

# DEUTSCH Lightweight Bulkhead Feedthroughs High-Power Connectors for Harsh Environment Applications Requiring

Up to 500 A Power and MIL-DTL-38999 Style Housings

## **DEUTSCH Lightweight Bulkhead Feedthroughs**

High-Power Connectors that Reduce Weight Up to 50%

#### **WEIGHT-SAVING DESIGN**

 Aluminum contacts are up to 50% lighter than equivalent TE Connectivity's (TE's) standard offering on male terminal

#### COMPATIBLE

- Utilizes industry standard MIL-DTL-38999 mounting dimensions
- No special tooling required

#### **HIGH PERFORMANCE**

- Current handling capabilities up to 500 amps AC
- 600 VAC dielectric withstanding voltage
- -55°C to +125°C temperature range
- High-corrosion-resistant options available

#### **VERSATILE**

- Customizable for electromagnetic interference (EMI) and/or electromagnetic pulse (EMP) protection
- Plating options include cadmium, zinc nickel, and nickel
- Square flange and jam nut panel mounting options

#### **APPLICATIONS**

- Commercial Aerospace
- Military Aerospace
- Military Ground Vehicles

#### Light Weight, High Performance

We know every ounce saved can mean more equipment capabilities or longer flight times, and working with industry standard footprints can save time and lower costs.

Our new lightweight bulkhead feedthroughs are up to 50% lighter than the existing TE standard male terminal feedthroughs. Available in shell sizes 17 and 23, our lightweight feedthroughs share standard MIL-DTL-38999 mounting dimensions.

#### **Powerful Solutions**

Rated for currents to 500 amps, and with a broad temperature range, these bulkhead feedthroughs offer an effective lightweight, harsh-environment method of connecting electrical power through an equipment bulkhead. They are ideally suited for power distribution systems in commercial and military aircraft, as well as military land vehicles.

#### **Specifications**

#### MATERIALS

- · Shell: Aluminum
- · Plating:

Olive drab cadmium Electroless nickel Black zinc nickel

· Termini:

Silver-plated aluminum threaded terminals, standard Silver-plated copper alloy threaded terminals, available

#### MECHANICAL/ENVIRONMENTAL

- Temperature Range: -55°C to +125°C
- Shell Sizes: 17 and 23
- Contact Sizes: 3/8" (#18) and 1/2" (#16)
- Mounting: Square flange and jam nut
- Mounting Positions: Based on MIL-DTL-38999
- Recommended Torque:

3/8" (#18): 21.7 Nm 1/2" (#16): 40.0 Nm

#### **ELECTRICAL**

- Current: Up to 500 A
- Dielectric Withstanding Voltage: 600 VAC

#### STANDARDS AND SPECIFICATIONS

- Product Specification: 108-163005
- Additional Documentation: C-612466-XX-X, C-612467-XX-X, and C-6-9918-XX-X (filtered version)

Please consult TE for washers, nuts and crimp eyelets.

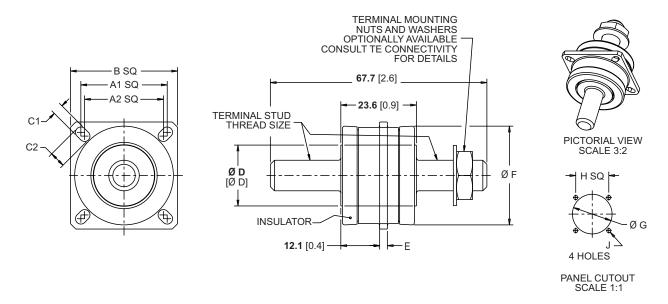
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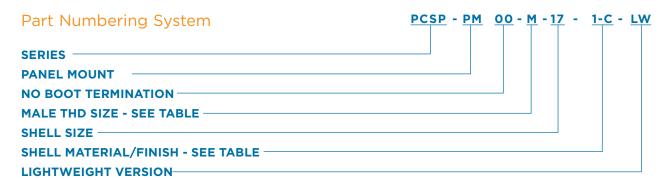


#### Square Flange Feedthrough



Shell Size	<b>A</b> 1	A2	В	C1	C2	ØD	ØE	ØF	ØG Min.	ØН	Ø٦	Terminal Stud Thread Size	Terminal Torque Value
17	<b>26.9</b> 1.0	<b>24.6</b> 0.9	<b>33.3</b> 1.3	<b>3.2</b> 0.1	<b>4.9</b> 0.1	<b>19</b> 0.7	<b>2.3</b> 0.1	<b>30.8</b> 1.2	<b>30.9</b> 1.2	<b>25.8</b> 1.0	<b>3.2</b> 0.1	3/8" - 16 UNC	21.7 Nm
23	<b>34.9</b> 1.3	<b>31.7</b> 1.2	<b>42.9</b> 1.6	<b>3.8</b> 0.1	<b>6.1</b> 0.2	<b>28.9</b> 1.1	<b>3.0</b> 0.1	<b>38.7</b> 1.5	<b>39.2</b> 1.5	<b>33.3</b> 1.3	<b>3.9</b> 0.1	1/2" - 13 UNC	40.0 Nm

