

## MTM Crimpband Splices

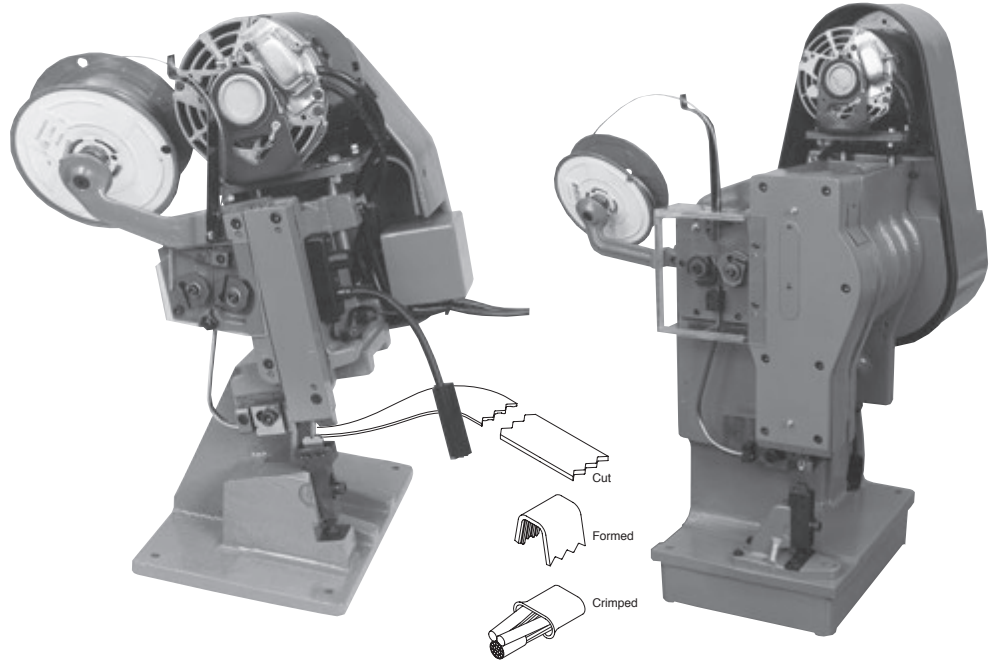
**This product line is not recommended for new designs, as the application machines are no longer manufactured.**

### Product Facts

- Made from a continuous coil of ribbon connector material
- Magnet wires MTM Crimpband splices have machine-piercing serrations designed for displacing magnet wire insulation.
- Available in brass, tin-plated brass, and copper-nickel alloy material
- Make parallel or pigtail connections on same machine
- 100% of Crimpband material is used in scrap free terminations
- Crimpband material coupled with appropriate toolsets accommodate specific CMA ranges
- Produced in TE equipment on your production floor
- Meets UL 486C crimp tensile requirements

### Applications

- Motors windings and connections
- Coil connections
- Transformer windings and connections
- Lighting ballasts
- Power supplies



TE features the MTM Crimpband system that is comprised of two key features: the semi-automatic termination machine and a reel of MTM Crimpband material.

In a one-step crimping operation, the machine feeds, cuts, forms and crimps the material to provide a low-cost, high reliability crimp connection.

The MTM Crimpband splices are formed during the crimping process from

machined longitudinal grooved material that pierces magnet wire varnish film insulation during crimping.

