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 TECHNICAL DATA SHEET

# Type LTFU Food & Beverage, UL Listed

## Liquid-tight flexible metallic conduit

### T&B Liquidtight Systems®




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**Features:**

- FDA compliant PVC jacket material with galvanized steel core
- NSF 169 Certified for special purpose for food equipment
- Meets UL 360 ID/OD dimension requirements
- Full compliance to IEC/EN 61386-1, -23 requirements, CE Certified
- Trade sizes from 3/8" to 4" (12mm to 103mm)
- Coordinated performance with Series 5300SST6 stainless steel 316 fittings
- UL, CSA & IP ingress protection ratings aligned with industrial enclosures
- Smooth extruded jackets provide best performance with fittings

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**Applications:**

- Food and beverage industry installations requiring liquid-tight flexible metallic conduit.
- Smooth extruded jacket formulated for "splash zone" food and beverage contact per FDA CFR21 and NSF 51/61 requirements
- PVC smooth jacket material will not promote bacteria growth and provides easy washdown flexibility is necessary for motion, vibration and bending
- Typical applications include food and beverage equipment for grinding, mixing, processing packaging, canning, and bottling machinery
- Liquid-tight applications against water, oils, mild acids and cleaners
- For use in electrical circuits up to 1,000 V

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**Construction / Material / Finish:**

- Galvanized steel core
- PVC (Polyvinyl Chloride) FDA compliant compound
- Ink jet printed ratings and technical information
- Trade sizes from 3/8" to 4" (12mm to 100mm)
  - 3/8" to 1-1/4", Square lock design with bonding strip
  - 1-1/2" to 4" Fully interlocked design
- Color: White

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**Environment ratings:**
**Working Temperature:**

- 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)

**Chemical resistance guide:**

- Resistant to Sodium Hypochlorite (bleach)
- See publication TDS000117

Food & Beverage, UL Listed liquid-tight flexible metal conduits provide excellent strength and liquid-tight performance for food industry equipment

**Certifications / Standards:**



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**Conforms to:**

- UL 360, Liquid-tight Flexible Metal Conduits (LFMC)
  - UL File: E125517
- CSA C22.2 No. 56, Liquid-tight Flexible Metal Conduits (LFMC)
  - CSA File: LR-72635
- IEC/EN 61386-1, -23, Conduit Systems for Cable Management
  - EU DoC: EC-012-16-104
- NSF Certified (3/8 to 2" sizes only)
  - NSF/ANSI 169 Special Purpose for Food Equipment
- CE (Conformité Européenne, European Conformity)
- RoHS (Restriction of Hazardous Substance Directive)

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**Standards requirements:**
**Meets all UL 360 and CSA C22.2, No. 56 standard requirements including:**

- ID and OD dimensions, chemical & acid resistance, flame retardent & self extinguish, abrasion resistance, UV protection, crush resistance, oil resistance, corrosion resistance and bending strength

**Meets all IEC/EN 61386-1, -23 standard requirements including:**

- Compression strength - Code 4 Heavy; 1250 N/50mm
- Impact strength - Code 4 Heavy; 6 Joules
- Tensile strength - Code 4 Heavy; 1000 N/2 min.

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**Ingress protection:**

- Provides "Ingress Integrity" between enclosures, fittings, conduits & seal gaskets when using LTFU conduits and series 5300SST6 stainless steel 316 Liquidtight Fittings
- Covers all trade sizes from 3/8" to 4" (12mm to 103mm)

**UL, CSA & NEMA system ingress ratings:**

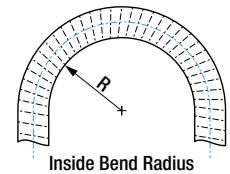
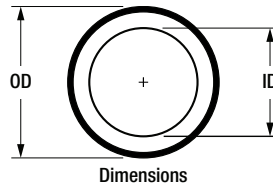
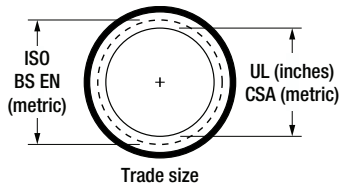
- UL Listed type ratings tested to UL 50E requirements
  - UL file no.: E23018
    - Indoor: Type 4, 12, 13
    - Outdoor: Type 3, 3R, 4
- CSA C22.2, No. 94: Type 3, 3R, 4, 12, 13
- NEMA 250: Type 3, 3R, 4, 12, 13

