

# Multitube® Fast Track Product Selection Guide





ENGINEERING YOUR SUCCESS.

# Multitube Fast Track Products

Bundles, Tubing and Accessories

## Parker Hannifin Corporation is a leading manufacturer of instrumentation tubing bundles.

The FAST TRACK product selection guide has been developed with our customers in mind, presenting an easy way to identify the most common products used within these industries for quick pricing/delivery. By contacting your local distributor today,

you can get pricing on these items over the phone if needed and shipment from the production factory within 15 working days or less. (based on 1,500 feet order per item) Parker has some of the most extensive design and production capabilities available, producing long continuous lengths over 1000 ft (300 m).

Visit http://ph.parker.com/us/en/heat-trace-tubing and search "Where to Buy" to find your local distributor.

## Multiple Tubes - Jacketed Metal and Plastic Tubing

Bundled tubing, encapsulated within an FR-PVC jacket, provides corrosion protection of metal tubing and mechanical protection of plastic tubing in the most stringent applications. Our FR-PVC is a special formulation that has a maximum continuous service temperature of 105°C (221°F). It meets or exceeds ASTM D-1047, IPCEA S-19-81 and IPCEA S-61-401. It has a low temperature brittleness of -40°C (-40°F). Each tube is uniquely numbered.



#### How To Order

**i.e. 4MJ-10430** = (4) <sup>1</sup>/<sub>4</sub>" O.D. x 0.030" copper tubes

| 4—           | MJ -       | <b>–</b> 1–                        |  | 30   |
|--------------|------------|------------------------------------|--|--|
| No.<br>Tubes | Metal Tube | 1=Copper<br>2=Weld SS<br>B=Smls SS | 04=1/4" 0.D.<br>06=3/8" 0.D.<br>08=1/2" 0.D.<br>12=3/4" 0.D. | 30=0.030"WT<br>35=0.035"WT<br>49=0.049"WT<br>65=0.065"WT |

Copper, Seamless Type Alloy 122, ASTM B68-B75 with a Black Flame Resistant PVC Jacket

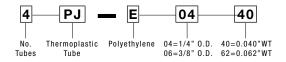
| FAST TRACK<br>Part | Tube Size                 | *Packaged                       |
|--------------------|---------------------------|---------------------------------|
| 2MJ-10430          | (2) 1/4" 0.D. x 0.030"WT  |                                 |
| 4MJ-10430          | (4) 1/4" 0.D. x 0.030"WT  | Specified C/L                   |
| 7MJ-10430          | (7) 1/4" 0.D. x 0.030"WT  | cut-to-lengths required at time |
| 8MJ-10430          | (8) 1/4" 0.D. x 0.030"WT  | of order.                       |
| 10MJ-10430         | (10) 1/4" 0.D. x 0.030"WT |                                 |
|                    |                           |                                 |

Note: If no lengths specified, shipped in random lengths with no length less than 100 feet unless otherwise specified.



How To Order

**i.e. 4PJ-E0440** = (4) <sup>1</sup>/<sub>4</sub>" O.D. x 0.040" Polyethylene Tubes



Parflex E-Series, Polyethylene Tube,UV inhibitor, ASTM D-1248 Type I, Class A, Cat.4, Grade E5, Bundled w/Black Flame Resistant PVC Jacket

| FAST TRACK<br>Part | *Packaged                 |                                     |
|--------------------|---------------------------|-------------------------------------|
|                    |                           |                                     |
| 2PJ-E0440          | (2) 1/4" 0.D. x 0.040"WT  |                                     |
| 3PJ-E0440          | (3) 1/4" 0.D. x 0.040"WT  |                                     |
| 4PJ-E0440          | (4) 1/4" 0.D. x 0.040"WT  | Specified C/L                       |
| 5PJ-E0440          | (5) 1/4" 0.D. x 0.040"WT  | cut-to-lengths                      |
| 7PJ-E0440          | (7) 1/4" 0.D. x 0.040"WT  | required at time<br>of order. If no |
| 8PJ-E0440          | (8) 1/4" 0.D. x 0.040"WT  | lengths specified,                  |
| 10PJ-E0440         | (10) 1/4" 0.D. x 0.040"WT | shipped in random                   |
| 12PJ-E0440         | (12) 1/4" 0.D. x 0.040"WT | lengths with<br>no length less      |
| 19PJ-E0440         | (19) 1/4" 0.D. x 0.040"WT | than 100 feet                       |
| 37PJ-E0440         | (37) 1/4" 0.D. x 0.040"WT | unless otherwise<br>specified.      |
|                    |                           |                                     |
| 2PJ-E0662          | (2) 3/8" 0.D. x 0.062"WT  |                                     |
| 10PJ-E0662         | (10) 3/8" 0.D. x 0.062"WT |                                     |

