

These are low installed cost connectors rated for up to 13 A and 240 V ac. They are typically used for circuit board and internal wiring applications. Snap Together connectors facilitate easy assembly and removal of equipment such as motors, fans, transformers, etc. All Snap Together - Rectangular connectors are RoHS Compliant.

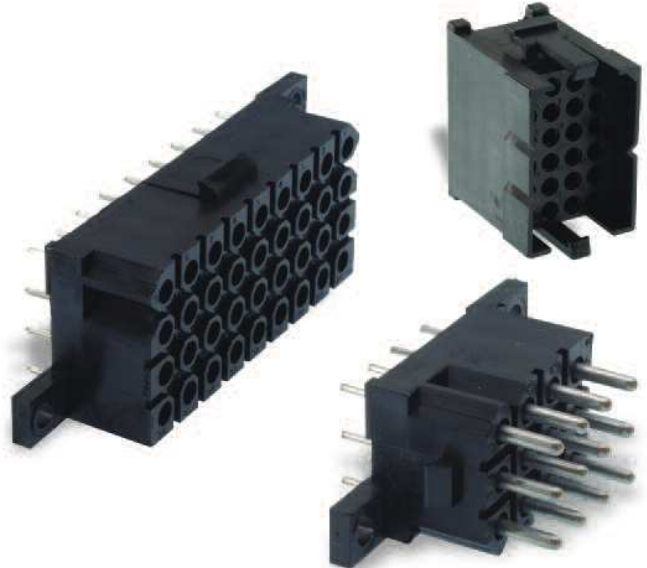


### Applications:

- Vehicle Dashboards.
- Circuit board connections.
- Internal connections.

### Product Features

- Easy cost effective installation.
- Integrally molded latches and connector polarization.
- Recognized under the component program of UL Inc.
- Inter-connector discrimination facilities available.
- Accepts formed (stamped) or machined contacts, see page 64.



### Performance Specifications

Operating Voltage <sup>1</sup>	Up to 250 V ac rms
Contact Current Rating <sup>2</sup>	Up to 13 A
Operating Temperature	-55°C to +105°C (-67°F to +221 °F) for free Plug and Receptacles -40°C to +105°C (-40°F to +221°F) for PCB Mounted Receptacles
Insulation Resistance	5000MW min. at 500 V dc
Durability <sup>3</sup>	Up to 500 Mating Cycles
Connector Latching Force	150 N min. with latches engaged
Panel Retention Force	500 N min.
Flammability	UL 94 V-O

<sup>1</sup> Depends on contacts used, layout, and degree of pollution

<sup>2</sup> Depends on number and type of contacts used

<sup>3</sup> Depends on plating and type of contacts used

### Materials and Finishes

Insulator	Black Nylon, UL 94 V-0
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## How to Order

Typical Nomenclature:

TST 02 P A 0 0 \*



**Series**

TST = Trident Snap Together

**Number of Contacts**

- 02
- 03
- 04
- 06
- 12
- 24
- 36

**Plating Style**

- T = Tin
- Y = Gold
- Z = Gold Flash
- \* = None (no contacts)

**Contact Type**

- 0 = No Contacts (Standard for Plug and Panel Mounted Receptacle)
- 1 = Machined Solder Tail Pin
- 2 = Machined Solder Tail Socket
- 5 = Formed Stamped Solder Tail Pin
- 6 = Formed Stamped Solder Tail Socket

**Color of Moulding**

- 0 = Black

Type	
PA	Plug; Free
RB	Receptacle; For PCB, with Mounting Lugs
RA	Receptacle; Panel Mounting (delivered without any contacts)
RR	Receptacle, For PCB, 90° Right Angle Mounting (only for 12 position connectors with machined contacts)
AS	Accessory; Receptacle Shroud
AH	Accessory; Plug Strain Relief Hood

## Test Specifications

The table below summarizes the results of key tests. Data is applicable to standard connectors with standard contacts. Variations may affect this data, so please consult factory for further information on your requirements.

