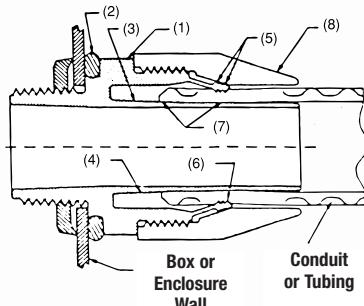


## XTRA FLEX® System —

### Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit



#### Suggested Specification:

Where liquidtight flexible non-metallic conduit (UL Type B) or liquidtight flexible non-metallic tubing is terminated to a box or enclosure, the non-metallic connectors used shall be able to be installed without disassembly and provide a positive installation criteria. In the installed condition, the connector must provide a seal meeting watertight requirements of NEMA Type 4 and Type 6 enclosures. The performance of connectors shall be unaffected by exposure to detergents, sanitizers, cutting fluids, wire pulling compounds and oil base industrial paints. The connector must also be capable of withstanding Marine environment and cold impact simulating a hammer blow. Installed connectors shall be of the elongated gland type as manufactured by Thomas & Betts LT38P series.

## Specification Sheet — Bullet® Liquidtight Fittings or Liquidtight Flexible Non-Metallic Conduit and Tubing

### Application

A series of nonmetallic connectors designed to provide a liquidtight seal when terminating liquidtight nonmetallic conduit (UL Type B) or liquidtight nonmetallic tubing to a box or enclosure with knockout opening or a threaded hub.

### Plastic Bullet® Liquidtight Fittings Features

- Connector assembles to conduit without disassembly and is designed to be installed with a positive installation criteria gland bottoms on body shoulder
- Rugged low profile non-metallic body and gland construction (1); the connector is equipped with a steel locknut to firmly secure connector to box or an enclosure and a sealing O-Ring
- Captivated sealing O-Ring (2) with predetermined compression for a reliable seal at enclosure
- Connector ferrule designed to accept variations in conduit inside diameter and is tolerant of field conduit cuts (3)
- The profile of ferrule is designed to reduce friction between conduit I.D. and ferrule, (4) enabling conduit to seat properly for an effective seal
- Outer surface of the clamping fingers provided with friction reducing ridges (5) for ease of installation; the inner surface is designed with conduit biting teeth to enhance clamping and sealing action (6)
- Performance of connectors tested to simulate adverse installation conditions
- Provides a double sealing action (7)
- Elongated gland nut profile (8) designed to provide additional strain relief for 90° pull and an easy hand grip.

- Performance of connector unaffected by exposure to detergents, cleaners and sanitizers commonly encountered in food processing plants and typical industrial environment; also unaffected by cutting fluids, wiring pulling compounds and marine environment. The connector meets industry standards for cold impact and simulated hammer blow.

### Standard Material/Finish

- Body Gland — Weather stabilized thermoplastic (black)
- O-Ring — Nitrile (blue)
- Locknut — Steel/electro zinc plated
- Material Temperature Rating — thermoplastic -40° C to 105° C
- Material Flammability Rating: UL 94-V2

### Listed/Certified by

UL (File# E23018);  
CSA (File# LR52391)

### Conforms to

- CSA 22.2 #227.2 & CSA 22.2 #227.3
- ANSI/U.L.514B-1988
- Watertight requirements of NEMA Type 4 and NEMA Type 6 enclosures
- Federal Standard H28 (NPT threads)
- Suitable for hazardous locations — Class I Div. 2; Class II Div. 1 & 2; Groups E,F, & G; Class III per N.E.C.; Article 501-4, 502-4 and 503-3
- NEMA 6P

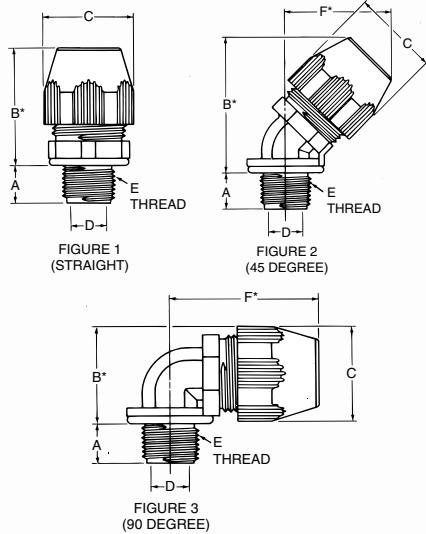
## XTRA FLEX® System —

Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit

The BULLET® non-metallic liquidtight fitting — easy to use, built to take it!



- Outside surface has friction-reducing ridges
- Inner surface teeth bite into conduit or tubing to enhance clamping and sealing action
- Fitting ferrule designed to accept variations in conduit sizes and field conduit cuts
- Smooth ferrule profile reduces friction to ensure a tight conduit-to-fitting seal
- Friction-reducing ridges and teeth provide a true double seal and high pullout resistance
- Elongated gland nut offers additional strain relief for 90° pull and easy hand grip
- Rugged low-profile nonmetallic body and gland construction provides space savings
- Captivated sealing O-Ring features predetermined compression to provide a reliable seal at enclosure
- Steel locknut firmly secures fitting to box or enclosure



### Plastic Bullet® Liquidtight Fittings for T&B LTC Non-Metallic Liquidtight Conduit Type B and T&B EFC Flexible Tubing

This engineering breakthrough meets the demand for a tough, reusable, non-metallic liquidtight fitting for use with XTRA FLEX® Type B conduit or flexible tubing. The BULLET® non-metallic fitting provides a reliable liquidtight seal that combines high pullout resistance and ease of installation.

