## tyco

### **Electronics**

#### **Product Facts**

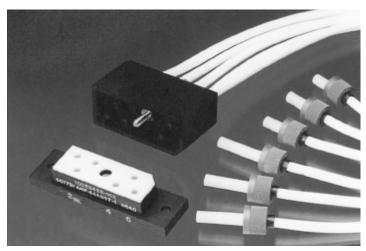
#### 6 Position LGH Connector

- Laser gyro inertial reference systems application
- Extremely rugged construction
- High flexibility silicone leads
- Size 22 contacts
- No adhesives or potting materials used
- 10,000 volts DC max. operating voltage

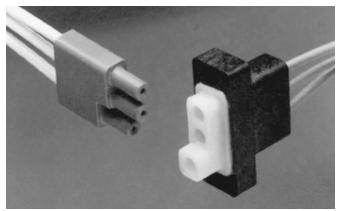
## 3 Position LGH Compact Flange Mounted Connector

- Military counter measure systems application
- Missile guidance systems application
- Ultra small diameter silicone coated TEFLON wire insulation
- Size 22 contacts
- Plug is available as a kit or with flying leads
- 5,000 volts DC max. operating voltage

## Various Specials



6 Position LGH Connector



3 Position LGH Connector

# 6 Position LGH Connector brings high voltage to the circuit board

6 LGH leads, insert molded into a glass epoxy housing with a sturdy, center male screwlock form the plug of this extraordinary printed circuit connector system.

#### 3 Position LGH Compact Flange Mounted Connector

Three molded in flying leads in an extremely tough liquid crystal polymer flanged housing make up the receptacle of this compact high performance high voltage connector.

Performance Specifications
Operating Temperature Range —
-67°F to +257°F [-55°C to +125°C]
Operating Altitude Range —
Sea level to 70,000 ft [21336 m].
Operating Current — 5 amps max.
Polarized interface to assure correct mating

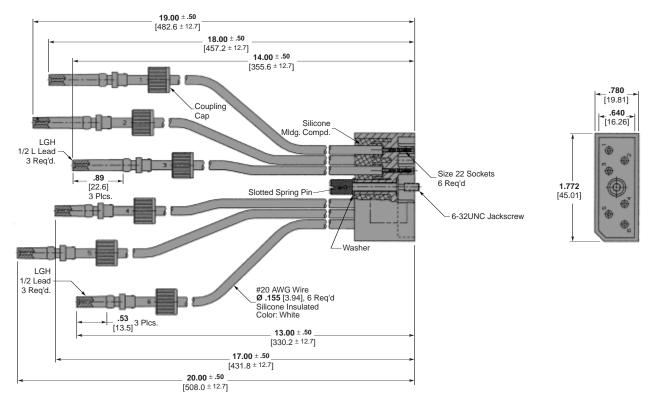
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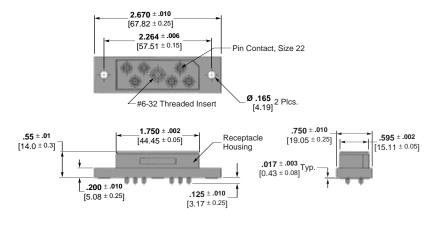
Various Specials (Continued)

6 Position, 10 KVDC Receptacle, with LGH 1/2 L and LGH 1/2 Positive Stop Leads



Part Number 446775-1

#### 6 Position, Rectangular Receptacle

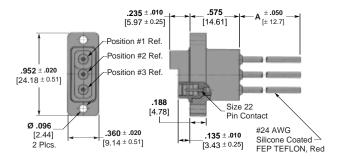


Part Number 446947-1



#### Various Specials (Continued)

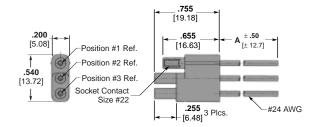
#### 3 Position Receptacles



Dim. A	Part Number		
<b>24.00</b> 609.6	443915-1		
<b>18.50</b> 469.9	443915-2		

Part Numbers 443915-1, -2

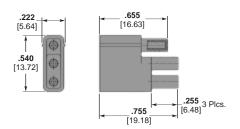
#### 3 Position Plug



Dim. A	Part Number		
<b>24.00</b> 609.6	443916-1		
<b>48.00</b> 1219.2	443916-2		

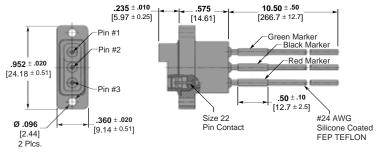
Part Numbers 443916-1, -2

#### 3 Position Plug Kit with 3 Size 22 Socket Contacts



Part Numbers 446900-1 and 446900-2 with Slot

#### 3 Position Receptacle



Part Number 443815-1

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### **LGH High Voltage Connectors**

