



Crimp Terminals, Disconnects, and Splices

Thomas & Betts is pleased to introduce Spec-Kon® crimp terminals, disconnects, and splices. Ideal for OEM applications, the Spec-Kon® line can be used anywhere a high number of terminations are required every day, such as the wiring harness, panelboard, telecommunications, and automotive industries.

The Spec-Kon® terminal offering includes:

- A broad selection of bulk-packaged loose piece terminals in non-insulated and insulated varieties, including male and female disconnects, rings, forks, pins, blades, butt splices, wire joints and bullet connectors.
- Terminals on mylar tape for automated applications, including the new KT-2500 power tool for frequent, repeated crimps.
- The ERG-2500 ergonomic hand tool, which crimps all sizes of insulated barrel-style Spec-Kon® wire termination products.

Catalog Numbering System

Example: KV18-6R-M

| K | V | 18 | 6 | R | M |
|------------------------------------|--|--|--|--|--|
| Product | Terminal and Insulation | Wire Size Range | Feature Size | Terminal Type | Box Quantity |
| Thomas & Betts Spec-Kon® Terminals | (Blank) Bare Non-Insulated (V) Vinyl Funnel Entry (N) Nylon Funnel Entry (VF) Vinyl Fully Insulated (NF) Nylon Fully Insulated | (18) 22-16 AWG (14) 16-14 AWG (10) 12-10 AWG (8) 8 AWG (6) 6 AWG (4) 4 AWG (2) 2 AWG | Bolt Hole: Ring and Fork Terminals Tab Width: (250 Series) Disconnects Pin Length: Pin Terminals Blade Length: Blade Terminals Diameter: Bullets | (R) Ring (MS) Multiple Stud Ring (F) Fork (LF) Locking Fork (FF) Flanged Fork (PT) Pin Terminal (BL) Blade Terminal (MD) Male Disconnect (FD) Female Disconnect (FFD) Female Flag Disconnect (PD) Piggy Back Disconnect (FB) Female Bullet (MB) Male Bullet (BS) Butt Splice (QS) Quick Splice (WJ) Wire Joint (Closed End) (BFD) Barrel Flag Disconnect | (C) = 100 (CC) = 200 (W) = 250 (D) = 500 (M) = 1,000 (T) = Mylar Tape* * Please contact Customer Service for pricing and availability. |

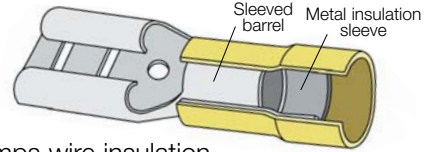
M
Spec-Kon®



Features and Benefits

Nylon and Vinyl Disconnects

- **Sleeved barrel**—Ensures barrel does not separate during crimping.
- **Funnel entry insulators**—Funnel entry speeds installation and reduces wire hang up.
- **Partial and fully insulated**—Offers a wide range of products to meet virtually any application
- **Metal insulation sleeve**—Sleeve crimps wire insulation, providing high-vibration resistance and conductor strain relief.
- **Ratings**—UL Listed, cULus Listed, CSA, 600 V at 105°C for nylon and vinyl.



Design Features of Spec-Kon® Disconnects

Female Disconnect
Provides easy installation and removal from male tabs and auxiliary equipment

Male Disconnect
Tab-style male disconnects are fast and reliable

Female Piggy Back
Provides the option for multiple circuits using one termination point

Fully Insulated Female
Standard female tab with the safety and reliability of complete insulation

Fully Insulated Male
Standard male tab with the safety and reliability of complete insulation

Bullet Disconnect and Receptacle
Fast and reliable alternative to the tab style featuring a lower profile to reduce space requirements

Performance Requirements

| Description | Wire Size (AWG) | | | | | | |
|--|-----------------|-----|-----|-----|-----|-----|-----|
| | #22 | #20 | #18 | #16 | #14 | #12 | #10 |
| U.L. 310 (Disconnects) | | | | | | | |
| Test Current for Max. 30°C Rise (Amps) | 3 | 4 | 7 | 10 | 15 | 20 | 24 |
| Min. Tensile Strength* (Lbs.) | 8 | 13 | 20 | 30 | 50 | 70 | 80 |

* Pull-out force of the crimped terminal.

