W-C	100	30							Yes	0.484 to 0.505 (0.493)	12.3 to 12.8 (12.5)	2.0	51
1/2	16	20	LTFUS02W-C	100	30							Yes	0.622 to 0.642 (0.632)	15.8 to 16.3 (16.0)	3.0	76
3/4	21	25	LTFUS03W-C	100	30							Yes	0.820 to 0.840 (0.830)	20.8 to 21.3 (21.1)	4.2	107
1	27	32	LTFUS04W-C	100	30							Yes	1.041 to 1.066 (1.053)	25.4 to 27.1 (26.8)	5.5	140
11/4	35	40	LTFUS05W-B	50	15							Yes	1.380 to 1.410 (1.395)	35.1 to 35.8 (35.5)	7.0	178
1½	41	50	LTFUS06W-B	50	15							No	1.575 to 1.600 (1.587)	40.0 to 40.6 (40.3)	4.5	114
2	53	63	LTFUS07W-B	50	15							No	2.020 to 2.045 (2.032)	51.3 to 51.9 (51.6)	6.0	152
2½	63	70	LTFUS08W-A	25	8							No	2.480 to 2.505 (2.492)	63.0 to 63.6 (63.3)	8.0	203
3	78	80	LTFUS09W-A	25	8							No	3.070 to 3.100 (3.085)	78.0 to 78.7 (78.4)	10.0	254
4	103	100	LTFUS11W-A	25	8							No	4.000 to 4.040 (4.020)	101.6 to 102.6 (102.1)	12.0	305

### **System Ingress Ratings**

Type 4, 12, 13
Type 3, 3R, 4
Type 3, 3R, 4, 12, 14
IP66, IP67, IP68, IP69

CSA certified for Direct Burial Application.

### **System Temperature Ratings**

UL	Dry: -30 to +80°C (-22 to +176°F)
	Oil: -30 to +70°C (-22 to +158°F)
	Wet: -30 to +60°C (-22 to +140°F)
CSA	Dry: -30 to +60°C (-22 to +140°F)
	Oil: -30 to +60°C (-22 to +140°F)
	Wet: -30 to +60°C (-22 to +140°F)
IEC/CE	Gen: -25 to +90°C (-13 to +194°F)

For more information see Technical Data Sheet TDS000021. For download on our website.

### Food & Beverage Antimicrobial - Liquidtight flexible metal conduit

Type LT6FE - CE certified



#### Type LT6FE SST 316L - Antimicrobial

Stainless Steel 316L Food & Beverage, CE and NSF Certified T&B Liquid-tight Flexible Metallic Conduit provide superior strength, corrosion protection and Liquidtight performance

Materials: Stainless Steel 316L Core, Smooth PVC Jacket,

FDA compliant compound **Colour:** White (Standard)

### **Approvals**









Trade	Size								Coil Le	ngth			s	pecifica	ations
UL	CSA	ISO/ BS EN	Stan	dard Carto	1	Small I	Reel	s	mall Ca	ırton		ID R	ange (Nominal)		Inside Radius
Inch	mm	mm	Part No.	Ft N	1 Part No.	Ft	м	Part No.	Ft	М	UL Bond Wire	Inch	mm	Inch	mm
1/2	16	20	LT6FES02W-C	100 3	LT6FES02W-K	500	150	LT6FES02W-A	25	8	No	0.622 to 0.642 (0.632)	15.8 to 16.3 (16.0)	2.0	51
3/4	21	25	LT6FES03W-C	100 3	LT6FES03W-K	500	150	LT6FES03W-A	25	8	No	0.820 to 0.840 (0.830)	20.8 to 21.3 (21.1)	2.5	64
1	27	32	LT6FES04W-C	100 3	LT6FES04W-J	400	120	LT6FES04W-A	25	8	No	1.041 to 1.066 (1.053)	25.4 to 27.1 (26.8)	3.0	76
11/4	35	40	LT6FES05W-B	50 1	LT6FES05W-E	200	60				No	1.380 to 1.410 (1.395)	35.1 to 35.8 (35.5)	3.5	89
11/2	41	50	LT6FES06W-B	50 1	LT6FES06W-D	150	45				No	1.575 to 1.600 (1.587)	40.0 to 40.6 (40.3)	4.5	114
2	53	63	LT6FES07W-B	50 1	LT6FES07W-C	100	30				No	2.020 to 2.045 (2.032)	51.3 to 51.9 (51.6)	5.5	140
21/2	63	70	LT6FES08W-A	25	3						No	2.480 to 2.505 (2.492)	63.0 to 63.6 (63.3)	8.0	203
3	78	80	LT6FES09W-A	25	3						No	3.070 to 3.100 (3.085)	78.0 to 78.7 (78.4)	10.0	254
4	103	100	LT6FES11W-A	25	3						No	4.000 to 4.040 (4.020)	101.6 to 102.6 (102.1)	12.0	305

### **System Ingress Ratings**

UL 50E "Tested"	
Indoor	NEMA 4, 4X, 12, 13
Outdoor	NEMA 3, 3R, 4, 4X
CSA C22.2, No. 94	Type 3, 3R, 4, 12, 13
NEMA 250	NEMA 3, 3R, 4, 4X, 12, 13
IEC 60529	IP66, IP67, IP68, IP69

### **System Temperature Ratings**

IEC/CE:	Dry: -55 to +105°C (-67 to +221°F)
	Gen: -45 to +105°C (+49 to +221°F)

For more information see Technical Data Sheet TDS000086. For download on our website.

