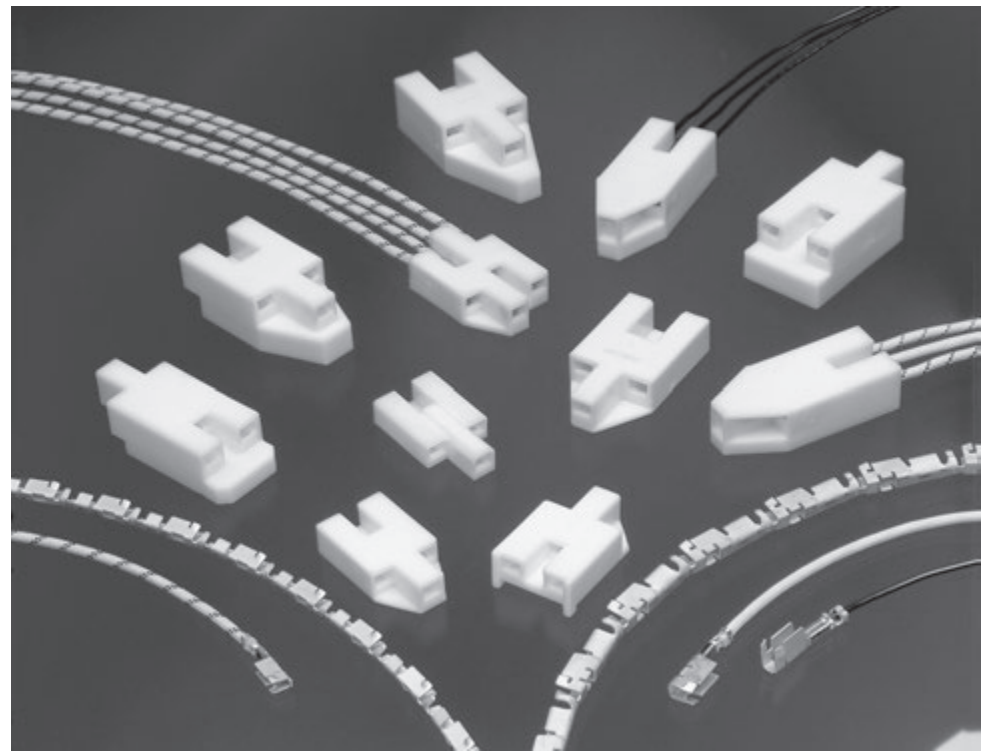


Cluster Blocks

Product Facts

- Connects to sealed hermetic headers
- Versions available to accept 2.29 [.090] and 3.18 [.125] header pins
- Accepts Lead wire range 18–16 AWG [0.8–1.4 mm²] and 14–12 AWG [2.0–3.0 mm²]
- AMPLIVAR product versions accept up to 3 copper or aluminum magnet wires without the need to remove insulation
- Impervious to many oils and refrigerants
- Insulation compatibility
- Housings available to accept standard and reversed header pin layouts
- Housing versions available for compressor interior and exterior
- High-performance electrical and mechanical contact
- High-impact resistant
- Assemblies accept pins from one side only to prevent reversed polarity
- High-speed application of pin receptacle terminals with automatic terminating machines and quick-change applicators for high volume production rates at the lowest installed cost
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476



TE features cluster blocks that offer manufacturers of air conditioning and refrigeration products a low-cost, fully insulated, quick-connect means for electrically connecting sealed hermetic header pins on compressors.

Cluster blocks feature high impact resistance to shock and abuse, and long-life performance in the presence of oils and refrigerants. Since the connectors accept pins from only one side, the danger of reversing polarity at the time of installation is prevented.

The one-piece housings are molded from thermoplastic polyester. The connector accepts 2.29 [.090] and 3.18 [.125] diameter pin sizes in either standard or reverse pin layouts.

