## PRODUCT DESCRIPTION

Control power transformers from Schneider Electric set the industry standard for design innovation and performance. They are designed with low impedance windings for excellent voltage regulation, and can accomodate the high inrush current associated with contactors, starters, solenoids, and relays.

A variety of designs are available to meet the diverse needs of panel builders and machinery OEMs. The versatility of our control transformer line offers unparalleled options for design engineers. We also have one of the most extensive offering of custom products with no minimum order requirements.
We have a national network of distributors to ensure prompt delivery, including industry leading delivery on custom products. In most cases, we can design, manufacture, and ship a custom unit in two weeks or less.

## The Global Product Offering-Type T

Type T is our most popular and complete line of control transformers. It comes with unmatched design innovations for top performance and is manufactured using the most advanced insulating materials. The Type T control transformer is the best choice if size and cost are of concern.

## The Exceptional Regulation Offering -Type EO

Constructed with traditional materials and manufacturing processes, Type EO transformers are UL and CSA Component Recognized. Units are designed for $55^{\circ} \mathrm{C}$ rise. All units are 60 HZ rated, with de-rated VA levels for 50HZ.

## Transformers with Fuse Block Protection-Types TF and EOF

We offer both product lines with factory installed overcurrent protection fuse blocks.
Type TF and EOF transformers consist of two primary fuse blocks and one secondary fuse block, a configuration that meets the majority of overcurrent needs by panel builders and machinery OEMs. Since the fuse blocks are pre-wired and mounted on top of the transformer, the Type TF and EOF transformers have the same footprint as the Type T and Type EO units, respectively. This design frees up space normally used for separate fuse blocks

We also have an extensive fuse block offering for custom applications. See the overcurrent section of this catalog for full details.

## Leaded Control Transformer Line

Schneider Electric offers transformers with internally pre-wired 24-inch primary and secondary leads, instead of terminal boards, to make installation easier and faster for many applications. These are only available for single voltage primary and single voltage secondary applications.

## MultiTap

Schneider Electric offers Type T and Type EO transformers in the MultiTap version. The MultiTap control transformer was designed to respond to the increased need for voltage and stock flexibility. It combines multiple primary voltages with one or more secondary voltages, all in a single transfomer.

The most flexible MultiTap voltage is the Universal, available on the Type T product line only. It allows for standard primary voltages of 208 to 600 V and 110,115 , or 120 V secondary voltages.

## Industrial Control Transformers

Type T Transformers

Type T VA Ratings

| UL, cUL, CSA and NOM VA <br> Rating | CE <br> VA Rating |
| :--- | :--- |
| 25 | 25 |
| 50 | 50 |
| 75 | 75 |
| 100 | 100 |
| 150 | 150 |
| 200 | 200 |
| 250 | 160 |
| 300 | 200 |
| 350 | 250 |
| 500 | 300 |
| 750 | 500 |
| 1000 | 630 |
| 1500 | 1000 |
| 2000 | 1500 |
| 3000 | 2000 |
| 5000 | 3000 |

## Type T Listings

| Listing | File | VA Range |
| :--- | :--- | :--- |
| UL | E61239, Guide XPTQ2 | $25-5000$ |
| cUL | E61239 | $1500-5000$ |
| CSA | LR37055, Guide 184-N-90 | $25-1000$ |
| EN | 947923, EN 61 558/01.89 (TUV <br> ref: 00941-RAG/sg <br> E9371495E01) | 25-200 |
|  | 9579078, EN 61 558/01.89 (TUV <br> ref: 00941-RAG/sg <br> E9471921E01) | 250-1000 |
|  | 9579078, EN 61 558/01.89 (TUV <br> ref: 00941-RAG/sg <br> E9471921.02E01) | $1500-3000$ |

## TYPE T TRANSFORMERS

The Type T units are designed for the global market and are the best choice when size and cost are of concern. This is our most popular and complete offering of industrial control transformers. The following features are included:

- $50 / 60 \mathrm{~Hz}$ rated
- Customer installed accessories (Finger-Safe covers, fuse blocks, fuse clips)
- Type T transformers are designed with various temperature classes:
- 25-150 VA with a $55^{\circ} \mathrm{C}$ temperature rise, $105^{\circ} \mathrm{C}$ insulation
- 200-350 VA with a $80^{\circ} \mathrm{C}$ temperature rise, $130^{\circ} \mathrm{C}$ insulation
- 500-5000 VA with a $115^{\circ} \mathrm{C}$ temperature rise, $180^{\circ} \mathrm{C}$ insulation

Schneider Electric manufactures a wide variety of voltage combinations for control transformers. The voltage combinations are expressed as "Voltage Codes", and are embedded within the catalog number of the transformer. Standard codes are listed. If the voltage combination you need is not listed, please call your Schneider Electric distributor for assistance.

## CE Marking

Industrial control transformers (ICTs) entering the European Union (EU) after January 1, 1997 are required by EU standards to have CE marking or Declaration of Conformity to CE. EU documentation requires compliance with specification EN 61558 of the Low Voltage Directive. Type T ICTs from Schneider Electric comply with this specification and are third party tested to TÜV standards, which adhere to, and are accepted by, EU standards. A Declaration of Conformity for all Type $T$ units is available upon request.

Because of different overload criteria in the CE specification, Schneider Elecric dual rates these transformers for UL VA, cUL VA, CSA VA, NOM VA and CE VA ratings (see "Type T VA Ratings" table). Because they are widely used with control circuit panels, ICTs are also required to comply with EN 60204 and EN 61558 in these applications. The Type T transformer line complies with EN 60204 when Fingersafe ${ }^{\circledR}$ covers are installed.

For more information regarding CE marking, please contact your local Schneider Electric field sales office.


## Example:

This example assumes the following:

- Two NEMA size 0 contactors do not start together, but one could be ON when the other starts.
- One NEMA size 2 contactor can start with either of the other contactors.
- One pilot light at 2 VA

1. VA and inrush are:

NEMA 0: sealed 27 VA; inrush 245 VA
NEMA 2: sealed 37 VA; inrush 311 VA ; pilot light 2 VA
2. Total VA: $27+27+37+2=93$ VA
3. Total inrush VA: $245+311+27+2=582$ VA
4. From Regulation Chart for Type T at right below: 100 VA minimum unit; inrush 499 VA will not work at $90 \%$ 150 VA (next standard size); inrush 666 VA will work at $95 \%$

## Selection Guide

1. Determine inrush and sealed VA of each coil in the control circuit and VA of all other components.
2. Total all sealed VA of all operating coils and other loads VA (determines minimal VA size required for the circuit).
3. Total the inrush VA of all coils that are starting at the same time and all loads and coils that are running (using the regulation chart to give possible units to be used).
4. Take VA size from step 2, go to standard VA size in chart below. Make sure inrush VA from chart is greater than total VA from step 3. If not, go to next larger VA size and repeat.

If your supply voltage is stable and fluctuates less than $5 \%$, we recommend you use the $90 \%$ secondary voltage column. If your supply voltage is not stable and fluctuates more than $10 \%$, we recommend you use the $95 \%$ secondary voltage column. We recommend that you never use the $85 \%$ secondary voltage column since magnetic devices lose life expectancy if they are continuously started at $85 \%$ of rated voltage.