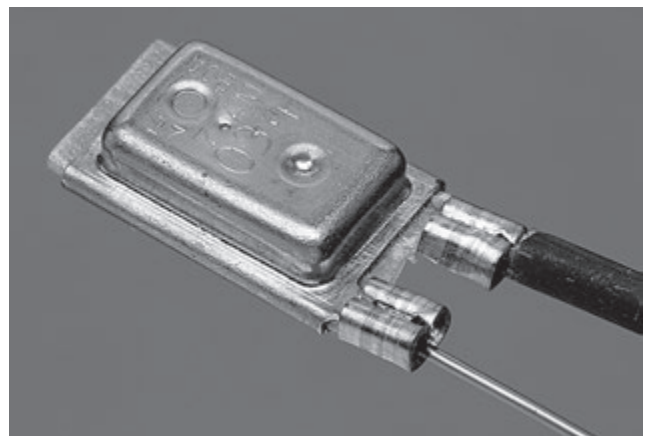
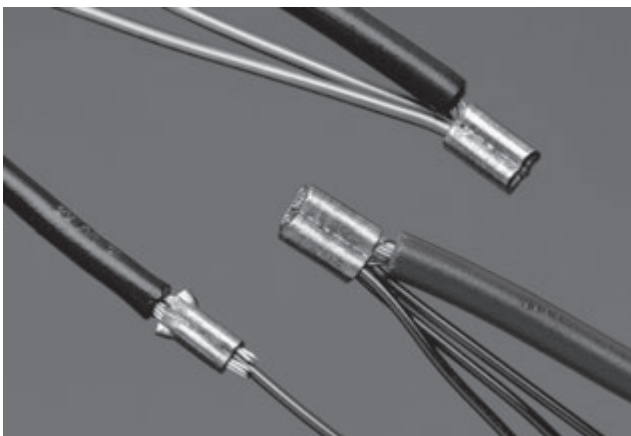
MTM Crimpband splices are specifically designed to terminate magnet wire to itself or in combination with standard solid or stranded lead wire.

Three magnet wires maximum can be terminated together with stranded lead wire in one splice.

TE provides a wide range of toolset types and Crimpband splices to meet various production requirements.

Depending on your specific application, MTM Crimpband splices are available in 7, 9, 11 and 13 serration versions for terminations in the 400 to 13,000 CMA range.

When aluminum magnet wire is used, MTM Crimpband splices must be tin plated.



## MTM Crimpband Splices (Continued)

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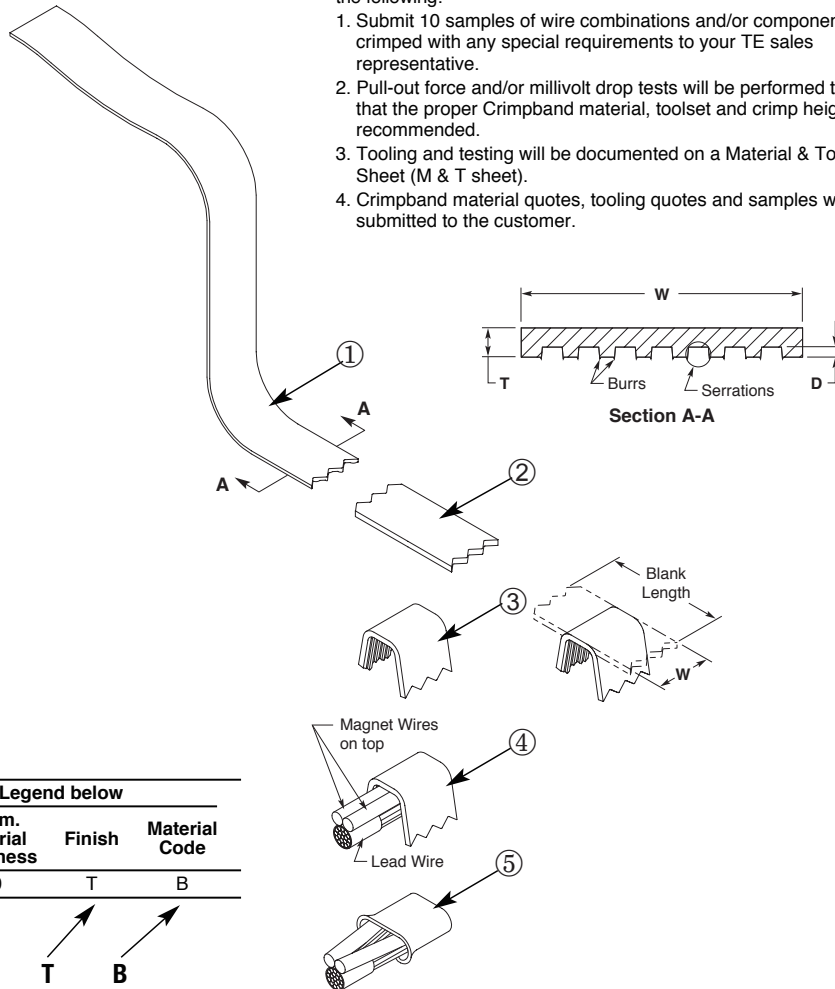
### MTM Crimpband Interconnection System

