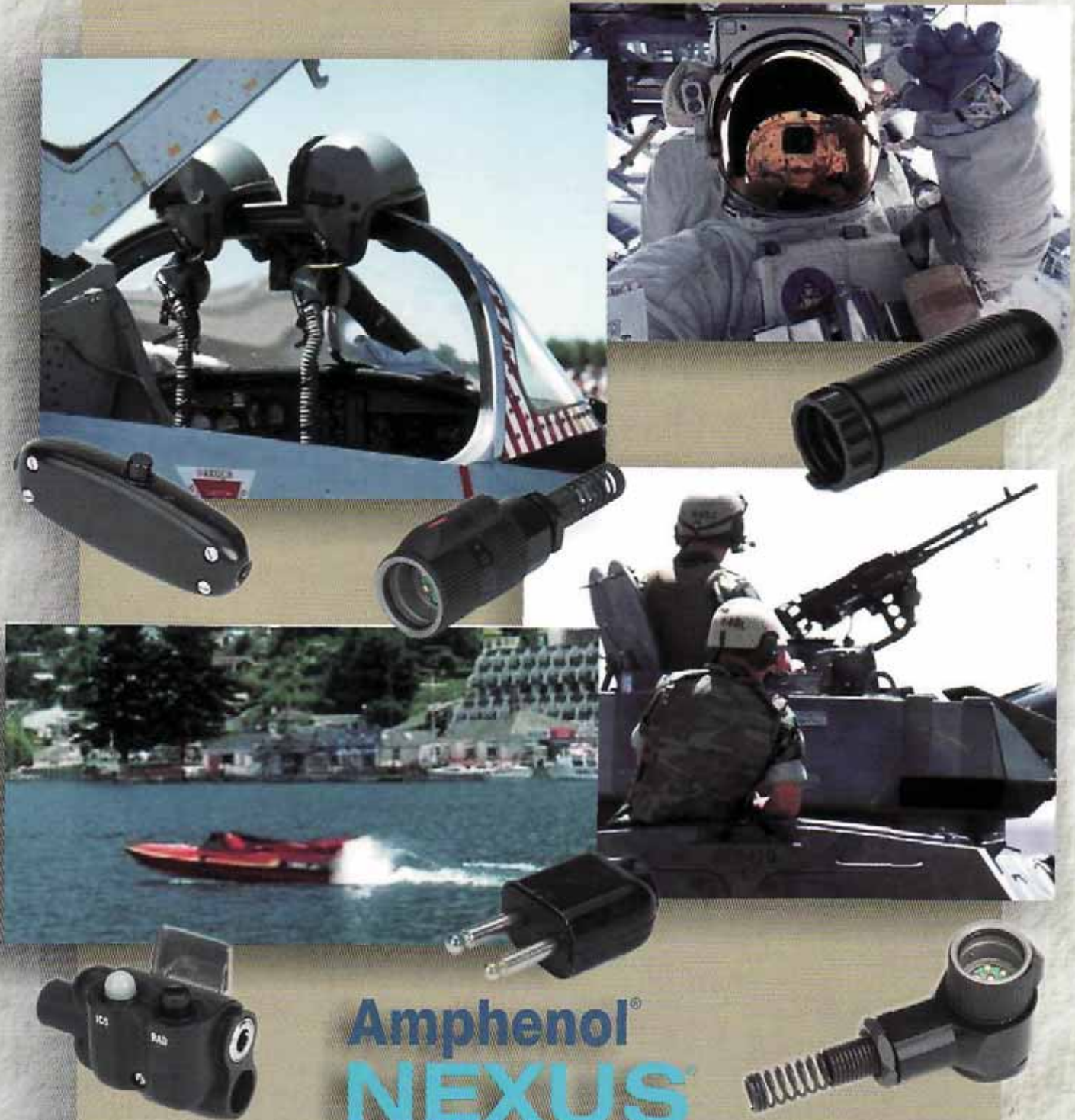


# CONSISTENT PRODUCT RELIABILITY



Amphenol®  
**NEXUS**  
Technologies

- ✓ Audio Frequency Plugs & Jacks
- ✓ Push-Button Switches
- ✓ Miniature Series

# PROBLEM SOLVER.

NEXUS, Incorporated was established in 1961 and was purchased by Amphenol Corporation in July, 2008. Amphenol NEXUS Technologies offers design and production of superior quality audio plugs, jacks and momentary push-button switches.

#### Nexus Connectors:

- specified in OEM headset applications where “breakaway-style” audio connectors are required
- the standard in military/commercial communication headset markets

#### Nexus Switches:

- strong, “tactile-feedback” feature
- designed for applications that require durable, reliable and cost-effective switching

#### Applications:

- Military
- Commercial Aviation Electronics
- Medical Products
- Telecommunications
- Simulation Controls
- Auto Racing
- Powerboat Racing
- Farm Equipment



## OMJ-101

**PROBLEM:** Our customer wanted to overmold a miniature 2-pin jack, but due to the special shape of the contacts, was unable to do this.

**SOLUTION:** We used stamping and molding processes and were able to deliver a solution that met their needs.



## 117 Series

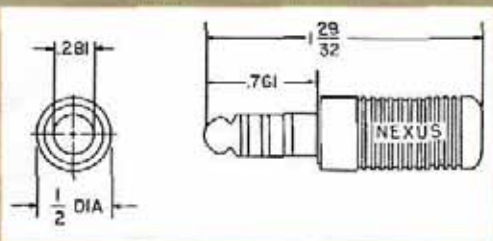
**PROBLEM:** A company had our 7 pin full size environmentally sealed connector in mind when they approached us seeking a smaller version to fit their applications.

**SOLUTION:** We were able to reduce the size by 50% and also maintain the same properties as the larger version.



# SOLVED.

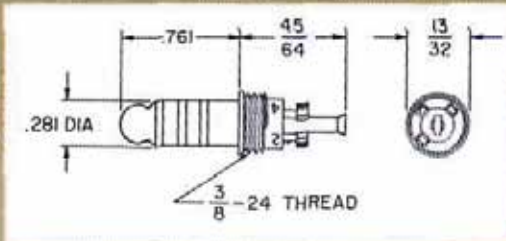
TP-120



**Four Conductor Telephone Plug**

Mates with Nexus Series TJ-120, TJ-102, TJT-102, TJS-102, and TJ-101 jacks. One piece nickel plated brass contacts are integrally molded into plastic body.

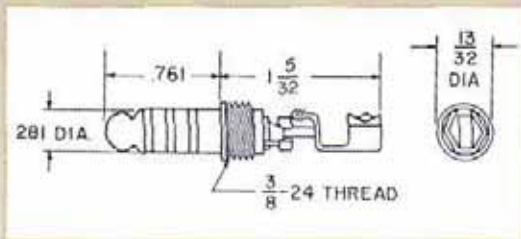
TP-120-5



**Four Conductor Telephone Plug**

Mates with Nexus Series TJ-120, TJ-102, TJT-102, TJS-102, and TJ-101 jacks. For custom molding directly to cable. Same as TP-120-7 but strain relief clip omitted.

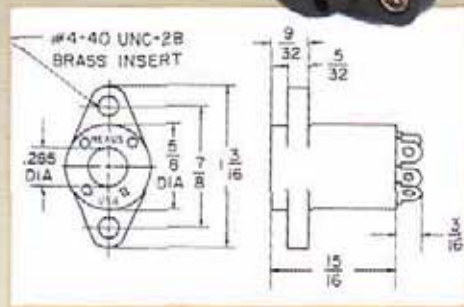
TP-120-7



**Four Conductor Telephone Plug**

Mates with Nexus Series TJ-120, TJ-102, TJT-102, TJS-102, and TJ-101 jacks. For custom molding directly to cable. Same as TP-120 but without plastic shell.

TJ-120



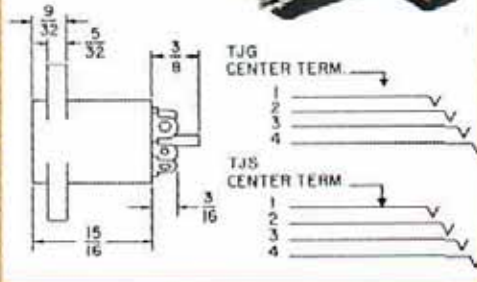
**Flanged Rear-Mounted Jack**

Mates with Nexus Series TP-120, TP-101, TP-102, and TPSJ-101 plugs. Nickel plated beryllium contacts are anchored in a phenolic body.

**CUSTOM SPECS** We have the capabilities to make custom variations to meet your specific needs. Call us for the latest design solutions that we offer!

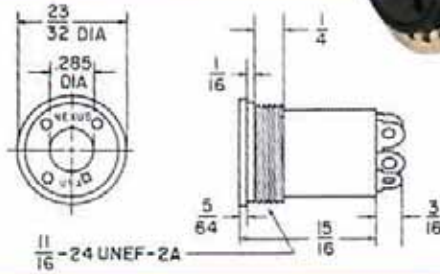


**TJG-120 and  
TJS-120**



**Flanged Rear-Mounted Jacks with Switches**  
Mates with Nexus Series TP-120, TP-101 and TP-102 plugs. A fifth contact has been added to the TJ-120 design in a normally open circuit with the No. 1 contact to make the TJG-120. Insertion of a four conductor plug closes the No. 1-5 contact circuit. The TJS-120 is the same as TJG-120 except the fifth, or switching contact is normally in a closed circuit with the No. 1 contact. Insertion of a four conductor plug opens the No. 1-5 contact circuit.

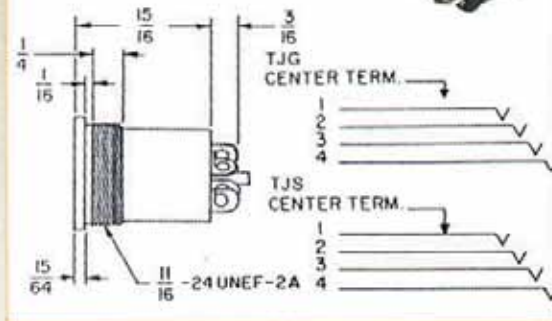
**TJT-120**



**Threaded Front-Mounted Jack**

Mates with Nexus Series TP-120, TP-101 and TP-102 plugs. Same material and construction as the TJ-120. Jack housing is threaded for front mounting by screwing into threaded mounting hole or by inserting into front of panel and securing with nut and lockwasher from behind. Please specify nut and lock washer when ordering.