## **AMP**

### **Electronics**

Printed Circuit Board Receptacles

#### **Product Facts**

- Molded epoxy housings per MIL-M-24357 (GEI-5)
- Small, lightweight, leakproof
- 10 KV, LGH 1/2
  Part Number 866803-1
  (with mounting holes)
  Part Number 866804-1
  (with threaded mounting holes and potting shell)
- 15 KV, LGH 1/2L
  Part Number 866806-1
  (with mounting holes)
  Part Number 866805-1
  (with threaded mounting holes and potting shell)
- 20 KV, LGH 1 Part Number 830632-3 (with mounting holes)

Various Specials (Continued)



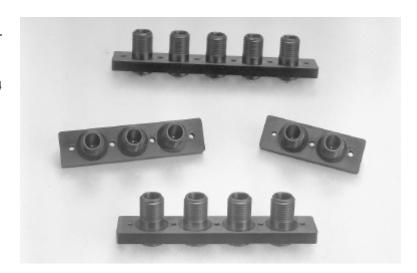
Multiple Receptacle with Integral, Molded Flange for Bulkhead Applications (Gold Pins) Single, Part Number 867606-4 Dual, Part Number 861662-4

Triple, Part Number 861660-4 Quadruple,

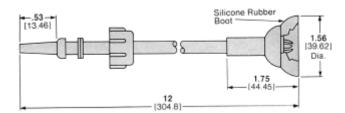
Part Number 861658-4

Quintuple,

Part Number 861657-4



#### Various Specials (Continued)



Part Number 848816-2

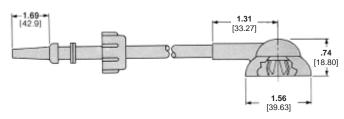
J1-21, 25 KV, LGH 1L

tyco

**Electronics** 

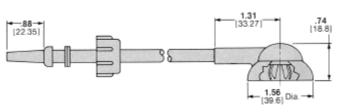
**CRT Lead Assemblies** 

J1-21, 10 KV, LGH 1/2



Assembly Length	Part Number		
<b>12</b> 304.8	846977-8		
<b>18</b> 457.2	1-846977-1		

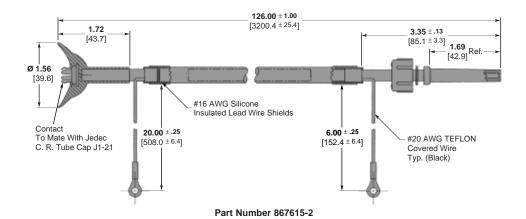
J1-21, 20 KV, LGH 1



Part Number 848588

Assembly Length	Part Number
<b>6</b> 152.4	848588-7
<b>12</b> 304.8	848588-1
<b>18</b> 457.2	848588-4
<b>24</b> 609.6	848588-2
<b>36</b> 914.4	848588-3
<b>48</b> 1219.2	848588-8

J1-21, CRT, LGH 1L



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Note: Standard length leads are tabulated here. Tyco Electronics can make available numerous variations in lengths and material to suit almost any application. Choices of insulation materials include TEFLON, UL listed silicone and UL listed PVC. Other materials, colors, wire and configurations can be used in manufacture. For more information, consult Tyco Electronics.

LGH High Voltage Connectors



### **LGH High Voltage Connectors**



## **Electronics**

#### Various Specials (Continued)

### **CRT Lead Assemblies**

(Continued)

J1-22, 10 KV, LGH 1/2 Right-Angle



Part Number 846556

Assembly Length	Part Number
<b>12</b> 304.8	846556-3
<b>18</b> 457.2	846556-5
<b>24</b> 609.6	846556-4

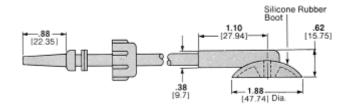
J1-22, 15 KV, LGH 1/2L



Part Number 862345

Assembly Length	Part Number		
<b>12</b> 304.8	862345-2		
<b>18</b> 457.2	862345-1		

J1-22, 20 KV, LGH 1



Part Number 849424

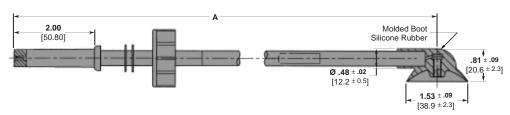
Length	Number		
<b>12</b> 304.8	849424-7		
<b>18</b> 457.2	849424-4 5-849424-4*		

Part

\*RoHS compliant Part Number.

