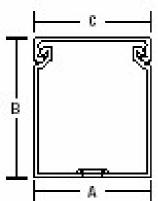
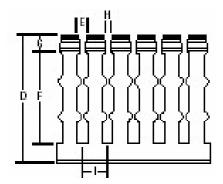
# Thomas@Betts







# Ty-Duct"

**T&B Catalog Number: TY4X4NPW6 UPC Number:** 78621097068

**Description:** Wiring Duct Narrow Slot 4"x4" Rigid PVC

White

Status: Active

| General                        |   |
|--------------------------------|---|
| Style                          | Narrow Slot   |
| Nominal Width (inches)         | 4   |
| Nominal Height (inches)        | 4   |
| Material                       | Rigid PVC   |
| Color                          | White   |
| Adhesive-Backed                | No  |
| Mounting Holes                 | Yes   |
| Dimension Information          | res   |
| Width (inches)                 | 4.25  |
|                                | 4.46  |
| Height (inches) A (inches)     | 4.25  |
| B (inches)                     | 4.46  |
| <del></del>                    | 4.25  |
| C (inches)  D (inches)         | 4.39  |
| E (inches)                     | 0.20  |
| F (inches)                     | 3.63  |
|                                | 0.39  |
| G (inches)                     | 0.10  |
| H (inches)                     | 0.10  |
| I (inches)                     | 0.50  |
| Accessories & Components Cover | TY4CPW6   |
| Packaging                      | 11401 W0  |
| T&B Order Multiple             | 30  |
| T&B Inner Pack                 | 6   |
| Package in Units               | 30  |
| T&B Sold in UOM                | Feet  |
| T&B Weight Per UOM             | 73.33 lbs. per 100                                      |
| Application Support            | 73.33 lbs. per 100                                      |
| Product Selector               | TD_selector_duct_white                                  |
| T&B Sales Drawings             | wsd-000181  |
| Technical Information          | Available on Website                                    |
| Specifications                 | Available on Website                                    |
| Overview                       | Available on Website  Available on Website              |
| Wire Fill Calculator           | Available on Website  Available on Website              |
| Notes                          | Available on website                                    |
| Options                        | Catalog Number must be completed by adding suf-         |
| Options                        | fix G for Gray, W for White, B for Black, I for Intrin- |
|                                | sic Blue. To order Adhesive-Backed duct, add suffix     |
|                                | A. To order duct without mounting holes, add suffix     |
|                                | NM to catalog number. Contact Customer Service          |
|                                | for pricing and availability.                           |



# U.S. Electrical On-line Catalog

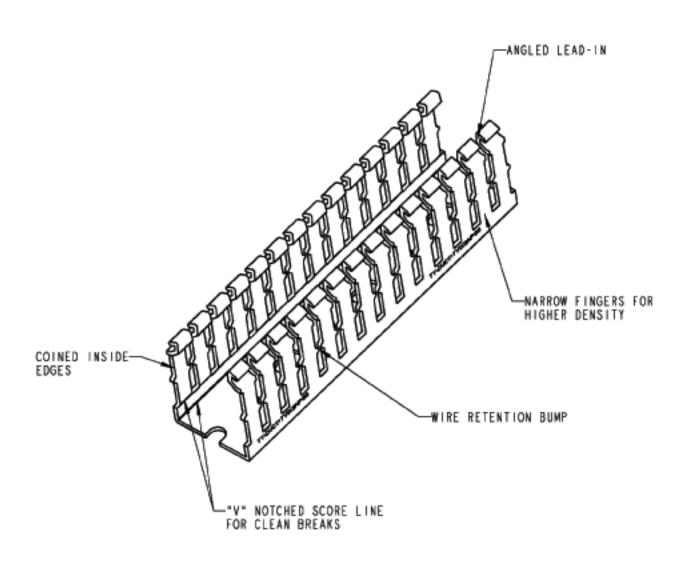
|                      | Standard lengths are 6 feet. |
|----------------------|------------------------------|
| Certifications       |                              |
| RoHS Compliance      | Yes                          |
| Webcat CE_recognized | Υ                            |
| Certifications       |                              |