Regulation Chart for Type T

| VA | Secondary Voltage |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Inrush UL VA at 20\% Power Factor | Inrush UL VA at 40\% Power Factor |  |  |  |  |
|  | $\mathbf{9 5 \%}$ | $\mathbf{9 0 \%}$ | $\mathbf{8 5 \%}$ | $\mathbf{9 5 \%}$ | $\mathbf{9 0 \%}$ | $\mathbf{8 5 \%}$ |
| 50 | 193 | 266 | 339 | 151 | 215 | 282 |
| 75 | 271 | 396 | 520 | 210 | 318 | 430 |
| 100 | 339 | 499 | 659 | 266 | 404 | 549 |
| 150 | 666 | 893 | 1120 | 529 | 731 | 942 |
| 200 | 588 | 815 | 1041 | 459 | 659 | 866 |
| 250 | 1416 | 1910 | 2388 | 1057 | 1494 | 1936 |
| 300 | 1634 | 2184 | 2709 | 1194 | 1681 | 2169 |
| 350 | 1894 | 2592 | 3261 | 1392 | 2005 | 2621 |
| 500 | 3197 | 4104 | 4981 | 2374 | 3195 | 4019 |
| 750 | 3770 | 5515 | 7231 | 2887 | 4391 | 5945 |
| 1000 | 6587 | 9079 | 11430 | 4706 | 6886 | 9051 |
| 1500 | 19324 | 23983 | 28607 | 15066 | 19361 | 23756 |
| 2000 | 31384 | 38777 | 46161 | 24794 | 31630 | 38667 |
| 3000 | 26539 | 39934 | 52713 | 19355 | 30721 | 42216 |
| 5000 | 53111 | 85265 | 116277 | 39368 | 66309 | 93882 |

## Industrial Control Transformers <br> Type TF Transformers

## 120 Volt Control Secondary-Primary and Secondary Fuse Block

| Voltage Code | Voltages |  | Connections |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Primary | Secondary | Primary | Secondary |
| D1 | $\begin{aligned} & 220 \times 440 \\ & 230 \times 460 \\ & 240 \times 480 \end{aligned}$ | $\begin{aligned} & 110 \\ & 115 \\ & 120 \end{aligned}$ | 220 or 230 or 240: Connect to H1 and H4 Jumper H1 with H3 Jumper H2 with H4 440 or 460 or 480: Connect to H1 and H4 Jumper H2 with H3 | Connect to X 1 and X 2 |



## Dimensions

| VA |  | Catalog Number | Fig. | Acc. <br> Key | A |  | B |  | C |  | E |  | F |  | Slots |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UL | CE |  |  |  | IN | mm | IN | mm | IN | mm | IN | mm | IN | mm | IN | mm |
| 25 | 25 | 9070TF25D1 | 7 | I | 3.09 | 79 | 3.00 | 76 | 4.00 | 102 | 2.00 | 51 | 2.50 | 64 | $0.20 \times 0.38$ | $5 \times 10$ |
| 50 | 50 | 9070TF50D1 | 7 | 1 | 3.09 | 79 | 3.00 | 76 | 4.00 | 102 | 2.00 | 51 | 2.50 | 64 | $0.20 \times 0.38$ | $5 \times 10$ |
| 75 | 75 | 9070TF75D1 | 7 | 1 | 3.34 | 85 | 3.38 | 86 | 4.18 | 106 | 2.38 | 61 | 2.81 | 71 | $0.20 \times 0.48$ | $5 \times 12$ |
| 100 | 100 | 9070TF100D1 | 7 | I | 3.34 | 85 | 3.38 | 86 | 4.18 | 106 | 2.38 | 61 | 2.81 | 71 | $0.20 \times 0.48$ | $5 \times 12$ |
| 150 | 150 | 9070TF150D1 | 7 | I | 3.59 | 91 | 3.75 | 95 | 4.50 | 114 | 2.88 | 73 | 3.13 | 80 | $0.20 \times 0.38$ | $5 \times 10$ |
| 200 | 200 | 9070TF200D1 | 7 | I | 3.59 | 91 | 3.75 | 95 | 4.50 | 114 | 2.88 | 73 | 3.13 | 80 | $0.20 \times 0.38$ | $5 \times 10$ |
| 250 | 160 | 9070TF250D1 | 8 | I | 5.30 | 135 | 3.75 | 95 | 4.50 | 114 | 2.88 | 73 | 3.13 | 80 | $0.20 \times 0.38$ | $5 \times 10$ |
| 300 | 200 | 9070TF300D1 | 8 | 1 | 4.74 | 120 | 4.50 | 114 | 5.13 | 130 | 2.56 | 65 | 3.75 | 95 | $0.20 \times 0.38$ | $5 \times 10$ |
| 350 | 250 | 9070TF350D1 | 8 | I | 5.11 | 130 | 4.50 | 114 | 5.13 | 130 | 3.00 | 76 | 3.75 | 95 | $0.20 \times 0.38$ | $5 \times 10$ |
| 500 | 300 | 9070TF500D1 | 8 | I | 5.49 | 139 | 4.50 | 114 | 5.13 | 130 | 3.56 | 90 | 3.75 | 95 | $0.20 \times 0.38$ | $5 \times 10$ |
| 750 | 500 | 9070TF750D1 | 8 | 1 | 5.61 | 143 | 5.25 | 133 | 5.80 | 147 | 3.43 | 87 | 4.38 | 111 | $0.28 \times 0.56$ | $7 \times 14$ |
| 1000 | 630 | 9070TF1000D1 | 8 | I | 6.30 | 160 | 5.25 | 133 | 5.80 | 147 | 4.31 | 109 | 4.38 | 111 | $0.28 \times 0.56$ | $7 \times 14$ |
| 1500 | 1000 | 9070TF1500D1 | 8 | 1 | 5.92 | 150 | 7.06 | 179 | 7.46 | 190 | 4.13 | 105 | 5.81 | 148 | $0.28 \times 0.56$ | $7 \times 14$ |
| 2000 | 1500 | 9070TF2000D1 | 8 | 1 | 7.17 | 182 | 7.06 | 179 | 7.46 | 190 | 4.56 | 116 | 5.81 | 148 | $0.28 \times 0.56$ | $7 \times 14$ |