Housings accept both lead wire and AMPLIVAR direct connect pin receptacle

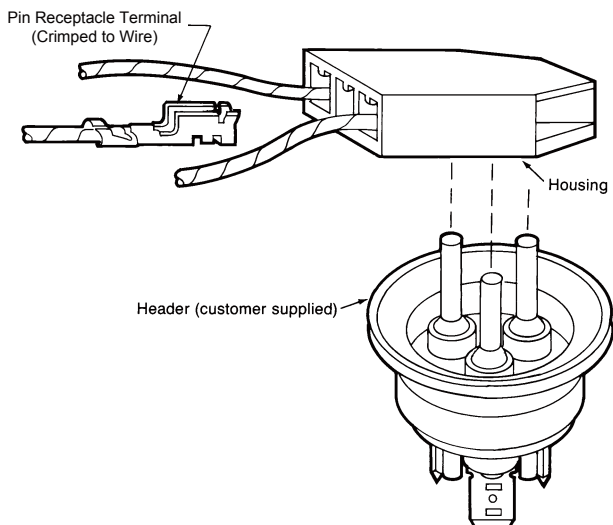
terminals. These are precision formed and available on reels for highspeed application.

High retention pin receptacle terminals are available to provide optimum terminal retention housings.



PRODUCT SPECIFICATIONS:
108-2008, 108-5205 & 108-5541

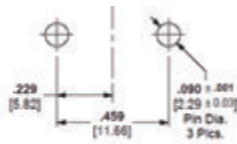
APPLICATION SPECIFICATIONS:
114-2019 & 114-5235



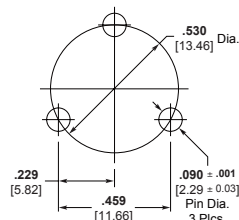
Typical Assembly

Cluster Blocks 2.29 [.090] Pin Size (Lead Wire and Direct Connect)