Applicable Spec-Kon® products meet or exceed the following test specifications:

- UL310 (Disconnects)
- CSA

UL listed products are shown with the applicable logos in the product section.
UL file #E66716 (Disconnects).
CSA file #LR4503

Vinyl Insulated Female Disconnects



110 Tab Size



187 Tab Size



250 Tab Size

| Catalog Number | Wire Range | Tab Size inch | Dimension <small>inch mm</small> | | | | | |
|-----------------|---|---------------|----------------------------------|-------------|--------------|--------------|-------------|-------------|
| | | | W | F | L | B | D | T |
| KV18-110-20FD-M | 22-16 A.W.G. 0.5-1.5 mm ² | .110 x .020 | .126 3.2 | .256 6.5 | .728 19.0 | .413 10.5 | .150 3.8 | .012 0.3 |
| KV18-110-32FD-M | | .110 x .032 | .126 3.2 | .256 6.5 | .728 19.0 | | | |
| KV18-187-20FD-M | | .187 x .020 | .197 5.0 | .252 6.4 | .764 19.4 | | | .016 0.4 |
| KV18-187-32FD-M | | .187 x .032 | .197 5.0 | .252 6.4 | .764 19.4 | | | |
| KV18-250FD-M | | .250 x .032 | .260 6.6 | .287 7.3 | .819 20.8 | | | |
| KV14-110-20FD-M | 16-14 A.W.G. 1.5-2.5 mm ² | .110 x .020 | .126 3.2 | .256 6.5 | .748 19.0 | .413 10.5 | .185 4.7 | .012 0.3 |
| KV14-110-32FD-M | | .110 x .032 | .126 3.2 | .256 6.5 | .748 19.0 | | | |
| KV14-187-20FD-M | | .187 x .020 | .197 5.0 | .252 6.4 | .764 19.4 | | | .016 0.4 |
| KV14-187-32FD-M | | .187 x .032 | .197 5.0 | .252 6.4 | .764 19.4 | | | |
| KV14-250FD-M | | .250 x .032 | .260 6.6 | .287 7.3 | .819 20.8 | | | |
| KV10-110-20FD-D | 12-10 A.W.G. 4-6 mm ² | .110 x .020 | .126 3.2 | .343 8.7 | .866 22.0 | .512 13.0 | .244 6.2 | .016 0.4 |
| KV10-110-32FD-D | | .110 x .032 | .126 3.2 | .343 8.7 | .866 22.0 | | | |
| KV10-187-20FD-D | | .187 x .020 | .197 5.0 | .256 6.5 | .866 22.0 | | | |
| KV10-187-32FD-D | | .187 x .032 | .197 5.0 | .256 6.5 | .866 22.0 | | | |
| KV10-250FD-D | | .250 x .032 | .260 6.6 | .287 7.3 | .917 23.3 | | | |

Box Quantity: (D)=500; (M)=1000

For Mylar Tape replace box quantity with (T). Example: KV18-110FD-T

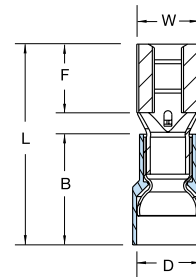
UL File #E66716

CSA File #LR4503

See pages in back of catalog for complete tool information.
Tool and Die Selection Chart on page M42.

Maximum Electrical Rating: 105°C 300 Volts Max.