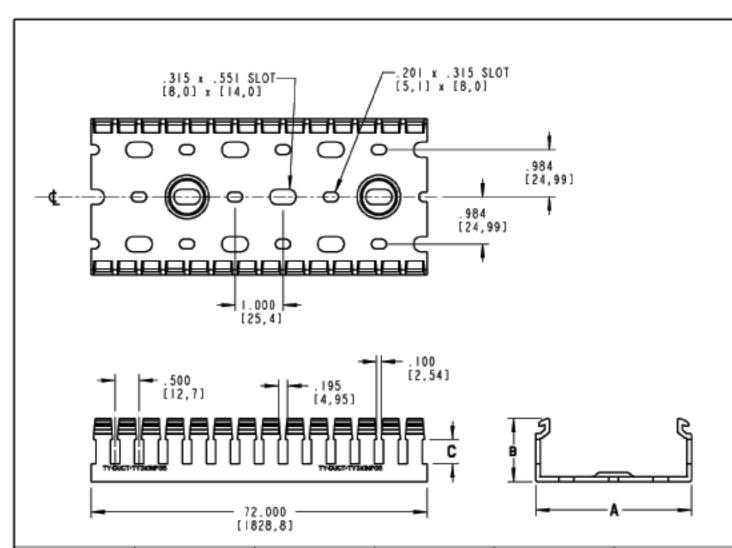




#### NOTES:

- I. MATERIAL: RIGID PVC
- 2. TEMPERATURE RATING: -40°F [-40°C] TO 122°F [50°C]
- 3. FLAMMABILITY RATING: UL94V-0
- 4. NORTH AMERICAN AND DIN STYLE MOUNTING HOLES
- 5. FLUSH MOUNT COVER DESIGN. COVER MOUNTS FLUSH WITH SIDE WALLS

|          | GENERAL NOTES                            |                                  |           | _        |             |
|----------|--|----------------------------------|-----------|----------|-------------|
| Г        | . ALL DIMENSIONS ARE FOR REFERENCE ONLY. |                                  |           |          | homas@Betts |
| 2        | . DIMENSIONS IN BRACKETS [ ]             |                                  |           |          |             |
| $\vdash$ | ARE IN METRIC UNITS.                     | DESCRIPTION: NAPPO               | W SLOT    | WIRING   | DUCT        |
| $\perp$  | REVISIONS                                | IVANNO                           | W SLUI    | MININO   | DOCT        |
| _3       | SEE ERN 2006994                          |                                  |           |          |             |
| Г        | FOR APPROVAL SIGNATURES                  | ORIGINAL PROJECT NO / ( ERN NO 1 | SHEET NO: | REV. NO: | DRAWING NO: |
|          | & RELEASE DATE.<br>PROJECT NO: FD55400   | FD55400 / ( 2005724 )            | 1 OF 7    | 3        | WSD-000181  |



| CATALOG NO. | A<br>(WIDTH)   | B<br>(HEIGHT)  | С              | RETENTION<br>FEATURE | COVER<br>CATALOG NO. |
|-------------|----------------|----------------|----------------|----------------------|----------------------|
| TY3XINP+6   |                | 1.055 [26,8]   | .430 [10,92]   | • • • •              |                      |
| TY3X2NP+6   |                | 2.081 [52,86]  | 1.249 [31,72]  | D                    | TY3CP*6              |
| TY3X3NP+6   | 3.250 [82,55]  | 3.056 [77,62]  | 2.175 [55,25]  | F                    | 11307*6              |
| TY3X4NP*6   |                | 4.387 [111,43] | 3.487 [88,57]  | F                    |                      |
| TY3X5NP+6   |                | 5.061 [128,55] | 4.161 [105,69] | F                    |                      |
| TY4X2NP*6   |                | 2.081 [52,86]  | 1.249 [31,72]  |                      |                      |
| TY4X3NP+6   | 4.250 [107,95] | 3.056 [77,62]  | 2.175 [55,25]  | D                    | TY4CP*6              |
| TY4X4NP*6   |                | 4.387 [111,43] | 4.161 [105,69] | F                    |                      |
| TY4X5NP*6   |                | 5.061 [128,55] | 3.487 [88,57]  | F                    |                      |
| TY6X4NP+6   | 6.250 [158,75] | 4.387 [111,43] | 3.987 [101,27] | F                    | TY6CP*6              |