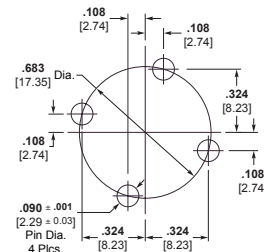
Housings



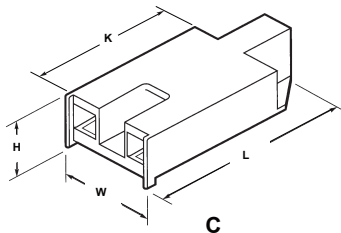
Pin Location
A



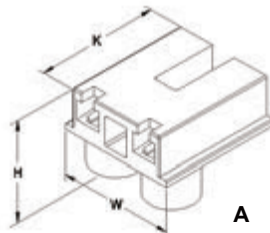
Pin Location
B, C and D



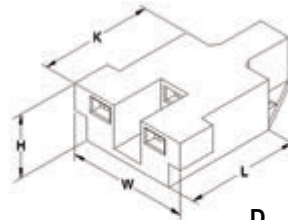
Pin Location
E



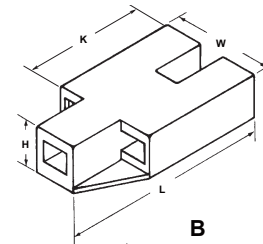
A



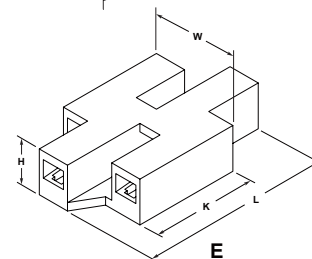
B



C



D



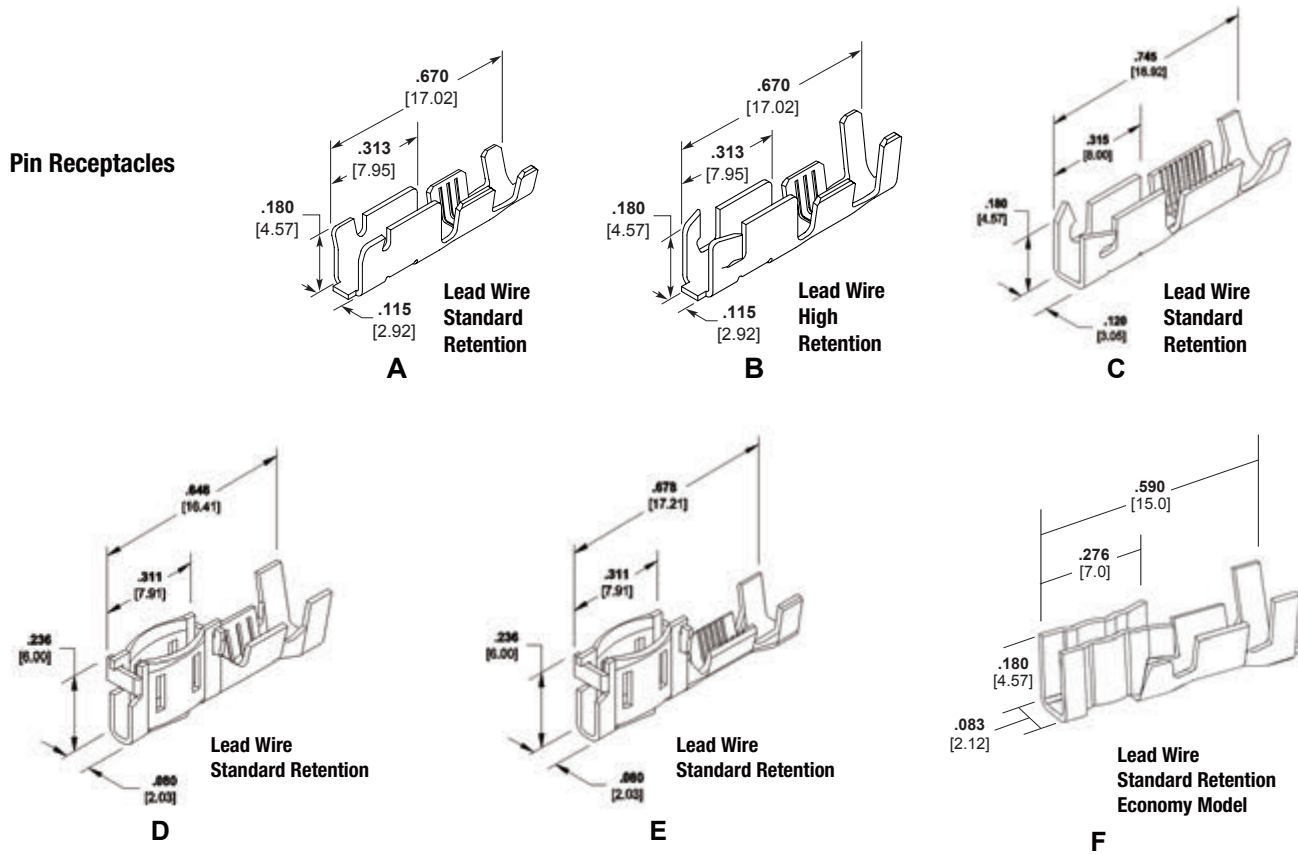
E

Type	Header Pin Circle Dia. mm / inch	Dim L mm / inch	Dim W mm / inch	Dim H mm / inch	Dim K mm / inch	Material / Use ¹	Accepts Receptacle Style	Part Number	Notes
2 Position with Standoff	13.46 [.530]	22.45 [.884]	21.08 [.830]	14.23 [.560]	N/A	PBT Interior	A, B & C	1969357-1	
		31.50 [1.240]	18.05 [.710]	8.15 [.320]	21.35 [.840]	PBT Interior	A, B & C	360050-1	
		31.00 [1.220]	17.65 [.695]	6.60 [.260]	20.85 [.820]	PBT Interior	A, B & C	521078-1	
B 3 Position Center Forward	13.46 [.530]	30.48 [1.200]	17.65 [.695]	7.87 [.310]	20.40 [.803]	PBT Exterior	A, B & C	1380145-1	2
		30.48 [1.200]	17.65 [.695]	7.87 [.310]	20.40 [.803]	PBT Exterior	A, B & C	1380145-2	3
		30.48 [1.200]	17.65 [.695]	9.70 [.382]	20.40 [.803]	PBT Exterior	A, B & C	2232327-1	3
		30.48 [1.200]	17.65 [.695]	9.70 [.382]	20.40 [.803]	PA6+GF Exterior	A, B & C	2232327-2	4
		30.48 [1.200]	17.65 [.695]	9.70 [.382]	20.40 [.803]	PBT Exterior	A, B & C	2232326-1	3
		30.48 [1.200]	17.65 [.695]	9.70 [.382]	20.40 [.803]	PA6+GF Exterior	A, B & C	2232326-2	4
C 3 Position Center Back	13.46 [.530]	30.80 [1.21]	17.80 [.701]	7.40 [.0291]	20.40 [.803]	PBT Exterior	A, B & C	235280-1	
		31.10 [1.225]	20.55 [.810]	8.15 [.320]	21.35 [.840]	PBT Interior	A, B & C	360033-1	
		30.50 [1.200]	17.65 [.695]	7.85 [.310]	20.40 [.805]	PBT Interior	A, B & C	281006-4	
		30.50 [1.200]	17.70 [.697]	7.90 [.311]	20.40 [.805]	PBT Exterior	A, B & C	880631-5	2
		30.50 [1.200]	17.70 [.697]	7.80 [.307]	20.40 [.805]	PA6+GF Exterior	A, B & C	1955415-1	4
		31.60 [1.244]	22.70 [.893]	9.30 [.366]	21.50 [.846]	PBT Filled Interior	D & E	171370-3	
D 3 Position Center Back Extra Wide	13.46 [.530]	31.60 [1.244]	22.70 [.893]	9.30 [.366]	21.50 [.846]	PBT Filled Exterior	D & E	171370-5	3
		31.60 [1.244]	22.70 [.893]	9.30 [.366]	21.50 [.846]	PA6+GF Exterior	D & E	171370-6	4
		28.10 [1.110]	22.70 [.893]	7.60 [.299]	18.10 [.712]	PBT Filled Exterior	F	2825082-1	5
		28.10 [1.110]	22.70 [.893]	7.60 [.299]	18.10 [.712]	PBT Filled Exterior	F	2825082-2	4
E 4 Position	17.35 [.683]	37.85 [1.490]	22.85 [.900]	9.00 [.355]	21.45 [.845]	PBT Interior	A, B & C	1217262-1	