**IEC system ingress rating:**

- IP ingress protection per IEC/EN 60529 requirements
- IEC ingress ratings: IP66, IP67

**Type LTFU - Food & Beverage, UL Listed**  
**Product selection and dimensions**

Product selection														
Trade size						Coil Length								
UL	CSA	ISO BS EN	Carton			Standard reel			Bulk reel			Weight		
Inches	mm	mm	Part No./GID	Feet	Meter	Part No./GID	Feet	Meter	Part No./GID	Feet	Meter	lbs/ft	kg/m	
3/8	12	16	LTFUS01W-C	100	30	-	-	-	-	-	-	0.29	0.43	
			7TAA012LPOR0000											
1/2	16	20	LTFUS02W-C	100	30	-	-	-	-	-	-	0.32	0.48	
			7TAA012LPOR0001											
3/4	21	25	LTFUS03W-C	100	30	-	-	-	-	-	-	0.53	0.79	
			7TAA012LPOR0002											
1	27	32	LTFUS04W-C	100	30	-	-	-	-	-	-	0.82	1.22	
			7TAA012LPOR0003											
1 1/4	35	40	LTFUS05W-B	50	15	-	-	-	-	-	-	1.02	1.52	
			7TAA012LPOR0004											
1 1/2	41	50	LTFUS06W-B	50	15	-	-	-	-	-	-	1.24	1.84	
			7TAA012LPOR0005											
2	53	70	LTFUS07W-B	50	15	-	-	-	-	-	-	1.45	2.16	
			7TAA012LPOR0006											
2 1/2	63	70	LTFUS08W-A	25	8	-	-	-	-	-	-	1.92	2.86	
			7TAA012LPOR0007											
3	78	80	LTFUS09W-A	25	8	-	-	-	-	-	-	2.52	3.75	
			7TAA012LPOR0008											
4	103	100	LTFUS11W-A	25	8	-	-	-	-	-	-	3.50	5.21	
			7TAA012LPOR0009											



Dimensions															
Part number	Trade Size			Minimum inside bend radius				Inches				Millimeters			
	UL	CSA	ISO BS EN	Static		Dynamic		Inside (ID)		Outside (OD)		Inside (ID)		Outside (OD)	
	Inches	mm	mm	Inches	mm	Inches	mm	Min	Max	Min	Max	Min	Max	Min	Max
LTFUS01W-*	3/8	12	16	2.0	51	4.0	102	0.484	0.504	0.690	0.710	12.3	12.8	17.5	18.0
LTFUS02W-*	1/2	16	20	3.0	76	5.0	127	0.622	0.642	0.820	0.840	15.8	16.3	20.8	21.3
LTFUS03W-*	3/4	21	25	4.2	107	6.0	152	0.820	0.840	1.030	1.050	20.8	21.3	26.2	26.7
LTFUS04W-*	1	27	32	5.5	140	12.0	305	1.041	1.066	1.290	1.315	26.4	27.1	32.8	33.4
LTFUS05W-*	1 1/4	35	40	7.0	178	15.0	381	1.380	1.410	1.630	1.660	35.1	35.8	41.4	42.2
LTFUS06W-*	1 1/2	41	50	4.5	114	17.0	432	1.575	1.600	1.865	1.900	40.0	40.6	47.4	48.3
LTFUS07W-*	2	53	63	6.0	152	22.0	559	2.020	2.045	2.340	2.375	51.3	51.9	59.4	60.3
LTFUS08W-*	2 1/2	63	70	8.0	203	30.0	762	2.480	2.505	2.840	2.875	63.0	63.6	72.1	73.0
LTFUS09W-*	3	78	80	10.0	254	36.0	914	3.070	3.100	3.460	3.500	78.0	78.7	87.9	88.8
LTFUS11W-*	4	103	100	12.0	305	52.0	1,321	4.000	4.040	4.460	4.500	101.6	102.6	113.3	114.3

Note: Products must be installed in accordance with applicable national and local electrical codes

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