Figure 7


Figure 8

Table 1: Listings

| Listing | File | VA Range |
| :--- | :--- | :--- |
| UL | E61239, Guide XPTQ2 | $25-5000$ |
| CUL | E61239 | $1500-5000$ |
| CSA | LR37055, Guide 184-N-90 | $25-1000$ |
| EN | 947923, EN 60742/01.89 (TUV ref: <br> 00941-RAG/sg E9371495E01) | $25-200$ |
|  | 9579078, EN 60742/01.89 (TUV ref: <br> 00941-RAG/sg E9471921E01) | $250-1000$ |
|  | 9579078, EN 60742/01.89 (TUV ref: <br> 00941-RAG/sg E9471921.02E01) | $1500-3000$ |

Table 2: VA Ratings

| UL, cUL, CSA and NOM VA <br> Rating | CE <br> VA Rating |
| :--- | :--- |
| 25 | 25 |
| 50 | 50 |
| 75 | 75 |
| 100 | 100 |
| 150 | 150 |
| 200 | 200 |
| 250 | 160 |
| 300 | 200 |
| 350 | 250 |
| 500 | 300 |
| 750 | 500 |
| 1000 | 630 |
| 1500 | 1000 |
| 2000 | 1500 |
| 3000 | 2000 |
| 5000 | 3000 |

## 9070 Type TF

The 9070 Type TF combines a Type T transformer with a primary and secondary fuse block. A dual primary and secondary fuse block is pre-wired and mounted on top of the transformer, eliminating the additional cost of purchasing, stocking, and installing a separate fuse block. The Type TF transformers use the same mounting footprint as the standard Type T units.

The 9070 Type TF units were developed to help customers comply with UL Standard 508 and NEC 450 . To provide added protection the primary fuse block requires rejection style fuses. Because of the transformer inrush, class CC time delay fuses are required on the primary.
Beyond the factory installed Type TF units, Square D offers a complete line of field-installable fuse blocks and clips. See Table 5 on page 8 for all of the primary and secondary options.