**TJGT-120 and  
TJST-120**



**Threaded Front-Mounted Jack With Switches**

Mates with Nexus Series TP-120, TP-101 and TP-102 plugs. A fifth contact has been added to the TJT-120 design in a normally open circuit with the No. 1 contact to make the TJGT-120. Insertion of a four conductor plug closes the No. 1-5 contact circuit. The TJST-120 is the same as TJGT-120 except the fifth or switching contact is in a normally closed circuit with the No. 1 contact. Insertion of a four conductor plug opens the No. 1-5 contact circuit.

Standard plugs and jacks are available for prompt shipment.

Suggested wiring sequences for telephone plugs and jacks are as follows:  
For binaural headsets, wire the connector

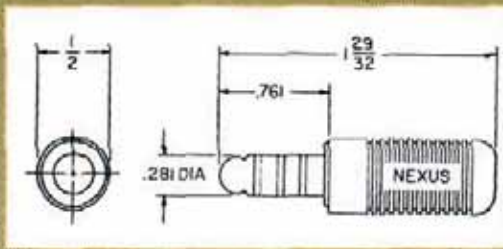
- Contact #1 Microphone, high
- Contact #2 Left earphone
- Contact #3 Microphone, low
- Contact #4 Right earphone
- Contact #5 Earphones, low

For monaural headsets, wire the connector:

- Contact #1 Microphone, high
- Contact #2 Earphones, high
- Contact #3 Microphone, low
- Contact #4 Earphones, low

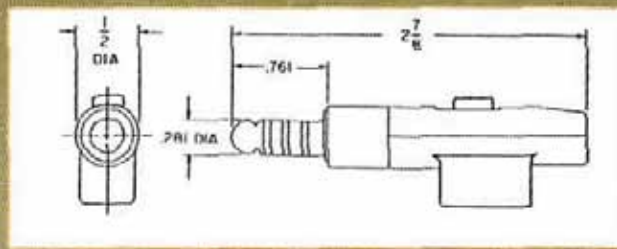
**Amphenol®  
NEXUS®  
Technologies**

TP-101  
(U-174/U,  
M9177/2-1)



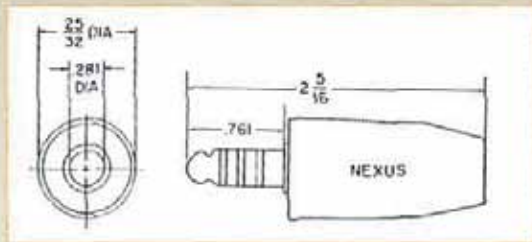
**Four Conductor Telephone Plug**  
Mates with Nexus Series TJ-120, TJ-102, TJT-102, TJS-102, and TJ-101 jacks. One piece metal contacts integrally molded into glass filled nylon plastic.

TPSJ-101



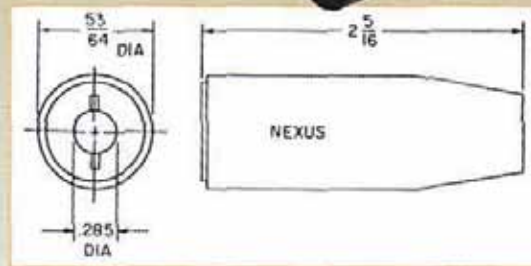
**Plug-Switch-Jack Combination**  
Mates with Nexus Series TJ-120, TJ-102 and TJ-101 jacks. The jack section of the connector mates with a MP-101 plug. Provides the design and electrical characteristics of the TP-101, combined with a manually operated DPDT slide switch and integral two conductor microphone jack.

TP-102  
(U-93A/U,  
M0177/1-1)



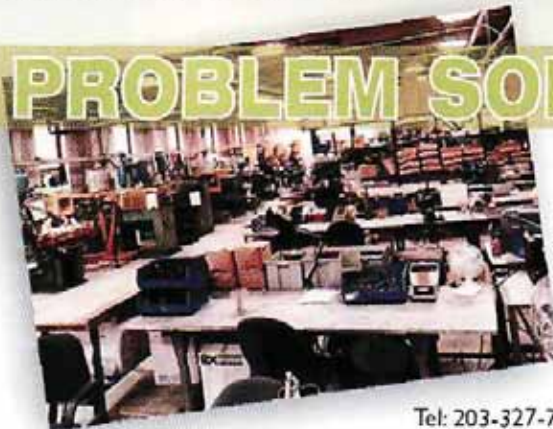
**Four Conductor Telephone Plug**  
Mates with Nexus Series TJ-120, TJ-102, TJT-102, TJS-102, and TJ-101 jacks. Nickel plated brass contacts molded into plastic body. It accommodates larger diameter cable than the TP-101 or TP-120.

TJ-102  
(U-92A/U,  
M9177/3-1)



**Four Conductor Telephone Jack**  
Mates with Nexus Series TP-120, TP-101, TPSJ-101 and TP-102 plugs. Nickel plated beryllium contacts are anchored in a glass filled nylon body.

**PROBLEM SOLVER.**



Customer Support • Engineering  
Design Consulting • Quality Assurance

Amphenol®  
**NEXUS**  
Technologies

Tel: 203-327-7300

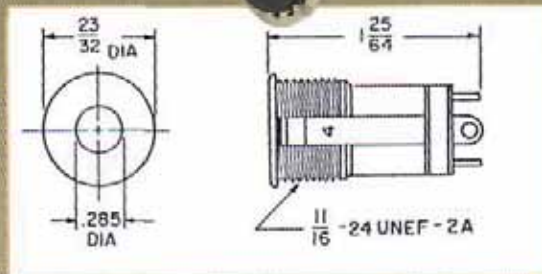
Fax: 203-324-7623

www.nexus.com

email: salesinfo@nexus.com

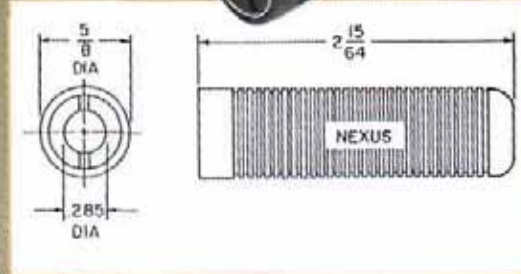
Ruggedized Commercial & Military Telephone Plugs & Jacks - Four Conductor

TJT-102  
(M9177/4-1)



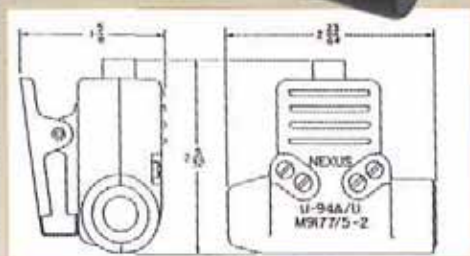
**Four Conductor Telephone Jack**  
Mates with Nexus Series TP-120, TP-101 and TP-102 plugs. A panel mounted version of the TJ-102.

TJ-101

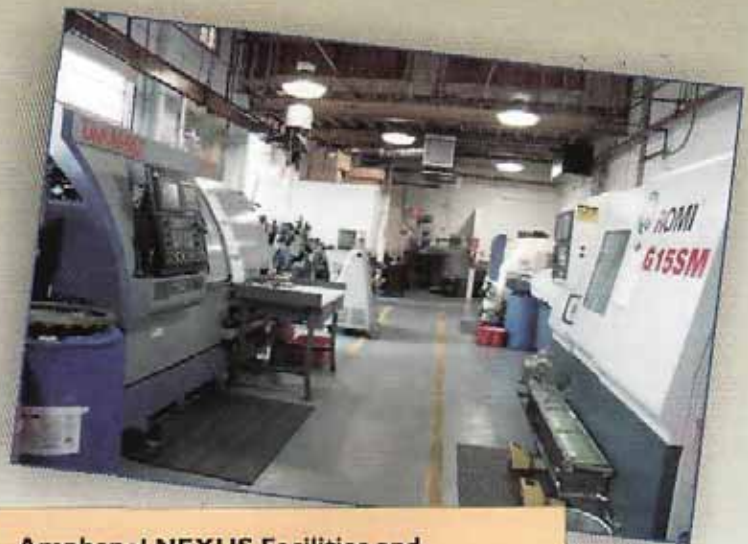


**Four Conductor Telephone Jack**  
Mates with Nexus Series TP-120, TP-101, TPSJ-101 and TP-102 plugs. Nickel plated beryllium copper contacts molded into plastic body.

TJS-102  
(U-94/U,  
M9177/5-2)



**Telephone Jack Switch**  
Mates with Nexus Series TP-120, TP-101 and TP-102 plugs. Combines a jack similar to TJ-102 with a momentary contact push-button switch and a clothing clip.

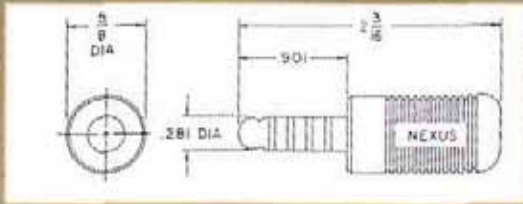


**Amphenol NEXUS Facilities and Equipment Include:**

- CNC Machining
- Thermoset and Thermoplastic Molding Machines
- Stamping Presses
- Numerous Assembly Fixtures
- Heat Treating Equipment
- CAD (Computer Aided Design)
- Tool Room, Testing Lab, Clean Room
- And other Special Proprietary Processes that are designed to manufacture dependable quality products.

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**NEXUS**  
Technologies

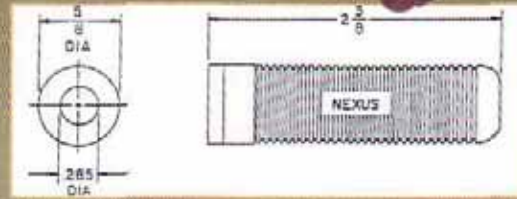
**TP-105**  
(U-384/U,  
M642/14-01)



**Five Conductor Telephone Plug**

Mates with Nexus Series TJ-105 and TJT-125 jacks. One piece monel contacts integrally molded into red plastic body.