## Food & Beverage - Fittings and accessories

Series 5300SST6/ Series 5300SST6HT High Temperature





### **Approvals**











Series 5300SST6 Series 5300SST6HT - High Temperature

Fittings Accessories Accessories														ccessories
						Series	5300SST6 SST 316	Series 5300SST6HT SST 316 High Temperature						
							331310			Temperature	0	*		0
Trade Size			Туре			*Insulated			Insulated		Wire		**Lock	
UL Inch	CSA mm	ISO/ BS EN mm	Std.	Thread	Straight Part No.	45° Part No.	90° Part No.	Straight Part No.	45° Part No.	90° Part No.	*Sealing Gasket Part No.	Mesh Grips Part No.	Conduit Support Part No.	Nuts SST Part No.
3/8	12	16	NPT	1/2"	5331SST6	5341SST6	5351SST6	5331SST6HT	5341SST6HT	5351SST6HT	5261	WMG-LT1	P CLIP/16	LNSS038
			ISO	M16	9330SST6	9340SST6	9350SST6	9330SST6HT	9340SST6HT	9350SST6HT				LNSSM16
			PG	13.5										
1/2	16	20	NPT	1/2"	5332SST6	5342SST6	5352SST6	5332SST6HT	5342SST6HT	5352SST6HT	5262	WMG-LT2	P CLIP/20	LNSS050
			ISO	M20	9332SST6	9342SST6	9352SST6	9332SST6HT	9342SST6HT	9352SST6HT			HS901SS	LNSSM20
			PG	16										
3/4	21	25	NPT	3/4"	5333SST6	5343SST6	5353SST6	5333SST6HT	5343SST6HT	5353SST6HT	5263	WMG-LT3	P CLIP/25	LNSS075
			ISO	M25	9333SST6	9343SST6	9353SST6	9333SST6HT	9343SST6HT	9353SST6HT			HS902SS	LNSSM25
			PG	21										
1	27	32	NPT	1"	5334SST6	5344SST6	5354SST6	5334SST6HT	5344SST6HT	5354SST6HT	5264	WMG-LT4	P CLIP/32	LNSS100
			ISO	M32	9334SST6	9344SST6	9354SST6	9334SST6HT	9344SST6HT	9354SST6HT			HS903SS	LNSSM32
			PG	29										
11/4	35	40	NPT	11/4"	5335SST6	5345SST6	5355SST6	5335SST6HT	5345SST6HT	5355SST6HT	5265	WMG-LT5	P CLIP/40	LNSS125
			ISO	M40	9335SST6	9345SST6	9355SST6	9335SST6HT	9345SST6HT	9355SST6HT			HS904SS	LNSSM40
			PG	36										
11/2	41	50	NPT	11/2"	5336SST6	5346SST6	5356SST6	5336SST6HT	5346SST6HT	5356SST6HT	5266	WMG-LT6	P CLIP/50	LNSS150
			ISO	M50	9336SST6	9346SST6	9356SST6	9336SST6HT	9346SST6HT	9356SST6HT			HS905SS	LNSSM50
			PG	42										
2	53	63	NPT	2"	5337SST6	5347SST6	5357SST6	5337SST6HT	5347SST6HT	5357SST6HT	5267	WMG-LT7	P CLIP/63	LNSS200
			ISO	M63	9337SST6	9347SST6	9357SST6	9337SST6HT	9347SST6HT	9357SST6HT			HS906SS	LNSSM63
		,	PG	48										
21/2	63	70	NPT	21/2"	5338-NB						5268	WMG-LT8	P CLIP/75	
			ISO										HS907SS	
			PG											
3	78	80	NPT	3"	5339-NB						5269	WMG-LT9		
			ISO										HS908SS	
			PG											
4	103	100	NPT	4"	5340-NB						5270	WMG-LT10		
			ISO										HS910SS	
			PG											

<sup>\*</sup>Seal gaskets required for Liquid and dust tight installations

<sup>\*\*</sup>Locknuts must be ordered seperatley for 5300SST6 Fittings

<sup>\*\*\*</sup>Nickel plated brass





Click or scan the QR code to see the complete offering

### ABB Electrification Canada ULC

Installation Products

700 Thomas Avenue Saint-Jean-sur-Richelieu, Quebec J2X 2M9 Tel.: +1 (450) 347 5318

Toll Free: +1 (800) 362 2952 Fax: +1 (450) 347 1976 We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction – in whole or in part – is forbidden without prior written consent of ABB.

Copyright© 2022 ABB. All rights reserved.