## CE MARKING

Industrial control transformers (ICTs) entering the European Union (EU) after January 1, 1997 are required by EU standards to have CE marking or Declaration of Conformity to CE. EU documentation requires compliance with specification EN 60-742 of the Low Voltage Directive. Type T ICTs from Square D comply with this specification and are third party tested to TÜV standards, which adhere to, and are accepted by, EU standards. A Declaration of Conformity for all Type T units is available upon request.

Because of different overload criteria in the CE specification, Square D dual rates these transformers for UL VA, CSA VA, NOM VA and CE VA ratings (see Table 2). Because they are widely used with control circuit panels, ICTs are also required to comply with EN 60-204 and EN 60-742 in these applications. The Type T transformer line complies with EN 60-204 when FINGERSAFE ${ }^{\circledR}$ covers are installed.
For more information regarding CE marking, please contact your local Square D field sales office.


## Selection Guide

## Selecting the Transformer

Follow these steps to select the appropriate Type T or TF industrial control transformer and accessories:

1. Determine if you require the Type T or Type TF industrial control transformer (see "Product Descriptions" on page 3). Type TF units have factory-installed primary and secondary fuse blocks.
2. From Table 3 on page 5, determine the UL rating. If a CE marking is required, determine the multiple rating.
3. Choose the voltage code from Table 4, making sure the VA rating falls within the permissible range.
4. Create the catalog number by referring to the catalog ordering scheme below.