\* = COLOR CODE

B = BLACK G = GRAY I = INTRINSIC BLUE W = WHITE

| Thomas@Betts |       |                     |        |                           |  |
|--------------|-------|---------------------|--------|---------------------------|--|
| DESCRIPTION: | NARRO | W SLOT              | WIRING | DUCT                      |  |
|              |       | SHEET NO:<br>5 OF 7 |        | DRAWING NO:<br>WSD-000181 |  |

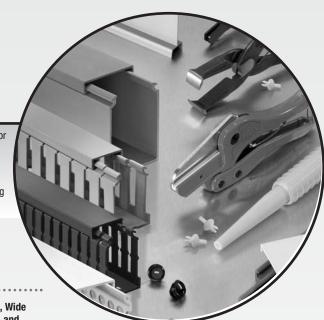
# Ty-Duct™ and Accessories

## **Overview**

# Ty-Duct™ — The versatile configurations you need for routing and concealing wiring!

Thomas & Betts' innovative new Ty-Duct™ products offer a total solution for routing and concealing wiring in control panels. Many different sizes are available to accommodate anything from the smallest wallmount panel to the larger integrated systems!

Here are some of the impressive features incorporated into all of our wiring duct solutions.



#### **Ty-Duct Features**



- Available in Solid, Wide Slot, Narrow Slot, and Round Hole versions to meet your capacity and flexibility needs
- Widths from .75" to 6" and depths from 1" to 5"
- Optional adhesive back for quick, hassle-free installation
- Complete selection of accessories and tools for installation
- Lead-free construction
- Lightweight Halogen-free unit available for Wide Slot Wiring Duct

#### **Ty-Duct Certifications**

- UL Recognized Continuous-Use Temperature — 122° F (50° C)
- . UL 94 Flammability Rating of V-0
- Conforms with NFPA 79-2002 Section 14.3.1 Requirement for Flame Retardant Material
- CE compliant for European shipping
- CSA Certified
- RoHS Compliant