Assembly

J1-22, 50 KV, LGH 4



Part Numbers 868373-1, -2

Assembly Length	Part Number		
<b>36.0 ± .36</b> 914.4 ± 9.1	868373-1		
<b>24.0 ± .36</b> 609.6 ± 9.1	868373-2		

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**Note:** Standard length leads are tabulated here. Tyco Electronics can make available numerous variations in lengths and material to suit almost any application. Choices of insulation materials include TEFLON, UL listed silicone and UL listed PVC. Other materials, colors, wire and configurations can be used in manufacture. For more information, consult Tyco Electronics.

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### **Electronics**

## CRT-Base Connectors Product Facts

- Base connections without potting
- Right-angle and straight connections available
- One-piece molded construction
- Environmentally sealed for trouble-free performance
- Operates at rated DC voltages at 70,000 ft. [21,336 m]
- Operating temperature range: -67°F to +257°F [-55°C to +125°C]
- Withstands shock tests per MIL-STD-202, Test Method 102, Condition C
- Excellent system serviceability
- High reliability
- Fully tested harnesses
- Lower applied cost

### **LGH High Voltage Connectors**

## **AMP**

#### Various Specials (Continued)



AMP molded silicone rubber CRT-base connectors are designed to better eliminate the hand wiring approach for CRT-base connections. These connectors offer greater system serviceability and feature highly reliable performance with complete versatility. They have integrally molded high and low voltage leads, as dictated

by particular applications, and a molded boot design which promotes dust and moisture resistance over a long operational life span.

The versatility of the connector design allows customers to purchase either fully wired connectors, or connectors which can be terminated and potted at their plant. Currently, LGH molded silicone rubber CRT-base connectors are available for a variety of standard 9, 12 and 14 pin tubes. Options include a choice of wire, both low and high voltage, as well as the direction of wire exiting from the connector. Each harness is fully tested prior to shipment.

In addition to the connectors listed here, Tyco Electronics can furnish a wide variety of CRT-base connectors. Consult Tyco Electronics for details.

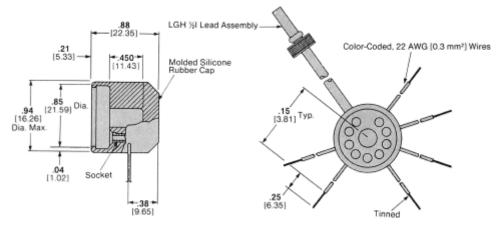
## AMP

## **Electronics**

## **CRT-Base Connectors** (Continued)

9 Position CRT-Base Connector

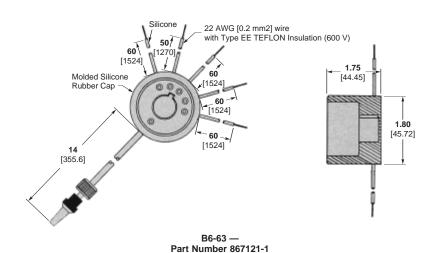
#### Various Specials (Continued)



Part Number 862481-1

This connector is one of many available from Tyco Electronics for mating with standard JEDEC tube base E9-37.

#### Typical Right-Angle Lead Exit CRT-Base Connector



This connector is typical of those available from Tyco Electronics for mating with standard JEDEC tube base B5-57, B6-63, B7-51, B10-75, and B12-43.

## 11 Position CRT-Base Connector



Part Number 443118-2

This connector is one of several available from Tyco Electronics for mating with standard JEDEC tube base B9-290. In addition to the connectors listed here, Tyco Electronics can furnish a wide variety of CRT-base connectors. Consult Tyco Electronics for details.

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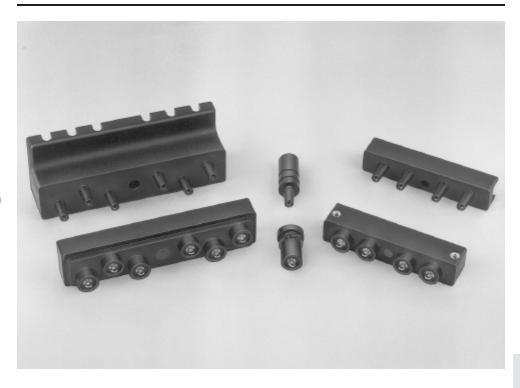
## tyco