#### Engineered to meet your needs.

The BULLET® non-metallic fitting meets your performance requirements when terminating Type B liquidtight non-metallic conduit or flexible non-metallic tubing to a box or enclosure with knockout opening or threaded hub. Fittings meet the watertight requirements for NEMA Type 4 and Type 6 enclosures and conform to UL514B and CSA No. 22.2 #227.2 specifications.

#### Ease of installation.

Installations can be performed quickly and easily because BULLET® liquidtight fittings can be installed without disassembly. BULLET® nonmetallic fittings are resistant to numerous caustics and solvents.

The BULLET® fitting is economical because it can be used over and over again without sacrificing the quality of the original seal. When used with the XTRA FLEX® raceway system, you can meet most machine or industrial requirements where liquidtight protection is needed.

#### Corrosion resistant. Built to take it.

The BULLET® liquidtight fitting is manufactured from weather-resistant thermoplastic materials and is suitable for indoor or outdoor corrosive environments. The BULLET® fitting is resistant to detergents, cleaners, oils, sanitizers, paints, cutting fluids and wire pulling compounds — just about any liquid usually found in industrial, plant or marine environments. It also surpasses industry standards for cold impact and simulated hammer blows.



| CAT. NO. | FIG. | TRADE SIZE (IN.) | A ±.015 (.040) (IN.) (MM) | *B ±.035 (0.90) (IN.) (MM) | C ±.015 (0.40) ACROSS CORNERS (IN.) (MM) | MIN. THROAT DIA. D (IN.) (MM) | E THREAD NPT (IN.) | F* (IN.) (MM) APPROX. |
|----------|------|------------------|---------------------------|----------------------------|--|-------------------------------|--------------------|-----------------------|
| LT38P    | 1    | .570             | .595 (40.51)              | 1.354                      | .417                                     |                               |                    | —                     |
| LT438P   | 2    | ¾                | (14.48)                   | 2.012 (51.10)              | (34.39)                                  | (10.59)                       | ½-14               | 1.534 (38.95)         |
| LT938P   | 3    |                  |                           | 1.380 (35.05)              |  |                               |                    | 1.880 (47.75)         |
| LT50P    | 1    | .570             | 1.636 (41.55)             | 1.448                      | .550                                     |                               |                    | —                     |
| LT450P   | 2    | ½                | (14.48)                   | 2.092 (53.14)              | (36.78)                                  | (13.97)                       | ½-14               | 1.590 (40.39)         |
| LT950P   | 3    |                  |                           | 1.489 (37.82)              |  |                               |                    | 1.986 (50.44)         |
| LT75P    | 1    | .582             | 1.757 (44.63)             | 1.740                      | .740                                     |                               |                    | —                     |
| LT475P   | 2    | ¾                | (14.78)                   | 2.452 (62.28)              | (44.20)                                  | (18.80)                       | ¾-14               | 1.821 (46.25)         |
| LT975P   | 3    |                  |                           | 1.790 (45.47)              |  |                               |                    | 2.212 (56. )          |
| LT100P   | 1    | .726             | 1.923 (48.84)             | 2.068                      | .940                                     |                               |                    | —                     |
| LT4100P  | 2    | 1                | (18.44)                   | 2.684 (68.17)              | (52.53)                                  | (23.88)                       | 1-11½              | 2.034 (51.66)         |
| LT9100P  | 3    |                  |                           | 2.104 (53.44)              |  |                               |                    | 2.508 (63.70)         |
| LT125P   | 1    | .750             | 2.164 (54.97)             | 2.494                      | 1.257                                    |                               |                    | —                     |
| LT4125P  | 2    | 1¼               | (19.05)                   | 3.264 (82.91)              | (63.35)                                  | (31.93)                       | 1¼-11½             | 2.385 (60.58)         |
| LT9125P  | 3    |                  |                           | 2.564 (65.13)              |  |                               |                    | 2.856 (72.54)         |
| LT150P   | 1    | .767             | 2.353 (59.77)             | 2.784                      | 1.453                                    |                               |                    | —                     |
| LT4150P  | 2    | 1½               | (19.48)                   | 3.605 (91.57)              | (70.71)                                  | (36.91)                       | 1½-11½             | 2.604 (66.14)         |
| LT9150P  | 3    |                  |                           | 2.854 (72.49)              |  |                               |                    | 3.144 (79.86)         |
| LT200P   | 1    | .794             | 2.605 (66.17)             | 3.362                      | 1.883                                    |                               |                    | —                     |
| LT4200P  | 2    | 2                | (20.17)                   | 4.210 (106.93)             | (85.39)                                  | (47.83)                       | 2-8                | 3.050 (77.47)         |
| LT9200P  | 3    |                  |                           | 3.432 (87.17)              |  |                               |                    | 3.675 (93.34)         |