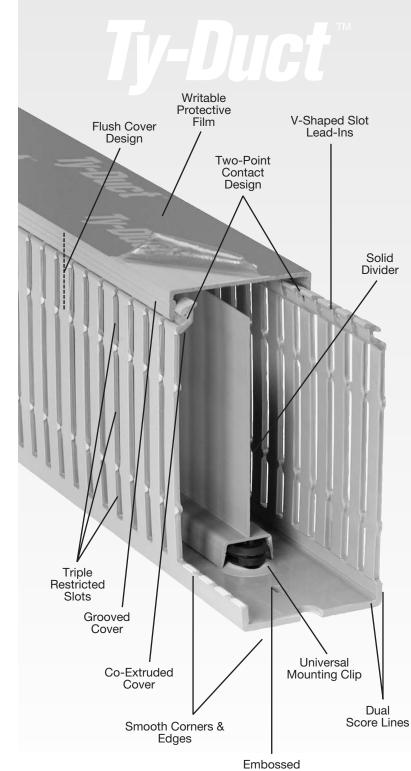






# Ty-Duct™ and Accessories

## **Overview**



Holes

# **Ty-Duct™ Advantages**

- Two-point contact design enables the cover to be easily installed in the right place with less force
- **Co-extruded cover** ensures the cover will stay in place and will not slip once installed
- Smooth corners and edges will not damage or disfigure wires
- Flush cover design enables greater capacity and sits flush with duct side wall
- Triple restricted slots speed installation while enabling better wire retaining in duct
- Dual score lines Upper score line allows fingers to be broken out without tools and the lower score line allows side wall sections to be removed easily
- V-shaped slot lead-in funnels wires into slot for easier wire insertion
- Staggered mounting hole pattern (larger widths)
- **Universal Mounting Clip** secures into the base to perform several tasks:
  - Enables divider to be snapped into base
  - Slots in the Universal Mounting Clip allow cable ties to pass through to hold wire bundles in place
  - 2 slot sizes on Universal Mounting Clip accommodate traditional nylon cable ties or hook and loop fasteners
- Slotted and Solid Divider accommodates various wiring applications
- Grooved cover provides better grip for removal and placement of cover onto base
- Writable protective film on covers protects from work site scratches and scuffs and enables temporary marking or labeling
- Embossed holes enable Universal Mounting Clips to be installed, even after the duct has been riveted to the panel
- PVC construction is excellent for flame retardancy
- North American and DIN standard mounting holes

## *Ty-Duct*<sup>™</sup> **Narrow Slot Wiring Duct**

Designed to fit the spacing of high-density terminal blocks!

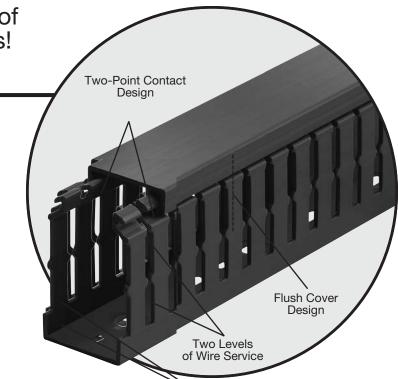
### **Narrow Slot Wiring Duct**

- Smaller, higher number of fingers for more concise harnessing
- Non-slip cover does not slide easily and resists vibration
- · Rounded edges keep hands and wires free of abrasion
- V-shaped slot lead-in enables easier and faster wire installation
- · Restricted slot design makes sure that wires are held with or without the cover inserted
- Flush cover attaches flush with sidewall for finished look

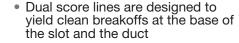
 Versatile North American and DIN Standard mounting holes enable same duct for multiple applications

Three Levels

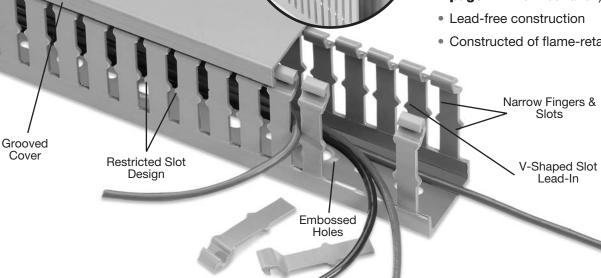
of Wire Service



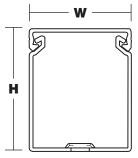




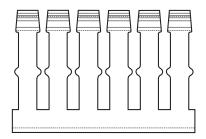
- Finger design restricts wire from slipping along the edge; creates two or three levels of wire service (see page 114 for illustration)
- Constructed of flame-retardant PVC



# *Ty-Duct*<sup>™</sup> **Narrow Slot Wiring Duct**



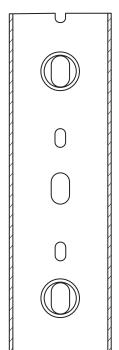




Side View

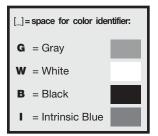
For a complete listing of Narrow Slot dimensional details see page 114.