#### How the System Operates

- ① **Feed (Magnet Wire Connector Material)**  
Machine feeds strip until the strip hits the wire stop.
- ② **Shear (Blank Length)**  
The strip is cut by the cutter block former bar insert tooling.
- ③ **Bend (Crimp Formed)**  
The former bar drives the cut strip over the anvil, bending the cut strip into an upside down "U".
- ④ **Wire (Placement)**  
In pigtail and parallel (Thru) splices magnet wires must be placed on top of the lead wire.
- ⑤ **Crimp (Crimp Formed)**  
The anvil retracts as the driver takes the formed strip down into the clincher.

**Notes:** To insure that the proper Crimpband splice is chosen, TE recommends the following:

1. Submit 10 samples of wire combinations and/or components to be crimped with any special requirements to your TE sales representative.
2. Pull-out force and/or millivolt drop tests will be performed to insure that the proper Crimpband material, toolset and crimp heights are recommended.
3. Tooling and testing will be documented on a Material & Tooling Sheet (M & T sheet).
4. Crimpband material quotes, tooling quotes and samples will be submitted to the customer.



#### Connector Specification Code

See Figure 1 and/or Legend below					
Machine Basis	B.L. Dim. Tooling Size	W Dim. Connector Width	T Dim. Material Thickness	Finish	Material Code
L	092	6R	20	T	B

Splice No. Example: L 092 6R 20 T B

#### Legend

Machine Basis		
L	P	G*
Leased	Purchase	General

\* Customer has their own Tooling

Tooling Size Code	Blank Length B/L (Nom.)
032	.167
032/036	.228
036	.224
045	.246
051	.267
061	.292
061/076	.324
076	.339
076/092	.361
092	.379
092/125	.413
125	.446
125/160	.485
125/165	.506
165	.546

**Note:** For B/L above, .546 consult TE for tooling size code.

Connector Width Code W		
4R	5 Serrations	.138
6R	7 Serrations	.154
8R	9 Serrations	.194
10R	11 Serrations	.234

Material Thickness Code	T ±.002 Dim.	D Serration Depth
12	.012	.005
14	.014	.005
16	.016	.007
20	.020	.007
25	.025	.007

Material Code	Material/Finish
B	CDA 260 Brass
A	CDA 725 Copper/Nickel Alloy
TB	Pre-Tin over CDA 260 Brass

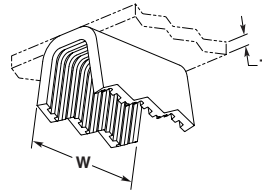
Wire Size AWG	UL486C Pull Out Force Requirements Underwriters Laboratory (lbs.)
26	3
24	5
22	8
20	10
18	10
16	15
14	25
12	35
10	40

Crimpband

## MTM Crimpband Splices (Continued)

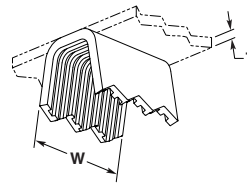
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### 11 Serrations



AWG/ mm <sup>2</sup>	Wire Range Solid Dia.	CMA Range	Stock Thk. (T)	Mat'l Width (W)	Material	Toolset	Part Number	Descriptive X-ref
14½-11½ 1.80-4.00	.059-.087 1.50-2.21	3500-7500	.025 0.64	.234 5.94	Brass	125/165	1601842-1	P125/ 16510R25B
14½-11½ 1.80-4.00	.059-.087 1.50-2.21	3500-7500	.025 0.64	.234 5.94	Tin Plated Brass	125/165	1601705-1	L125/ 16510R25TB
13½-10½ 2.54-4.50	.071-.097 1.70-2.46	4500-9500	.025 0.64	.234 5.94	Brass	165/200	1601847-1	P165/ 20010R25B
13½-10½ 2.54-4.50	.071-.097 1.70-2.46	4500-9500	.025 0.64	.234 5.94	Tin Plated Brass	165/200	1601848-1	P165/ 20010R25TB