Terminal Material: Brass with Copper Sleeve



M

Spec-Kon®

- For Use in Temporary Connections to Male Disconnects & Terminal Blocks
- Metal Insulation Sleeve
- Easy Entry Copper Sleeve

Tools used with Vinyl Insulated Female Disconnects



ERG2500



KT-2500













Tool and Die Selection Chart

| Spec-Kon® Terminals | | Plier Tool | Ergonomic Hand Tool | KT-2500 Pneumatic Tool Die Part Numbers | | | 13500 Pneumatic Tool Die Part Numbers | | | Erg-3000 Power Hand Tool Die Part Numbers | | |
|------------------------------------|-----------|------------|---------------------|---|--------|--------|---------------------------------------|-----------|-----------|---|-----------|-----------|
| Nylon Terminal (22-10 AWG) | KN or KNF | WT112M | ERG-2500 | KT-18 | KT-14 | KT-10 | KT-18X | KT-14X | KT-10X | KT-18Y | KT-14Y | KT-10Y |
| Nylon Butt Splice | | WT112M | ERG-2500 | N/A | N/A | N/A | KT-18X | KT-14X | KT-10X | KT-18Y | KT-14Y | KT-10Y |
| Nylon Disconnect | | WT112M | ERG-2500 | KT-18 | KT-14 | KT-10 | KT-18X | KT-14X | KT-10X | KT-18Y | KT-14Y | KT-10Y |
| Nylon Terminal (8-6 AWG) | | TBM6 | N/A | KT-8 | KT-6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vinyl Terminal (22-10 AWG) | KV or KVF | WT112M | ERG-2500 | KT-18 | KT-14 | KT-10 | KT-18X | KT-14X | KT-10X | KT-18Y | KT-14Y | KT-10Y |
| Vinyl Butt Splice | | WT112M | ERG-2500 | KT-18 | KT-14 | KT-10 | KT-18X | KT-14X | KT-10X | KT-18Y | KT-14Y | KT-10Y |
| Vinyl Disconnect | | WT112M | ERG-2500 | KT-18 | KT-14 | KT-10 | KT-18X | KT-14X | KT-10X | KT-18Y | KT-14Y | KT-10Y |
| Non Insulated Terminal (22-10 AWG) | K | WT111M | ERG-2002 | KTU-18 | KTU-14 | KTU-10 | KTU-2210X | KTU-2210X | KTU-2210X | KTU-2214Y | KTU-2214Y | KTU-2214Y |
| Non Insulated Butt Splice | | WT111M | ERG-2002 | N/A | N/A | N/A | KTU-2210X | KTU-2210X | KTU-2210X | KTU-2214Y | KTU-2214Y | KTU-2214Y |
| Non Insulated Terminal (8-6 AWG) | | TBM6 | N/A | N/A | N/A | N/A | KTU-8 | KTU-6 | N/A | N/A | N/A | N/A |
| Wire Joints | KN or KNF | WT112M | ERG-2500WJ | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Flag Terminals | | N/A | ERG-2500F | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Strip Length Chart

| Description | Terminal Series | Wire Strip Length |
|------------------------------|-----------------|-------------------|
| Non-Insulated Terminals | K18 | 1/4" |
| | K14 | 1/4" |
| | K10 | 5/16" |
| | K8 | 3/8" |
| | K6 | 7/16" |
| | K4 | 1/2" |
| | K2 | 9/16" |
| Vinyl Insulated Terminals | KV18 | 1/4" |
| | KV14 | 1/4" |
| | KV10 | 5/16" |
| | KV8 | 3/8" |
| | KV6 | 7/16" |
| Nylon Insulated Terminals | KN18 | 1/4" |
| | KN14 | 1/4" |
| | KN10 | 5/16" |
| | KN8 | 3/8" |
| | KN6 | 7/16" |
| Vinyl Insulated Disconnects | KV18 | 1/4" |
| | KV14 | 1/4" |
| | KV10 | 5/16" |
| Nylon Insulated Disconnects | KN18 | 1/4" |
| | KN14 | 1/4" |
| | KN10 | 5/16" |
| Vinyl Insulated Butt Splices | KV18 | 5/16" |
| | KV14 | 5/16" |
| | KV10 | 5/16" |
| Nylon Insulated Butt Splices | KN18 | 1/4" |
| | KN14 | 1/4" |
| | KN10 | 1/4" |
| Nylon Wire Joints | K18 | 9/32" |
| | K14 | 9/32" |
| | K10 | 11/32" |