# Freeze Protection

### Copper, Seamless Type Alloy 122, ASTM B68-B75 with a Black Flame Resistant PVC Jacket

| FAST TRACK Part | Tube Size     |
|-----------------|---------------|
|                 |               |
| TT-10430        | 1/4" x 0.030" |
| TT-10632        | 3/8" x 0.032" |
| TT-10835        | 1/2" x 0.035" |
| TT-10849        | 1/2" x 0.049" |

# Stainless Steel, Seamless Type 316/316L, ASTM A269 with a Black Flame Resistant PVC Jacket

| FAST TRACK Part | Tube Size     |
|-----------------|---------------|
|                 |               |
| TT-B0435        | 1/4" x 0.035" |
| TT-B0635        | 3/8" x 0.035" |
| TT-B0835        | 1/2" x 0.035" |
| TT-B0849        | 1/2" x 0.049" |

#### Stainless Steel, Welded Type 316/316L, ASTM A269 with a Black Flame Resistant PVC Jacket

| FAST TRACK Part | Tube Size     |
|-----------------|---------------|
|                 |               |
| TT-20435        | 1/4" x 0.035" |
| TT-20635        | 3/8" x 0.035" |
| TT-20835        | 1/2" x 0.035" |
|                 |               |



#### Packaging

Shipped in random lengths with no length less than 100 feet unless otherwise specified Note: Cut-to-lengths can be provided at an additional fee.

#### **SH Series - Freeze Protection Bundles**

| FAST TRACK Parts   |                           |                           |                           |  |  |
|--|---------------------------|---------------------------|---------------------------|--|--|
| SINGLE Process Tubes   | (1) 1/4" 0.D. x 0.035" WT | (1) 3/8" 0.D. x 0.035" WT | (1) 1/2" 0.D. x 0.049" WT |  |  |
| Smls Copper (120V)   | SH-512-10435A             | SH-512-10635A             | SH-512-10849A             |  |  |
| Smls Copper (240V)   | SH-522-10435A             | SH-522-10635A             | SH-522-10849A             |  |  |
| Smls 316/316L SS (120V)  | SH-512-B0435A             | SH-512-B0635A             | SH-512-B0849A             |  |  |
| Smls 316/316L SS (240V)  | SH-522-B0435A             | SH-522-B0635A             | SH-522-B0849A             |  |  |
| DOUBLE Process Tubes   | (2) 1/4" 0.D. x 0.035" WT | (2) 3/8" 0.D. x 0.035" WT | (2) 1/2" 0.D. x 0.049" WT |  |  |
|  |                           |                           |                           |  |  |
| Smls Copper (120V)   | SH-512-10435B             | SH-512-10635B             | SH-512-10849B             |  |  |
| Smls Copper (240V)   | SH-522-10435B             | SH-522-10635B             | SH-522-10849B             |  |  |
|  |                           |                           |                           |  |  |
| Smls 316/316L SS (120V)  | SH-512-B0435B             | SH-512-B0635B             | SH-512-B0849B             |  |  |
| Smls 316/316L SS (240V)  | SH-522-B0435B             | SH-522-B0635B             | SH-522-B0849B             |  |  |
| NOTE: Specify length required at time of order. If no lengths apositied, shipped in rendem lengths |                           |                           |                           |  |  |

NOTE: Specify length required at time of order. If no lengths specified, shipped in random lengths.