\* After Assembly  
UL File No. E-23018  
CSA File No. 52391

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# XTRA FLEX® System —

## Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit

**Table 1 — Behavior of EMS20-1B.1 IN: Aqueous Solutions of Inorganic Salts at Room Temperature**

| SALT SOLUTIONS                                  | VISUAL CHANGE               | RATINGS* |
|---|-----------------------------|----------|
| 10% Ammonium Chloride                           | Unchanged                   | F        |
| 10% Aluminum Chloride                           | Unchanged                   | F        |
| 10% Sodium Hypochlorite (0.1% Cl <sup>-</sup> ) | White coating after 18 days | G        |
| 10% Calcium Chloride                            | Unchanged                   | F        |
| 10% Chrome Alum                                 | Unchanged                   | G        |
| 10% Ferric Chloride                             | Unchanged yellowing         | P        |
| 5% Potassium Dichromate                         | Unchanged yellowing         | P        |
| 10% Potassium Nitrate                           | Unchanged                   | G        |
| 1% Potassium Permanganate                       | Decomposed                  | NR       |
| 10% Copper Sulfate                              | Unchanged                   | G        |

| SALT SOLUTIONS         | VISUAL CHANGE | RATINGS* |
|------------------------|---------------|----------|
| 10% Magnesium Chloride | Unchanged     | G        |
| 10% Magnanese Sulfate  | Unchanged     | G        |
| 10% Sodium Sulfate     | Unchanged     | G        |
| 10% Sodium Bisulfite   | Unchanged     | G        |
| 5% Mercuric Chloride   | Swelled       | P        |
| 10% Zinc Chloride      | Unchanged     | F        |

\* These abbreviations are used for the ratings:

E – Excellent      P – Poor

G – Good      NR – Not Recommended

F – Fair      S – Solvent

**Table 2 — Behavior of EMS20-1B.1 IN: Acids, Bases, Halogens, etc.**

| REAGENT                    | TEMP °F | VISUAL CHANGE                | RATINGS* |
|----------------------------|---------|------------------------------|----------|
| Sulfuric Acid (Conc)       | 75      | Dissolves                    | S, NR    |
| Sulfuric Acid (Dilute)     | 75      | Partially dissolves          | P, NR    |
| Hydrochloric Acid (Conc)   | 75      | Dissolves                    | S, NR    |
| Hydrochloric Acid (Dilute) | 75      | Partially dissolves          | P, NR    |
| Hydrochloric Acid (20-40%) | 73      | Etched after 1 sec.          | P        |
| Phosphoric Acid (Conc)     | 75      | Dissolves                    | S, NR    |
| Nitric Acid (Conc)         | 75      | Dissolves                    | S, NR    |
| Acetic Acid (Conc)         | 75      | Partially Dissolves          | P, NR    |
| Acetic Acid (Conc)         | 200     | Dissolves                    | S, NR    |
| Acetic Acid (Dilute)       | 75      | Etched                       | F, NR    |
| Formic Acid (Conc)         | 75      | Dissolves                    | S, NR    |
| Formic Acid (Dilute)       | 75      | Partially Dissolves          | P, NR    |
| Chlorine                   | —       | Strong Attack                | NR       |
| Bromine                    | —       | Strong Attack                | NR       |
| Phenol                     | 75      | Dissolves                    | S, NR    |
| O-Chlorophenol             | 75      | Dissolves                    | S, NR    |
| m-Chlorophenol             | 75      | Dissolves                    | S, NR    |
| p-Chlorophenol             | 75      | Dissolves                    | S, NR    |
| Cresol                     | 75      | Dissolves                    | S, NR    |
| Dimethylformamide          | 75      | Strong Attack                | NR       |
| gamma-Butyrolactone        | 75      | Strong Attack                | NR       |
| Xylenols                   | 75      | Dissolves                    | S, NR    |
| Sodium Hydroxide (1%)      | 73      | Unchanged                    | E        |
| Sodium Hydroxide (5%)      | 73      | Minimal effect               | E        |
| Sodium Hydroxide (5%)      | 158     | Minimal effect               | E        |
| Sodium Hydroxide (10%)     | 73      | Minimal effect               | E        |
| Sodium Hydroxide (10%)     | 158     | Some "crazing" after 30 days | P        |
| Potassium Hydroxide (5%)   | 73      | Minimal effect               | E        |
| Potassium Hydroxide (5%)   | 158     | Minimal effect               | E        |
| Potassium Hydroxide (10%)  | 73      | Minimal effect               | E        |
| Potassium Hydroxide (10%)  | 158     | Some "crazing" after 30 days | P        |
| Hydrogen Peroxide (0.5%)   | 73      | Unchanged                    | G        |
| Hydrogen Peroxide (1%)     | 73      | Brittle after 54 days        | NR       |
| Hydrogen Peroxide (3%)     | 73      | Brittle after 54 days        | NR       |
| Hydrogen Peroxide (10%)    | 73      | Degrades                     | NR       |
| Hydrogen Peroxide (30%)    | 73      | Degrades                     | NR       |

\* These abbreviations are used for the ratings:

E – Excellent      P – Poor

G – Good      NR – Not Recommended

F – Fair      S – Solvent

**Table 3 — Behavior of EMS20-1B.1 IN: Organic Solvents at Room Temperature**

| REAGENT              | VISUAL CHANGE               | RATINGS* |
|----------------------|-----------------------------|----------|
| Benzyl Alcohol       | Coarse surface after 2 days | NR       |
| Butyl Alcohol        | Temporary loss of stiffness | G        |
| Ethyl Alcohol        | Temporary loss of stiffness | G        |
| Isopropyl Alcohol    | Temporary loss of stiffness | G        |
| Methyl Alcohol       | Temporary loss of stiffness | G        |
| Butyl Acetate        | Temporary loss of stiffness | G        |
| Ethyl Acetate        | Unchanged                   | E        |
| Methyl Acetate       | Unchanged                   | E        |
| Amyl Acetate         | Unchanged                   | E        |
| Ether (Diethyl)      | Unchanged                   | E        |
| Tetrahydrofuran      | Unchanged                   | E        |
| Acetone              | Unchanged                   | E        |
| Benzaldehyde         | Unchanged                   | E        |
| Cyclohexanone        | Unchanged                   | E        |
| Dichlorethylene      | Unchanged                   | E        |
| Trichlorethylene     | Temporary loss of stiffness | G        |
| Perchlorethylene     | Temporary loss of stiffness | G        |
| Dichlormethane       | Unchanged                   | E        |
| Chloroform           | Temporary loss of stiffness | G        |
| Carbon Tetrachloride | Temporary loss of stiffness | G        |
| Carbon Disulfide     | Unchanged                   | E        |
| Pyridine             | Unchanged                   | E        |
| Benzene              | Unchanged                   | E        |
| Monochlorobenzene    | Unchanged                   | E        |
| Toluene              | Unchanged                   | E        |
| Xylene               | Unchanged                   | E        |
| Kerosene             | Unchanged                   | E        |
| Turpentine           | Unchanged                   | E        |
| Tetralin             | Unchanged                   | E        |
| Decalin              | Unchanged                   | E        |
| Gasoline             | Unchanged                   | E        |
| Petroleum            | Unchanged                   | E        |
| Mineral Oil          | Unchanged                   | E        |
| Resorcinol           | Dissolves                   | NR       |

\* These abbreviations are used for the ratings:

E – Excellent      P – Poor

G – Good      NR – Not Recommended

F – Fair      S – Solvent

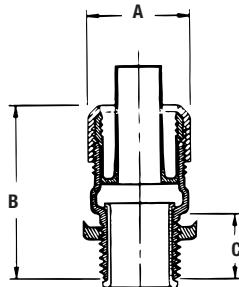
**XTRA FLEX® System —****Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit**

Figure 1

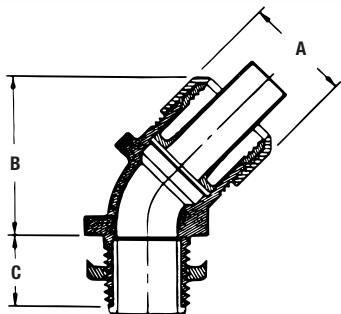


Figure 2

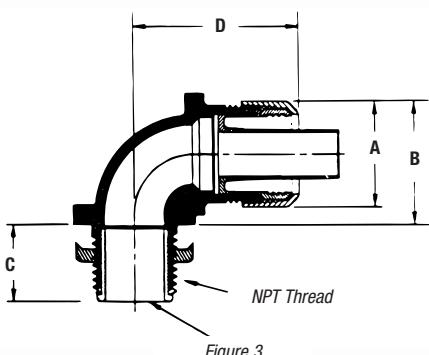


Figure 3

**Metallic Bullet® Liquidtight Connectors for T&B LTC Non-Metallic Liquidtight Conduit Type B and T&B EFC Flexible Tubing**

| CAT. NO. | FIG. | TRADE SIZE<br>(IN.) | A $\pm .030$<br>(.80)<br>(IN.) (MM) | *B $\pm .060$<br>(1.50)<br>(IN.) (MM) | C $\pm .045$<br>(1.15)<br>(IN.) (MM) | D<br>(IN.) (MM) | THREAD NPT<br>(IN.)               |
|----------|------|---------------------|-------------------------------------|---------------------------------------|--------------------------------------|-----------------|-----------------------------------|
| LT38M    | 1    | —                   | 1.156                               | 1.500 (38.1)                          | 0.562 (14.3)                         | —               | —                                 |
| LT438M   | 2    | $\frac{3}{8}$       | (29.4)                              | 1.962 (49.8)                          | 0.562 (14.3)                         | —               | $\frac{3}{8}$ -14                 |
| LT938M   | 3    | —                   | —                                   | 1.312 (33.3)                          | 0.625 (15.9)                         | 1.375 (34.9)    | —                                 |
| LT50M    | 1    | —                   | 1.375                               | 1.562 (39.7)                          | 0.562 (14.3)                         | —               | —                                 |
| LT450M   | 2    | $\frac{1}{2}$       | (34.9)                              | 1.875 (47.6)                          | 0.562 (14.3)                         | —               | $\frac{1}{2}$ -14                 |
| LT950M   | 3    | —                   | —                                   | 1.437 (36.5)                          | 0.625 (15.9)                         | 1.562 (39.7)    | —                                 |
| LT75M    | 1    | —                   | 1.656                               | 1.625 (41.2)                          | 0.625 (15.9)                         | —               | —                                 |
| LT475M   | 2    | $\frac{5}{8}$       | (42.1)                              | 2.125 (54.0)                          | 0.562 (14.3)                         | —               | $\frac{5}{8}$ -14                 |
| LT975M   | 3    | —                   | —                                   | 1.750 (44.4)                          | 0.625 (15.9)                         | 1.750 (44.4)    | —                                 |
| LT100M   | 1    | —                   | 1.875                               | 2.062 (52.4)                          | 0.750 (19.0)                         | —               | —                                 |
| LT4100M  | 2    | 1                   | (47.6)                              | 2.250 (57.1)                          | 0.812 (20.6)                         | —               | 1-11 $\frac{1}{2}$                |
| LT9100M  | 3    | —                   | —                                   | 1.937 (49.2)                          | 0.812 (20.6)                         | 2.187 (55.5)    | —                                 |
| LT125M   | 1    | —                   | 2.375                               | 2.500 (63.5)                          | 0.812 (20.6)                         | —               | —                                 |
| LT4125M  | 2    | $1\frac{1}{4}$      | (60.3)                              | 2.750 (69.8)                          | 0.812 (20.6)                         | —               | 1 $\frac{1}{4}$ -11 $\frac{1}{2}$ |
| LT9125M  | 3    | —                   | —                                   | 2.500 (63.5)                          | 0.812 (20.6)                         | 2.750 (69.8)    | —                                 |
| LT150M   | 1    | —                   | 2.750                               | 2.687 (68.2)                          | 0.812 (20.6)                         | —               | —                                 |
| LT4150M  | 2    | $1\frac{1}{2}$      | (69.8)                              | 2.750 (69.8)                          | 0.812 (20.6)                         | —               | 1 $\frac{1}{2}$ -11 $\frac{1}{2}$ |
| LT9150M  | 3    | —                   | —                                   | 2.812 (71.4)                          | 0.812 (20.6)                         | 2.937 (74.6)    | —                                 |
| LT200M   | 1    | —                   | 3.468                               | 3.062 (77.8)                          | 0.812 (20.6)                         | —               | —                                 |
| LT4200M  | 2    | 2                   | (88.1)                              | 3.875 (98.4)                          | 0.875 (22.2)                         | —               | 2-11 $\frac{1}{2}$                |
| LT9200M  | 3    | —                   | —                                   | 3.500 (88.9)                          | 0.875 (22.2)                         | 3.437 (87.3)    | —                                 |