Test	Method	Criteria of Acceptance
Dielectric Withstanding Voltage	2000 V ac	No breakdown
Thermal Shock	-55°C to +125°C (-67°F to +257°F), 5 cycles	No physical damage
Physical Shock	50 g's peak, 3 axes, 11 millisecond duration half-sine pulse	No physical damage. No loss of continuity >1 sec
Vibration	10 g's peak, 10-500 Hz, 9 hours	No physical damage, No loss of continuity >1 sec
Durability	500 cycles of mating and unmating, 500 mating cycles max	No mechanical or electrical defects
Salt Spray	48 hours	Shall be capable of mating and unmating and meet contact resistance requirements
High Temperature Endurance	1000 hours at 125°C (+257°F)	Insulation Resistance > 100 MΩ
Humidity Steady State	RH 90-95%, 40°C (+104°F), 504 hours	Insulation Resistance > 100 MΩ
Moisture Resistance	10 Cycles	Insulation Resistance > 100 MΩ



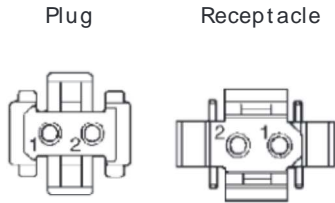
Dimensions shown in mm (inch)  
Specifications and dimensions subject to change

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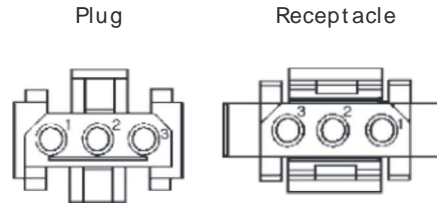