**Bottom View** 

| CAT. NO.        | DESCRIPTION                | SIZE (V     | V x H)        | COVER        | DUCT STD. | COVER STD. | LENGTH |
|-----------------|----------------------------|-------------|---------------|--------------|-----------|------------|--------|
|                 |                            | IN.         | MM            | CAT. NO.     | CTN. QTY  | CTN. QTY   | (FT.)  |
| TY75X15NP[ _ ]6 | .75 x 1.5 Narrow Slot Duct | 0.94 x 1.60 | 23.9 x 40.6   | TY75CP[ _ ]6 | 120       | 120        | 6      |
| TY1X1NP[ _ ]6   | 1 x 1 Narrow Slot Duct     | 1.25 x 1.14 | 31.8 x 29.0   |              | 120       |            |        |
| TY1X15NP[ _ ]6  | 1 x 1.5 Narrow Slot Duct   | 1.25 x 1.60 | 31.8 x 40.6   |              | 120       |            |        |
| TY1X2NP[ _ ]6   | 1 x 2 Narrow Slot Duct     | 1.25 x 2.10 | 31.8 x 53.3   | TY1CP[ _ ]6  | 120       | 120        | 6      |
| TY1X3NP[ _ ]6   | 1 x 3 Narrow Slot Duct     | 1.25 x 3.05 | 31.8 x 77.5   |              | 120       |            |        |
| TY1X4NP[ _ ]6   | 1 x 4 Narrow Slot Duct     | 1.25 x 4.37 | 31.8 x 111.0  |              | 60        |            |        |
| TY15X1NP[ _ ]6  | 1.5 x 1 Narrow Slot Duct   | 1.75 x 1.14 | 44.5 x 29.0   |              | 120       |            |        |
| TY15X15NP[ _ ]6 | 1.5 x 1.5 Narrow Slot Duct | 1.75 x 1.60 | 44.5 x 40.6   |              | 120       |            |        |
| TY15X2NP[ _ ]6  | 1.5 x 2 Narrow Slot Duct   | 1.75 x 2.10 | 44.5 x 53.3   | TY15CP[ _ ]6 | 120       | 120        | 6      |
| TY15X3NP[ _ ]6  | 1.5 x 3 Narrow Slot Duct   | 1.75 x 3.05 | 44.5 x 77.5   |              | 120       |            |        |
| TY15X4NP[ _ ]6  | 1.5 x 4 Narrow Slot Duct   | 1.75 x 4.37 | 44.5 x 111.0  |              | 60        |            |        |
| TY2X1NP[ _ ]6   | 2 x 1 Narrow Slot Duct     | 2.25 x 1.24 | 57.2 x 31.5   |              | 120       |            |        |
| TY2X15NP[ _ ]6  | 2 x 1.5 Narrow Slot Duct   | 2.25 x 1.70 | 57.2 x 43.2   |              | 120       |            |        |
| TY2X2NP[ _ ]6   | 2 x 2 Narrow Slot Duct     | 2.25 x 2.19 | 57.2 x 55.6   | TY2CP[ _ ]6  | 120       | 120        | 6      |
| TY2X3NP[ _ ]6   | 2 x 3 Narrow Slot Duct     | 2.25 x 3.14 | 57.2 x 79.8   |              | 60        |            |        |
| TY2X4NP[ _ ]6   | 2 x 4 Narrow Slot Duct     | 2.25 x 4.46 | 57.2 x 113.3  |              | 60        |            |        |
| TY2X5NP[ _ ]6   | 2 x 5 Narrow Slot Duct     | 2.25 x 5.15 | 57.2 x 130.8  |              | 60        |            |        |
| TY25X2NP[ _ ]6  | 2.5 x 2 Narrow Slot Duct   | 2.75 x 2.19 | 69.9 x 55.6   |              | 120       |            |        |
| TY25X3NP[ _ ]6  | 2.5 x 3 Narrow Slot Duct   | 2.75 x 3.14 | 69.9 x 79.8   | TY25CP[ _ ]6 | 60        | 120        | 6      |
| TY25X4NP[ _ ]6  | 2.5 x 4 Narrow Slot Duct   | 2.75 x 4.46 | 69.9 x 113.3  |              | 60        |            |        |
| TY3X1NP[ _ ]6   | 3 x 1 Narrow Slot Duct     | 3.25 x 1.24 | 82.6 x 31.5   |              | 120       |            |        |
| TY3X2NP[ _ ]6   | 3 x 2 Narrow Slot Duct     | 3.25 x 2.19 | 82.6 x 55.6   |              | 60        |            |        |
| TY3X3NP[ _ ]6   | 3 x 3 Narrow Slot Duct     | 3.25 x 3.14 | 82.6 x 79.8   | TY3CP[ _ ]6  | 60        | 120        | 6      |
| TY3X4NP[ _ ]6   | 3 x 4 Narrow Slot Duct     | 3.25 x 4.46 | 82.6 x 113.3  |              | 60        |            |        |
| TY3X5NP[ _ ]6   | 3 x 5 Narrow Slot Duct     | 3.25 x 5.15 | 82.6 x 130.8  |              | 60        |            |        |
| TY4X2NP[ _ ]6   | 4 x 2 Narrow Slot Duct     | 4.25 x 2.19 | 108.0 x 55.6  |              | 60        |            |        |
| TY4X3NP[ _ ]6   | 4 x 3 Narrow Slot Duct     | 4.25 x 3.14 | 108.0 x 79.8  | TY4CP[ _ ]6  | 60        | 120        | 6      |
| TY4X4NP[ _ ]6   | 4 x 4 Narrow Slot Duct     | 4.25 x 4.46 | 108.0 x 113.3 |              | 30        |            |        |
| TY4X5NP[ _ ]6   | 4 x 5 Narrow Slot Duct     | 4.25 x 5.15 | 108.0 x 130.8 |              | 30        |            |        |
| TY6X4NP[ _ ]6   | 6 x 4 Narrow Slot Duct     | 6.25 x 4.46 | 158.8 x 113.3 | TY6CP[ _ ]6  | 30        | 60         | 6      |