\* After Assembly

UL File No. E-23018

CSA File No. 52391

**Suggested Specification:**

Where liquidtight flexible non-metallic conduit (UL Type B) or liquidtight flexible non-metallic tubing is terminated to a box or enclosure, the metallic connectors used shall be able to be installed without disassembly and provide a positive installation criteria. In the installed condition, the connector must provide a seal, meeting watertight requirements of NEMA Type 4 and Type 6 enclosures with conduit and NEMA Type 4 enclosures with tubing. Installed connectors shall be as manufactured by Thomas & Betts LT38M series.

Material: Body/Gland — Steel/MI

Insert — Nylon

**XTRA FLEX® System —****Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit Material — PVC**

**When you have a conduit application in a liquidtight environment, it's time to load up the T&B Bullet®.**

Thomas & Betts introduces the ISO Metric Bullet® liquidtight fittings for use with the  $\frac{3}{8}$ ",  $\frac{1}{2}$ " and  $\frac{3}{4}$ " XTRA FLEX® EFC and LTC non-metallic liquidtight conduit series.

The T&B Bullet® liquidtight fitting and LTC non-metallic conduit are suited for OEM applications as in the machine tool industry where environments include continuous motion, vibration and exposure to moisture, oil, dirt and dust.

The T&B Bullet® liquidtight fitting and LTC non-metallic conduit are also suitable for construction applications where ISO metric threading and liquidtight systems are installed.

The XTRA FLEX® system offers a lightweight, liquidtight flexible conduit solution for industrial applications. The XTRA FLEX® system enables fast, easy installation and high performance in demanding industrial applications.

**ISO Metric Bullet® Liquidtight Fitting Non-Metallic**

| CAT.<br>NO.         | ANGLE<br>OF FITTING | CONDUIT<br>SIZE | KNOCKOUT<br>SIZE | UNIT<br>PACKAGE | STANDARD<br>PACKAGE | UPC<br>NUMBER |
|---------------------|---------------------|-----------------|------------------|-----------------|---------------------|---------------|
| <b>LT38P-ISO20</b>  | Straight            | $\frac{3}{8}$ " | $\frac{1}{2}$ "  | 25              | 100                 | 786210-66444  |
| <b>LT50P-ISO20</b>  | Straight            | $\frac{1}{2}$ " | $\frac{1}{2}$ "  | 25              | 100                 | 786210-66613  |
| <b>LT75P-ISO25</b>  | Straight            | $\frac{3}{4}$ " | $\frac{3}{4}$ "  | 25              | 50                  | 786210-66443  |
| <b>LT938P-ISO20</b> | 90°                 | $\frac{3}{8}$ " | $\frac{1}{2}$ "  | 25              | 50                  | 786210-66612  |
| <b>LT950P-ISO20</b> | 90°                 | $\frac{1}{2}$ " | $\frac{1}{2}$ "  | 25              | 50                  | 786210-66640  |
| <b>LT975M-ISO25</b> | 90°                 | $\frac{3}{4}$ " | $\frac{3}{4}$ "  | 10              | 50                  | 786210-66611  |

\*Testing: UL and CSA listed; NEMA 4, 6, 6P; IP 67 when used with LTC conduit or EFC tubing with installed T&B Bullet liquidtight fitting.

**XTRA FLEX® System —****Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit Material — PVC****Maximum flexibility for tight applications!****Corrugated Flexible Non-Metallic Tubing**

T&amp;B Fittings

- OEM grade — UL Recognized
- PVC material
- Black color standard
- Extremely fast installation
- Liquidtight with specified fittings
- Good tensile strength provides excellent pullout protection
- Smooth inner diameter allows easy wire pulling
- Broad operating temperature range: 18° C to +60° C  
(-2° F to +140° F).
- Flammability Rating VW-1 (Vertical Wire) UL224

**Recommended industrial applications**

- Protection of fiber optic cable
- Installation of instrumentation and control cable
- Indoor/outdoor lighting
- Packaging equipment
- Marine and shipboard wiring
- Flexing component wiring protection on robots, graphic arts equipment, etc.



