

Type LTOE - oil resistant, CE Certified Liquid-tight flexible metallic conduit

**Oil Resistant, CE compliant Liquid-tight Flexible
Metallic Conduits that incorporate a high quality PVC
jacket for severe exposure to oils and other materials**

Features & Benefits:

- Designed to meet UL 360 ID/OD dimension requirements
- Full compliance to IEC 61386-1, -23 requirements, CE compliant
- 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:

- Used extensively in the machine tool and other industrial environments where flexibility is necessary for motion, vibration and bending
- Used extensively in the machine tool and other industrial environments where flexibility is necessary for motion, vibration and bending
- The inherent sunlight resistance of PVC enables this product to be used in outdoor applications
- Liquid-tight applications against water, oils, cutting fluids, mild acids
- For use in electrical circuits up to 1,000 V

Construction / Material / Finish:

- Hot-dipped Zinc Galvanized Steel Core
- PVC (Polyvinyl Chloride) extruded smooth jacket
- Flame retardant and sunlight UV resistant
- Ink jet printed ratings and technical information
- Full range of trade sizes from 3/8 to 6" (12 to 155mm)
3/8 to 2", square lock design with cord filler
2-1/2" to 6", fully interlocked design
- Colors: Machine tool gray standard, black optional

Environment ratings:

Working Temperature:

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

Chemical resistance guide:

- See publication GM7636

T&B Liquidtight Systems™



Certifications / Standards:



Conforms to:

- IEC 61386-1, -23, Conduit Systems for Cable Management
EU Doc: EC-012-16-159
- RoHS (Restriction of Hazardous Substance Directive)
- WEEE (Waste Electrical & Electronic Equipment Directive)

Standards requirements:

Designed to UL 360 and CSA C22.2 No. 56 standard 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 & seals when using LTOE Conduits and Series 5200/5300 Liquidtight Fittings
- Covers all trade sizes from 3/8" to 4" (12 .. 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:

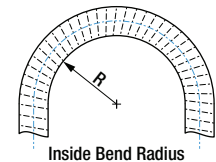
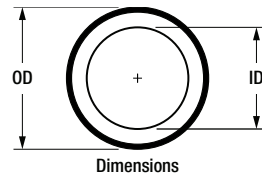
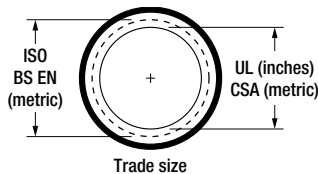
- IP ingress protection per IEC 60529 requirements
- IEC ingress rating: IP66, IP67