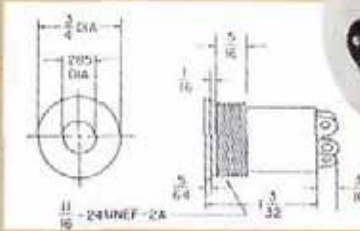
**TJ-105**  
(U385/U,  
M641/22-01)



**Five Conductor Telephone Jack**

Mates with TP-105 plug. Nickel plated beryllium copper contacts molded into red plastic body.

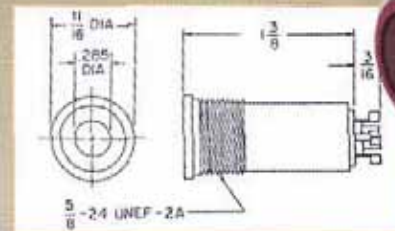
**TJT-125**



**Threaded, Front-Mounted Five Conductor Telephone Jack**

Mates with Nexus TP-105 plug. Similar material and construction as TJT-120 jack, but providing 5 contacts. Jack housing is threaded for front-mounting by screwing into mounting hole or by inserting into front of panel and securing by nut and lockwasher from behind. Threaded mounting is contact No. 5.

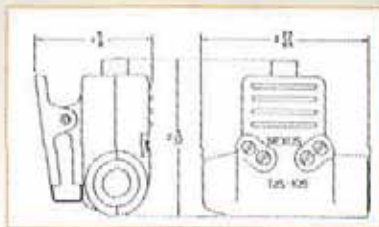
**TJT-105**



**Threaded, Front-Mounted Five Conductor Telephone Jack**

Mates with TP-105 plug. Jack housing is threaded for front-mounting by screwing into mounting hole or by inserting into front of panel and securing by nut and lockwasher from behind. All five contact terminations from rear of jack, threaded mounting is not a contact. Nickel plated beryllium copper contacts molded into red plastic body.

**TJS-105**



**Five Conductor Telephone Jack Switch**

Mates with Nexus TP-105 plug. Combines a jack similar to TJ-105 with a momentary contact push-button switch and a clothing clip.

For more information  
visit our website  
[www.nexus.com](http://www.nexus.com)

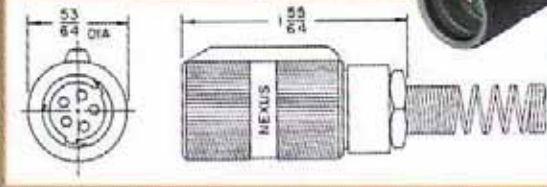
All Products  
Proudly  
Made in U.S.A.



**Amphenol<sup>®</sup>**  
**NEXUS<sup>®</sup>**  
Technologies

Your supplier for the complete family of M55116. Please specify cable size -0 through -5.

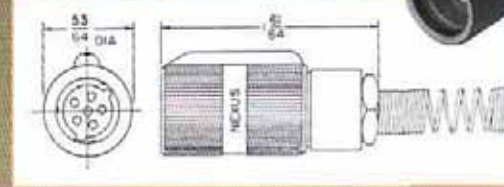
**AP-125**  
(M55116/1)



**Five Conductor**

Wire strain relief, crimp sleeve terminals. Rigid contacts. AP-126 (M55116/2) is the same as the above except with six contacts.

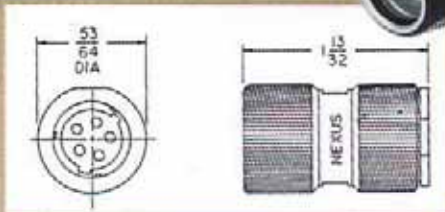
**AP-136**



**Shielded Six Conductor**

Same as AP-126 with provision to terminate shielded cable crimp style. AP-135 is the same as above except it has five contacts. Use AP-176 and AP-175 for solder type contacts.

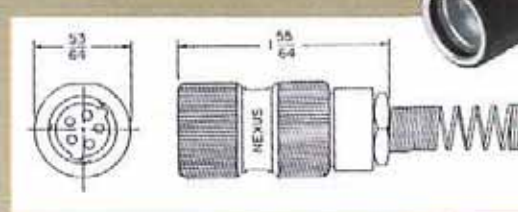
**AP-105**  
(U-182 B/U)



**Five Conductor**

Mates with U-183/U and U-288/U. Use with molded rubber strain relief. AP-106 is the same as above except it has six contacts.

**AP-115**  
(U-229 B/U)



**Five Conductor**

Mates with U-183/U and U-288/U. Coil spring strain relief. AP-116 is the same as above except it has six contacts.

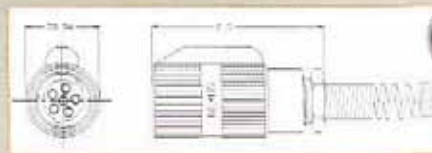
**AP-145M**



**Five Conductor**

Wire strain relief, crimp sleeve terminals with rigid contacts. The AP-146M is the same as above except it has six contacts.

**AP-186**  
(A3167702-2)



**Six Conductor**

Wire strain relief, crimp sleeve terminals with rigid contacts.

**AP-145 (M55116/3)**

**Five Conductor**

Wire strain relief, solder cup terminals.

**AP-155 (M55116/5)**

**Five Conductor**

Molded strain relief, crimp sleeve terminals.

**AP-165 (M55116/7)**

**Five Conductor**

Molded strain relief, solder cup terminals.

**AP-146 (M55116/4)**

**Six Conductor**

Wire strain relief, solder cup terminals.

**AP-156 (M55116/6)**

**Six Conductor**

Molded strain relief, crimp sleeve terminals.

**AP-166 (M55116/8)**

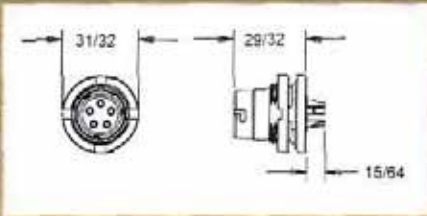
**Six Conductor**

Molded strain relief, solder cup terminals.

**Amphenol®**  
**NEXUS**  
Technologies



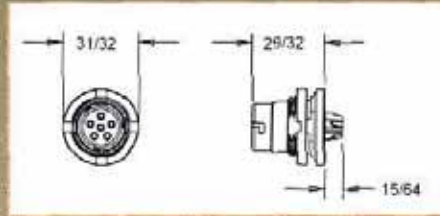
AJ-145  
(M55116/9)



**Five Conductor**

Panel mount receptacle with spring loaded contacts. Connector includes Nut and O-ring.

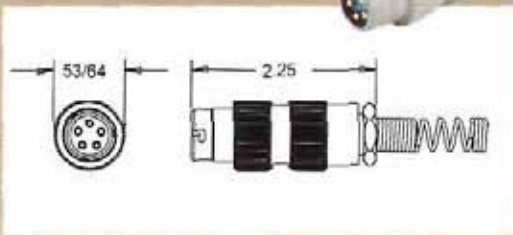
AJ-146  
(M55116/10)



**Six Conductor**

Panel mount receptacle with spring loaded contacts. Connector includes Nut and O-ring.

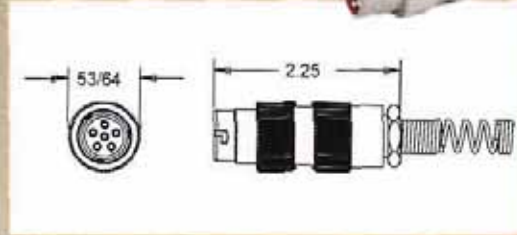
AJ-155  
(M55116/11)



**Five Conductor**

In-line receptacle with crimp sleeve contacts. Connector includes Wire Cable Strain. AJ-165 (M55116/13) is the same as the above except with solder-cup contacts.

AJ-156  
(M55116/12)



**Six Conductor**

In-line receptacle with crimp sleeve contacts. Connector includes Wire Cable Strain. AJ-166 (M55116/14) is the same as the above except with solder-cup contacts.

**PROBLEM SOLVER.**

Your supplier  
for the complete family  
of M55116.

Amphenol Nexus Technologies has capabilities to supply the complete family of M55116. We are qualified for all slash numbers (/1 through /14) and all dashes (-0 through -5). We are also able to manufacture special modifications of the above connectors including filtered and shielded versions.

AP-136RA



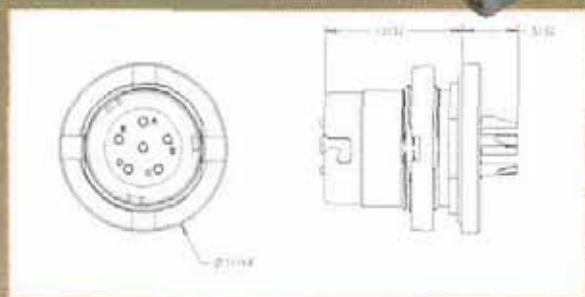
**Six Conductor**

We re-designed our in-line six pin shielded conductor and added a 90° angle back-end to the connector to redirect the wires. The wire location can be indexed 180°.

Amphenol®  
**NEXUS**®  
Technologies

# NEW PRODUCTS

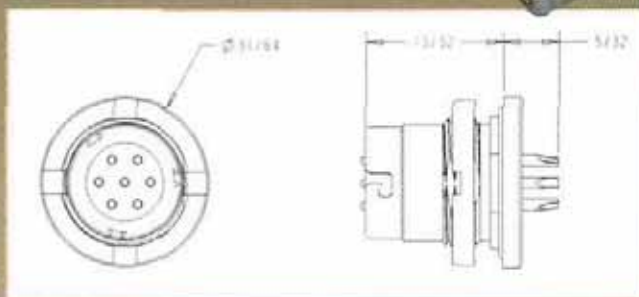
MAJ-16-00



## Six Conductor

Panel mount receptacle with spring loaded contacts. Connector includes Nut and O-ring. Mates with MAP-56-30.

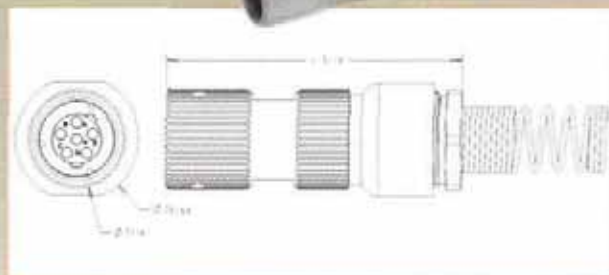
MAJ-17-00



## Seven Conductor

Panel mount receptacle with spring loaded contacts. Connector includes Nut and O-ring. Mates with MAP-57-30.