| CAT. NO. | CONDUIT SIZE | I.D. (IN.) |       | O.D. (IN.) |       |
|----------|--------------|------------|-------|------------|-------|
|          |              | MIN.       | MAX.  | MIN.       | MAX.  |
| EFC025*  | 1/4"         | .390       | .405  | .560       | .575  |
| EFC038   | 5/8"         | .484       | .504  | .690       | .710  |
| EFC050   | 1/2"         | .622       | .642  | .820       | .840  |
| EFC075   | 3/4"         | .820       | .840  | 1.030      | 1.050 |
| EFC100   | 1"           | 1.041      | 1.066 | 1.290      | 1.315 |
| EFC125   | 1 1/4"       | 1.380      | 1.410 | 1.630      | 1.660 |
| EFC150   | 1 1/2"       | 1.575      | 1.600 | 1.865      | 1.900 |
| EFC200   | 2"           | 2.020      | 2.045 | 2.340      | 2.375 |

\* Not CSA Certified.  
Underwriters Recognized  
UL File No. 96548

CSA File No. 067241  
See technical data next page.  
Use with Bullet® Liquidtight Fittings.

| CAT. NO.<br>LTC - | AVAILABLE COLORS |  |
|-------------------|------------------|--|
|                   | COLOR OF CONDUIT |  |
| W/O SUFFIX        | Black            |  |
| -1                | Orange           |  |
| -2                | Blue             |  |

**United States**  
Tel: 901.252.8000  
800.816.7809  
Fax: 901.252.1354

**Canada**  
Tel: 450.347.5318  
Fax: 450.347.1976

**Technical Services**  
Tel: 888.862.3289

**Thomas & Betts**  
[www.tnb.com](http://www.tnb.com)



## XTRA FLEX® Liquidtight Conduit/Reel Lengths

| CAT. NO.      | SIZE | DESCRIPTION             | MIN. I.D. | MAX. I.D. | MIN. O.D. | MAX. O.D. | REEL LENGTH | MIN. ORDER |
|---------------|------|-------------------------|-----------|-----------|-----------|-----------|-------------|------------|
| LTC03BGY-500  | 3/8" | Gray Type B LT Conduit  | .484"     | .504"     | .690"     | .710"     | 500 ft.     | 1,500      |
| LTC050GY-500  | 1/2" | Gray Type B LT Conduit  | .622"     | .642"     | .820"     | .840"     | 500 ft.     | 1,500      |
| LTC050-500    | 1/2" | Black Type B LT Conduit | .622"     | .642"     | .820"     | .840"     | 500 ft.     | Stock      |
| LTC050GY-1000 | 1/2" | Gray Type B LT Conduit  | .622"     | .642"     | .820"     | .840"     | 1,000 ft.   | 2,000      |
| LTC100GY-500  | 1"   | Gray Type B LT Conduit  | 1.041"    | 1.066"    | 1.290"    | 1.315"    | 500 ft.     | 1,500      |
| LTC100-500    | 1"   | Black Type B LT Conduit | 1.041"    | 1.066"    | 1.290"    | 1.315"    | 500 ft.     | 1,500      |

UL Listed, UL File No. 95745

CSA Certified, CSA File No. LL 80349



Now available in reels.

## XTRA FLEX® Conduit

The XTRA FLEX® system offers a lightweight, liquidtight flexible conduit solution for demanding applications. The XTRA FLEX® system ensures fast, easy installations and long-lasting, high performance in a variety of environments.

Now, XTRA FLEX® Conduit is available on reels. Large users can save space and reduce waste, while taking advantage of the convenience of stocking bulk in lengths. Utilizing our new coupling design to connect 100-ft. lengths, Thomas & Betts now offers reel lengths up to 1,000 feet.

- Fast installation — even in tight, cramped spaces
- Smooth inner diameter enables easy wire pulling
- Smooth outer jacket — approved for outdoor use, sunlight resistant and oil resistant
- Tested to CSA and UL requirements
- Lightweight and liquidtight
- Marked at 1-foot intervals for fast, easy measuring

### Specifications

- Material: PVC
- Colors Available: Black, Gray
- Temp. Range: -18° C to +105° C (-2° F to +221° F) Black  
-18° C to +80° C (-2° F to +176° F) Gray
- Flammability Rating: UL 1660
- Listings: UL Listed, CSA Certified

Please contact your Thomas & Betts sales representative regarding custom colors and combinations.



**XTRA FLEX® System —****Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit Material — PVC****Smooth, sunlight- and oil-resistant outer jacket, approved for outdoor use!****Smooth Liquidtight Non-Metallic Conduit Type B**

- Industrial grade — UL Listed/CSA Certified
- PVC material
- Liquidtight non-metallic conduit Type B
- Black color standard
- Fast installation — even in tight, cramped spaces
- Smooth inner diameter enables easy wire pulling
- Tested to CSA and UL requirements
- Lightweight and liquidtight
- Temperature range of -18° C to +105° C (-2° F to +221° F)
- UL1660 flammability rating
- Marked at 1-ft. intervals for fast, easy measuring and cutting

**Recommended industrial applications**

- Machine tools
- Motor hookups
- Food processing equipment
- Extensions from wireways
- Sensor and microswitch wiring in control consoles