Type LTOE - oil resistant, CE Certified

Product selection and dimensions

| Product selection | | | | | | | | | | | | | | |
|-------------------|-----|--------------|-----------------|------|---------------|-----------------|------|-------|-----------------|-------|-------|--------|--------|--|
| Trade size | | | Coil length | | | | | | | | | | | |
| UL | CSA | ISO BS EN | Carton | | Standard reel | | | | Bulk reel | | | | Weight | |
| | | | Part No./GID | Feet | Meter | Part No./GID | Feet | Meter | Part No./GID | Feet | Meter | lbs/ft | kg/m | |
| 3/8 | 12 | 16 | LTOES01G-C | 100 | 30 | LTOES01G-K | 500 | 150 | LTOES01G-L | 1,000 | 300 | 0.20 | 0.30 | |
| | | | 7TAA012LR0R0000 | | | 7TAA012LR0R0012 | | | 7TAA012LR0R0019 | | | | | |
| 1/2 | 16 | 20 | LTOES02G-C | 100 | 30 | LTOES02G-K | 500 | 150 | LTOES02G-L | 1,000 | 300 | 0.24 | 0.36 | |
| | | | 7TAA012LR0R0001 | | | 7TAA012LR0R0013 | | | 7TAA012LR0R0020 | | | | | |
| 3/4 | 21 | 25 | LTOES03G-C | 100 | 30 | LTOES03G-K | 500 | 150 | LTOES03G-L | 1,000 | 300 | 0.33 | 0.49 | |
| | | | 7TAA012LR0R0002 | | | 7TAA012LR0R0014 | | | 7TAA012LR0R0021 | | | | | |
| 1 | 27 | 32 | LTOES04G-C | 100 | 30 | LTOES04G-J | 400 | 120 | — | — | — | 0.53 | 0.79 | |
| | | | 7TAA012LR0R0003 | | | 7TAA012LR0R0015 | | | | | | | | |
| 1-1/4 | 35 | 40 | LTOES05G-B | 50 | 15 | LTOES05G-E | 200 | 60 | — | — | — | 0.68 | 1.01 | |
| | | | 7TAA012LR0R0004 | | | 7TAA012LR0R0016 | | | | | | | | |
| 1-1/2 | 41 | 50 | LTOES06G-B | 50 | 15 | LTOES06G-D | 150 | 45 | — | — | — | 0.88 | 1.31 | |
| | | | 7TAA012LR0R0005 | | | 7TAA012LR0R0017 | | | | | | | | |
| 2 | 53 | 63 | LTOES07G-B | 50 | 15 | LTOES07G-C | 100 | 30 | — | — | — | 1.02 | 1.52 | |
| | | | 7TAA012LR0R0006 | | | 7TAA012LR0R0018 | | | | | | | | |
| 2-1/2 | 63 | 70 | LTOES08G-A | 25 | 8 | — | — | — | — | — | — | 1.92 | 2.86 | |
| | | | 7TAA012LR0R0007 | | | | | | | | | | | |
| 3 | 78 | 80 | LTOES09G-A | 25 | 8 | — | — | — | — | — | — | 2.52 | 3.75 | |
| | | | 7TAA012LR0R0008 | | | | | | | | | | | |
| 4 | 103 | 100 | LTOES11G-A | 25 | 8 | — | — | — | — | — | — | 3.50 | 5.21 | |
| | | | 7TAA012LR0R0009 | | | | | | | | | | | |
| 5 | 129 | — | LTOES12G-A | 25 | 8 | — | — | — | — | — | — | 4.68 | 6.96 | |
| | | | 7TAA012LR0R0010 | | | | | | | | | | | |
| 6 | 155 | — | LTOES13G-A | 25 | 8 | — | — | — | — | — | — | 5.72 | 8.51 | |
| | | | 7TAA012LR0R0011 | | | | | | | | | | | |



| 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 |
| LTOES01G-* | 3/8 | 12 | 16 | 1.5 | 38 | 4.0 | 102 | 0.484 | 0.504 | 0.690 | 0.710 | 12.3 | 12.8 | 17.5 | 18.0 |
| LTOES02G-* | 1/2 | 16 | 20 | 2.0 | 51 | 5.0 | 127 | 0.622 | 0.642 | 0.820 | 0.840 | 15.8 | 16.3 | 20.8 | 21.3 |
| LTOES03G-* | 3/4 | 21 | 25 | 2.5 | 64 | 6.0 | 152 | 0.820 | 0.840 | 1.030 | 1.050 | 20.8 | 21.3 | 26.2 | 26.7 |
| LTOES04G-* | 1 | 27 | 32 | 3.0 | 76 | 12.0 | 305 | 1.041 | 1.066 | 1.290 | 1.315 | 26.4 | 27.1 | 32.8 | 33.4 |
| LTOES05G-* | 1-1/4 | 35 | 40 | 3.5 | 89 | 15.0 | 381 | 1.380 | 1.410 | 1.630 | 1.660 | 35.1 | 35.8 | 41.4 | 42.2 |
| LTOES06G-* | 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 |
| LTOES07G-* | 2 | 53 | 63 | 5.5 | 140 | 22.0 | 559 | 2.020 | 2.045 | 2.340 | 2.375 | 51.3 | 51.9 | 59.4 | 60.3 |
| LTOES08G-* | 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 |
| LTOES09G-* | 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 |
| LTOES11G-* | 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 |
| LTOES12G-* | 5 | 129 | — | 17.5 | 445 | — | — | 4.975 | 5.035 | 5.505 | 5.565 | 126.4 | 127.9 | 139.8 | 141.4 |
| LTOES13G-* | 6 | 155 | — | 22.5 | 572 | — | — | 6.015 | 6.075 | 6.565 | 6.625 | 152.8 | 154.3 | 166.8 | 168.3 |

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

Contact us

ABB
 Electrification Products
 8155 T&B Boulevard
 Memphis, TN 38125
www.abb.us/lowvoltage

© 2017 ABB. All rights reserved.