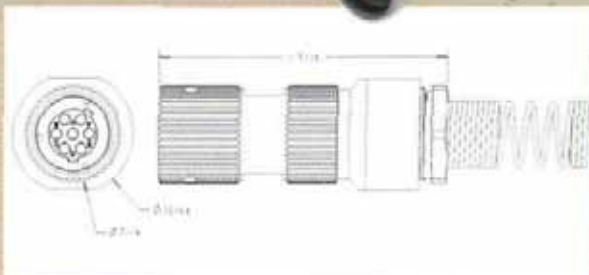
MAP-56-30



## Six Conductor

In-line male connector. Mates with MAJ-16-00.

MAP-57-30



## Seven Conductor

In-line male connector. Mates with MAJ-17-00.

Connectors shown are set-up with a back shell for .250" cable. We also have the capabilities to accommodate smaller or larger size cable diameters to fit your needs.

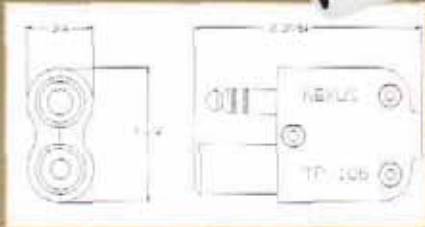
  
**Your Supplier for  
Mini Ruggedized Commercial  
& Military Audio Plugs  
Six and Seven Conductors**

Amphenol Nexus Technologies is proud to announce it's latest six and seven conductor miniature connectors. These connectors are made to exacting specifications of MIL-M55116. We are also able to manufacture special modifications including filtered, shielded, and PC tail contacts. Ensuring that you get a perfect fit, we can make modifications to your specific needs. These connectors meet all electrical and waterproofing requirements and most of the mechanical requirements of M55116.

**Amphenol®**  
**NEXUS®**  
Technologies

Tel: 203-327-7300 Fax: 203-324-7623 [www.nexus.com](http://www.nexus.com) email: [salesinfo@nexus.com](mailto:salesinfo@nexus.com)

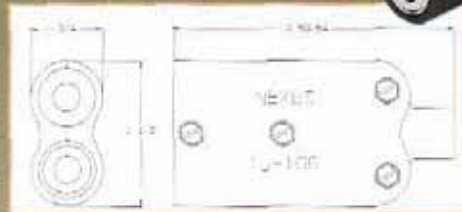
TP-106



**Telephone Plug Bixial Shielded Six Conductor**

Mates with Nexus Series TJ-106, TJS-106 and TJSS-106 jacks.

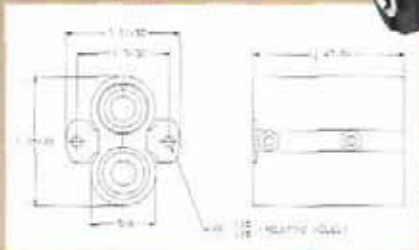
TJ-106



**Telephone Jack Bixial Shielded Six Conductor**

Mates with Nexus TP-106 plug.

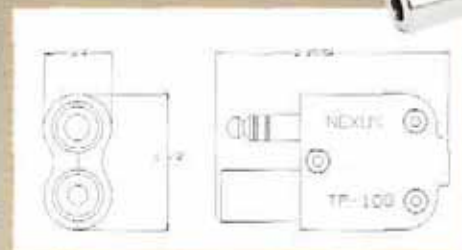
TJ-106PM



**Telephone Jack Bixial Shielded Six Conductor Panel Mount**

Mates with Nexus TP-106 plug.

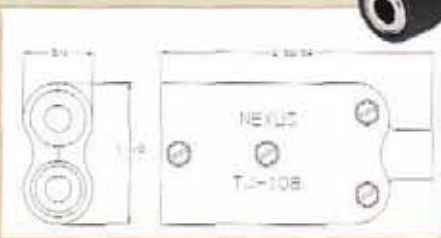
TP-108



**Telephone Plug Bixial Shielded Eight Conductor**

Mates with Nexus TJ-108, TJS-108, and TJSS-108 jacks.

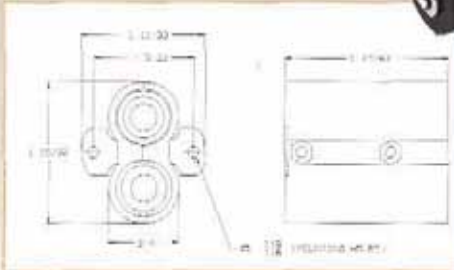
TJ-108



**Telephone Plug Bixial Shielded Eight Conductor**

Mates with Nexus TP-108 plug.

TJ-108PM

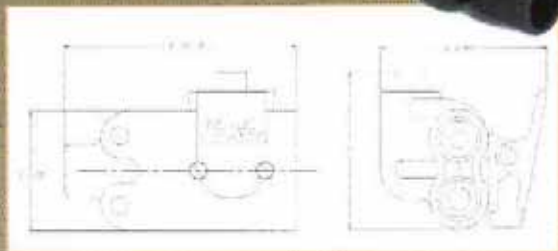


**Telephone Jack Bixial Shielded Eight Conductor Panel Mount**

Mates with Nexus TP-108 plug.

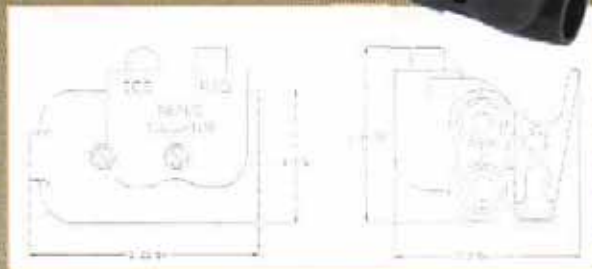
Amphenol®  
**NEXUS**™  
Technologies

TJS-106



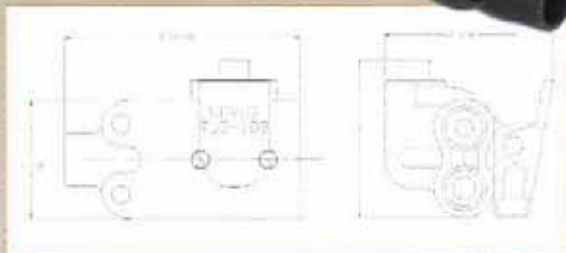
**Telephone Jack Switch Bixial Shielded Six Conductor**  
Mates with TP-106 plug.

TJSS-106



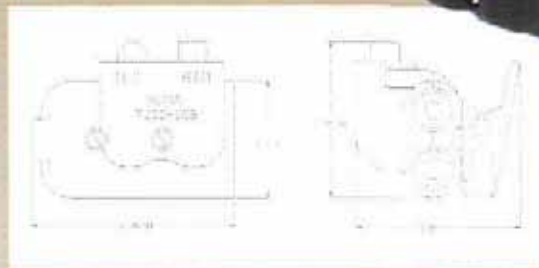
**Telephone Jack, Two Switches Bixial Shielded, Six Conductor**  
Mates with Nexus Series TP-106 plug.

TJS-108



**Telephone Jack Switch Bixial Shielded Eight Conductor**  
Mates with Nexus TP-108 plug.

TJSS-108



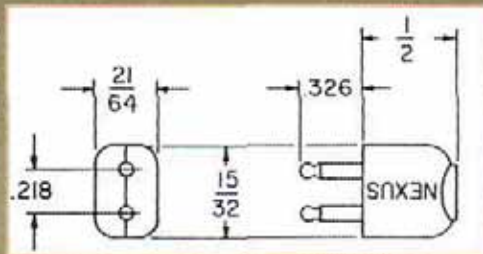
**Telephone Jack, Two Switches Bixial Shielded, Eight Conductor**  
Mates with Nexus TP-108 plug.

## PROBLEM SOLVER.

Amphenol Nexus Technologies developed these connectors at the request of our customer to meet special project requirements of Tempest. We have the engineering capability to design connectors and electro-mechanical devices to meet special applications. We welcome your inquiries!

Amphenol®  
**NEXUS**®  
Technologies

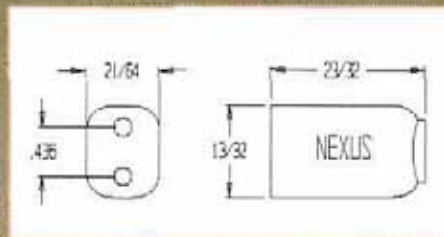
**MP-101**  
(U-173/U)



**Two Pin Microphone Plug**

Mates with Nexus MJ-101, MJ-102, MJ-122, MJ-132, MJ-112, and TPSJ-101 two conductor jacks.  
Nickel plated beryllium copper contacts assemble into nylon body.

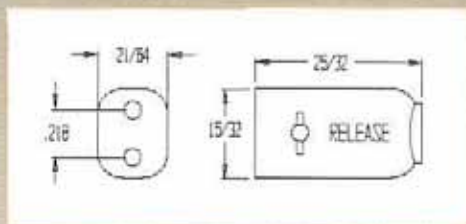
**MJ-101**  
(U-172/U)



**Two Conductor Microphone Jack**

Mates with Nexus MP-101 two conductor plug.  
Nickel plated beryllium copper contacts assemble into nylon body.

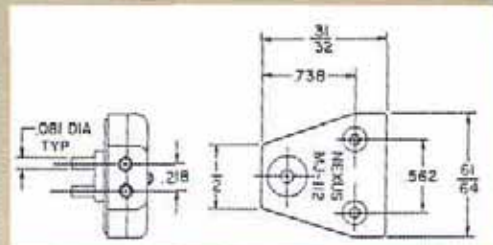
**MJ-102**  
(U-179A/U)



**Two Conductor Microphone Locking Jack**

Mates with Nexus MP-101 two conductor plug.  
Similar to MJ-101 jack in electrical and material characteristics, but with spring-actuated locking design and manual button release.