**XTRA FLEX® Conduit and Tubing Technical Data\***

LTFNMC = Liquidtight flexible non-metallic conduit

LTFNMT = Liquidtight flexible non-metallic tubing

| XTRA FLEX® CONDUIT & TUBING |           | STYLE        | COLOR   | SIZE RANGE                           | UL TEMP RATING                       | CSA TEMP RATING | VOLTAGE RATING | UL OIL RESISTANT | UL OUTDOOR | UL DIRECT BURIAL | AVAILABLE COLORS |        |       |
|-----------------------------|-----------|--------------|---------|--------------------------------------|--------------------------------------|-----------------|----------------|------------------|------------|------------------|------------------|--------|-------|
| LTC                         | CAT. NO.  |              |         |                                      |                                      |                 |                |                  |            |                  | W/O SUFFIX       | -1     | -2    |
| LTC038 Series               | UL Type B | Black        | 3/8"-2" | 105° C Dry<br>60° C Wet<br>70° C Oil | 105° C Dry<br>60° C Wet<br>70° C Oil | 75° C-18° C     | 600V           | Yes              | Yes        | Yes              | Black            | Orange | Black |
|                             | LTFNMC    | Black        |         |                                      |                                      | —               | —              |                  |            |                  | Orange           | Black  | Blue  |
| LTC038-1, -2 Series         | UL Type B | Orange, Blue | 1/2"-1" | 105° C Dry<br>60° C Wet<br>70° C Oil | 105° C Dry<br>60° C Wet<br>70° C Oil | —               | 600V           | Yes              | No         | Yes              | Black            | Black  | Black |
|                             | LTFNMC    |              |         |                                      |                                      | —               | —              |                  |            |                  | Blue             |        |       |
| LTC038GY Series             | UL Type B | Gray         | 3/8"-2" | 80° C Dry<br>60° C Wet<br>70° C Oil  | 80° C Dry<br>60° C Wet<br>70° C Oil  | —               | 600V           | Yes              | Yes        | Yes              | Black            | Black  | Black |
|                             | LTFNMC    |              |         |                                      |                                      | —               | —              |                  |            |                  | Blue             |        |       |
| EFC025 Series**             | LTFNMT    | Black        | 1/4"-2" | 105° C                               | 75°C-18 C                            | 300V            | Yes            | Yes              | Yes        | No               | Black            | Black  | Black |
| EFC025-1, -2** Series       | LTFNMT    | Orange, Blue | 1/2"-1" | 105° C                               | —                                    | 300V            | Yes            | No               | No         | No               | Orange           | Black  | Black |

\* For a complete test report, contact Customer Service.

\*\* UL Component Recognized

**Industrial Grade**

| CAT. NO. | CONDUIT SIZE | I.D. (IN.) |       | O.D. (IN.) |       |
|----------|--------------|------------|-------|------------|-------|
|          |              | MIN.       | MAX.  | MIN.       | MAX.  |
| LTC038   | 3/8"         | .484       | .504  | .690       | .710  |
| LTC050   | 1/2"         | .622       | .642  | .820       | .840  |
| LTC075   | 3/4"         | .820       | .840  | 1.030      | 1.050 |
| LTC100   | 1"           | 1.041      | 1.066 | 1.290      | 1.315 |
| LTC125   | 1 1/4"       | 1.380      | 1.410 | 1.630      | 1.660 |
| LTC150   | 1 1/2"       | 1.575      | 1.600 | 1.865      | 1.900 |
| LTC200   | 2"           | 2.020      | 2.045 | 2.340      | 2.375 |

**Commercial Grade**

| CAT. NO. | CONDUIT SIZE | I.D. (IN.) |       | O.D. (IN.) |       |
|----------|--------------|------------|-------|------------|-------|
|          |              | MIN.       | MAX.  | MIN.       | MAX.  |
| LTC038GY | 3/8"         | .484       | .504  | .690       | .710  |
| LTC050GY | 1/2"         | .622       | .642  | .820       | .840  |
| LTC075GY | 3/4"         | .820       | .840  | 1.030      | 1.050 |
| LTC100GY | 1"           | 1.041      | 1.066 | 1.290      | 1.315 |
| LTC125GY | 1 1/4"       | 1.380      | 1.410 | 1.630      | 1.660 |
| LTC150GY | 1 1/2"       | 1.575      | 1.600 | 1.865      | 1.900 |
| LTC200GY | 2"           | 2.020      | 2.045 | 2.340      | 2.375 |

Rated at 600V

UL Listed, UL File No. E95745

CSA Certified, CSA File No. LL80349

See technical data below.