### 9 Serrations



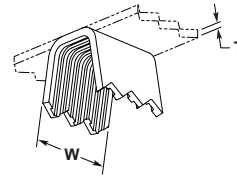
AWG/ mm <sup>2</sup>	Wire Range Solid Dia.	CMA Range	Stock Thk. (T)	Mat'l Width (W)	Material	Toolset	Part Number	Descriptive X-ref
24-20 0.20-0.50	.020-.033 0.51-0.84	400-1100	.016 0.41	.194 4.93	Tin Plated Brass	032/036	1601794-1†	P032/ 0368R16TB
20½-16 0.45-1.30	.030-.051 0.76-1.29	900-2600	.018 0.46	.194 4.93	Tin Plated Brass	061	1601607-1†	L0618R16TB
20½-16 0.45-1.30	.030-.051 0.76-1.29	900-2600	.018 0.46	.194 4.93	Brass	061	1601608-1	L0618R20B
20½-16 0.45-1.30	.030-.051 0.76-1.29	900-2600	.018 0.46	.194 4.93	Tin Plated Brass	061	1601814-1†	P0618R20TB
18-14 0.80-2.00	.040-.063 1.02-1.60	1600-4000	.016 0.41	.194 4.93	Tin Plated Brass	076	1601824-1	P0768R16TB
18-14 0.80-2.00	.040-.063 1.02-1.60	1600-4000	.020 0.51	.194 4.93	Tin Plated Brass	076	1601857-1	PO768R20TB
18-14 0.80-2.00	.040-.063 1.02-1.60	1800-4600	.020 0.51	.194 4.93	Brass	076/092	1601823-1	P076/ 0928R20B
18-14 0.80-2.00	.040-.063 1.02-1.60	1800-4600	.020 0.51	.194 4.93	Tin Plated Brass	076/092	1601639-1	L076/ 0928R20TB
16-12 1.30-3.46	.051-.078 1.29-1.98	2600-6100	.020 0.51	.194 4.93	Brass	092/125	1601833-1	P092/ 1258R20B
16-12 1.30-3.46	.051-.078 1.29-1.98	2600-6100	.020 0.51	.194 4.93	Tin Plated Brass	092/125	1601677-1	L092/ 1258R20TB
16-12 1.30-3.46	.051-.078 1.29-1.98	2600-6100	.025 0.64	.194 4.93	Brass	092/125	1601678-1†	L092/ 1258R25B
16-12 1.30-3.46	.051-.078 1.29-1.98	2600-6100	.025 0.64	.194 4.93	Tin Plated Brass	092/125	1601835-1†	P092/ 1258R25TB
15½-12 1.54-3.46	.055-.082 1.40-2.10	3000-6750	.016 0.41	.194 4.93	Brass	125	1601717-1†	L1258R16B
15½-12 1.54-3.46	.055-.082 1.40-2.10	3000-6750	.016 0.41	.194 4.93	Tin Plated Brass	125	1601718-1	L1258R16TB
15½-12 1.54-3.46	.055-.082 1.40-2.10	3000-6750	.020 0.51	.194 4.93	Brass	125	1601846-1	P1258R20B
15½-12 1.54-3.46	.055-.082 1.40-2.10	3000-6750	.025 0.64	.194 4.93	Brass	125	1601719-1	L1258R25B
14½-11½ 1.80-4.00	.059-.087 1.50-2.21	3500-7500	.025 0.64	.194 4.93	Brass	125/165	1601706-1	L125/ 1658R25B
14½-11½ 1.80-4.00	.059-.087 1.50-2.21	3500-7500	.025 0.64	.194 4.93	Tin Plated Brass	125/165	1601707-1	L125/ 1658R25TB
14-11 2.00-4.20	.063-.092 1.60-2.34	4000-8500	.025 0.64	.194 4.93	Tin Plated Brass	165	1601750-1†	L1658R25TB
11½-9 4.00-6.50	.084-.114 2.13-2.90	7000-13000	.025 0.64	.194 4.93	Tin Plated Brass	200/202	1601761-1	L200/ 2028R25TB

† These part numbers are available upon special request; contact TE engineering for details.