Figure 1: Catalog Number Example

Table 4: Type T and TF Transformer Selection

| Application | Code | Primary <br> Voltage | Secondary Voltage | Acc Code | Wiring Diagram | $\begin{array}{\|l} \hline \text { Type T } \\ \text { Dim } \end{array}$ <br> Table | Type TF <br> Dim <br> Table |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 120, 115, 110 V Control Circuit | D1 | $\begin{aligned} & \hline 240 \times 480 \\ & 230 \times 460 \\ & 220 \times 440 \end{aligned}$ | $\begin{array}{\|l\|} \hline 120 \\ 115 \\ 110 \\ \hline \end{array}$ | 1 | 2 | 17 | 23 |
|  | D31 | $\begin{aligned} & 240 \times 480 \\ & 230 \times 460 \\ & 220 \times 440 \end{aligned}$ | $\begin{aligned} & \hline 120 / 240 \\ & 115 / 230 \\ & 110 / 220 \end{aligned}$ | 1 | 8 | 17 | 23 |
|  | D86 | 460/480/504 | 120 | I | 13 | 17 | 23 |
|  | D101 | 480/575 | 115 | 1 | 3 | 17 | 23 |
|  | D24 | $\begin{array}{\|l\|} \hline 120 \\ 115 \\ 110 \end{array}$ | $\begin{array}{\|l\|} \hline 120 \\ 115 \\ 110 \\ \hline \end{array}$ | 1 | 1 | 17 | 23 |
|  | D55 | $120 \times 240$ | 120/240 | I | 8 | 17 | 23 |
|  | D3 | 208 | 120 | I | 1 | 17 | 23 |
|  | D51 | 208/277 | 120 | 1 | 3 | 17 | 23 |
|  | D57 | $208 \times 416$ | 120/240 | 1 | 8 | 17 | 23 |
|  | D100 | 200/208 | 120 | 1 | 3 | 17 | 23 |
|  | D4 | 277 | 120 | I | 1 | 17 | 23 |
|  | D60 | 277 | 120/240 | 1 | 7 | 17 | 23 |
|  | D93 | 200 | 115 | 1 | 1 | 17 | 23 |
|  | D84 | 190/200/210 | 110 | I | 13 | 17 | 23 |
|  | D33 | 380/400/415 | 115/230 | 1 | 21 | 17 | 23 |
|  | D6 | 380 | 110 | 1 | 1 | 17 | 23 |
|  | D58 | 347/380 | 120/240 | I | 9 | 17 | 23 |
|  | D85 | 360/380/400 | 110 | 1 | 13 | 17 | 23 |
|  | D103 | 400 | 120 | 1 | 1 | 17 | 23 |
|  | D102 | 400/415/440 | 110 | 1 | 13 | 17 | 23 |
|  | D17 | 415 | 110 | 1 | 1 | 17 | 23 |
|  | D5 | $\begin{aligned} & 600 \\ & 575 \\ & 550 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 120 \\ 115 \\ 110 \\ \hline \end{array}$ | 1 | 1 | 17 | 23 |
|  | D37 | 600 | 120/240 | 1 | 7 | 17 | 23 |
|  | D18 | 208/277/380 | 95/115 | II | 32 | 19 | 25 |
|  | D20 | 208/230/460 | 115 | II | 13 | 19 | 25 |
|  | D26 | 208/240 $\times 16 / 480$ | 120 | II | 22 | 19 | 25 |
|  | D27 | 208/240/480 | 120 | II | 13 | 19 | 25 |
|  | D32 | $\begin{array}{\|l\|l} \hline 240 / 480 / 600 \\ 230 / 460 / 575 \\ 220 / 440 / 550 \end{array}$ | $\begin{aligned} & \hline 100 / 120 \\ & 95 / 115 \\ & 90 / 110 \end{aligned}$ | II | 32 | 19 | 25 |
|  | D34 | 208/480/575 | 120 | II | 13 | 19 | 25 |
|  | D39 | 208/380/416 | 95/115 | II | 32 | 19 | 25 |
|  | D48 | 208/230/460 | 115/230 | II | 21 | 19 | 25 |
|  | D90 | 240/347/380 | 120/240 | 11 | 21 | 19 | 25 |
|  | D95 | $\begin{aligned} & 208 / 240 / 480 \\ & 200 / 230 / 460 \\ & 190 / 220 / 440 \end{aligned}$ | $\begin{array}{\|l\|} \hline 120 \\ 115 \\ 110 \\ \hline \end{array}$ | II | 13 | 19 | 25 |
|  | D41 | 208/230/400/440/460 | 110/115 | III | 41 | 21 | 27 |
|  | D44 | 208/220/380/460 | 110/115/120 | III | 43 | 21 | 27 |
|  | D50 | $\begin{aligned} & 240 / 416 / 480 / 600 \\ & 230 / 400 / 460 / 575 \\ & 220 / 380 / 440 / 550 \\ & 208 / 364 / 420 / 500 \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline 99 / 120 / 130 \\ 95 / 1155 / 125 \\ 91 / 110 / 120 \\ 85 / 100 / 1110 \\ \hline \end{array}$ | III | 43 | 22 |  |
|  | D75 | 220/380/460/575 | 110 | III | 16 | 21 | 27 |
|  | D83 | 208/230/277/460 | 120 | III | 16 | 21 | 27 |
|  | D87 | 208/240/380/416/480 | 120/240 | III | 37 | 21 | 27 |
|  | D35 | 208/230/380/440/460 | 110/115 | III | 41 | 21 | 27 |
|  | D40 | 208/240/380/416/480 | 120 | III | 20 | 21 | 27 |



Figure 6


Figure 7

Table 23: Dimensions for Type TF

| VA | A |  | B |  | C |  | E |  | F |  | Slots |  |  |  | iil |  |  |  | Fuse Pullers 잉 $\bar{\Phi}$ G |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | IN | mm |  |  | IN | mm | IN | mm | IN | mm | IN | mm | IN | mm |  | IN | mm |  | IN | mm | $\begin{aligned} & \overline{\widetilde{N}} \\ & \stackrel{y}{5} \\ & \hline \mathbf{z} \end{aligned}$ | IN | mm |