Stud Size Chart

| Standard Stud Size U.S. | | Stud Diameter Inches mm | Terminal Hole Dia. Inches mm | Spec-Kon Stud Size Part No. Designation |
|---|------------|-------------------------|------------------------------|---|
|  | #2 M2 | .086 2.18 | .090 2.29 | 2 |
|  | #4 M2,5 | .112 2.84 | .118 3.00 | 4 |
|  | #5 M3 | .125 3.18 | .127 3.23 | 5 |
|  | #6 M3,5 | .138 3.51 | .146 3.71 | 6 |
|  | #8 M4 | .164 4.17 | .173 4.39 | 8 |
|  | #10 M5 | .190 4.83 | .198 5.03 | 10 |
|  | 1/4 M6 | .250 6.35 | .270 6.86 | 14 |
|  | 5/16 M8 | .312 7.92 | .330 8.38 | 56 |
|  | 3/8 M10 | .375 9.53 | .385 9.78 | 38 |
|  | 1/2 M12 | .500 12.7 | .520 13.21 | 12 |
|  | 5/8 M16 | .625 15.88 | .650 16.51 | 58 |
|  | 3/4 M18 | .750 19.05 | .810 20.57 | 34 |

Common Conductor Size Chart

| Size | No. of Strands | Individual Strand Size | Conductor Size | |
|---------|----------------|------------------------|----------------|--------------------|
| | | Inches mm | Inches mm | Circl. Mil Area mm |
| 22AWG | 7 | .0096 0.24 | .028 0.74 | 640 0.74 |
| 20AWG | 10 | .0100 0.25 | .038 0.97 | 1020 0.519 |
| 18AWG | 16 | .0100 0.25 | .048 1.22 | 1620 0.823 |
| 16AWG | 26 | .0100 0.25 | .060 1.52 | 2580 1.310 |
| 14AWG | 7 | .0242 0.61 | .073 1.85 | 4110 2.080 |
| 12AWG | 7 | .0305 0.77 | .092 2.34 | 6530 3.310 |
| 10AWG | 7 | .0385 0.98 | .116 2.95 | 10,380 5.261 |
| 8AWG | 7 | .0486 1.23 | .146 3.71 | 16,510 8.367 |
| 6AWG | 7 | .0612 1.55 | .184 4.67 | 26,240 13.30 |
| 4AWG | 7 | .0772 1.96 | .232 5.89 | 41,740 21.15 |
| 2AWG | 7 | .0974 2.47 | .292 7.42 | 66,360 33.62 |
| 1AWG | 19 | .0664 1.69 | .332 8.43 | 83,690 42.41 |
| 1/10AWG | 19 | .0745 1.89 | .373 9.47 | 105,600 53.49 |
| 2/0AWG | 19 | .0837 2.13 | .418 10.62 | 133,100 67.43 |
| 3/0AWG | 19 | .0940 2.39 | .470 11.94 | 167,800 85.01 |
| 4/0AWG | 19 | .1055 2.68 | .528 13.41 | 211,600 107.2 |
| 250MCM | 37 | .0822 2.09 | .575 14.61 | 250,000 127 |
| 300MCM | 37 | .0900 2.29 | .630 16.00 | 300,000 152 |
| 350MCM | 37 | .0973 2.47 | .681 17.29 | 350,000 177 |
| 400MCM | 37 | .1040 2.64 | .728 18.49 | 400,000 203 |
| 500MCM | 37 | .1162 2.95 | .813 20.65 | 500,000 253 |
| 600MCM | 61 | .0992 2.52 | .893 22.68 | 600,000 304 |
| 750MCM | 61 | .1109 2.82 | .998 25.35 | 750,000 380 |
| 800MCM | 61 | .1145 2.91 | 1.031 26.19 | 800,000 405 |
| 1000MCM | 61 | .1280 3.25 | 1.152 29.26 | 1,000,000 507 |

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