Contact Cavity Arrangements — Mating Face View

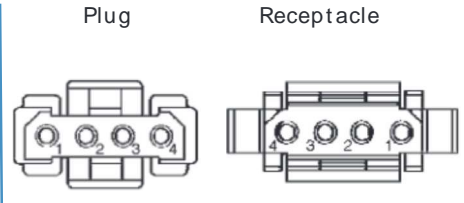
2-way



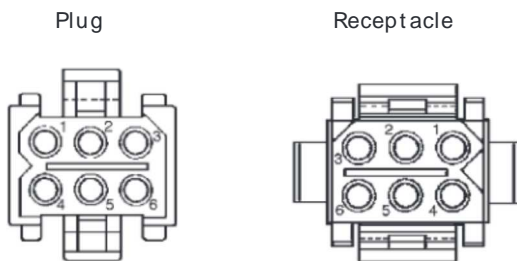
3-way



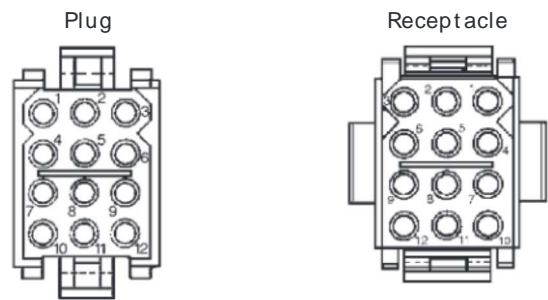
4-way



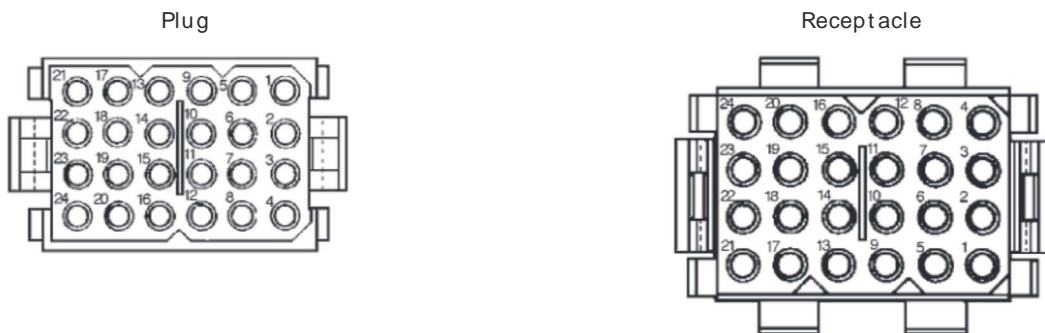
6-way



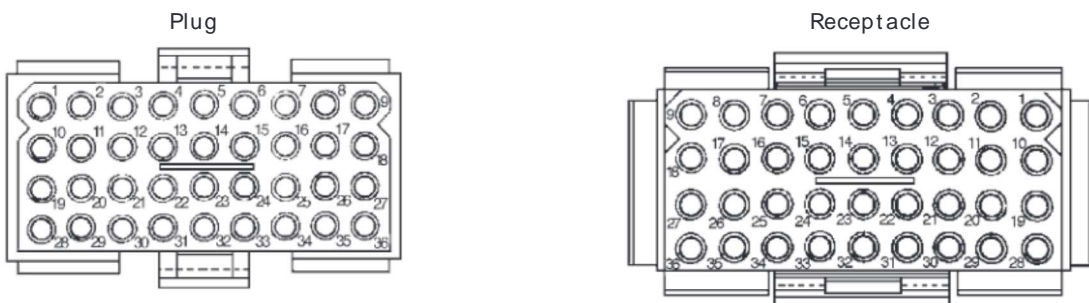
12-way



24-way



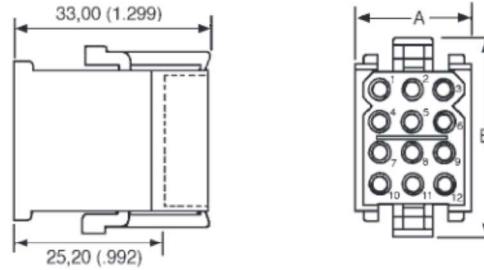
36-way



Dimensions shown in mm (inch)  
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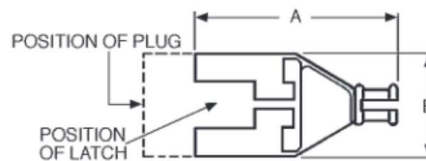




## Free Plug

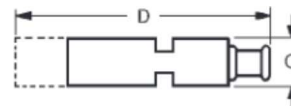
- Accepts Pin or Socket contacts.
- Contacts to be ordered separately, see page 64.
- Mates with panel mounted receptacles, see page 11.
- Mates with PCB mounted receptacles, see pages 12-13.
- Connector Discriminating (Keying) Pins available, see page 73.

Number of Contacts	Pack of 100		Dimensions (max.)	
	Part Number	Nomenclature	A	B
2	192990-0350	TST02PA00	15,50 (.610)	17,00 (.669)
3	192923-5920	TST03PA00	19,00 (.748)	17,00 (.669)
4	192990-0370	TST04PA00	24,00 (.944)	17,00 (.669)
6	192923-5930	TST06PA00	19,00 (.748)	22,00 (.866)
12	192923-5940	TST12PA00	19,00 (.748)	32,00 (1.259)
24	192923-5950	TST24PA00	24,00 (.944)	42,00 (1.653)
36	192923-5960	TST36PA00	49,50 (1.948)	32,00 (1.259)



## Accessory — Plug Strain Relief Hood

- Provides strain relief and wire protection.
- Secure with a tie-wrap (customer supplies tie-wrap).