Voltage Codes: D1; D3; D4; D5; D6; D17; D24; D31; D33; D37; D51; D55; D57; D58; D60; D84; D85; D86; D93; D100; D101; D102; D103

| 25 | 3.09 | 79 | 3.00 | 76 | 4.00 | 102 | 2.00 | 51 | 2.50 | 64 | 0.20 | 5 | X | 0.38 | 10 | 11 | FSC-1 | 3.84 | 98 | FP-1 | 4.20 | 107 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | 3.09 | 79 | 3.00 | 76 | 4.00 | 102 | 2.00 | 51 | 2.50 | 64 | 0.20 | 5 | X | 0.38 | 10 | 11 | FSC-1 | 3.84 | 98 | FP-1 | 4.20 | 107 |
| 75 | 3.34 | 85 | 3.38 | 86 | 4.25 | 108 | 2.38 | 61 | 2.81 | 71 | 0.20 | 5 | X | 0.48 | 12 | 11 | FSC-1 | 4.09 | 104 | FP-1 | 4.45 | 113 |
| 100 | 3.34 | 85 | 3.38 | 86 | 4.25 | 108 | 2.38 | 61 | 2.81 | 71 | 0.20 | 5 | X | 0.48 | 12 | 11 | FSC-1 | 4.09 | 104 | FP-1 | 4.45 | 113 |
| 150 | 3.59 | 91 | 3.75 | 95 | 4.55 | 116 | 2.88 | 73 | 3.13 | 80 | 0.20 | 5 | X | 0.38 | 10 | 11 | FSC-1 | 4.34 | 110 | FP-1 | 4.75 | 121 |
| 200 | 3.59 | 91 | 3.75 | 95 | 4.55 | 116 | 2.88 | 73 | 3.13 | 80 | 0.20 | 5 | X | 0.38 | 10 | 11 | FSC-1 | 4.34 | 110 | FP-1 | 4.75 | 121 |
| 250 | 5.25 | 133 | 3.75 | 95 | 4.55 | 116 | 2.88 | 73 | 3.13 | 80 | 0.20 | 5 | X | 0.38 | 10 | 12 | FSC-2 | 6.05 | 154 | FP-1 | 4.75 | 121 |
| 300 | 4.70 | 119 | 4.50 | 114 | 5.10 | 130 | 2.56 | 65 | 3.75 | 95 | 0.20 | 5 | X | 0.38 | 10 | 12 | FSC-2 | 5.50 | 134 | FP-1 | 5.30 | 135 |
| 350 | 5.09 | 129 | 4.50 | 114 | 5.10 | 130 | 3.00 | 76 | 3.75 | 95 | 0.20 | 5 | X | 0.38 | 10 | 12 | FSC-C | 5.89 | 150 | FP-1 | 5.30 | 135 |
| 500 | 5.46 | 139 | 4.50 | 114 | 5.10 | 130 | 3.56 | 90 | 3.75 | 95 | 0.20 | 5 | X | 0.38 | 10 | 12 | FSC-2 | 6.26 | 159 | FP-1 | 5.30 | 135 |
| 750 | 5.66 | 144 | 5.25 | 133 | 5.73 | 146 | 3.43 | 87 | 4.38 | 111 | 0.28 | 7 | X | 0.56 | 14 | 12 | FSC-2 | 6.46 | 164 | FP-1 | 5.93 | 151 |
| 1000 | 6.04 | 153 | 5.25 | 133 | 5.73 | 146 | 4.31 | 110 | 4.38 | 111 | 0.28 | 7 | X | 0.56 | 14 | 12 | FSC-2 | 6.84 | 174 | FP-1 | 5.93 | 151 |
| 1500 | 5.81 | 148 | 7.06 | 179 | 7.46 | 190 | 4.13 | 105 | 5.81 | 148 | 0.28 | 7 | X | 0.56 | 14 | 12 | FSC-2 | 6.61 | 168 | FP-1 | 7.66 | 195 |
| 2000 | 7.04 | 179 | 7.06 | 179 | 7.46 | 190 | 4.56 | 116 | 5.81 | 148 | 0.28 | 7 | X | 0.56 | 14 | 12 | FSC-2 | 7.84 | 199 | FP-1 | 7.66 | 195 |