Notes: 1. Interior use designates that the material can be subjected to refrigerants and lubricants often found in a compressor. 3. Flammability rating UL94 V-0
Consult TE Connectivity Product specification for additional information. 4. Flammability rating UL94 V-0. Glow Wire compliant to 750°C with No Flame per IEC 60335-1.
2. Flammability rating UL94 V-2 5. Flammability rating UL94 HB

Cluster Blocks 2.29 [.090] Pin Size (Lead Wire and Direct Connect)

Pin Receptacles



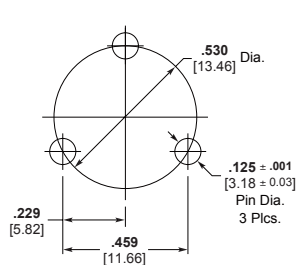
Cluster Blocks

Type	Lead Wire Size	Magnet Wire Size	Crimp Width	Insulation Dia	Crimp Width	Material	Part Number	Notes
	mm ² / AWG	mm ² / CMA	mm / inch	mm / inch	mm / inch			
A Lead Wire Standard Retention	0.30 - .75 [22 - 18]		2.03 0.080	1.30 - 2.40 .051 - .095	3.05 0.120	Tin Plated Phos Bronze ¹	1599105-1	
	0.80 - 1.3 [18 - 16]		2.79 0.110	1.50 - 2.50 .060 - .100	3.56 0.140	Tin Plated Phos Bronze ¹	62131-3	
			2.79 0.110	2.30 - 4.30 .090 - .170	4.57 0.180	Tin Plated Phos Bronze ¹	63448-1	
B Lead Wire High Retention	0.30 - 2.08 [22 - 14]		2.54 0.100	2.00 - 3.80 .080 - .150	3.30 0.130	Tin Plated Phos Bronze ¹	1217264-1	
		0.26-0.77 [400 - 1600]	2.270 0.090	1.50 - 2.55 0.06 - .100	3.560 0.140	Tin Plated Phos Bronze ¹	1742981-1	
C AMPLIVAR Direct Connect High Retention Product		0.77 - 2.43 [1600 - 4800]	2.79 0.110	1.90 - 3.20 .075 - .125	3.94 0.155	Tin Plated Phos Bronze ¹	1742964-1	3
D Lead Wire Oval Contact	0.50 - 1.25 [20 - 16]		2.29 0.090	2.00 - 3.40 .080 - .134	3.81 0.150	Tin Plated Phos Bronze ¹	170063-2	2
E AMPLIVAR Short Barrel Oval Contact		0.11 - 0.73 [225 - 1445]	1.78 0.070	0.90 - 2.00 .035 - .079	3.3 0.130	Tin Plated Phos Bronze ¹	1123655-1	2, 4
		0.77 - 2.13 [1600 - 4200]	2.79 0.110	2.00 - 2.90 .080 - .114	3.81 0.150	Tin Plated Phos Bronze ¹	353937-1	2, 4
F Lead Wire Oval Contact Economy Model	0.50 - 1.25 [20 - 16]		2.29 0.090	2.00 - 3.40 .080 - .134	3.81 0.150	Tin Plated Phos Bronze ¹	2825083-1	5