Number of Contacts	Pack of 100			Dimensions (max.)			
	Part Number	Nomenclature	Wire Bundle Dia.	A	B	C	D
2	192990-0460	TST02AH00	2,30-8,30 (.090-.326)	46,20 (1.818)	16,10 (.633)	11,00 (.433)	56,50 (2.224)
3	192990-0470	TST03AH00	2,30-8,30 (.090-.326)	46,20 (1.818)	18,60 (.732)	11,00 (.433)	56,50 (2.224)
4	192990-0480	TST04AH00	3,00-10,00 (.118-.393)	46,20 (1.818)	23,70 (.933)	11,00 (.433)	56,50 (2.224)
6	192923-5970	TST06AH00	2,30-8,30 (.090-.326)	46,20 (1.818)	19,00 (.748)	16,40 (.645)	56,50 (2.224)
12	192923-5980	TST12AH00	3,00-10,00 (.118-.393)	45,50 (1.791)	19,00 (.748)	26,40 (1.039)	55,80 (2.196)
24	192923-5990	TST24AH00	4,60-12,70 (.181-.500)	51,00 (2.007)	24,10 (.948)	36,80 (1.448)	60,30 (2.374)
36	192923-6000	TST36AH00	7,00-15,90 (.275-.625)	57,50 (2.263)	49,50 (1.948)	26,40 (1.039)	68,00 (2.677)

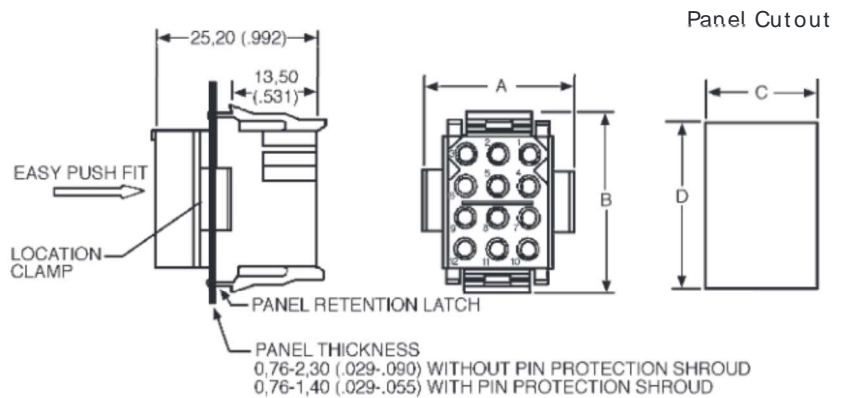


Dimensions shown in mm (inch)  
Specifications and dimensions subject to change

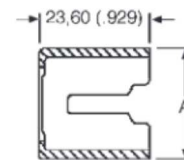
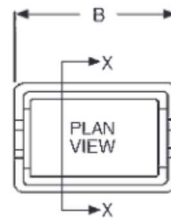


### Receptacle — Panel Mounted

- Accepts Pin or Socket contacts.
- Contacts to be ordered separately, see page 64.
- Mates with Free Plugs, see page 10.
- Connector Discriminating (Keying) Pins available, see page 73.



Number of Contacts	Pack of 100		Dimensions			
	Part Number	Nomenclature	A	B	C ± 0,13 (.005)	D ± 0,13 (.005)
2	192990-0360	TST02RA00	19,00 (.748)	14,00 (.551)	11,50 (.452)	11,60 (.456)
3	192923-6010	TST03RA00	24,00 (.944)	14,00 (.551)	16,50 (.649)	11,60 (.456)
4	192990-0380	TST04RA00	29,00 (1.141)	14,00 (.551)	21,70 (.854)	11,60 (.456)
6	192923-6020	TST06RA00	24,00 (.944)	19,00 (.748)	16,50 (.649)	16,70 (.657)
12	192923-6030	TST12RA00	24,00 (.944)	29,00 (1.141)	16,70 (.657)	26,70 (1.051)
24	192923-6040	TST24RA00	29,00 (1.141)	39,00 (1.535)	21,80 (.858)	36,90 (1.452)
36	192923-6050	TST36RA00	54,20 (2.133)	29,00 (1.141)	46,70 (1.838)	26,40 (1.039)



Section X-X

### Accessory — Protection Shrouds for Receptacles with Pin Contacts

- Provides protection for panel mounted receptacles with pin contacts.
- Shrouds can be fitted onto panels up to 1,40 (.055) thick.

