
 TECHNICAL DATA SHEET

Type LTZE - Halogen Free, CE Certified

Liquid-tight flexible metallic conduit

T&B Liquidtight Systems®



Halogen Free, CE Certified Liquid-tight Flexible Metallic Conduits are designed for applications where safety concerns exist regarding a material's reaction in a fire situation.

Certifications / Standards:



Features & Benefits:

- Designed to meet UL 360 ID/OD dimension requirements
- Full compliance to IEC 61386 requirements, CE Certified
- Trade sizes from 3/8" to 6" (12mm to 155mm)
- Coordinated performance with Series 52/53 Steel Fittings
- Ingress protection ratings aligned with industrial enclosures
- Smooth extruded jackets provide best performance with fittings

Applications:

- Halogen Free, industrial grade liquid-tight flexible metallic conduit
- Low smoke, low toxicity and flame retardant
- Enclosed public facilities, mass transit vehicles, tunnels, subways
- Sunlight (UV) resistant
- Used extensively in environments where flexibility is necessary for motion, vibration and bending
- Liquid-tight applications against water, moderate oils and chemicals
- For use in electrical circuits up to 1,000 V

Construction / Material / Finish:

- Hot-dipped zinc galvanized steel core
- Zero halogen TPU (polyurethane) extruded smooth jacket
- Ink printed ratings and technical information
- Full range of trade sizes from 3/8" to 6" (12mm to 155mm)
- 3/8" to 2", square lock design with cord filler
- 2-1/2" to 6", fully interlocked design
- Colors: black (standard), gray (optional)

Combustion & Flamability | Test | Value

- Vertical Burn - Jacket Material | UL 94 | V-0 rating: No flaming drips
- Vertical Burn - Jacket Material | UL 360 | Pass: No flaming drips
- Oxygen Index % | D2863 | 28.5
- Flame Spread Index | ASTM E162 | 25: No flaming drips
- Smoke Generation (flaming) | ASTM E662 (NFPA 258) | Ds 41@1.5 min./Ds 113@4.0 min.
- Smoke Generation (non-flaming) | ASTM E662 (NFPA 258) | Ds 4@1.5 min./Ds 19@4.0 min.
- Toxic Gas Generation | Bombardier SMP 800-C | Pass
- Toxicity Index | NES 713 | 3.9

Note: Test data is based on controlled laboratory conditions and does not reflect performance in actual fire conditions

Environment ratings:

Working Temperature:

- Gen: Dry: -40 to +80°C (-40 to +176°F)
Oil: -40 to +70°C (-40 to +158°F)
Wet: -40 to +60°C (-40 to +140°F)
- IEC/CE: Gen: -45 to +90°C (-49 to +194°F)

Chemical resistance guide:

- See publication TDS000117

Conforms to:

- IEC 61386-1, -23, Conduit systems for cable management
 - EU DoC: EC-012-16-169
- CE (Conformité Européene, European Conformity)
- RoHS (Restriction of Hazardous Substances Directive)

Standards requirements:

Designed to UL 360 and CSA C22.2 No. 56 standards requirements including:

- ID and OD Dimensions

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

- Compression strength - Code 4 Heavy; 1250 N/50mm
- Impact strength - Code 4 Heavy; 6 Joules
- Tensile strength - Code 3 Medium; 500 N/2 min.

Ingress protection:

- Provides "ingress integrity" between enclosures, fittings, conduits and seals when using LTZE conduits and series 52/53 liquid-tight fittings.
- Covers all trade sizes from 3/8" to 4" (12mm to 103mm)

System ingress ratings:

- Products tested and comply with UL 50/50E and CSA C22.2 No. 94 Type Rating requirements
 - Indoor: Type 4, 12, 13
 - Outdoor: Type 3, 3R, 4
- NEMA 250: Type 3, 3R, 4, 12, 13

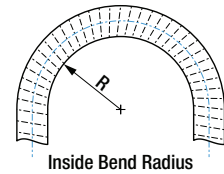
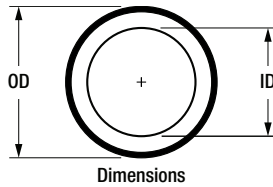
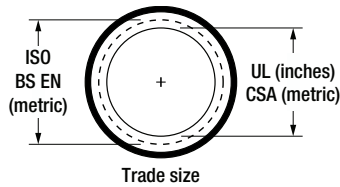
IEC system ingress rating:

- IP ingress protection per IEC 60529 requirements
- IEC ingress rating: IP66, IP67

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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	LTZES01B-C	100	30	LTZES01B-K	500	150	LTZES01B-L	1,000	300	0.20	0.30
			7TAA012LGOR0019			7TAA012LGOR0038			7TAA012LGOR0039				
1/2	16	20	LTZES02B-C	100	30	LTZES02B-K	500	150	LTZES02B-L	1,000	300	0.24	0.36
			7TAA012LGOR0020			7TAA012LGOR0031			7TAA012LGOR0037				
3/4	21	25	LTZES03B-C	100	30	LTZES03B-K	500	150	LTZES03B-L	1,000	300	0.33	0.49
			7TAA012LGOR0021			7TAA012LGOR0032			7TAA012LGOR0040				
1	27	32	LTZES04B-C	100	30	LTZES04B-J	400	120	-	-	-	0.53	0.79
			7TAA012LGOR0022			7TAA012LGOR0033							
1 1/4	35	40	LTZES05B-B	50	15	LTZES05B-E	200	60	-	-	-	0.68	1.01
			7TAA012LGOR0023			7TAA012LGOR0034							
1 1/2	41	50	LTZES06B-B	50	15	LTZES06B-D	150	45	-	-	-	0.88	1.31
			7TAA012LGOR0024			7TAA012LGOR0035							
2	53	70	LTZES07B-B	50	15	LTZES07B-C	100	30	-	-	-	1.02	1.52
			7TAA012LGOR0025			7TAA012LGOR0036							
2 1/2	63	70	LTZES08B-A	25	8	-	-	-	-	-	-	1.92	2.86
			7TAA012LGOR0026										
3	78	80	LTZES09B-A	25	8	-	-	-	-	-	-	2.52	3.75
			7TAA012LGOR0027										
4	103	100	LTZES11B-A	25	8	-	-	-	-	-	-	3.50	5.21
			7TAA012LGOR0028										
5	129	-	LTZES12B-A	25	8	-	-	-	-	-	-	4.68	6.96
			7TAA012LGOR0029										
6	155	-	LTZES13B-A	25	8	-	-	-	-	-	-	5.72	8.51
			7TAA012LGOR0030										



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	Inches	mm	Min	Max	Min	Max	Min	Max	Min	Max
LTZES01B-*	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
LTZES02B-*	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
LTZES03B-*	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
LTZES04B-*	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
LTZES05B-*	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
LTZES06B-*	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
LTZES07B-*	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
LTZES08B-*	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
LTZES09B-*	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
LTZES11B-*	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
LTZES12B-*	5	129	-	17.5	445	-	-	4.975	5.035	5.505	5.565	126.4	127.9	139.8	141.4
LTZES13B-*	6	155	-	22.5	572	-	-	6.015	6.075	6.565	6.625	152.8	154.3	166.8	168.3

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

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