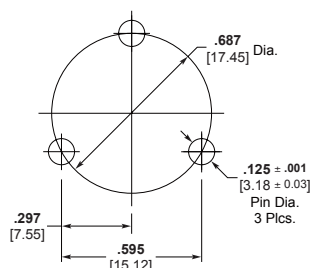
Notes: 1. May contain an equivalent copper alloy.
2. Requires extra wide type D housing.
3. Connects up to 3 Copper or aluminum magnet wires without stripping insulation.
4. Connects up to 2 copper magnets without stripping insulation.
5. Requires extra wide type D, Economy Model housing.

Cluster Blocks 3.18 [.125] Pin Size (Lead Wire and Direct Connect)

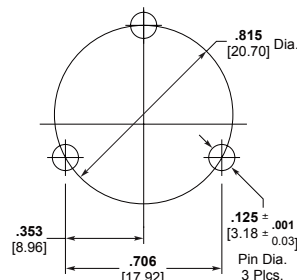
Housings



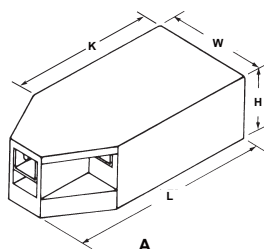
Pin Location
A and B



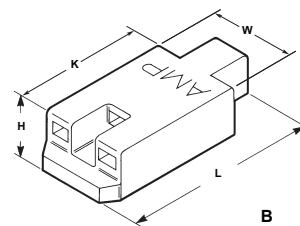
Pin Location
C and D



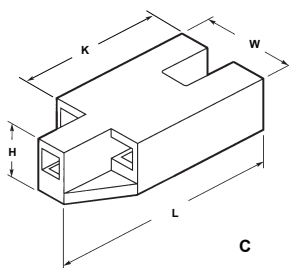
Pin Location
E



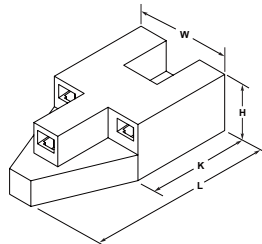
A



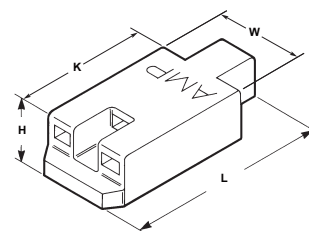
B



C



D



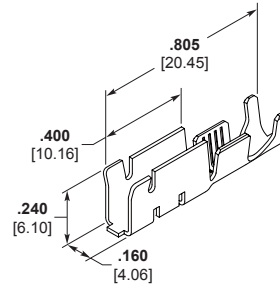
E

Type	Header Pin Circle Dia.	Dim L	Dim W	Dim H	Dim K	Material / Use ¹	Accepts Receptacle Style	Part Number
	mm / inch	mm / inch	mm / inch	mm / inch	mm / inch			
A 3 Position Center Forward	13.46 [.530]	44.60 [1.755]	19.45 [0.765]	11.95 [0.470]	31.17 [1.227]	PBT Interior	A, B, C & D	360052-1
		44.60 [1.755]	19.45 [0.765]	13.35 [.525]	31.17 [1.227]	PBT Interior	A, B, C & D	1217181-1
B 3 Position Center Back	13.46 [.530]	44.60 [1.755]	19.45 [0.765]	11.95 [0.470]	31.10 [1.225]	PBT Interior	A, B, C & D	360051-1
		47.25 [1.860]	19.45 [.765]	13.35 [.525]	31.10 [1.225]	PBT Interior	A, B, C & D	1217200-1
C 3 Position Center Forward	17.45 [.687]	40.50 [1.595]	22.75 [.895]	9.65 [.380]	27.45 [1.080]	PBT Interior	A, B, C & D	520995-1
		43.95 [1.730]	22.75 [.895]	15.60 [.615]	27.45 [1.080]	PBT Interior	A, B, C & D	1217186-1
D 3 Position Center Back	17.45 [.687]	47.00 [1.850]	22.75 [.895]	15.60 [.615]	31.10 [1.225]	PBT Interior	A, B, C & D	1217187-1
E 3 Position Center Forward	20.70 [.815]	50.15 [1.975]	25.80 [1.015]	15.00 [.590]	26.65 1.05	PBT Interior	A, B, C & D	1217261-1

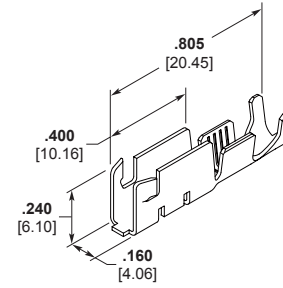
Notes: 1. Interior use designates that the material can be subjected to refrigerants and lubricants often found in a compressor. Consult TE Connectivity product specification for additional information.