#### **SL Series - Freeze Protection Bundles**

| FAST TRACK Parts        |                           |                           |                           |  |  |
|-------------------------|---------------------------|---------------------------|---------------------------|--|--|
| SINGLE Process Tubes    | (1) 1/4" 0.D. x 0.035" WT | (1) 3/8" 0.D. x 0.035" WT | (1) 1/2" 0.D. x 0.049" WT |  |  |
| Smls Copper (120V)      | SL-512-10435A             | SL-512-10635A             | SL-512-10849A             |  |  |
| Smls Copper (240V)      | SL-522-10435A             | SL-522-10635A             | SL-522-10849A             |  |  |
|                         |                           |                           |                           |  |  |
| Smls 316/316L SS (120V) | SL-512-B0435A             | SL-512-B0635A             | SL-512-B0849A             |  |  |
| Smls 316/316L SS (240V) | SL-522-B0435A             | SL-522-B0635A             | SL-522-B0849A             |  |  |
|                         |                           |                           |                           |  |  |
| DOUBLE Process Tubes    | (2) 1/4" 0.D. x 0.035" WT | (2) 3/8" 0.D. x 0.035" WT | (2) 1/2" 0.D. x 0.049" WT |  |  |
| Smls Copper (120V)      | SL-512-10435B             | SL-512-10635B             | SL-512-10849B             |  |  |
| Smls Copper (240V)      | SL-522-10435B             | SL-522-10635B             | SL-522-10849B             |  |  |
|                         |                           |                           |                           |  |  |
| Smls 316/316L SS (120V) | SL-512-B0435B             | SL-512-B0635B             | SL-512-B0849B             |  |  |
| Smls 316/316L SS (240V) | SL-522-B0435B             | SL-522-B0635B             | SL-522-B0849B             |  |  |

NOTE: Specify length required at time of order. If no lengths specified, shipped in random lengths.

Freeze Protection down to -40°F (-40°C) low ambient.

#### Self-Regulating High Temperature Heater

 $5~Watt/ft, Maximum Temperature Rating Power-on <math display="inline">305^\circ F$  (  $152^\circ C$  ) and  $420^\circ F$  ( $215^\circ C$ ) Power-Off.

General Purpose, FM/CSA Class 1, Div. 2, Groups B, C and D. T3 Temperature Class when used with appropriate power & termination kit.

# Freeze Protection down to -40°F (-40°C) low ambient.

#### Self-Regulating Low Temperature Heater

5 Watt/ft, Maximum Temperature Rating Power-on 150°F, (65 °C) and 185°F (85°C) Power-Off.

General Purpose, FM/CSA Class 1, Div. 2, Groups B, C and D. T5 Temperature Class when used with appropriate power & termination kit.

# **STEAM** Tubing

## Steam Trace Tubing

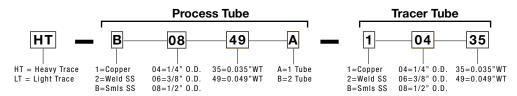


For freeze protection and temperature maintenance applications where available steam makes heating convenient, or where due to environmental conditions, electric tracing is not an option.

**LT Series (Light Tracing)** is ideal for low temperature freeze protection applications, or for applications that require low heating for viscosity control. The tracer tube is slightly insulated away from the process tube, allowing for lower temperature control.

**HT Series (Heavy Tracing)** is primarily used in applications that require high temperature maintenance above  $65^{\circ}$ C ( $150^{\circ}$ F), such as analyzer lines, heating of heavy oils and distillates, gases and vapors. The tracer tube is in direct contact with the process tube, transmitting the greatest amount of heat into the process flow.