Millimeters Inches

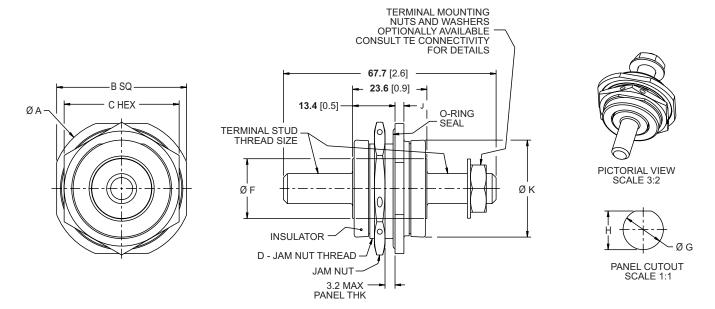


Code	Material/Finish*
1-C	Aluminum/Electroless Nickel
1-B	Aluminum/Cadmium Olive Drab Over Electroless Nickel
1-ZN	Aluminum/Zinc Nickel Black Passivate Over Electroless Nickel

<sup>\*</sup>Note: Incomplete list; Consult te.com for complete list.

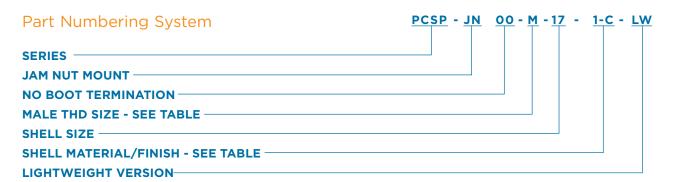


#### Jam Nut Feedthrough



Shell Size	A	В	С	D Jam Nut Thread	ØF	ØG	н	J	ØK	Terminal Stud Thread Size	Terminal Torque Value
17	<b>44.5</b> 1.7	<b>41.3</b> 1.6	<b>36.1</b> 1.4	M32 x 1.0	<b>19.0</b> 0.7	<b>32.0</b> 1.2	<b>30.7</b> 1.2	<b>2.8</b> 0.1	<b>30.8</b> 1.2	3/8" - 16 UNC	21.7 Nm
23	<b>55.6</b> 2.1	<b>52.4</b> 2.0	<b>49.6</b> 1.9	M41 x 1.0	<b>28.9</b> 1.1	<b>41.5</b> 1.6	<b>40.2</b> 1.5	<b>3.6</b> 0.1	<b>38.7</b> 1.5	1/2" - 13 UNC	40.0 Nm

Millimeters Inches

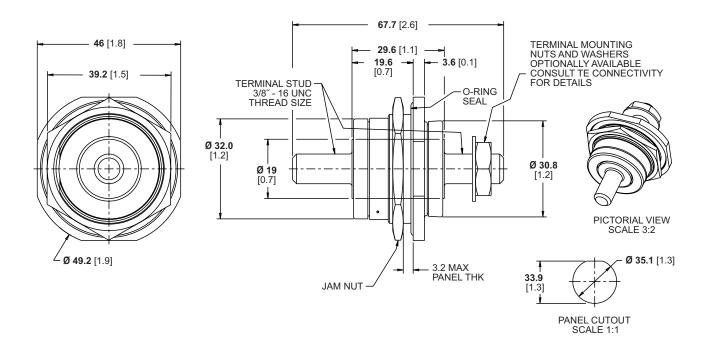


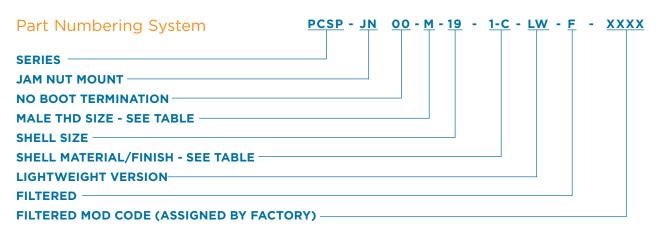
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#### Jam Nut Feedthrough, Filtered





Please consult TE Connectivity with EMI and or EMP filtering requirements.

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<sup>\*</sup>Note: Incomplete list; Consult te.com for complete list.

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### te.com/bulkhead-feedthrough

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Consult TE for the latest dimensions and design specifications.

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