Cluster Blocks 3.18 [.125] Pin Size (Lead Wire and Direct Connect) (Continued)

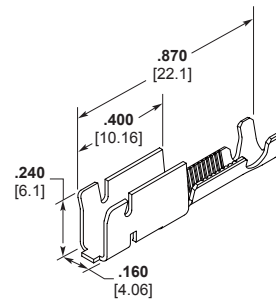
Pin Receptacles



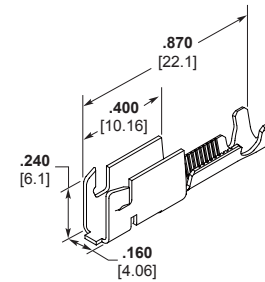
A
Lead Wire



B
Lead Wire



C
AMPLIVAR Direct Connect Contact



D
AMPLIVAR Direct Connect Contact

Type	Lead Wire Size	Magnet Wire Size	Crimp Width	Insulation Dia	Crimp Width	Material	Part Number	Notes
	mm ² / AWG	mm ² / CMA	mm / inch	mm / inch	mm / inch			
A Lead Wire Standard Retention	0.75 - 1.5 [18 - 16]		2.79 0.110	2.30 - 3.30 .090 - .130	3.94 0.155	Tin Plated Phos Bronze ¹	62244-3	2
	2.0 - 6.0 14 - 10		3.56 0.140	3.30 - 4.30 .130 - .170	4.57 0.180	Tin Plated Phos Bronze ¹	62243-3	2
	0.32-0.82 or 2x0.32 [22-18 or 2x22]		2.29 0.090	2.79 or 2x2.29 Max .110 or 2x.090 Max	3.56 0.140	Tin Plated Phos Bronze ¹	1742657-1	2
B Lead Wire High Retention	0.75 - 1.5 [18 - 16]		2.79 0.110	2.30 - 3.30 .090 - .130	3.94 0.155	Tin Plated Phos Bronze ¹	1217176-1	2
	2.0 - 6.0 [14 - 10]		3.56 0.140	3.30 - 4.30 .130 - .170	4.57 0.180	Tin Plated Phos Bronze ¹	1217175-1	2
		0.20 - 0.81 400 - 1600	2.27 0.090	1.50 - 2.55 .060 - .100	3.56 0.140	Tin Plated Phos Bronze ¹	63453-1	2, 4
C AMPLIVAR Direct Connect Standard Retention		0.76 - 2.13 1500 - 4200	2.79 0.110	1.90 - 3.20 .075 - .125	3.94 0.155	Tin Plated Phos Bronze ¹	63454-1	2, 4
		2.00 - 4.30 4000 - 8500	3.56 0.140	2.30 - 4.30 .090 - .170	4.32 0.170	Tin Plated Phos Bronze ¹	63455-1	2, 4
		0.20 - 0.81 400 - 1600	2.27 0.090	1.50 - 2.55 .060 - .100	3.56 0.140	Tin Plated Phos Bronze ¹	1217172-1	2, 4
D AMPLIVAR Direct Connect High Retention		0.76 - 2.13 1500 - 4200	2.79 0.110	1.90 - 3.20 .075 - .125	3.94 0.155	Tin Plated Phos Bronze ¹	1217174-1	2, 4
		2.00 - 4.30 4000 - 8500	3.56 0.140	2.30 - 4.30 .090 - .170	4.32 0.170	Tin Plated Phos Bronze ¹	1217173-1	2, 4

Notes: 1. Material shown is for reference only. May contain an equivalent copper alloy.
2. Receptacle must be contained in a housing listed on the previous page for proper performance.
3. Stand-alone receptacle can be used with or without a housing.
4. Connects up to 3 copper or aluminum magnet wires without removing the insulation.