How To Order i.e. HT-B0849A-10435A = Heavy trace (1)  $\frac{1}{2}$ " O.D. x 0.049" seamless 316/316L SS tube, with (1)  $\frac{1}{4}$ " x 0.035" copper tracer, insulated & jacketed bundle with a FR-PVC



|                   |                   | FAST TRACK Parts               |            |                                |           |
|-------------------|-------------------|--------------------------------|------------|--------------------------------|-----------|
| Heavy Steam Trace | Light Steam Trace | 1- Process Tube                |            | 1-Tracer Tube                  |           |
|                   |                   |                                | 10711 1000 |                                |           |
| HT-20435A-10635   | LT-20435A-10635   | 1/4" x 0.035" SS WId 316/316L  | ASTM A269  | 3/8" x 0.035" Smls Copper      |           |
| HT-20649A-10635   | LT-20649A-10635   | 3/8" x 0.049" SS WId 316/316L  | ASTM A269  | 3/8" x 0.035" Smls Copper      |           |
| HT-20849A-10635   | LT-20849A-10635   | 1/2" x 0.049" SS WId 316/316L  | ASTM A269  | 3/8" x 0.035" Smls Copper      |           |
|                   |                   |                                |            |                                |           |
| HT-B0435A-10635   | LT-B0435A-10635   | 1/4" x 0.035" SS Smls 316/316L | ASTM A269  | 3/8" x 0.035" Smls Copper      |           |
| HT-B0435A-B0649   | LT-B0435A-B0649   | 1/4" x 0.035" SS Smls 316/316L | ASTM A269  | 3/8" x 0.049" SS Smls 316/316L | ASTM A269 |
|                   |                   |                                |            |                                |           |
| HT-B0649A-10635   | LT-B0649A-10635   | 3/8" x 0.049" SS Smls 316/316L | ASTM A269  | 3/8" x 0.035" Smls Copper      |           |
| HT-B0649A-B0649   | LT-B0649A-B0649   | 3/8" x 0.049" SS Smls 316/316L | ASTM A269  | 3/8" x 0.049" SS Smls 316/316L | ASTM A269 |
|                   |                   |                                |            |                                |           |
| HT-B0849A-10635   | LT-B0849A-10635   | 1/2" x 0.049" SS Smls 316/316L | ASTM A269  | 3/8" x 0.035" Smls Copper      |           |
| HT-B0849A-B0649   | LT-B0849A-B0649   | 1/2" x 0.049" SS Smls 316/316L | ASTM A269  | 3/8" x 0.035" Smls Copper      |           |
| HT-B0849A-B0849   | LT-B0849A-B0849   | 1/2" x 0.049" SS Smls 316/316L | ASTM A269  | 1/2" x 0.049" SS Smls 316/316L | ASTM A269 |
| HT-B1265A-B0849   | LT-B1265A-B0849   | 3/4" x 0.065" SS Smls 316/316L | ASTM A269  | 1/2" x 0.049" SS Smls 316/316L | ASTM A269 |

| Heavy Steam Trace | Light Steam Trace | 2- Process Tubes               |           | 1-Tracer Tube                  |           |
|-------------------|-------------------|--------------------------------|-----------|--------------------------------|-----------|
|                   |                   |                                |           |                                |           |
| HT-B0649B-10649   | LT-B0649B-10649   | 3/8" x 0.049" SS Smls 316/316L | ASTM A269 | 3/8" x 0.049" Smls Copper      |           |
| HT-B0649B-B0649   | LT-B0649B-B0649   | 3/8" x 0.049" SS Smls 316/316L | ASTM A269 | 3/8" x 0.049" SS Smls 316/316L | ASTM A269 |
|                   |                   |                                |           |                                |           |
| HT-B0849B-10635   | LT-B0849B-10635   | 1/2" x 0.049" SS Smls 316/316L | ASTM A269 | 3/8" x 0.035" Smls Copper      |           |
| HT-B0849B-B0649   | LT-B0849B-B0649   | 1/2" x 0.049" SS Smls 316/316L | ASTM A269 | 3/8" x 0.049" SS Smls 316/316L | ASTM A269 |

NOTE: Specify length required at time of order. If no lengths specified, shipped in random lengths.

# Jacketed Tubing

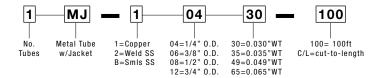
## Single Tubing



Our standard FR-PVC jacketed tubing provides corrosion protection of metal tubing in the most stringent applications. Our FR-PVC is a special formulation that has a maximum continuous service temperature of 105°C (221°F). It meets or exceeds ASTM D-1047, IPCEA S-19-81 and IPCEA S-61-401. It has a low temperature brittleness of -40°C (-40°F).