**MJ-112**



**Two Conductor Microphone Jack**

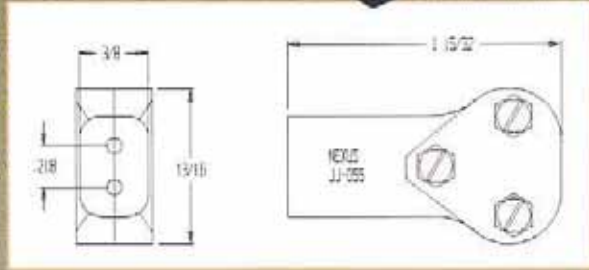
Mates with Nexus MP-101 two conductor plug.  
Special oxygen mask connector, nickel plated beryllium copper contacts, spring-actuated locking design and manual button release. Assembled in ABS body.



**MOLDING**

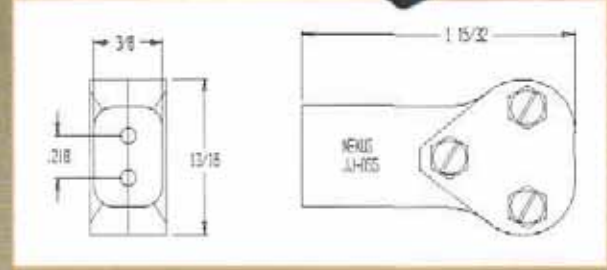
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**NEXUS**®  
Technologies

MJ-122  
(JJ-055)



**Two Conductor Microphone Jack**  
Mates with PJ-291, PJ-292 and Nexus MP-101 two conductor plugs. Nickel plated beryllium copper contacts assemble into glass filled nylon body.

MJ-132  
(JJ-055)

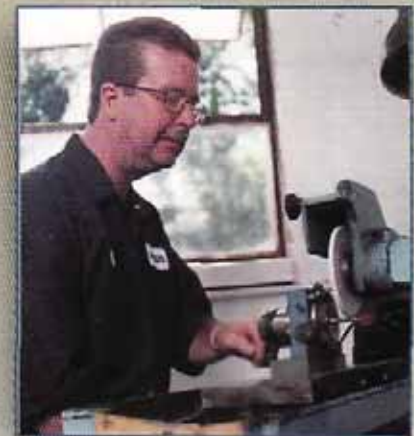


**Two Conductor Microphone Jack**  
Identical to MJ-122 except used with smaller diameter cable.



**CUSTOMER SERVICE**

## PROBLEM SOLVERS.



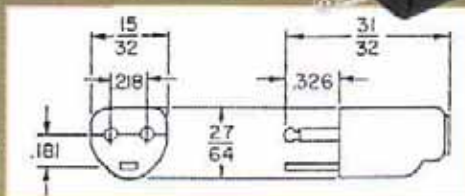
**IN-HOUSE TOOLING**



**TESTING LAB**

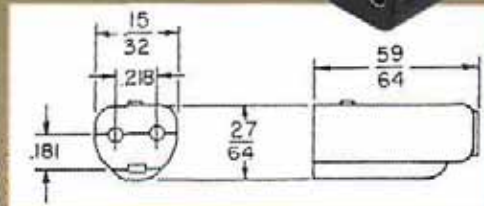
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**NEXUS**®  
Technologies

MP-103



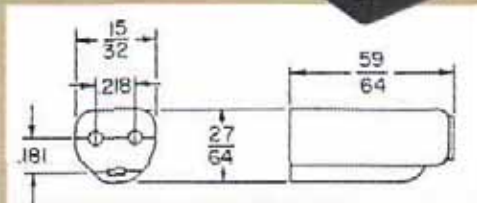
**Microphone Plug, Three Conductor**  
Mates with Nexus MJ-103 microphone jack three conductor. Nickel plated beryllium copper and brass contacts assemble into nylon body.

MJ-103



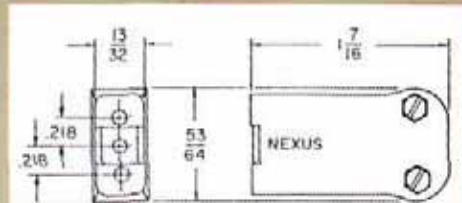
**Microphone Locking Jack, Three Conductor**  
Mates with Nexus MP-103 microphone plug, three conductor. Nickel plated beryllium copper contacts, spring actuated locking design iwth manual button release, assemble into nylon body.

MJ-113



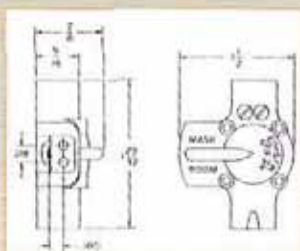
**Microphone Jack, Three Conductor**  
Mates with Nexus MP-103 microphone plug, three conductor. Same as MJ-103 but without locking contacts. Nickel plated beryllium contacts assemble into nylon body.

MJ-123

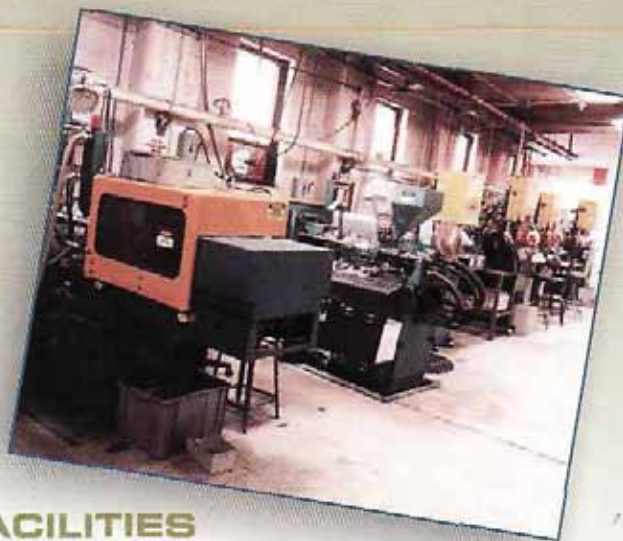


**Three Conductor Jack**  
Special three conductor jack, nickel plated contacts assemble into nylon body.

MJS-103



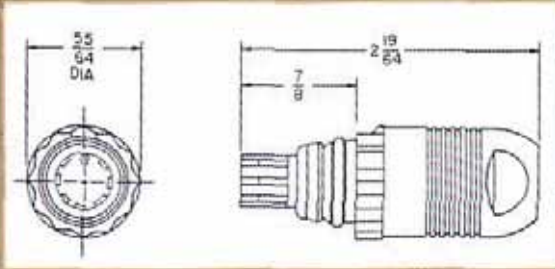
**Microphone Jack Switch**  
Functions as a selector switch to choose either a boom microphone or a gasmask microphone by use of the switch lever. Mating connectors are two Nexus MP-103 plugs and one MJ-103 locking jack. This switch will also function with Nexus MP-102 and MJ-102 if the third circuit is not required.



**FACILITIES  
LOCATED IN  
STAMFORD, CONNECTICUT,  
USA**

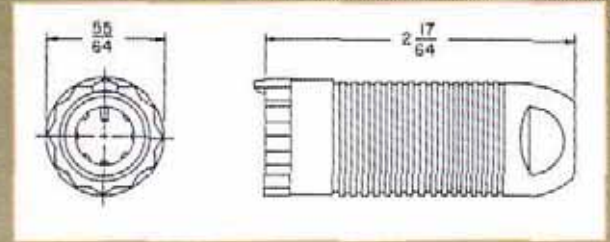
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AP-107



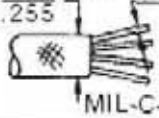
**Seven Conductor, Watertight Breakaway Plug**  
Mates with Nexus AJ-107 jack. A field replaceable connector designed to function in extremely severe environments.

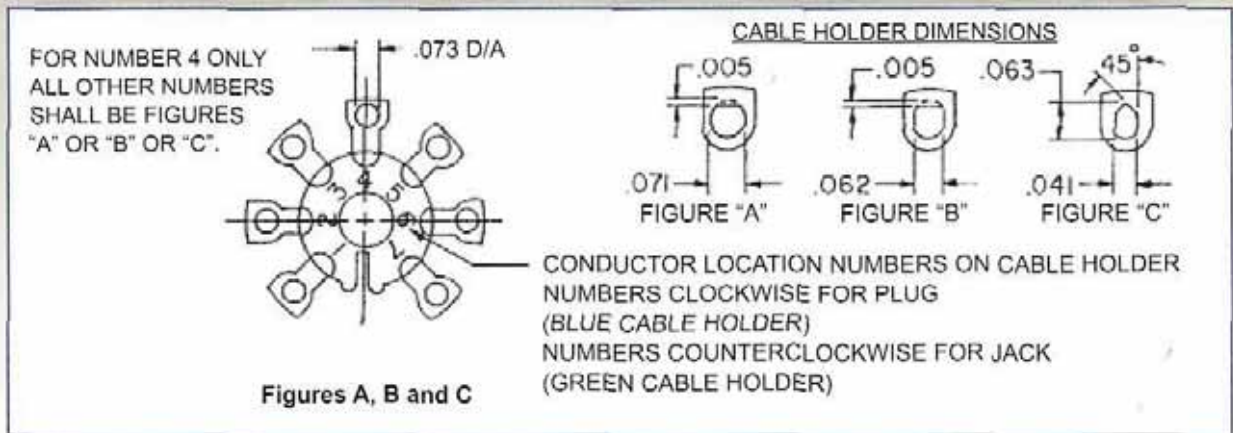
AJ-107



**Seven Conductor, Watertight Breakaway Jack**  
Mates with Nexus AP-107 plug. Designed to meet severe environmental conditions. This connector is field replaceable.

### HARNESS DATA

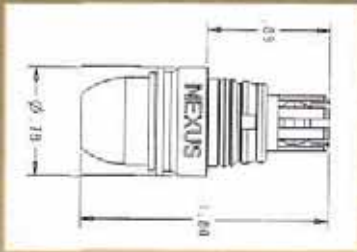
NEXUS PART NUMBER	CABLE HOLDER		CABLE SEAL	CABLE (6 CONDUCTOR) WITH SHIELD
	PART NUMBER	FIGURE BELOW		
AP-107XL AJ-107XL	AP-107-3BXL AJ-107-3GXL	A	AP-107-27	.275 D/A .233  MIL-C-3885
AP-107XLS AJ-107XLS	AP-107-3BXLS AJ-107-3BXLS	B	AP-107-27	.070 D/A .060 OVER INSULATION
AP-107 AJ-107	AP-107-3B AJ-107-3G	C	CUSTOMER MOLDS STRAIN RELIEF, THEN USES AP-107-27	.172 D/A .158 OVER INSULATION
AP-107A AJ-107A	AP-107-3B AJ-107-3G	C	AP-107-31	MIL-C-55668



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AP-107DR



**Over-moldable, Seven Conductor, Waterproof Plug**

Mates with Nexus AJ-107DR jack. Snap on cap and insulation piercing terminals.