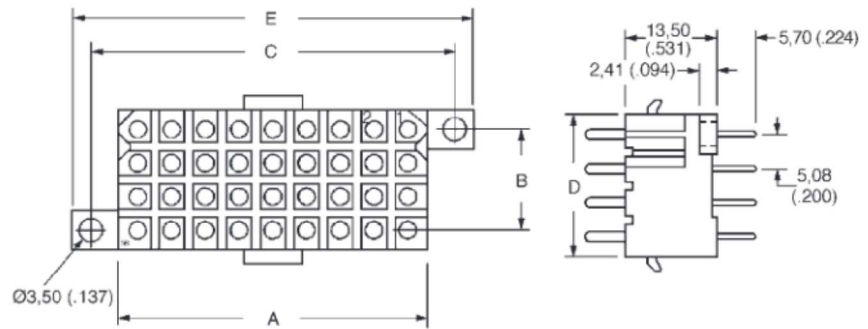
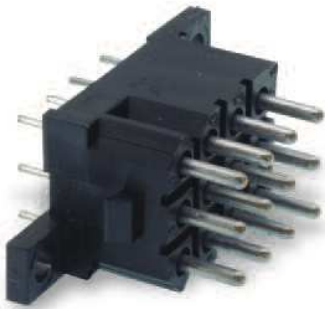
Number of Contacts	Pack of 100		Dimensions	
	Part Number	Nomenclature	A	B
3	192990-0400	TST03AS00	23,50 (.925)	19,05 (.748)
4	192991-0668	TST04AS00	28,60 (1.126)	19,05 (.748)
6	192990-0420	TST06AS00	23,50 (.925)	24,13 (.948)
12	192990-0430	TST12AS00	23,60 (.929)	34,20 (1.346)
24	192990-0440	TST24AS00	29,70 (1.169)	44,40 (1.748)
36	192990-0450	TST36AS00	54,40 (2.141)	34,00 (1.338)

Dimensions shown in mm (inch)  
Specifications and dimensions subject to change





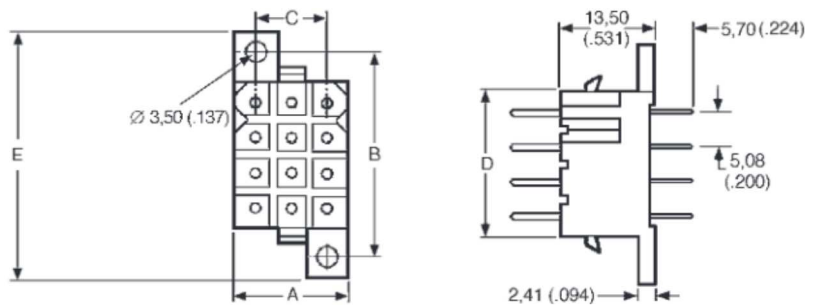
Figure 1



## Receptacle — PCB Mounted for Pin Contacts

- Mates with Free Plug, see page 10.
- Integrally molded flanges.
- Contacts are on a 5,08 (.200) grid, symmetrical on center lines.
- Recommended PCB hole Ø1,15 (.045).
- Connector Discriminating Caps available, see page 73.