How To Order

i.e. 1MJ-10430-100 = 1/4" O.D. x 0.030" copper tube in 100 ft coil



# Copper, Seamless Type Alloy 122, ASTM B68-B75 with a Black Flame Resistant PVC Jacket

| FAST TRACK Part | Tube Size             | *Packaged     |
|-----------------|-----------------------|---------------|
|                 |                       |               |
| 1MJ-10430-100   | 1/4" 0.D. x 0.030"WT  | 100 ft        |
| 1MJ-10430-C/L   | 1/4" 0.D. x 0.030"WT  | cut-to-length |
|                 |                       |               |
| 1MJ-10632-100   | 3/8" 0.D. x 0.032"WT  | 100 ft        |
| 1MJ-10632-C/L   | 3/8" 0.D. x 0.032" WT | cut-to-length |
|                 |                       |               |
| 1MJ-10835-100   | 1/2" 0.D. x 0.035" WT | 100 ft        |
| 1MJ-10835-C/L   | 1/2" 0.D. x 0.035" WT | cut-to-length |

# Stainless Steel, Welded Type 316/316L, ASTM A269 with a Black Flame Resistant PVC Jacket

| FAST TRACK Part | Tube Size            | *Packaged     |
|-----------------|----------------------|---------------|
|                 |                      |               |
| 1MJ-20435-100   | 1/4" 0.D. x 0.035"WT | 100 ft        |
| 1MJ-20435-C/L   | 1/4" 0.D. x 0.035"WT | cut-to-length |
|                 |                      |               |
| 1MJ-20635-100   | 3/8" 0.D. x 0.035"WT | 100 ft        |
| 1MJ-20635-C/L   | 3/8" 0.D. x 0.035"WT | cut-to-length |
|                 |                      |               |
| 1MJ-20835-100   | 1/2" 0.D. x 0.035"WT | 100 ft        |
| 1MJ-20835-C/L   | 1/2" 0.D. x 0.035"WT | cut-to-length |

#### Stainless Steel, Seamless Type 316/316L, ASTM A269 with a Black Flame Resistant PVC. Jacket

| FAST TRACK Part Tube Size *Package   1MJ-B0435-100 1/4" 0.D. x 0.035"WT 100 ft   1MJ-B0435-C/L 1/4" 0.D. x 0.035"WT cut-to-ler   1MJ-B0435-C/L 1/4" 0.D. x 0.049"WT 100 ft   1MJ-B0449-100 1/4" 0.D. x 0.049"WT 100 ft   1MJ-B0449-C/L 1/4" 0.D. x 0.049"WT cut-to-ler   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0465-C/L 3/8" 0.D. x 0.035"WT cut-to-ler   1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft | Flame Resistant PVC Jacket |  |  |
|--|----------------------------|--|--|
| 1MJ-B0435-C/L 1/4" 0.D. x 0.035"WT cut-to-ler   1MJ-B0449-100 1/4" 0.D. x 0.049"WT 100 ft   1MJ-B0449-C/L 1/4" 0.D. x 0.049"WT cut-to-ler   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft  | ea                         |  |  |
| 1MJ-B0435-C/L 1/4" 0.D. x 0.035"WT cut-to-ler   1MJ-B0449-100 1/4" 0.D. x 0.049"WT 100 ft   1MJ-B0449-C/L 1/4" 0.D. x 0.049"WT cut-to-ler   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft  |                            |  |  |
| 1MJ-B0449-100 1/4" 0.D. x 0.049"WT 100 ft   1MJ-B0449-C/L 1/4" 0.D. x 0.049"WT cut-to-ler   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft  |                            |  |  |
| 1MJ-B0449-C/L 1/4" 0.D. x 0.049"WT cut-to-ler   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0465-C/L 3/8" 0.D. x 0.035"WT 100 ft  | gth                        |  |  |
| 1MJ-B0449-C/L 1/4" 0.D. x 0.049"WT cut-to-ler   1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0465-C/L 3/8" 0.D. x 0.035"WT 100 ft  |                            |  |  |
| 1MJ-B0465-100 1/4" 0.D. x 0.065"WT 100 ft   1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft  |                            |  |  |
| 1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft  | igth                       |  |  |
| 1MJ-B0465-C/L 1/4" 0.D. x 0.065"WT cut-to-ler   1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft  |                            |  |  |
| 1MJ-B0635-100 3/8" 0.D. x 0.035"WT 100 ft  |                            |  |  |
|  | igth                       |  |  |
|  |                            |  |  |
| 1MJ-B0635-C/L 3/8" 0.D. x 0.035"WT cut-to-ler  |                            |  |  |
|  | igth                       |  |  |
|  |                            |  |  |
| 1MJ-B0649-100 3/8" 0.D. x 0.049"WT 100 ft  |                            |  |  |
| 1MJ-B0649-C/L 3/8" 0.D. x 0.049"WT cut-to-ler  | igth                       |  |  |
|  |                            |  |  |
| 1MJ-B0665-100 3/8" 0.D. x 0.065"WT 100 ft  |                            |  |  |
| 1MJ-B0665-C/L 3/8" 0.D. x 0.065"WT cut-to-ler  | igth                       |  |  |