### **Electronics**

## Rack and Panel Connectors Product Facts

- 10 KVDC rating up to 10,000 feet [3,048 m] (continuous)
- **■** Extremely compact
- All plastic design
- Housings can be molded from a variety of materials
- Provides highly reliable drawer-type connections
- Low insertion and extraction forces
- Hipot 20 KVDC at sea level, two minutes
- Pins and sockets (10-amp rating) are recessed for maximum safety; will accept conductor sizes to 16 AWG [1.25 mm²]
- Hermetically sealed version available for soldering to metal bulkhead on single pin connector
- Available with or without leads
- No tools required for field use
- Can be readily adapted for in-line splice applications





This AMP High Voltage Connector family is specifically designed for military applications. It is extremely compact and has a continuous 15 KVDC rating from sea level to an altitude of up to 10,000 feet [3,048 m].

The connector assembly is a rack and panel type especially suited for drawer mounting or free-hanging plug applications. It incorporates many design features for electrical, mechanical and environmental integrity. Such features include: use of a tapered plug to make exact alignment unnecessary; recessed pin and socket contacts to better prevent high voltage exposure; and a resilient silicone rubber

"O" ring in the receptacle for an interfacial seal for the mated connector.

Plug and receptacle housings are molded from durable glass epoxy; pin and socket contacts are made of fine grade brass, gold plated in the mating areas for maximum conductivity. The solder eyelets are capable of accommodating leads with conductor sizes up to 16 AWG [1.25 mm<sup>2</sup>].

To meet customer's exact requirements, we can supply the High Voltage Rack and Panel Connectors with or without leads. Also, because of the basic design of the connectors, slight modifications can be made for in-line space applications.

#### Materials

**Housings** — Molded glass epoxy per MIL-M-24325 (Ships), GEI-5

**Pin and Socket Contacts** — Brass; gold plated per MIL-G-45204

**Solder Eyelets** — Pre-tinned per MIL-T-10727

**"O" Ring (Receptacle Only)** — Silicone Rubber

Retaining Ring (Receptacle Only) — Stainless steel per MS 16624

South America: 55-11-2103-6000

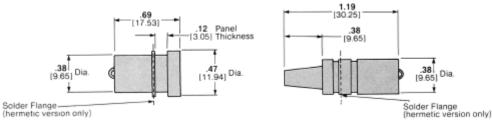
## **AMP**

## **Electronics**

#### Various Specials (Continued)

Rack and Panel Connectors (Continued)

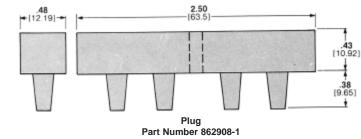
Single Pin

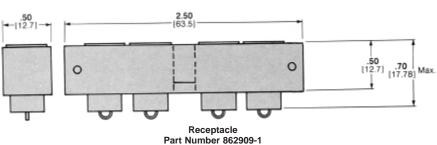


Receptacle Standard Part Number 859111-1 Hermetic Part Number 862123-1

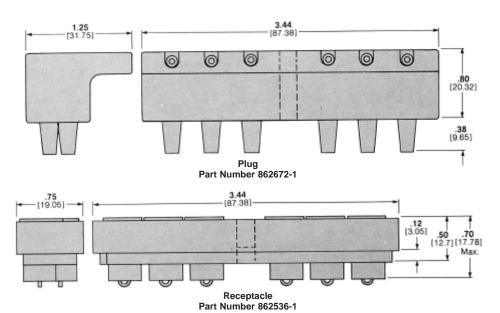
Plug Standard Part Number 859113-1 Hermetic Part Number 862124-1

Four Pin





Six Pin



Notes: 1. If bulkhead and mounting hardware are metallic and at ground potential, provisions must be made to protect the back end of the receptacle against arc-over and breakdown.

Connectors are available with or without leads. Leads can be furnished in virtually any length, with various insulation materials, in either standard white or a variety of optional colors, and with conductor sizes to 16 AWG [1.25 mm²]

For the High Voltage Rack and Panel Connector to meet your specific requirements, consult Tyco Electronics.