Figure 2



Pack of 100

Number of Contacts	Plating	Formed (Stamped)		Machined		Figure	Dimensions				
		Part Number	Nomenclature	Part Number	Nomenclature		B A	C ± 0,08 (.003)	± 0,08 (.003)	D	E
2	Gold*	192900-0411	TST02RB05Y	192991-0270	TST02RB01Z	1	11,13 (.438)	N/A	19,13 (.753)	6,00 (.236)	25,00 (.984)
2	Tin	192990-3230	TST02RB05T	192991-0271	TST02RB01T	1	11,13 (.438)	N/A	19,13 (.753)	6,00 (.236)	25,00 (.984)
3	Gold*	192900-0412	TST03RB05Y	192991-0278	TST03RB01Z	2	16,21 (.638)	14,05 (.553)	10,24 (.403)	6,00 (.236)	20,10 (.791)
3	Tin	192990-3240	TST03RB05T	192991-0279	TST03RB01T	2	16,21 (.638)	14,05 (.553)	10,24 (.403)	6,00 (.236)	20,10 (.791)
4	Gold*	192900-0413	TST04RB05Y	192991-0286	TST04RB01Z	2	21,30 (.838)	14,05 (.553)	15,32 (.603)	6,00 (.236)	20,10 (.791)
4	Tin	192990-3250	TST04RB05T	192991-0287	TST04RB01T	2	21,30 (.838)	14,05 (.553)	15,32 (.603)	6,00 (.236)	20,10 (.791)
6	Gold*	192900-0414	TST06RB05Y	192991-0294	TST06RB01Z	2	16,20 (.637)	19,12 (.752)	10,23 (.402)	11,00 (.433)	26,00 (1.023)
6	Tin	192990-3260	TST06RB05T	192991-0295	TST06RB01T	2	16,20 (.637)	19,12 (.752)	10,23 (.402)	11,00 (.433)	26,00 (1.023)
12	Gold*	192900-0415	TST12RB05Y	192991-0302	TST12RB01Z	2	16,20 (.637)	29,30 (1.153)	10,26 (.404)	21,20 (.834)	35,20 (1.385)
12	Tin	192990-3270	TST12RB05T	192991-0303	TST12RB01T	2	16,20 (.637)	29,30 (1.153)	10,26 (.404)	21,20 (.834)	35,20 (1.385)
24	Gold*	192900-0416	TST24RB05Y	192991-0310	TST24RB01Z	2	21,30 (.838)	39,37 (1.550)	15,32 (.603)	31,30 (1.232)	45,60 (1.795)
24	Tin	192990-3280	TST24RB05T	192991-0311	TST24RB01T	2	21,30 (.838)	39,37 (1.550)	15,32 (.603)	31,30 (1.232)	45,60 (1.795)
36	Gold*	192900-0417	TST36RB05Y	192991-0402	TST36RB01Z	1	46,60 (1.834)	15,24 (.600)	54,64 (2.151)	21,20 (.834)	60,50 (2.382)
36	Tin	192990-3290	TST36RB05T	192991-0403	TST36RB01T	1	46,60 (1.834)	15,24 (.600)	54,64 (2.151)	21,20 (.834)	60,50 (2.382)

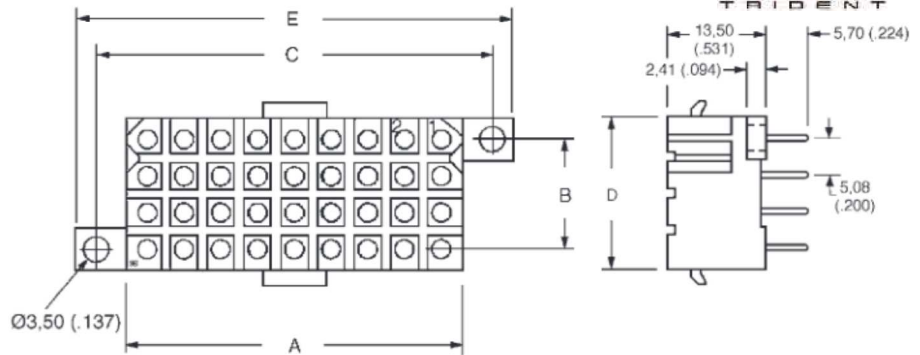
\* Gold plating for Formed (Stamped) Contacts is 0,75 µm (30 µ in.) min gold. Gold plating for Machined Contacts is gold flash.