Stainless Steel, Seamless Type 316/316L, ASTM A269 with a Black Flame Resistant PVC Jacket

| Flame Resistant PVC Jacket |                       |               |
|----------------------------|-----------------------|---------------|
| FAST TRACK Part            | Tube Size             | *Packaged     |
|                            |                       |               |
| 1MJ-B0835-100              | 1/2" 0.D. X 0.035" WT | 100 ft        |
| 1MJ-B0835-C/L              | 1/2" O.D. X 0.035" WT | cut-to-length |
|                            |                       |               |
| 1MJ-B0849-100              | 1/2" 0.D. X 0.049" WT | 100 ft        |
| 1MJ-B0849-C/L              | 1/2" 0.D. X 0.049" WT | cut-to-length |
|                            |                       |               |
| 1MJ-B0865-100              | 1/2" 0.D. X 0.065" WT | 100 ft        |
| 1MJ-B0865-C/L              | 1/2" 0.D. X 0.065" WT | cut-to-length |
|                            |                       |               |
| 1MJ-B0883-100              | 1/2" 0.D. X 0.083" WT | 100 ft        |
| 1MJ-B0883-C/L              | 1/2" 0.D. X 0.083" WT | cut-to-length |
|                            |                       |               |
| 1MJ-B1249-100              | 3/4"0.D. X 0.049"WT   | 100 ft        |
| 1MJ-B1249-C/L              | 3/4"0.D. X 0.049"WT   | cut-to-length |
|                            |                       |               |
| 1MJ-B1265-100              | 3/4"0.D. X 0.065"WT   | 100 ft        |
| 1MJ-B1265-C/L              | 3/4"0.D. X 0.065"WT   | cut-to-length |
|                            |                       |               |

\*Packaged C/L - Cut-to-length: Contact factory for lengths required. Additional costs may apply.

# Pre-Insulated Tubing

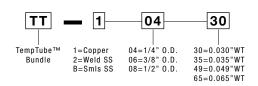
# TempTube<sup>™</sup> Products

#### **Pre-Insulated Tubing**



Tubes are insulated with a non-hygroscopic, inorganic fibrous glass thermal insulation materials rated to  $204^{\circ}$ C ( $400^{\circ}$ F) and then jacketed with a FR-PVC to provide moisture protection for the fiberglass and chemical attack in some of the most stringent environments. Our FR-PVC is a special formulation that has a maximum continuous service temperature of  $105^{\circ}$ C ( $221^{\circ}$ F). It meets or exceeds ASTM D-1047, IPCEA S-19-81 and IPCEA S-61-401. It has a low temperature brittleness of  $-40^{\circ}$ C ( $-40^{\circ}$ F).