Heavy Duty (VRL) **RFI-Shielded Lead** Assemblies and Receptacles

#### **Product Facts**

- Extremely rugged design
- Fully shielded against RFI
- Operating and storage temperature range: -67°F to +257°F [-55°C to +125°C]
- Meets wide range of military requirements
- Metal housings can be readily altered to meet a wide variety of mounting and operational requirements





Various Specials (Continued)



Versatile ruggedized LGH High Voltage Lead Assemblies and Receptacles are designed specifically for use where vibration, shock and handling conditions exist and are ideally suited for both industrial and military applications. This line of lead assemblies and receptacles carries the same voltage, current and altitude

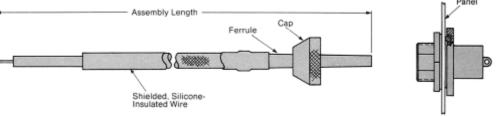
ratings as the corresponding standard LGH connector series when properly mated.

VRL cable assemblies feature the integrally molded end to provide positive mating and an excellent seal. They are completely shielded for RFI when mated with the appropriate receptacle.

The receptacles are of the molded glass epoxy type

with a protective metal shroud that is hermetically sealed between plastic and metal. These receptacles mate with the single-end ruggedized lead assemblies shown in the same series.

Special designs also are available upon request if the standard VRL lead assembly and receptacle designs will not fulfill your immediate needs.



LGH				Receptacles			
Connector Series	Length	Single End	Double End	Jam Nut	Square Flange	Dimensions	
1/2 L 15 KVDC	<b>6</b> 152.4	862485-8	_		862363-1	1/2-28 UNEF Thread .60 [15.24] Behind Panel .98 [24.89] Overall Length	
	<b>12</b> 304.6	862485-3	862294-4	862295-1			
	<b>18</b> 457.2	_	862294-3	002293-1			
	<b>36</b> 914.4	_	1-862294-0				
1 L 25 KVDC	<b>12</b> 304.6	862484-7	862444-3		862362-1	5/8-18 UNEF Thread 1.10 [27.94] Behind Panel 1.84 [46.74] Overall Length	
	<b>24</b> 609.6	862484-4		862443-1 5-862443-1*			
	<b>36</b> 914.4	862484-8	_				
	<b>12</b> 304.6	863124-1	863254-1		863253-1	1-3/16-18 UNEF Thread 1.55 [39.37] Behind Panel 2.15 [54.61] Overall Length	
4 50 KVDC	<b>24</b> 609.6	863124-2	863254-3	863125-1			
	<b>36</b> 914.4	863124-3	_	003125-1			
	<b>48</b> 1219.2	_	863254-4 5-863254-4*				

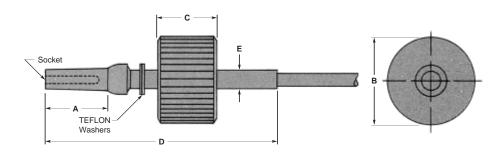
\*RoHS compliant Part Number.



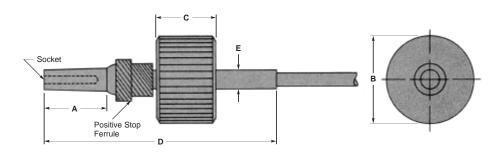
**AMP** 

#### Various Specials (Continued)

Field Installable Connectors Kits for TEFLON Insulated Wire



Standard Molded End



Positive Stop Molded End

Connector	Dimensions					Wire	Part Numbers	
Description	Α	В	С	D	Е	Diameter	Molded End	Positive Stop
						<b>.107–.113</b> 2.72–3.37	861076-1	_
LGH 1/2 I	<b>.53</b> 13.5	<b>.49</b> 12.5	<b>.38</b> 9.7	<b>2.00</b> 50.8	<b>.160</b> 40.6	. <b>081–.087</b> 2.06–2.21	861076-2	
						.107113 2.72-3.37	_	862514-1
LGH 1/2 LI	<b>.89</b> 22.6	<b>.49</b> 12.5	<b>.38</b> 9.7	<b>2.00</b> 50.8	<b>.160</b> 40.6	<b>.107–.113</b> 2.72–3.37	_	862515-1
						<b>.155–.165</b> 3.94–4.19	_	862128-1
LGH 1 I	<b>.88</b> 22.4	<b>.81</b> 20.57	<b>.50</b> 12.7	<b>3.00</b> 76.2	<b>.280</b> 71.1	<b>.200–.210</b> 5.08–5.33	_	862128-2
						<b>.122–.132</b> 3.10–3.35	_	862128-3
LGH 1 LI	<b>1.69</b> 42.9	<b>.81</b> 20.57	<b>.50</b> 12.7	<b>3.38</b> 85.9	<b>.280</b> 71.1	<b>.155–.165</b> 3.94–4.19	_	862518-1

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**Note:** These connectors mate with standard LGH receptacles. Recommended cable is W.L. Gore High Voltage Wire or equivalent.