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# XTRA FLEX® System —

## Conduit, Tubing, Fittings for Non-Metallic Liquidtight Conduit Material — PVC

### XTRA FLEX® Non-Metallic Conduit Type B and Flexible Tubing

| A = SATISFACTORY<br>CHEMICAL    | B = BE EXPECTED TO CHANGE<br>CHEMICAL | C = NOT RECOMMENDED<br>CHEMICAL |
|---------------------------------|---------------------------------------|---------------------------------|
| Acetate Solvents .....          | Cottonseed Oil .....                  | Lubricating Oils.....           |
| Acetic Acid (10%) .....         | Creosote .....                        | Magnesium Chloride.....         |
| Acetic Acid (Glacial) .....     | Cresol .....                          | Magnesium Hydroxide .....       |
| Acetone .....                   | Cresylic Acid .....                   | Magnesium Sulphate .....        |
| Acrylonitrile .....             | Cyclohexane .....                     | Malic Acid .....                |
| Adipic Acid .....               | Cyclohexanone .....                   | Methyl Acetate .....            |
| Alcohol Butyl .....             | DDT Weed Killer .....                 | Methyl Bromide .....            |
| Alcohol Ethyl .....             | Detergent Synthetic .....             | Methyl Ethyl Ketone .....       |
| Alcohol Isopropyl .....         | Developers Photographic .....         | Methylene Chloride .....        |
| Alcohol Methyl .....            | Dextrin .....                         | Mineral Oils .....              |
| Aluminum Acetate .....          | Dextrose .....                        | Monochlorobenzene .....         |
| Aluminum Chloride .....         | Dibutyle Phthalate .....              | Naphtha .....                   |
| Aluminum Hydroxide .....        | Dichlorobenzene .....                 | Naphthalene .....               |
| Aluminum Sulfate .....          | Diesel Oil .....                      | Nitric Acid (10%) .....         |
| Aliyl Chloride .....            | Diethylene Glycol .....               | Nitric Acid (40%) .....         |
| Ammonia (0.88S.G.Aqueous) ..... | Diethyl Ether .....                   | Nitric Acid (70%) .....         |
| Ammonia (Dry Gas) .....         | Di-isodecyl Phthalate .....           | Nitrobenzene .....              |
| Ammonia (Liquid) .....          | Diocetyl Phthalate .....              | Nitrogen Fertilizers .....      |
| Ammonium Chloride .....         | Emulsifiers .....                     | Oleic Acid .....                |
| Ammonium Hydroxide .....        | Emulsions Photographic .....          | Oxalic Acid .....               |
| Animal Oils .....               | Ethyl Acetate .....                   | Palmitic Acid .....             |
| Amyl Acetate .....              | Ethylene Dichloride .....             | Paraffin .....                  |
| Aniline Oils .....              | Ethylene Glycol .....                 | Pentane .....                   |
| Aromatic Hydrocarbons .....     | Fatty Acid .....                      | Perchloroethylene .....         |
| Asphalt .....                   | Ferric Chloride .....                 | Phenol .....                    |
| ASTM Fuel A .....               | Ferric Sulphate .....                 | Phosphoric Acid .....           |
| ASTM Fuel B .....               | Ferrous Chloride .....                | Pitch .....                     |
| ASTM #1 Oil .....               | Ferrous Sulphate .....                | Potassium Hydroxide .....       |
| ASTM #3 Oil .....               | Fixing Solution, Photographic .....   | Propane .....                   |
| Barium Chloride .....           | Fluorine .....                        | Sea Water .....                 |
| Barium Hydroxide .....          | Formaldehyde (40%) .....              | Sodium Hydroxide (10%) .....    |
| Barium Sulfide .....            | Formic Acid (40%) .....               | Sodium Hydroxide (50%) .....    |
| Benzene .....                   | Formic Acid (50%) .....               | Sodium Cyanide .....            |
| Benzine .....                   | Formic Acid (100%) .....              | Soybean Oil .....               |
| Bordeaux Mixture .....          | Fuel Oil .....                        | Stearic Acid .....              |
| Borax .....                     | Glacial Acetic Acid .....             | Styrene .....                   |
| Boric Acid .....                | Glucose .....                         | Sulphur Dioxide (Dry) .....     |
| Brine .....                     | Glycerine .....                       | Sulphur Dioxide (Moist) .....   |
| Bromine Traces .....            | Grape Sugar .....                     | Sulphur Dioxide (Liquid) .....  |
| Butyl Acetate .....             | Grease .....                          | Sulphuric Acid (45%) .....      |
| Calcium Hydroxide .....         | Heptane .....                         | Sulphuric Acid (60%) .....      |
| Calcium Hypochlorite .....      | Hexane .....                          | Sulphuric Acid (98%) .....      |
| Carbonic Acid .....             | Hydrobromic Acid .....                | Sulphurous Acid (30%) .....     |
| Carbon Dioxide .....            | Hydrochloric Acid (10%) .....         | Tannic Acid .....               |
| Carbon Disulphite .....         | Hydrochloric Acid (40%) .....         | Tartaric Acid .....             |
| Carbon Monoxide .....           | Hydrofluoric Acid (10%) .....         | Tetrahydrofuran .....           |
| Carbon Tetrachloride .....      | Hydrofluoric Acid (40%) .....         | Toluene .....                   |
| Casein .....                    | Hydrofluoboric Acid .....             | Trichlorethylene .....          |
| Chlorine (Dry) .....            | Hydrofluosilicic Acid .....           | Triethanolamine .....           |
| Chlorine (Wet Gas) .....        | Hydrogen Peroxide .....               | Tricresyl Phosphate .....       |
| Chlorine (Water) .....          | Hydrogen Sulphide .....               | Turpentine .....                |
| Chlorobenzene .....             | Iso-octan .....                       | Urea .....                      |
| Chlorinated Hydrocarbons .....  | Isopropyl Acetate .....               | Vinegar .....                   |
| Chloroform .....                | Kerosene .....                        | Vinyl Acetate .....             |
| Chromic Acid .....              | Ketones .....                         | Vinyl Chloride .....            |
| Citric Acid .....               | Lactic Acid (10%) .....               | Water .....                     |
| Coal Tar .....                  | Lactic Acid (100%) .....              | Xylene .....                    |
| Copper Chloride .....           | Lacquer Solvents .....                | Zinc Chloride .....             |
| Copper Nitrate .....            | Linseed Oil .....                     | Zinc Sulphate .....             |
| Copper Sulphate .....           |                                       |                                 |

**NOTE:** These chemical resistance ratings are based upon information supplied by the raw material manufacturers. It is intended as a general guideline only. To determine specific suitability, samples should be tested by user under actual conditions. Operating Condition: 70° F.