How To Order i.e. TT-B0849 = ½" O.D. x 0.049" seamless stainless steel 316/316L ASTM, insulated & jacketed



# Freeze Protection

## Electric Tubing Trace - For Freeze Protection Applications

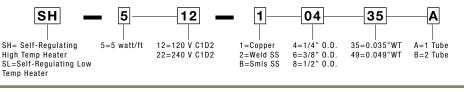


 $\label{eq:pre-insulated tubing wrapped with a self-regulating heating cable and jacketed for protection in either 120 or 240 V designs. \\ These designs will offer freeze protection in the most stringent ambient conditions, down to -40°C (-40°F).$ 

**SH Series** has a Fluoropolymer insulated and jacketed self-regulating heating element for use in corrosive environments. The high-temperature cable can withstand process tube temperatures up to  $152^{\circ}C(305^{\circ}F)$  while energized & can be used during steam purge applications up to  $215^{\circ}C(420^{\circ}F)$  non-energized. The design offers freeze protection down to  $-40^{\circ}C(-40^{\circ}F)$ .

#### How Order High Temperature Electric Trace Bundles

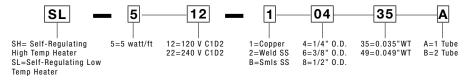
**i.e.** SH-512-10435A = (1) 1/4" O.D. x 0.035" copper tube, with a 5 watt/ft high-temperature heating element 120V rated, insulated & jacketed bundle with a FR-PVC



**SL Series** is the most economical and utilizes a low-temperature thermoplastic TPR self-regulating cable that can withstand process tube temperatures up to  $65^{\circ}C(150^{\circ}F)$  while energized and offer freeze protection down to  $-40^{\circ}C(-40^{\circ}F)$ .

#### How Order Low Temperature Electric Trace Bundles

i.e. SL-512-10435A = (1)  $\frac{1}{4}$ " O.D. x 0.035" copper tube, with a 5 watt/ft low-temperature heating element 120V rated, insulated & jacketed bundle with a FR-PVC



# ACCESSORIES

# **Temperature Controllers**

## 4012-05145 NEMA 4 Thermostat/Temperature Controller

| Specifications: |  |     |
|-----------------|--|-----|
| Temperature*    | -125 to +500°F (-85 to +265°C)                     |     |
| Switch          | 120/240 VAC – 20 amp SPDT Snap Acting              |     |
| Accuracy        | $\pm 1\%$ of full scale, approximately 3°F (1.6°C) | 100 |
| Capillary       | 6 Ft. type 304 S.S.                                |     |
| Bulb            | 3/8" 0.D. x 2-1/4" long type 304 S.S.              |     |
| Size            | NEMA 4 x 4-1/4"H x 3-7/16W x 3-3/16D               |     |
|                 |  |     |

\* Field Adjustable, Tamper proof

| 4012-01147                       | NEMA 7 Thermostat/Temperature Controller           | r  |
|----------------------------------|--|----|
| Specifications:                  |  |    |
| Temperature*                     | +25 to 325°F (-3 to +162°C)                        |    |
| Switch                           | 125/250/480 VAC- 22 amp SPDT Snap Acting           | 1  |
| Accuracy                         | $\pm 1\%$ of full scale, approximately 3°F (1.6°C) | 0- |
| Capillary                        | 10 Ft. type 304 S.S.                               |    |
| Bulb                             | 1/8" 0.D. x 5/8" long type 304 S.S.                |    |
| Size                             | NEMA 7 5-1/16H x 5-1/8W x 5-1/4D                   |    |
| * Field Adjustable, Tamper proof |  |    |

| 4012-01145       | NEMA 4x Thermostat/Temperature Controll            | er |
|------------------|--|----|
| Specifications:  |  |    |
| Temperature*     | +25 to 325°F (-3 to +162°C)                        |    |
| Switch           | 125/250/480 VAC- 22 amp SPDT Snap Acting           | ·  |
| Accuracy         | $\pm 1\%$ of full scale, approximately 3°F (1.6°C) | -0 |
| Capillary        | 10 Ft. type 304 S.S.                               |    |
| Bulb             | 1/8" 0.D. x 5/8" long type 304 S.S.                |    |
| Size             | NEMA 4 x 4-1/4"H x 3-7/16W x 3-3/16D               |    |
| * Field Adjustab | le, Tamper proof                                   |    |

| 4012-06105                       | NEMA 4x Thermostat/Temperature Controll            | er  |
|----------------------------------|--|-----|
| Specifications:                  |  |     |
| Temperature*                     | +15 to +140°F (-9 to +60°C)                        |     |
| Switch                           | 125/250/480 VAC- 22 amp SPDT Snap Acting           | 200 |
| Accuracy                         | $\pm 1\%$ of full scale, approximately 3°F (1.6°C) | 100 |
| Capillary                        | a10 Ft. type 304 S.S.                              |     |
| Bulb                             | Fluid filled stem                                  |     |
| NEMA Rating                      | NEMA 4x  |     |
| * Field Adjustable, Tamper proof |  |     |