^ Dimension when FINGERSAFE covers are field installed
Dimension when fuse pullers are field installed.
Table 24: Dimensions for Type TF


Voltage Codes: D2; D13; D14; D16; D21; D23; D25; D36; D38; D52; D54; D56; D59; D61; D63; D64; D66; D78; D88; D89; D92

| 25 | 3.09 | 79 | 3.00 | 76 | 4.00 | 66 | 2.00 | 51 | 2.50 | 64 | 0.20 | 5 | $X$ | 0.38 | 10 | 11 | FSC-1 | 3.84 | 98 | FP-1 | 4.20 | 107 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 50 | 3.09 | 79 | 3.00 | 76 | 4.00 | 65 | 2.00 | 51 | 2.50 | 64 | 0.20 | 5 | $X$ | 0.38 | 10 | 11 | FSC-1 | 3.84 | 98 | FP-1 | 4.45 | 113 |
| 75 | 3.34 | 85 | 3.38 | 86 | 4.25 | 73 | 2.38 | 61 | 2.81 | 71 | 0.20 | 5 | $X$ | 0.48 | 12 | 11 | FSC-1 | 4.09 | 104 | FP-1 | 4.45 | 113 |
| 100 | 3.34 | 85 | 3.38 | 86 | 4.25 | 73 | 2.38 | 61 | 2.81 | 71 | 0.20 | 5 | $X$ | 0.48 | 12 | 11 | FSC-1 | 4.09 | 104 | FP-1 | 4.75 | 121 |
| 150 | 3.59 | 91 | 3.75 | 95 | 4.55 | 81 | 2.88 | 73 | 3.13 | 80 | 0.20 | 5 | $X$ | 0.38 | 10 | 11 | FSC-1 | 4.34 | 110 | FP-1 | 4.75 | 121 |
| 200 | 3.59 | 91 | 3.75 | 95 | 4.55 | 81 | 2.88 | 73 | 3.13 | 80 | 0.20 | 5 | $X$ | 0.38 | 10 | 11 | FSC-2 | 4.34 | 110 | FP-1 | 4.75 | 121 |
| 250 | 5.25 | 133 | 3.75 | 95 | 4.55 | 83 | 2.88 | 73 | 3.13 | 80 | 0.20 | 5 | $X$ | 0.38 | 10 | 12 | FSC-2 | 6.05 | 154 | FP-1 | 5.30 | 135 |

Voltage Codes: D2; D13; D14; D16; D23; D25; D36; D52; D54; D56; D59; D61; D63; D64; D66; D78; D88; D89; D92

| 350 | 5.09 | 129 | 4.50 | 114 | 5.10 | 130 | 3.00 | 76 | 3.75 | 95 | 0.20 | 5 | X | 0.38 | 10 | 12 | FSC-2 | 5.89 | 150 | FP-1 | 5.30 | 135 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 500 | 5.46 | 139 | 4.50 | 114 | 5.10 | 130 | 3.56 | 90 | 3.75 | 95 | 0.20 | 5 | X | 0.38 | 10 | 12 | FSC-2 | 6.26 | 159 | FP-1 | 5.30 | 135 |

Voltage Codes: D63; D64; D78

| 750 | 5.66 | 142 | 5.25 | 133 | 5.73 | 146 | 3.43 | 87 | 4.38 | 111 | 0.28 | 7 | X | 0.56 | 14 | 12 | FSC-2 | 6.46 | 164 | FP-1 | 5.93 | 151 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1000 | 6.04 | 153 | 5.25 | 133 | 5.73 | 146 | 4.31 | 110 | 4.38 | 111 | 0.28 | 7 | X | 0.56 | 14 | 12 | FSC-2 | 6.84 | 174 | FP-1 | 5.93 | 151 |

$\star$ Dimension when FINGERSAFE covers are field installed

- Dimension when fuse pullers are field installed.