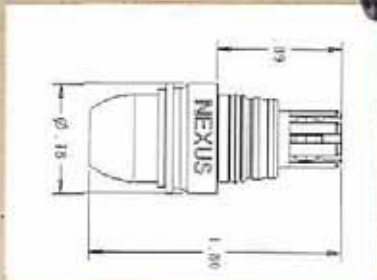
AJ-107DR



**Over-moldable, Seven Conductor, Waterproof Jack**

Mates with Nexus AP-107DR plug. Snap on cap and insulation piercing terminals.

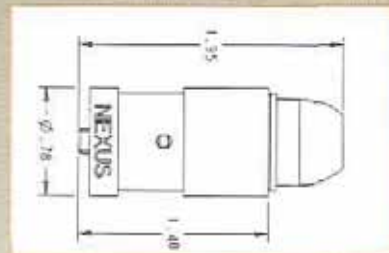
AP-107DRS



**Over-moldable, Seven Conductor, Shielded Waterproof Plug**

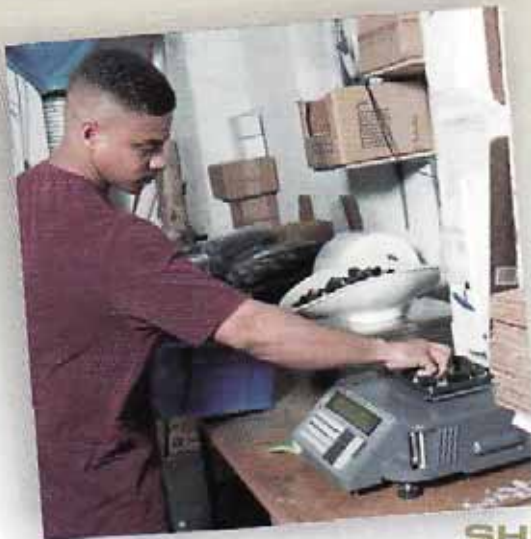
Mates with Nexus AJ-107DRS jack. Patented shielding back shell design. Snap on cap and insulation piercing terminals.

AJ-107DRS



**Over-moldable, Seven Conductor, Shielded Watertight Breakaway Jack**

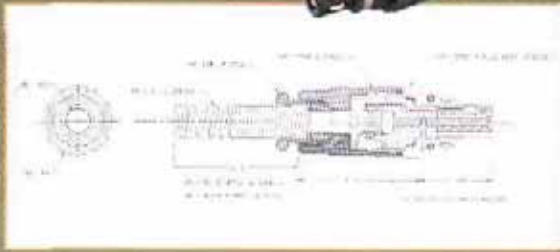
Mates with Nexus AP-107DRS plug. Patented shielding back shell design. Snap on cap and insulation piercing terminals.



**SHIPPING  
DEPARTMENT**

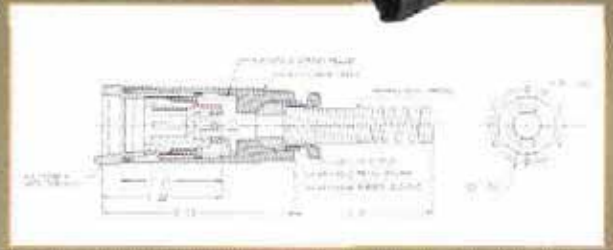
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Technologies

AP-107BR



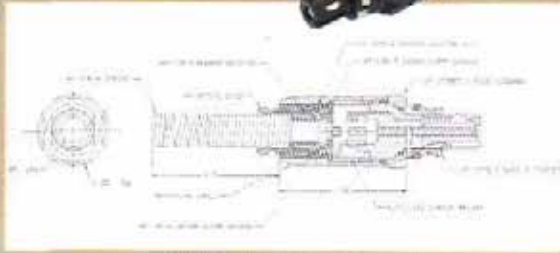
**Seven Conductor, Waterproof Plug**  
 Mates with Nexus AJ-107BR jack. Wire strain relief and solder terminals.

AJ-107BR



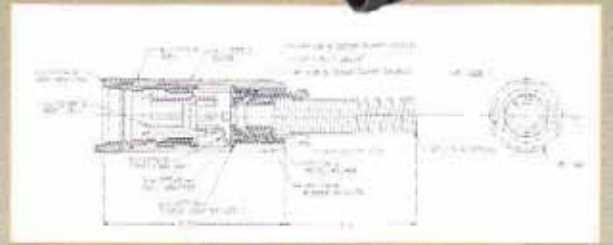
**Seven Conductor, Waterproof Jack**  
 Mates with Nexus AP-107BR plug. Wire strain relief and solder terminals.

AP-107BRS

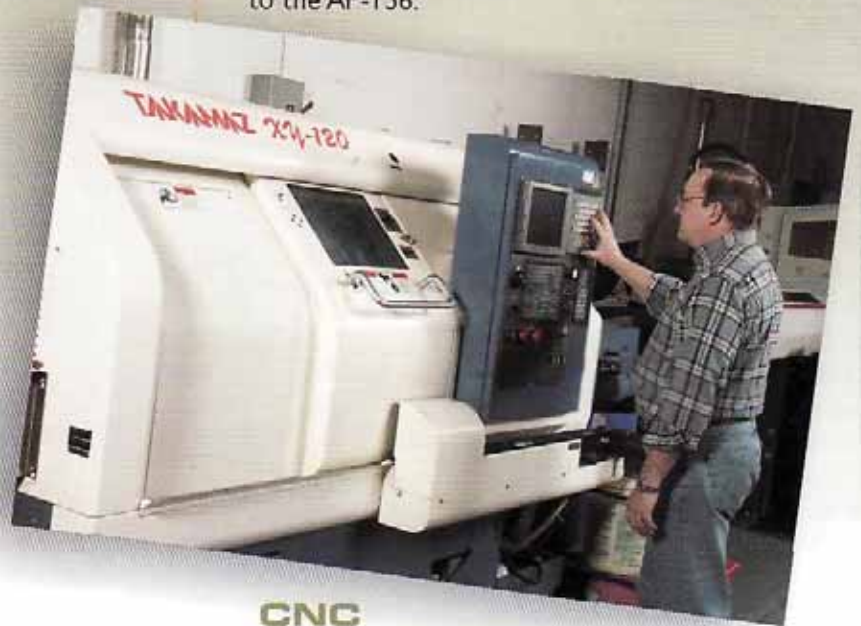


**Seven Conductor, Shielded Waterproof Plug**  
 Mates with Nexus AJ-107BRS jack. Wire strain relief and solder terminals. Termination method is similar to the AP-136.

AJ-107BRS



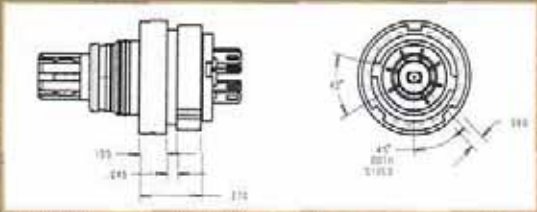
**Seven Conductor, Shielded Waterproof Jack**  
 Mates with Nexus AP-107BRS plug. Wire strain relief and solder terminals. Termination method is similar to the AP-136.



**CNC  
 MACHINING**

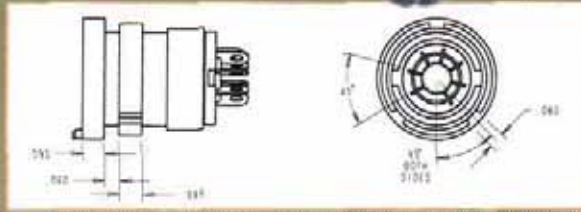
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**NEXUS**®  
 Technologies

**AP-1170M**



**Seven Conductor, Miniature Waterproof Plug**  
Over mold version, solder terminals, mates with all versions of the AJ-117.

**AJ-1170M**



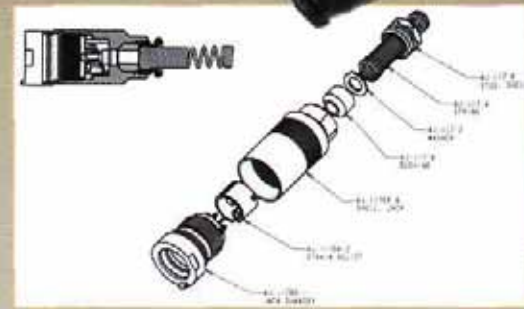
**Seven Conductor, Miniature Waterproof Jack**  
Over mold version, solder terminals, mates with all versions of the AP-117.

**AP-117BR**



**Seven Conductor, Miniature Waterproof Plug**  
Wire strain relief and solder terminals, .148" max cable diameter, mates with all versions of the AJ-117.

**AJ-117BR**



**Seven Conductor, Miniature Waterproof Jack**  
Wire strain relief and solder terminals, .148" max cable diameter, mates with all versions of the AP-117.

**AP-117BRXL**



**Seven Conductor, Miniature Waterproof Plug**  
Wire strain relief and solder terminals, .250" max cable diameter, mates with all versions of the AJ-117.

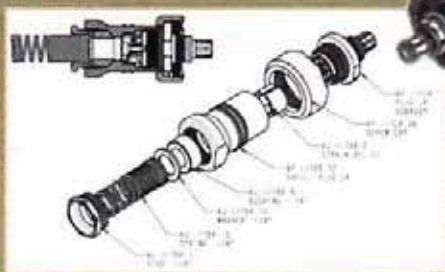
**AJ-117BRXL**



**Seven Conductor, Miniature Waterproof Jack**  
Wire strain relief and solder terminals, .250" max cable diameter, mates with all versions of the AP-117.