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### 7 Serrations



AWG/ mm <sup>2</sup>	Wire Range Solid Dia.	CMA Range	Stock Thk. (T)	Mat'l Width (W)	Material	Toolset	Part Number	Descriptive X-ref
27½-21 0.09-0.40	.013-.028 0.33-0.71	170-800	.012 0.30	.154 3.91	Brass	032	1601800-1	P0326R12BUF <sup>1</sup>
24-20 0.20-0.50	.020-.033 0.51-0.84	400-1100	.012 0.30	.154 3.91	Brass	032/036	1601539-1	L032/ 0366R12B
24-20 0.20-0.50	.020-.033 0.51-0.84	400-1100	.012 0.30	.154 3.91	Cu Ni	032/036	1601538-1	L032/ 0366R12AUF <sup>1</sup>
24-20 0.20-0.50	.020-.033 0.51-0.84	400-1100	.016 0.41	.154 3.91	Brass	032/036	1601540-1	L032/ 0366R16B
24-20 0.20-0.50	.020-.033 0.51-0.84	400-1100	.016 0.41	.154 3.91	Tin Plated Brass	032/036	1601793-1	P032/ 0366R16TB
22-19 0.38-0.60	.024-.036 0.70-0.91	600-1300	.016 0.41	.154 3.91	Brass	045	1601559-1	L0456R16B
22-19 0.38-0.60	.024-.036 0.70-0.91	600-1300	.020 0.51	.154 3.91	Brass	045	1601560-1†	L0456R20B
20½-16 0.45-1.30	.030-.051 0.76-1.29	900-2600	.016 0.41	.154 3.91	Brass	061	1601604-1	L0616R16B
20½-16 0.45-1.30	.030-.051 0.76-1.29	900-2600	.016 0.41	.154 3.91	Tin Plated Brass	061	1601606-1	L0616R16TB
18-14 0.80-2.00	.040-.063 1.02-1.60	1600-4000	.016 0.41	.154 3.91	Brass	076	1601644-1	L0766R16B
18-14 0.80-2.00	.040-.063 1.02-1.60	1600-4000	.016 0.41	.154 3.91	Tin Plated Brass	076	1601646-1†	L0766R16TB
18-14 0.80-2.00	.040-.063 1.02-1.60	1600-4000	.020 0.51	.154 3.91	Brass	076	1601647-1†	L0766R20B
17½-13½ 0.95-2.54	.042-.068 1.07-1.80	1800-4600	.016 0.41	.154 3.91	Brass	076/092	1601637-1	L076/ 0926R16BX
16½-13 1.10-2.60	.047-.072 1.19-1.83	2200-5200	.016 0.41	.154 3.91	Tin Plated Brass	092	1601683-1	L0926R16TB
16-12 1.30-3.46	.051-.078 1.29-1.98	2600-6100	.016 0.41	.154 3.91	Tin Plated Brass	092/125	1601675-1	L092/ 1256R16TB
16-12 1.30-3.46	.051-.078 1.29-1.98	2600-6100	.020 0.51	.154 3.91	Brass	092/125	1601832-1	P092/ 1256R20B
15½-12 1.54-3.46	.055-.082 1.40-2.10	3000-6750	.012 0.30	.154 3.91	Brass	125	1601844-1	P1256R12B
15½-12 1.54-3.46	.055-.082 1.40-2.10	3000-6750	.016 0.41	.154 3.91	Brass	125	1601845-1	P1256R16B
15½-12 1.54-3.46	.055-.082 1.40-2.10	3000-6750	.016 0.41	.154 3.91	Tin Plated Brass	125	1601716-1†	L1256R16TB

<sup>1</sup> UF designates Ultra-Fine serrations which are recommended for applications using wire size 28 AWG [0.32 mm] or smaller.

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