Standard lengths are 6 feet.

Catalog Number must be completed by adding suffix G for Gray, W for White, I for Intrinsic Blue, B for Black.

Example: TY75X15NPB6 a .75" x 1.5" narrow slot black duct.

To order duct without mounting holes, add suffix NM to catalog number. **Example:** TY75X15NPB6NM a .75" x 1.5" narrow slot black duct with no mounting holes.

To order Adhesive-Backed Duct, add suffix A to Catalog Number.

**Example:** TY75X15NPB6A a .75" x 1.5" narrow slot black duct with adhesive backing. Shelf life for adhesive is 1 year.

PVC vinyl duct is UL® Recognized N, CSA Certified and CE Compliant.



## **Properties of Materials Used in Wiring Duct**

| Property                                      | Units              | <b>ASTM Test</b> | PVC         | Halogen Free |
|---|--------------------|------------------|-------------|--------------|
| Specific Gravity                              |                    | D792             | 1.43        | 1.10         |
| IZOD  | ftlb./in.          | D256             | 2           | 5.0          |
| Flexural Strength                             | psi                | D790             | 10,900      | 12,800       |
| Flexural Modulus                              | psi                | D790             | 382,000     | 360,000      |
| Tensile Strength                              | psi                | D638             | 5,500       | 7,800        |
| Compressive Strength                          | psi                | D695             | 8,600       | 16,000       |
| Water Absorption                              | 24 hrs%            | D570             | 0.10        | 0.07         |
| Hardness                                      | Rockwell<br>Duro D | D785<br>D676     | R-111<br>78 | R-115        |
| Dielectric Strength                           |                    | D149             |             |              |
| 60Hz, 25° C,                                  | vpm                |                  |             | 400          |
| Dielectric Constant<br>60Hz, Dry<br>1MHz, Dry |                    | D150             | 1.9         | 2.65<br>2.64 |
| Volume Resistivity                            | ohm-cm             | D257             |             | 1017         |
| Heat Deflecting (° F@ 264 psi)                | °F                 | D648             | 158         | 212          |
| Flammability                                  |                    |                  | 94 V-O      | 94 V-1       |

The above information is believed reliable. The user should, however, check the applicable specifications to verify values.

## **Rigid Polyvinyl Chloride (PVC)**

- General-purpose material for indoor applications
- UL flammability rating of V-0
- UL94 recognized for use in temperatures up to 50° C (122° F)
- · Economical wiring duct material

### **Halogen Free**

- For use in halogen-free or high-temperature applications
- UL flammability rating of V-1
- UL94 recognized for use in temperatures up to 95° C (203° F)
- 20% lighter than PVC