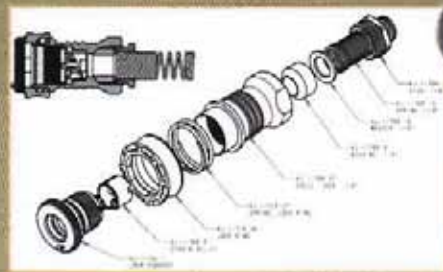
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AP-117LR-AL



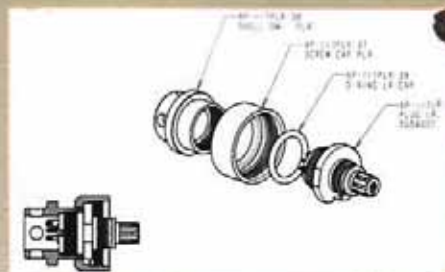
**Seven Conductor, Miniature Waterproof Plug**  
With locking ring, wire strain relief and solder terminals, .250" max cable diameter, mates with AJ-117LR-AL.

AJ-117LR-AL



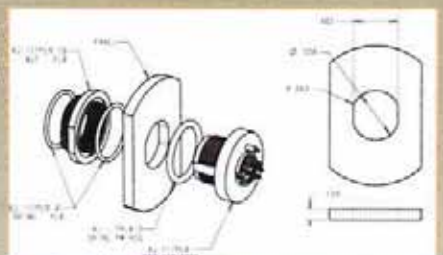
**Seven Conductor, Miniature Waterproof Jack**  
With locking ring, wire strain relief and solder terminals, .250" max cable diameter, mates with AP-117LR-AL.

AP-117PLR



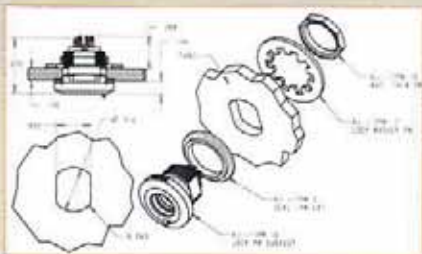
**Seven Conductor, Miniature Waterproof Plug**  
Over mold plug with locking ring, solder terminals, mates with AJ-117PLR.

AJ-117PLR



**Seven Conductor, Miniature Waterproof Jack**  
Rear mount panel mount with locking ring, solder terminals, mates with AP-117PLR.

AJ-117PM



**Seven Conductor, Miniature Waterproof Jack**  
Front mount panel mount solder terminals, mates with all versions of the AP-117. Nut and lockwasher are included.

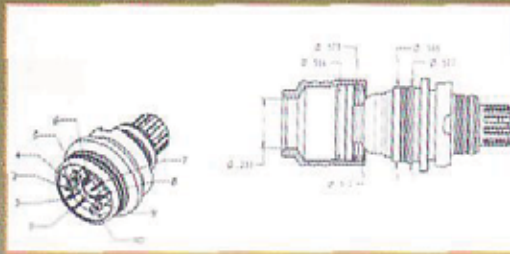
AJ-117PMDC



**Seven Conductor, Miniature Waterproof Jack**  
Rear mount panel mount solder terminals, mates with all versions of the AP-117.

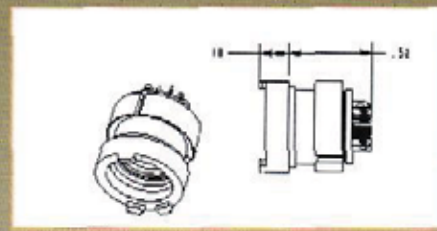
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**NEXUS<sup>®</sup>**  
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AP-1100M



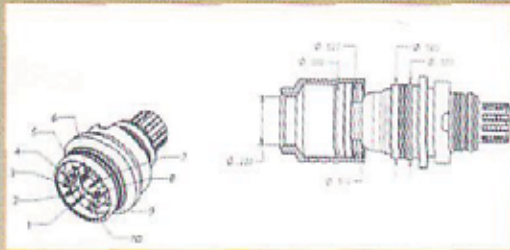
**Ten Conductor, Miniature Waterproof Plug**  
Over mold version, solder terminals, mates with AJ-1100M.

AJ-1100M



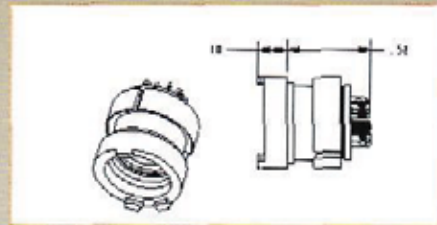
**Ten Conductor, Miniature Waterproof Jack**  
Over mold version, solder terminals, mates AP-1100M.

AP-1100MS



**Ten Conductor, Miniature Waterproof Plug**  
Shielded version of AP-1100M. Mates with AJ-1100MS.

AJ-1100MS



**Ten Conductor, Miniature Waterproof Jack**  
Shielded version of AJ-1100M. Mates with AP-1100MS.



**ASSEMBLY**



**IN-HOUSE  
CNC MACHINING**

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Technologies

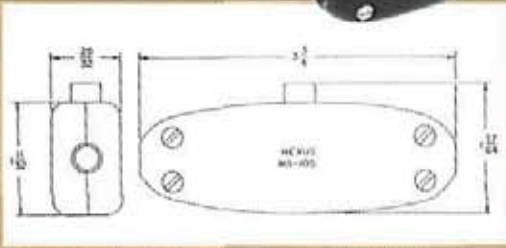
Tel: 203-327-7300

Fax: 203-324-7623

www.nexus.com

email: salesinfo@nexus.com

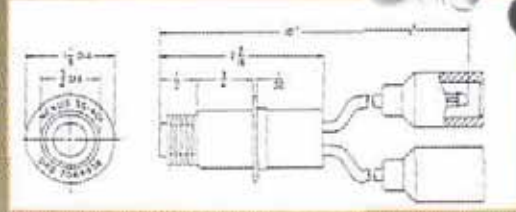
MS-105



**In-Line Multi-Purpose Switch**

An in-line push button switch that is adaptable to a number of arrangements.

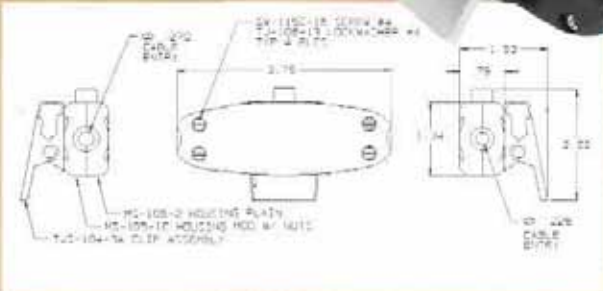
SS-401  
(7064938)



**Push-Button Bellows Switch, Watertight**

Used in areas requiring a watertight push-button switch exposed to extreme environmental conditions. Approved by U.S. Army Tank-Automotive Material Readiness Command.

MS-105CC



**In-Line Multi-Purpose Switch with Clip**

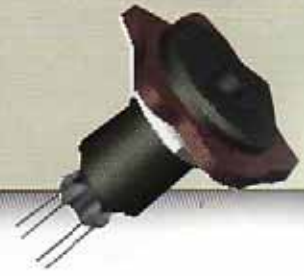
An in-line push button switch that is adaptable to a number of arrangements.



**PROBLEM SOLVERS.**

**TJ-101PM**

**PROBLEM:** The customer was looking for a panel mount 4-conductor jack that was sealed in the back. This seal will prevent water from leaking into the box.  
**SOLUTION:** Utilizing a NEXUS in-line jack and a specially designed housing, we were able to solve the problem and provide a sample to their factory within one week.



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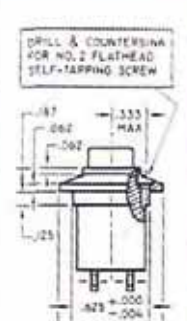
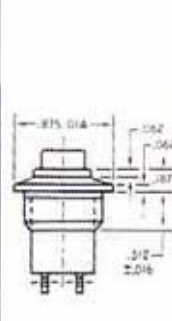
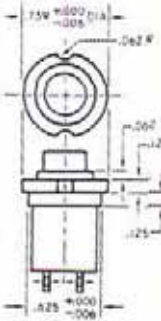
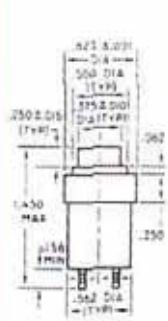
TYPES OF ADAPTERS

TYPE A

TYPE B

TYPE C

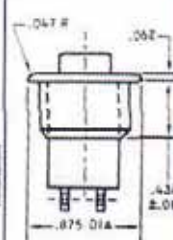
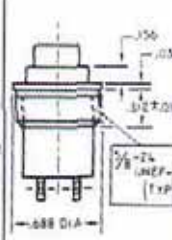
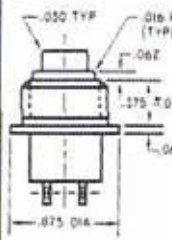
TYPE E



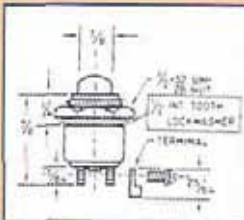
TYPE F

TYPE G

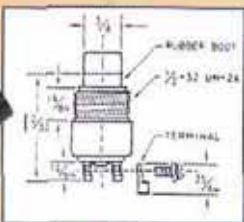
TYPE H



SERIES 200 Standard



SERIES 300 Dustproof



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## SPECIFICATIONS

**AC Rating:** 10 amps at 115 vac (Resistive load)  
 5 amps at 115 vac (Inductive load)  
 3 amps at 115 vac (Lamp load)

**DC Rating:** 10 amps at 28 vdc (Resistive load)  
 5 amps at 28 vdc (Inductive load)  
 3 amps at 28 vdc (Lamp load)

**Type 7 Contact Arrangement:** Ratings are one half amperage

**Mechanical Life:** 500,000 cycles

**Action:** Momentary snap or push-pull (as specified)

**Plunger Travel:** .085 inch (approx.)

**Operating Force:**  
 Ser. 20 & 30 3 to 5 pounds momentary  
 ½ to 2 pounds push-pull  
 Ser. 22 & 32 2 to 3 pounds

**Weight:** 050 pound maximum

**Case:** Aluminum alloy, 2001 - T3, anodized in accordance with MIL-A-8625

**Plunger:** Glass filled nylon

**Body:** Diallyl phthalate in accordance with MIL-M-14

**Terminals:** Threaded 2-56 NC-2B

**Terminal Hardware:** Solder-type wire terminals, with terminal mounting screws and lockwashers, supplied with each switch

**Mounting:** Basic switch supplied with ½-32 UN-2B nut and internal tooth lockwasher. Switch with mounting adapter C, F, G or H supplied with 5/8-24 UNEF-2B nut and internal tooth lockwasher.

