
 TECHNICAL DATA SHEET

Type LTFU Food & Beverage, UL Listed

Liquid-tight flexible metallic conduit

T&B Liquidtight Systems®



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
- Conduit sizes 1/2" - 2" meets CSA Heavy Duty requirements

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

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

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)

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

Certifications / Standards:

Chemical resistance guide:

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

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)

Standards requirements:

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

- ID and OD dimensions, chemical & acid resistance, flame retardant & self extinguishing, abrasion resistance, UV protection, crush resistance, oil resistance, corrosion resistance and bending strength
- CSA Heavy duty requirements (1/2" – 2" trade sizes only)

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.

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:

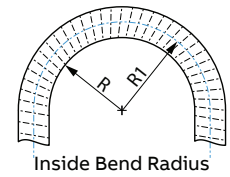
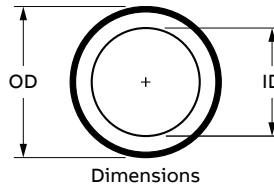
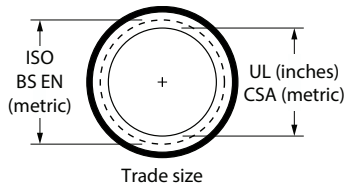
- UL Listed type ratings tested to UL 50E requirements
- UL file no.: E23018
 - Indoor: Type 4, 12, 13
 - Outdoor: Type 3, 3R, 4
- CSA C22.2, No. 94: Type 3, 3R, 4, 12, 13
- NEMA 250: Type 3, 3R, 4, 12, 13

IEC system ingress rating:

- IP ingress protection per IEC/EN 60529 requirements
- IEC ingress ratings: IP66, IP67, IP68, IP69

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

Product selection													
Trade size			Carton						Coil Length				Weight
UL	CSA	ISO BS EN				Standard reel			Bulk reel				
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 (R1)		Minimum inside bend radius (R)				Inches				Millimeters			
	UL	CSA	ISO BS EN	NEC Ch. 9 Table 2		Static		Dynamic		Inside (ID)		Outside (OD)		Inside (ID)		Outside (OD)	
				Inches	mm	Inches	mm	Inches	mm	Inches	mm	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	4.0	101.6	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	5.0	127.0	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	6.0	152.4	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	8.0	203.2	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	10.0	254.0	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	12.0	304.8	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	15.0	381.0	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	18.0	457.2	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	24.0	609.9	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