#### DTS-HAZ Heat Trace Digital Thermostat

Specifications:

100 to 277 VAC, 50/60 Hz, Single Phase Ordinary Area Classification: -40°F to 140°F (-40°C to 60°C) 100 Ohm, Platinum RTD 30 AMP Solid State Relay Alarms: High Temp., 1150°F (621°C) Low Temp., -80°F (-62°C). RTD Failure Red Indicator Light on Front Panal. (contact factory for complete details)



NOTE: Fast Track quantity delivery is based on maximum of 5 per order.

# ACCESSORIES

# Accessories for FAST TRACK Products

## **Electrical Connection Kits**

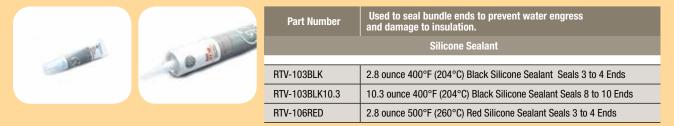
For use with SL and SH Series self-regulating tubing bundles.



| Part Number   | Use with Self-Regulating SL or SH Series Bundles                    |
|---------------|---|
|               |   |
| 4041-2101-UPC | Power Connection Kit w/Junction Box                                 |
| 4041-8200-UES | Electrical Heater End Termination                                   |
| 4041-5300-UMC | Power Connection Kit for Multiple Heaters ( up to 3) w/Junction Box |
| 4041-5300     | Power Connection Kit for Tee/Splice Connections w/Junction Box      |
| DTS-HAZ       | Power Connection w/Junction Box & Built-In Temperature Controller   |

## Insulated Tube Bundles End Sealant

For use with bundles that contain fiberglass insulation. The sealant is designed to keep water out of the bundle ends and damaging the product. Use of a proper sealing methods are required on all fiberglass products.



## Heat Shrink Boots

Used to seal insulated bundle ends and prevent moisture ingress into the fiberglass. Heat shrink boots should only be used on tube bundles that will operate at 275°F (135°C) or below. If the product will be operated above 275°F (135°C), higher temperature end sealant should be used in conjunction with the boot, such as RTV sealant.



## Enclosure / Panel Entry Seal

Used to allow tubing bundles to pass through panels and/or into enclosures, while at the same time, providing a hermetically sealed penetration, preventing water, dirt and dust entry. The product is selected based upon the bundle OD diameter. If the bundle is between sizes noted, use the next size up.



| Part Number | Enclosure Feed-through / Entry Seal - For use<br>when taking a bundle into a panel/enclosure.<br>Sized by bundle 0.D. |
|-------------|---|
|             |   |
| PTFT1.50    | Entry Seal for up to 1.5" bundle 0.D.   |
| PTFT2.00    | Entry Seal for up to 2.0" bundle 0.D.   |
| PTFT2.75    | Entry Seal for up to 2.75" bundle 0.D.  |
| PTFT3.25    | Entry Seal for up to 3.25" bundle 0.D.  |

## Seal Patch Kits

Seal patch kits are used when bringing two or more fiberglass insulated tubing bundles together and there is a need to seal up the union area between each length.

The kit comes in three sizes, depending upon how many seal splices need to be made, but the kits all function for the same purpose.



| Part Number | Insulation Seal Patch Kits - For use when sealing splice/union areas between two lengths of bundle. |  |
|-------------|---|--|
| SK-612      | For sealing (2) 6" x 12" areas  |  |
| SK-630      | For sealing (2) 6" x 30" areas  |  |
| SK-696      | 6" x 96" Seal Kit for cutting to length as needed.  |  |

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