**Special:** Additional types of mounting, button styles, colors, and other variations are available on special order.

<h3 style="margin: 0;">CONTACT ARRANGEMENTS</h3>	<p>(1) SPNO</p> <p>SINGLE POLE NORMALLY OPEN</p>	<p>(2) SPNC</p> <p>SINGLE POLE NORMALLY CLOSED</p>	<p>(3) 2-CIRCUIT</p> <p>CAN BE JUMPERED FOR SPDT</p>	<p>(4) 3-TERMINAL</p> <p>SINGLE POLE NORMALLY OPEN</p>	<p>(5) 3-TERMINAL</p> <p>SINGLE POLE NORMALLY CLOSED</p>	<p>(6) SPDT</p> <p>SINGLE POLE DOUBLE THROW</p>	<p>(7) DPST-NO</p> <p>DOUBLE POLE SINGLE THROW NORMALLY OPEN</p>															
	<p><b>1. SWITCHES WITHOUT ADAPTERS</b> — The button height dimension shown for both Series 300 switches is taken from top of rubber boot to top of button. Button numbers 1, 3 (push-pull), and 5 is for the Series 300 dustproof switches. The only button available for Series 200 switches is the Number 2. The button height dimension shown is taken from the top of the housing to the top of the button.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 2px;">Switches Without Adapters (See Note 1)</td> <td></td> <td></td> <td></td> <td></td> <td style="padding: 2px;">With Adapter (See Note 2)</td> <td></td> <td></td> </tr> <tr> <td></td> <td>No. 1</td> <td>No. 2</td> <td>No. 3</td> <td>No. 5</td> <td></td> <td>No. 6</td> <td>No. 8</td> </tr> </table>							Switches Without Adapters (See Note 1)					With Adapter (See Note 2)				No. 1	No. 2	No. 3	No. 5		No. 6
Switches Without Adapters (See Note 1)					With Adapter (See Note 2)																	
	No. 1	No. 2	No. 3	No. 5		No. 6	No. 8															
<p><b>2. SWITCHES WITH ADAPTERS</b> — The button height dimension shown for both series of switches is taken from top of adapter to top of button. Button numbers 1, 3 (push-pull), and 5 is for the Series 300 dustproof switches. Buttons 2, 6 and 8 are for the Series 200 standard switches.</p>																						

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**NEXUS**  
 [Technologies]



## How To Order

### SWITCH SERIES

- 20 - Standard momentary or push-pull switches
- 22 - Standard switches with 2-pound operating force
- 30 - Dustproof momentary or push-pull switches
- 32 - Dustproof switches with 2-pound operating force

### ADAPTER TYPE

- O - Basic switch (no adapter)
- A - Switch with MIL type A adapter
- B - Switch with MIL type B adapter
- C - Switch with MIL type C adapter
- E - Switch with MIL type E adapter
- F - Switch with MIL type F adapter
- G - Switch with MIL type G adapter
- H - Switch with MIL type H adapter

### ADAPTER COLOR

- B - Standard color, black
- R - Red
- C - Clear metal (aluminum)
- O - Without adapter

### CONTACT ARRANGEMENTS

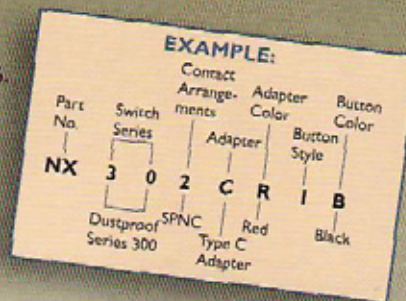
- 1 - SPN Single pole, normally open
- 2 - SPNC Single pole, normally closed
- 3 - 2-CIR Two circuit
- 4 - 3-TNO Three terminal, normally open
- 5 - 3-TNC Three terminal, normally closed
- 6 - SPDT Single pole, double throw
- 7 - DPST Double pole, single throw, normally open

### BUTTON STYLE

Numbers 1 through 8, see Button Styles on page 16.

### BUTTON COLOR

- B - Standard color, black
- R - Red
- G - Gray
- W - White



For switches with configurations and characteristics covered by MILS-S-8805/3, use the following table to convert from MIL to NEXUS part numbers. Order the NEXUS switch number shown in BOLD FACE below the MS25089 number. For white buttons, substitute W for B in the NEXUS part number.

CONVERSION TABLE - MIL-S-8805/3 TYPE NUMBERS AND NEXUS EQUIVALENTS

MOUNTING	SWITCH ACTION	BUTTON COLOR	CONTACT 1	CONTACT 2	CONTACT 3	CONTACT 4	CONTACT 5
<b>A</b>	MOMENTARY	Black	MS25089-1A <b>NX301AB1B</b>	MS25089-2A <b>NX302AB1B</b>	MS25089-3A <b>NX303AB1B</b>	MS25089-4A <b>NX304AB1B</b>	MS25089-5A <b>NX305AB1B</b>
		Red	MS25089-1AR <b>NX301AR1R</b>	MS25089-2AR <b>NX302AR1R</b>	MS25089-3AR <b>NX303AR1R</b>	MS25089-4AR <b>NX304AR1R</b>	MS25089-5AR <b>NX305AR1R</b>
<b>B</b>	MOMENTARY	Black	MS25089-1B <b>NX301BB1B</b>	MS25089-2B <b>NX302BB1B</b>	MS25089-3B <b>NX303BB1B</b>	MS25089-4B <b>NX304BB1B</b>	MS25089-5B <b>NX305BB1B</b>
		Red	MS25089-1BR <b>NX301BB1R</b>	MS25089-2BR <b>NX302BB1R</b>	MS25089-3BR <b>NX303BB1R</b>	MS25089-4BR <b>NX304BB1R</b>	MS25089-5BR <b>NX305BB1R</b>
<b>C</b>	MOMENTARY	Black	MS25089-1C <b>NX301CB1B</b>	MS25089-2C <b>NX302CB1B</b>	MS25089-3C <b>NX303CB1B</b>	MS25089-4C <b>NX304CB1B</b>	MS25089-5C <b>NX305CB1B</b>
		Red	MS25089-1CR <b>NX301CB1R</b>	MS25089-2CR <b>NX302CB1R</b>	MS25089-3CR <b>NX303CB1R</b>	MS25089-4CR <b>NX304CB1R</b>	MS25089-5CR <b>NX305CB1R</b>
	PUSH-PULL	Black	MS25089-1C-1 <b>NX301CB3B</b>	MS25089-2C-1 <b>NX302CB3B</b>	MS25089-3C-1 <b>NX303CB3B</b>		
		Red	MS25089-1CR-1 <b>NX301CB3R</b>	MS25089-2CR-1 <b>NX302CB3R</b>	MS25089-3CR-1 <b>NX303CB3R</b>		
<b>E</b>	MOMENTARY	Black	MS25089-1E <b>NX301EB1B</b>	MS25089-2E <b>NX302EB1B</b>	MS25089-3E <b>NX303EB1B</b>	MS25089-4E <b>NX304EB1B</b>	MS25089-5E <b>NX305EB1B</b>
		Red	MS25089-1ER <b>NX301EB1R</b>	MS25089-2ER <b>NX302EB1R</b>	MS25089-3ER <b>NX303EB1R</b>	MS25089-4ER <b>NX304EB1R</b>	MS25089-5ER <b>NX305EB1R</b>
<b>F</b>	MOMENTARY	Black	MS25089-1F <b>NX301FB1B</b>	MS25089-2F <b>NX302FB1B</b>	MS25089-3F <b>NX303FB1B</b>	MS25089-4F <b>NX304FB1B</b>	MS25089-5F <b>NX305FB1B</b>
		Red	MS25089-1FR <b>NX301FB1R</b>	MS25089-2FR <b>NX302FB1R</b>	MS25089-3FR <b>NX303FB1R</b>	MS25089-4FR <b>NX304FB1R</b>	MS25089-5FR <b>NX305FB1R</b>
	PUSH-PULL	Black	MS25089-1F-1 <b>NX301FB3B</b>	MS25089-2F-1 <b>NX302FB3B</b>	MS25089-3F-1 <b>NX303FB3B</b>		
		Red	MS25089-1FR-1 <b>NX301FB3R</b>	MS25089-2FR-1 <b>NX302FB3R</b>	MS25089-3FR-1 <b>NX303FB3R</b>		
<b>G</b>	MOMENTARY	Black	MS25089-1G <b>NX301GB1B</b>	MS25089-2G <b>NX302GB1B</b>	MS25089-3G <b>NX303GB1B</b>	MS25089-4G <b>NX304GB1B</b>	MS25089-5G <b>NX305GB1B</b>
		Red	MS25089-1GR <b>NX301GB1R</b>	MS25089-2GR <b>NX302GB1R</b>	MS25089-3GR <b>NX303GB1R</b>	MS25089-4GR <b>NX304GB1R</b>	MS25089-5GR <b>NX305GB1R</b>
	PUSH-PULL	Black	MS25089-1G-1 <b>NX301GB3B</b>	MS25089-2G-1 <b>NX302GB3B</b>	MS25089-3G-1 <b>NX303GB3B</b>		
		Red	MS25089-1GR-1 <b>NX301GB3R</b>	MS25089-2GR-1 <b>NX302GB3R</b>	MS25089-3GR-1 <b>NX303GB3R</b>		
<b>H</b>	MOMENTARY	Black	MS25089-1H <b>NX301HB1B</b>	MS25089-2H <b>NX302HB1B</b>	MS25089-3H <b>NX303HB1B</b>	MS25089-4H <b>NX304HB1B</b>	MS25089-5H <b>NX305HB1B</b>
		Red	MS25089-1HR <b>NX301HB1R</b>	MS25089-2HR <b>NX302HB1R</b>	MS25089-3HR <b>NX303HB1R</b>	MS25089-4HR <b>NX304HB1R</b>	MS25089-5HR <b>NX305HB1R</b>
	PUSH-PULL	Black	MS25089-1H-1 <b>NX301HB3B</b>	MS25089-2H-1 <b>NX302HB3B</b>	MS25089-3H-1 <b>NX303HB3B</b>		
		Red	MS25089-1HR-1 <b>NX301HB3R</b>	MS25089-2HR-1 <b>NX302HB3R</b>	MS25089-3HR-1 <b>NX303HB3R</b>		

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