Dimensions shown in mm (inch)  
Specifications and dimensions subject to change



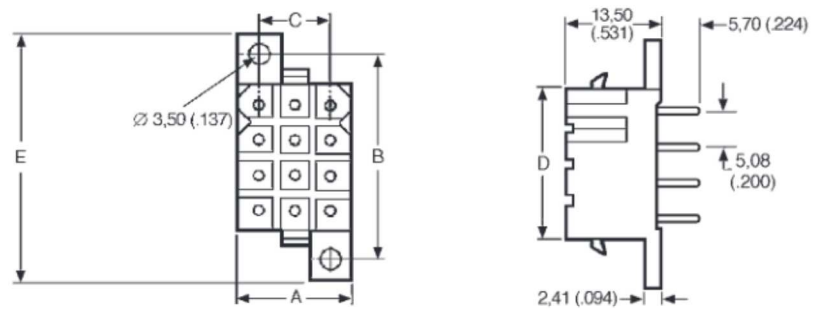
Figure 1



Receptacle —  
PCB Mounted  
for Socket Contacts

- Mates with Free Plug, see page 10.
- Integrally molded flanges.
- Contacts are on a 5,08 (.200) grid, symmetrical on center lines.
- Recommended PCB hole Ø 1,15 (.045).
- Connector Discriminating Pegs available, see page 73.

Figure 2



Pack of 100

Number of Contacts	Plating	Formed (Stamped)		Machined		Figure	Dimensions				
		Part Number	Nomenclature	Part Number	Nomenclature		A	B ± 0,08 (.003)	C ± 0,08 (.003)	D	E
2	Gold*	192900-0418	TST02RB06Y	192991-0213	TST02RB02Z	1	11,13 (.438)	N/A	19,13 (.753)	6,00 (.236)	25,00 (.984)
2	Tin	192990-3300	TST02RB06T	192991-0214	TST02RB02T	1	11,13 (.438)	N/A	19,13 (.753)	6,00 (.236)	25,00 (.984)
3	Gold*	192900-0419	TST03RB06Y	192991-0221	TST03RB02Z	2	16,21 (.638)	14,05 (.553)	10,24 (.403)	6,00 (.236)	20,10 (.791)
3	Tin	192990-3310	TST03RB06T	192991-0222	TST03RB02T	2	16,21 (.638)	14,05 (.553)	10,24 (.403)	6,00 (.236)	20,10 (.791)
4	Gold*	192900-0420	TST04RB06Y	192991-0229	TST04RB02Z	2	21,30 (.838)	14,05 (.553)	15,32 (.603)	6,00 (.236)	20,10 (.791)
4	Tin	192990-3320	TST04RB06T	192991-0230	TST04RB02T	2	21,30 (.838)	14,05 (.553)	15,32 (.603)	6,00 (.236)	20,10 (.791)
6	Gold*	192900-0421	TST06RB06Y	192991-0237	TST06RB02Z	2	16,20 (.637)	19,12 (.752)	10,23 (.402)	11,00 (.433)	26,00 (1.023)
6	Tin	192990-3330	TST06RB06T	192991-0238	TST06RB02T	2	16,20 (.637)	19,12 (.752)	10,23 (.402)	11,00 (.433)	26,00 (1.023)
12	Gold*	192900-0422	TST12RB06Y	192991-0245	TST12RB02Z	2	16,20 (.637)	29,30 (1.153)	10,26 (.404)	21,20 (.834)	35,20 (1.385)
12	Tin	192990-3340	TST12RB06T	192991-0246	TST12RB02T	2	16,20 (.637)	29,30 (1.153)	10,26 (.404)	21,20 (.834)	35,20 (1.385)
24	Gold*	192900-0423	TST24RB06Y	192991-0253	TST24RB02Z	2	21,30 (.838)	39,37 (1.550)	15,32 (.603)	31,30 (1.232)	45,60 (1.795)
24	Tin	192990-3350	TST24RB06T	192991-0254	TST24RB02T	2	21,30 (.838)	39,37 (1.550)	15,32 (.603)	31,30 (1.232)	45,60 (1.795)
36	Gold*	192900-0424	TST36RB06Y	192991-0261	TST36RB02Z	1	46,60 (1.834)	15,24 (.600)	54,64 (2.151)	21,20 (.834)	60,50 (2.382)
36	Tin	192990-3360	TST36RB06T	192991-0262	TST36RB02T	1	46,60 (1.834)	15,24 (.600)	54,64 (2.151)	21,20 (.834)	60,50 (2.382)

\* Gold plating for Formed (Stamped) Contacts is 0,75 µm (30 µ in.) min gold. Gold plating for Machined Contacts is gold flash.

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